IMPACT OF PERSONALITY TRAITS ON ENTREPRENEURIAL INTENTIONS IN PAKISTAN: THE MODERATING ROLE OF TEACHING METHODOLOGY

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ABSTRACT

An important aspect needed for promoting entrepreneurship is the identification of individuals possessing a specific personality suitable to foster entrepreneurial intentions. Entrepreneurial intentions can be strengthened among the students of the right personality type by endowing them with the required skills and knowledge using experiential teaching methodology. Therefore, this study focused on investigating teaching methodology as the moderating variable in the relationship between personality traits and entrepreneurial intentions. This study utilised the dynamic view of Entrepreneurial Event Model. Data was collected using the stratified proportionate random sampling through a cross-sectional survey of 315 students of sixteen universities in Islamabad, Pakistan. The study used structural equation modelling to test the inter-relationship among the variables. Finding of this study reveals a significant and positive relationship between personality (entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism and entrepreneurial vision) and entrepreneurial intentions. Moreover, the study further tests the impact of teaching methodologies adopted by lecturers of entrepreneurship in the university. Finding also reveals that experiential teaching methodology has a moderating impact on the relationship between entrepreneurial creativity, entrepreneurial vision and entrepreneurial intentions. Furthermore, teaching methodology does not have a significant moderating influence on the relationship between entrepreneurial proactivity and entrepreneurial intentions, and entrepreneurial vision and entrepreneurial intentions. This study contributes to the literature by suggesting that appropriate experiential teaching methodologies strengthen entrepreneurial intentions. This study provides empirical evidence on personality, teaching methodology and entrepreneurial intentions within the domain of Entrepreneurial Event Model and Human Capital Theory, in the context of Pakistan. The results of this study have implications for students, entrepreneurship teachers, university management, incubation centre managers and policy makers. Finally, limitation of the study and future research directions are discussed.

Keywords: personality, entrepreneurial intentions, teaching methodology, proactivity, creativity, opportunism, vision.

ABSTRAK

Aspek penting yang diperlukan untuk menggalakkan keusahawanan ialah mengenal pasti individu yang memiliki personaliti tertentu yang sesuai untuk memupuk niat keusahawanan. Niat keusahawanan dapat diperkukuhkan dalam kalangan pelajar melalui jenis personality yang betul dengan cara menyediakan mereka dengan kemahiran dan pengetahuan yang diperlukan menggunakan metodologi pembelajaran pengalaman. Oleh itu, kajian ini memberikan tumpuan kepada penyelidikan terhadap metodologi pengajaran sebagai pemboleh ubah pengantara dalam hubungan di antara ciri personaliti dengan niat keusahawanan. Kajian ini menggunakan pandangan dinamik Model Aktiviti Keusahawanan. Data dikumpulkan menggunakan persampelan rawak berstrata melalui kaji selidik keratin rentas terhadap 315 orang pelajar di enam belas buah universiti di Islamabad, Pakistan. Kajian turut menggunakan pemodelan persamaan berstruktur untuk menguji hubungan antara pemboleh ubah. Dapatan kajian ini mendedahkan hubungan yang signifikan dan positif antara personaliti (proaktif keusahawanan, kreativiti keusahawanan, oportunisme keusahawanan dan wawasan keusahawanan) dengan niat keusahawanan. Selain itu, kajian ini juga menguji kesan kaedah pengajaran yang diguna pakai oleh pensyarah keusahawanan di universiti. Penemuan juga mendedahkan bahawa metodologi pengajaran melalui pembelajaran pengalaman mempunyai kesan pengantara terhadap hubungan antara kreativiti keusahawanan, visi keusahawanan dan niat keusahawanan. Tambahan pula, metodologi pengajaran tidak mempunyai kesan pengantaraan yang signifikan terhadap hubungan antara keusahawanan proaktif dengan niat keusahawanan, dan visi keusahawanan dengan niat keusahawanan. Kajian ini menyumbang kepada literatur dengan mendedahkan bahawa metodologi pembelajaran pengalaman yang sesuai dapat memperkuatkan niat keusahawanan. Kajian ini turut memberikan bukti empirik terhadap personaliti, metodologi pengajaran dan niat keusahawanan dalam domain Model Aktiviti Keusahawanan dan Teori Modal Insan dalam konteks negara Pakistan. Hasil kajian ini memberikan implikasi kepada pelajar, tenaga pengajar keusahawanan, pengurusan universiti, pengurus pusat inkubasi dan pembuat dasar. Akhir sekali, batasan kajian dan arah tuju untuk penyelidikan pada masa hadapan juga dibincangkan.

Kata kunci: personaliti, niat keusahawanan, metodologi pengajaran, proaktif, kreativiti, oportunisme, visi

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

AHAN	Aik Hunar Aik Nagar
CIPE	Centre for International Private Enterprise
AVE	Average Variance Extracted
BIC	Business Incubation Centre
CMV	Common Method Variance
EC	Entrepreneurial Creativity
EEM	Entrepreneurial Event Model
EEP	Entrepreneurship Education Program
EI	Entrepreneurial Intentions
EIQ	Entrepreneurial Intentions Questionnaire
EO	Entrepreneurial Opportunism
EP	Entrepreneurial Proactivity
EV	Entrepreneurial Vision
FFM	Five Factor Model
GDP	Gross Domestic Product
GEI	Global Education Initiative
GEM	Global Entrepreneurship Monitor
GERA	Global Entrepreneurship Research Association
GoF	Goodness of Fit
GUESSS	Global University Entrepreneurial Spirit Students' Survey
HCT	Human Capital Theory
HEC	Higher Education Commission
HEI	Higher Education Institution
ICT	Islamabad Capital Territory
LID	Learning Innovation Division
MBA	Master of Business Administration
META	Measure of Entrepreneurial Tendency and Ability
NEMIS-AEPAM	National Educational Management Information System - Academy of Educational Planning and Management
NGF	New Growth Framework
ORIC	Office of Research, Innovation and Commercialisation
PBC	Perceived Behavioural Control
PLS-SEM	Partial Least Squares – Structural Equation Modelling
SME	Small and Medium Enterprises
SMEDA	Small and Medium Enterprise Development Authority
TEA	Total Entrepreneurial Activity
TEVTA	Technical Education and Vocational Training Authority
TPB	Theory of Planned Behaviour
TM	Teaching Methodology
VIF	Variance Inflation Factor
WBIC	Women Business Incubation Centre
WEF	World Economic Forum

LIST OF APPENDICES

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Entrepreneurial ventures are the dominant birthplace of innovation, employment creation and economic growth. With the capacity to alter existing industries or create new ones (Schumpeter, 1934), the innovative contributions of these entrepreneurial initiatives have profound effects on employment and economic growth on the societal level (McGrath, 1999). Entrepreneurship has become the source of wealth creation and economic stability; more wealth has been created within the past 50 years than any time period (Capgemini & RBC Wealth Management, 2013). Given this previous incremental growth coupled with the more recent exponential rise in awareness about entrepreneurship and self-employment, it is reasonable to propose that entrepreneurship plays a pivotal role in fostering individual, national and global economic growth (Planning Commission, Government of Pakistan, 2011).

Furthermore, entrepreneurship is considered as the backbone of any economy assisting in direct economic growth (Sautet, 2013; Holmén & McKelvey, 2013; Guerrero, Cunningham, & Urbano, 2015) and reduction in poverty (Bruton, Ketchen, & Ireland, 2013; Alvarez, Barney, & Newman, 2015; Bruton, Ahlstrom, & Si, 2015) as well as creating employment opportunities (Audretsch, 2012; Acs, Audretsch, & Lehmann, 2013). The European Commission credits 66.9% of the employment to Small and Medium Enterprises (SMEs) originating as a result of entrepreneurial intentions (Muller, et al., 2015). In Pakistan, SMEs constitute 90% of all enterprises

and have been attributed to generate 78% of the non-agricultural employment contributing up to 40% to the national GDP (Finance Division, Government of Pakistan, 2015).

Resultantly, the economic growth witnessed due to entrepreneurship pushed the governments to develop environment which is conducive for potential entrepreneurs. Creation of such environment has been targeted through different reforms in the policy by introducing income tax relaxations, easy loans, incubation centres and university training and facilitation. Although incentives such as tax relaxations, loans and incubators have proven to be successful (Qureshi & Mian, 2012), it requires an individual with the requisite capability and personality to take benefit from this conducive environment (Saeed, et al., 2013; Liñán, Rodríguez-Cohard & Rueda-Cantuche, 2011; Ahmetoglu, Harding, Akhtar & Chamorro-Premuzic, 2015; Qureshi, Saeed & Wasti, 2016).

In the same vein, the New Growth Framework (NGF) for Pakistan has reported greater than before concentration on entrepreneurial intentions by policy makers, due to the deteriorating conditions of entrepreneurship in the country (Planning Commission, Government of Pakistan, 2011). According to NGF, entrepreneurial intention is considered as key tool which proposes an attractive, opportunity driven choice that can serve as an equaliser in socio-economic development of country. This was also highlighted by Global Entrepreneurship Monitor (GEM) Report on Pakistan, which described the level of entrepreneurial intentions at 24.5% in Pakistan, which is lowest than other countries in the region (Qureshi & Mian, 2012).

GEM studies various factors relating to entrepreneurship and classifies these factors on the basis of country's economic development. The classification of economies' development level is adapted from World Economic Forum (WEF) as (i) factor-driven economies – a phase of development dominated by agriculture, extraction of natural resources and a heavy reliance on unskilled labour, (ii) efficiency-driven economies – a phase of development where the economy has become more competitive with efficient production processes and increased product quality, and (iii) innovation-driven economies – a phase of development where businesses are more knowledge intensive with expansion in service sector (Global Entrepreneurship Research Association, 2017). Upon reviewing entrepreneurial intentions of different economies, GEM concluded that among factor-driven economies, entrepreneurial intentions of the individuals is the highest (30%), followed by efficiency-driven economies (26%) and the innovation-driven economies (15%) (Global Entrepreneurship Research Association, 2017). Pakistan falls in the category of factor-driven economies where the average entrepreneurial intention is 30% for 2016 the most recent evaluation of Pakistan, discloses the entrepreneurial intention at 24.5% which is significantly lower than the average rate for factor-driven economies (Kelley, Singer & Herrington, 2016; Global Entrepreneurship Research Association, 2017).

Similarly, entrepreneurial activity which is the need of time for the developing countries arises from entrepreneurial intentions (Nieuwenhuizen & Swanepoel, 2015; Karimi, et al., 2015). In general, scholarly research in the field has focused on diverse factors and determinants of entrepreneurial intentions (Liñán & Fayolle, 2015; Israr & Hashim, 2015). Among the various external and internal factors

studied in the field of entrepreneurial intentions, personal level variables have been found to be most consistently affecting the entrepreneurial intentions of an individual, where personality of an individual plays an important role in determining entrepreneurial intentions (Liñán & Fayolle, 2015).

Consequently, due to the economic and employment implications of the emerging organisations (Gartner, Bird, & Starr, 1992), scholars and practitioners have increasingly attempted to further understand the entrepreneurial individual. Whatever the significance of a given entrepreneurial organisation, the 'entrepreneur', is the keystone to an organisation. Psychologists and organisational scholars have debated the role of individual characteristics, specifically personality traits (McCrae, Kurtz, Yamagata, & Terracciano, 2011) in predicting the behaviour of this enterprising individual—the 'entrepreneur', founder or business owner. The query of 'what makes an entrepreneurial personality' has been of much interest among researchers (Liñán & Fayolle, 2015).

However, there is a diverse spectrum of personality traits that take part in entrepreneurial intentions development (Anabela, Arminda, João, Mário, & Ricardo, 2013). Although many personality traits have been studied, characteristics such as proactivity, creativity, opportunism, and vision are consistently recognised as important for generating entrepreneurial intentions (Ahmetoglu et al., 2015).

Additionally, Global Entrepreneurship Monitor (GEM) and World Economic Forum (WEF) classify different economies on the basis of innovation capacity of its individuals and creativity has been directly linked with entrepreneurial intentions

(Ashourizadeh, Chavoushi, & Schøtt, 2014). Another important personality trait termed as crucial for entrepreneurial intentions is proactivity (Jaskiewicz, Hunter, & Luchak, 2015). An individual's nature may be termed as proactive or reactive, where a proactive individual takes charge of the situation and ensures the completion of the task. Proactivity has also been termed as a key determinant of entrepreneurial intentions.

Another important personality factor which identifies an individual with high entrepreneurial intention is opportunism (Wen-Long, Liu, & Chiang, 2014). An opportunistic individual reviews the environment for possible opportunities which others may overlook. Another important facet of entrepreneurial intentions is entrepreneurial vision. A visionary individual knows his strengths and weaknesses and looks beyond what is apparent (Hyytinen & Ilmakunnas, 2007). A visionary identifies the needs and requirements for a better future and starts working on them immediately.

Although, any individual at any level of age or education may possess a high level of entrepreneurial intentions, undergraduate students in general are considered to be a good focus of research, considering they are gaining diverse skills and are at the crossover of choosing a profession (Arranz, Ubierna, Arroyabe, Perez, & Arroyabe, 2016; Giacomin, Janssen, & Shinnar, 2015; Mustafa, Hernandez, Mahon, & Chee, 2016; Sesen, 2013).

Similarly, the Global Education Initiative (GEI) of the World Economic Forum (WEF) emphasised the importance of entrepreneurial education, stating that

entrepreneurial education is fundamental to economic development, economic growth and innovation, which are driven by entrepreneurial intentions (Volkmann, et al., 2009). The report further described the significance of entrepreneurial education in shaping of attitudes, skills and behaviours of an individual. Entrepreneurial education facilitates learning throughout their education journey from primary education to higher education, extending to lifelong learners. A strong relationship exists between entrepreneurial education and entrepreneurial intentions (Aslam, Awan, & Khan, 2012; Mustapha & Selvaraju, 2015).

However, a focus on increasing entrepreneurial intention among the students of the universities are not only limited to the developed countries, but such initiatives also extend to the developing and under-developed countries (Karimi, et al., 2015; Nieuwenhuizen & Swanepoel, 2015). The Government of Pakistan has taken a number of initiatives to foster entrepreneurship, by facilitating nascent entrepreneurs in skill based education or by providing opportunities for boosting entrepreneurial intentions (CIPE Pakistan, 2009). Government initiatives such as, Small and Medium Enterprise Development Authority (SMEDA) and Plan-9 were introduced to promote entrepreneurial intention, and have been highlighted by the chairman of Information Technology Board and the Chief Minister of Punjab (Ahmed, 2016). Additionally, SMEDA operates a number of projects targeting specific areas including, handicrafts revival and renewal under its project Aik Hunar Aik Nagar (AHAN), facilitating women entrepreneurs under the project Woman Business Incubation Centre (WBIC) and delivery of Prime Minister's Initiative for youth loans among others. All these initiatives have been taken to promote entrepreneurship in the country (CIPE

Pakistan, 2009; Jamil, Ismail, Mahmood, Khan, & Siddique, 2015). However, a focus on the entrepreneurial intentions at the student level is still considered limited.

Similarly, studies have highlighted the importance of entrepreneurial intentions, especially at the university level (Zhang, Duysters, & Cloodt, 2014; Bae, Qian, Miao, & Fiet, 2014; Sesen, 2013). This has resulted in a thorough literature to be developed in the area. Attempts have been made to investigate the causal differences of entrepreneurial intentions using both quantitative (Aslam et al., 2012; Mustapha & Selvaraju, 2015) and qualitative approaches (Guerrero, Urbano, Cunningham, & Organ, 2014; Ghina, Simatupang, & Gustomo, 2014). This highlights the growing importance of entrepreneurial intentions as a field of research and has been encapsulated in the categorisation of literature by Liñán and Fayolle (2015).

In the same vein, Global University Entrepreneurial Spirit Students' Survey (GUESSS) assesses the entrepreneurial intentions of university students globally. The national report of Pakistan in the GUESSS survey highlighted that the 11.3 % of the university students in the country showed intention to immediately start their business post-graduation and 32 % intend to start a business, 5 years post-graduation. In comparison, 8.8 % of students globally intend to start their business immediately and 38.2 % after 5 years of graduation. This highlights that the overall entrepreneurial intentions of the students is lower than the global average (Samo & Mahar, 2016; Sieger, Fueglistaller, & Zellweger, 2016).

Additionally, entrepreneurship researchers agree on utilising entrepreneurial education to promote entrepreneurial intentions (Bae et al., 2014). In line with the

same argument, Piperopoulos and Dimov (2015) suggested that entrepreneurial education should become a policy instrument to generate awareness for the development of entrepreneurial intentions. This supported the solid argument in favour of promoting entrepreneurial intentions with the help of entrepreneurial education in Pakistan at various levels in general and at tertiary level in business institutes in particular. If educational institutes become successful in promoting entrepreneurial intention, this effort will result in economic development and job creation in the country (Decker, Haltiwanger, Jarmin, & Miranda, 2014).

Therefore, considering the important role of entrepreneurial intentions in the economic development of the country and decline in the entrepreneurial intentions among the youth, there is a dire need to conduct a study over the moderating role of certain aspects of entrepreneurial education over the relationship between personality traits and entrepreneurial intentions. This may result in enhancing young students' ability to utilise their personalities for the development of entrepreneurial intentions. Thus, it is imperative to understand the moderating role of teaching methodology through which students with certain personality types can be equipped with entrepreneurial intentions (Zhang et al., 2014).

1.2 Problem Statement

The major problem faced by Pakistan is lack of entrepreneurial intentions (Saeed, et al., 2013; Qureshi & Mian, 2012). Globally, entrepreneurial intentions of factor-driven economies are highest; significantly lower in efficiency-driven economies and finally the lowest in innovation-driven economies (Kelley et al., 2016). Pakistan falls in the category of factor-driven economies where the average entrepreneurial

intention is 30% for 2016; however, the most recent evaluation of Pakistan discloses the entrepreneurial intention at 24.5% which is significantly lower than the average rate for factor-driven economies (Global Entrepreneurship Research Association, 2017).

In the same vein, the GUESSS survey highlights a lack of entrepreneurial intentions among the students of Pakistan where the students demonstrate a 32 % intention to start their business within 5 years, in comparison with 38.2 % globally. In Pakistan, youth constitutes 52.7 % of the 188 million population of the country. Moreover, more than 37 million are in the age group of 15-24 years with literacy rate of 71 % (The World Bank, 2015). This indicates that majority of the youth are going to enter in to the job market in near future. The immediate need for job creation in the economy should be seen in the light of optimistic entrepreneurial and pro-business intention of youth in Pakistan, where a vast majority of the university students considered job as good career choice (Ahmed, et al., 2010; Samo & Mahar, 2016).

Even though the reports by major organisations highlight a decline in entrepreneurial intentions among the population and students of Pakistan, this area has received limited attention by researchers (Rafiq, Ilyas, & Rehman, 2015). From the perspective of Pakistan, the impact of personality on entrepreneurial intentions of public university students in Okara District was conducted by Saeed et al. (2013). Entrepreneurial Intentions Questionnaire (EIQ) was carried out among students of selected universities by Hyder, Azhar, Javaid and Rehman (2011). Finally, a comparison study between the entrepreneurial intentions of college students of Pakistan and China was conducted by Ali, Lu and Wang (2013). The scarce and

sparse studies on the entrepreneurial intentions among Pakistan highlight the need and importance of an in-depth study focused on Pakistan.

Historically, evidence from different industrial policies of Pakistan indicated that the initial focus of the Government was on developing large industries for employment creation (Haque, 2007). Industrial development approach resulted in a more employee-oriented mentality among the general population rather than developing entrepreneurial intentions. Pakistan is ranked at 138th out of 189 countries for starting business in 2014 (Rana, 2015). The dismal rate in providing a conducive environment for entrepreneurship is the indicator of limited ability of starting a new business because of absence of entrepreneurial intentions, especially among the university graduates of Pakistan (Global Entrepreneurship Research Association, 2017; Samo & Mahar, 2016).

Furthermore, it has been highlighted in different studies that entrepreneurial intention is a derivative of a specific mind set, originating from personality traits of an individual (Leutner, Ahmetoglu, Akhtar & Chamorro-Premuzic, 2014; Espíritu-Olmos & Sastre-Castillo, 2015; Wang, Chang, Yao & Liang, 2015). In comparison with psychological qualities, personality traits are suggested to be more reliable influence on the decisions to become an entrepreneur (Wang et al., 2015). The field of psychology can be helpful in understanding the elements required for new venture creation leading to entrepreneurial intentions (Altinay, Madanoglu, Daniele, & Lashley, 2012). Due to this reason entrepreneurial intentions have been of considerable research interest in the field of entrepreneurship (Liñán & Fayolle, 2015). Researchers have dived into the field of entrepreneurial intentions as a

specific field, resulting in many empirical studies which encourage further research (Altinay et al., 2012; Arribas, Hernández, Urbano & Vila, 2012).

However, personality traits have received additional consideration as impacting entrepreneurial intentions (Leutner et al., 2014; Jakopec, Krecar, & Susanj, 2013; Sušanj, Jakopec, & Krečar, 2015). Studies have used various predictors of entrepreneurial intentions from the personality spectrum. Additionally, studies have attempted to merge the various individual personality traits into broader level abstractions such as Big Five personality traits (Saeed, et al., 2013; Zhao, Seibert, & Lumpkin, 2010) and Measure of Entrepreneurial Tendencies and Abilities (META) (Ahmetoglu et al., 2015; Leutner et al., 2014). Internationally, META measure has shown the most relatability and validity evidence for research in entrepreneurship. The structure of META measure implies that the dimension of personality can be represented at the four broad levels of abstraction (Giacomin et al., 2015). These four measures of META are; entrepreneurial creativity, entrepreneurial proactivity, entrepreneurial opportunism and entrepreneurial vision (Ahmetoglu et al., 2015) where each of these traits further includes a vast number of identifiable characteristics. This presses the need for a further and deeper understanding of personality's impact on entrepreneurial intentions.

Furthermore, the primary factor of META is entrepreneurial creativity (Anabela et al., 2013). The individual personality as per the psychology field of research has a major role towards the understanding of entrepreneurial intentions. The studies have linked innovativeness with entrepreneurial creativity in explaining entrepreneurial intentions (Sahut & Peris-Ortiz, 2013; Ashourizadeh et al., 2014). Entrepreneurial

creativity deals with the innovativeness of an individual and consists of traits, such as: creative, imaginative, artistically sensitive, intelligent and broadminded (Kibler, 2013). Pakistan is ranked at 119 out of 128 countries evaluated and ranked in the global innovation index 2016, with consistently falling in the last quartile on all the variables evaluated, and the lowest in the central and southern Asian region (Cornell University, INSEAD, WIPO, 2016; Cornell University, INSEAD, WIPO, 2017). Previous studies reveal the positive and significant relationship between creativity and entrepreneurial intentions (Zampetakis & Moustakis, 2006; Hamidi, Wennberg & Berglund, 2008). However, Ferreira, Raposo, Rodrigues, Dinis and Paço (2012) refuted the findings, stating insignificant impact of creativity on entrepreneurial intentions. Similarly, Ahlin, Drnovšek and Hisrich's (2014) study resulted in only a limited impact caused by creativity on entrepreneurial intentions. Therefore, it is evident that the current findings on the entrepreneurial creativity are inconsistent and inconclusive, which provides a room for further research on the topic.

Additionally, along with entrepreneurial creativity, entrepreneurial proactivity has also been highlighted as a main component of personality which leads to entrepreneurial intentions (Fini, Grimaldi, Marzocchi & Sobrero, 2012; Jaskiewicz et al., 2015). Studies have highlighted a positive and significant impact of proactivity on entrepreneurial intentions (Yan, 2010; Prabhu, McGuire, Drost, & Kwong, 2012; Mustafa et al., 2016). However, it has been pointed out that excessive proactivity can have a negative impact on entrepreneurial intentions (Chen & Hsu, 2013; DeNisi, 2015). Therefore, entrepreneurial proactivity is not guaranteed to promote entrepreneurial intentions as there are certain inconsistencies which require further

research in the area to further the understanding entrepreneurial proactivity's relationship with entrepreneurial intentions.

Another important construct that may promote entrepreneurial intentions is entrepreneurial opportunism. The business opportunities in Pakistan are not very good as mentioned by the Planning Commission, Government of Pakistan (2011). Pakistan is ranked 144th out of 190 countries in ease of doing business, lowering from 138th in 2016 (World Bank, 2016; World Bank, 2017). The empirical study conducted by Karimi, Biemans, Lans, Chizari and Mulder (2016) claimed entrepreneurial opportunism as being a major factor for the development of entrepreneurial intentions (Brännback & Carsrud, 2009; Valliere, 2013; Wen-Long et al., 2014; Khefacha & Belkacem, 2015). However, the earlier study highlights insignificant impact of opportunism on entrepreneurial intentions (Hyytinen & Ilmakunnas, 2007). A recent study also notified on the relationship, stating that excessive opportunism can make an individual lose focus, thus leading to a negative impact on entrepreneurial intentions (DeNisi, 2015). Therefore, it is evident that the previous literature on entrepreneurial opportunism is inconsistent, which require further investigation.

Lastly, the construct that is considered very important for the development of entrepreneurial intentions is entrepreneurial vision. Entrepreneurial vision deals with a desire for progress, creating change and value and individuals having a personal mission and ambition (Ahmetoglu et al., 2015). Earlier studies have stated a positive impact of entrepreneurial vision on entrepreneurial intentions (Hyytinen & Ilmakunnas, 2007; Renko, Kroeck & Bullough, 2012). However, Belás, Bilan,

Demjan and Sipko (2015) contradicted with the findings of Hyytinen and Ilmakunnas (2007) and Renko et al. (2012) and claimed an insignificant impact of vision on entrepreneurial intentions. Therefore, previous research on entrepreneurial vision suggests further investigation.

Furthermore, from practical perspective, empirical studies in the arena of entrepreneurial intentions have directed their attention towards developed world. Researchers in the field of entrepreneurial intentions have studied a diverse population and issues in USA, Spain, Germany, France and UK, among the developed economies (United Nations, 2016; Israr & Hashim, 2015). Additionally, from the perspective of the factors influencing the holistic view of an individual's personality on entrepreneurial intentions, developing world has received limited attention from the researchers (Rafiq et al., 2015). From Pakistan, Saeed et al. (2013) studied the impact of personality on entrepreneurial intentions of public university students in the District of Okara, Punjab. Hyder et al. (2011) conducted the entrepreneurial intentions questionnaire among selective universities. Ali et al. (2013) compared the differences in entrepreneurial intentions of college students of Pakistan and China. Therefore, to further the understanding of the predictors of entrepreneurial intentions and the impact of personality, there is a dire need to conduct a study across the academic sector in Pakistan.

The theoretical gap stemmed from the new combination of variables to explain entrepreneurial intentions. According to Liñán and Fayolle, (2015), there are several entrepreneurial intentions models that have been developed; such as Entrepreneurial Event Model (EEM) (Shapero & Sokol, 1982) and Theory of Planned Behaviour

(TPB) (Ajzen, 1991) among others. TPB model of intention has been widely accepted and has proved to be diverse across various fields. Alternatively, EEM has specifically been developed for research in the field of entrepreneurial intentions. This model of entrepreneurial intentions has been adopted by researchers to ascertain impact on an individual's entrepreneurial intentions. Additionally, Human Capital Theory (HCT) suggests that investments, such as education and work experience, assist the individual to acquire skills and knowledge. This has led researchers to evaluate the construct of human capital via education and use it as substitute of an entrepreneurs' human capital (Solesvik, Westhead, & Matlay, 2014).

Additionally, most of previous studies examined the direct relationship between personality factors (entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism and entrepreneurial vision), and entrepreneurial intentions of an individual (Ahlin et al., 2014; Ferreira et al., 2012; Smith, Sardeshmukh, & Combs, 2016; Mustafa et al., 2016; DeNisi, 2015; Prabhu et al., 2012; Wen-Long et al., 2014; Hyytinen & Ilmakunnas, 2007; Belás et al., 2015). Thus, there is a dire need to probe further the variables as stated above and their effects on the entrepreneurial intentions in a sole framework.

Furthermore, researchers have argued that entrepreneurial education has often been recognised as an important determinant of entrepreneurial intentions in various studies (Xiang & Lei, 2013; Bae et al., 2014; Zhang et al., 2014). In the similar context, Fellnhofer (2015) have evaluated various teaching methodologies while teaching entrepreneurship, as important construct that may strengthen the relationship between personality trait and entrepreneurial intentions. Thus, it is

obvious that there is a gap in the body of knowledge regarding entrepreneurial intentions. Furthermore, Prabhu et al. (2012), Jain and Ali (2013), Winkler, Troudt, Schweikert, and Schulman (2015), and Qureshi et al., 2016; have indicated to analyse the moderating role of teaching methodology to promote entrepreneurial intentions.

Therefore, considering the inconsistencies in the relationship between META dimensions and entrepreneurial intentions, it is obvious that there are some other factors that are disturbing the relationship between personality entrepreneurial intentions (Baron & Kenny, 1986) which need to be identified. As per the recommendations of researchers in the field of entrepreneurial intentions, it is vital to conduct a research identifying the moderating role of teaching methodology over the relationship between personality and entrepreneurial intentions (Peltier & Scovotti, 2010; Fellnhofer, 2015; Qureshi et al., 2016; Winkler et al., 2015). The above discussion shows a major gap in the field of entrepreneurial intention which need to be filled to overcome the declining rate of entrepreneurial intentions among the university students of Pakistan. Thus, there is need to develop an individual's entrepreneurial intention which may enhance the capability of university graduates to develop entrepreneurial intentions in them (Bae et al., 2014); Liñán & Fayolle, 2015). Therefore, this study filled the gap in literature by evaluating the moderating effect of teaching methodology over the relationship between entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial vision and entrepreneurial intentions.

1.3 Research Questions

On the basis of the background and problem statement following are the research questions that this study intends to answer:

1. Is there a significant relationship between entrepreneurial proactivity and entrepreneurial intentions among university students in Pakistan?
2. Is there a significant relationship between entrepreneurial creativity and entrepreneurial intentions among university students in Pakistan?
3. Is there a significant relationship between entrepreneurial opportunism and entrepreneurial intentions among university students in Pakistan?
4. Is there a significant relationship between entrepreneurial vision and entrepreneurial intentions among university students in Pakistan?
5. Does teaching methodology moderate the relationship between entrepreneurial proactivity and entrepreneurial intentions among university students in Pakistan?
6. Does teaching methodology moderate the relationship between entrepreneurial creativity and entrepreneurial intentions among university students in Pakistan?
7. Does teaching methodology moderate the relationship between entrepreneurial opportunism and entrepreneurial intentions among university students in Pakistan?
8. Does teaching methodology moderate the relationship between entrepreneurial vision and entrepreneurial intentions among university students in Pakistan?

1.4 Research Objectives

On the basis of the research questions following are the objectives of this study:

1. To determine the significant relationship between entrepreneurial proactivity and entrepreneurial intentions among university students in Pakistan.
2. To determine the significant relationship between entrepreneurial creativity and entrepreneurial intentions among university students in Pakistan.
3. To determine the significant relationship between entrepreneurial opportunism and entrepreneurial intentions among university students in Pakistan.
4. To determine the significant relationship between entrepreneurial vision and entrepreneurial intentions among university students in Pakistan.
5. To examine the moderating effect of teaching methodology on the relationship between entrepreneurial proactivity and entrepreneurial intentions among university students in Pakistan.
6. To examine the moderating effect of teaching methodology on the relationship between entrepreneurial creativity and entrepreneurial intentions among university students in Pakistan.
7. To examine the moderating effect of teaching methodology on the relationship between entrepreneurial opportunism and entrepreneurial intentions among university students in Pakistan.

8. To examine the moderating effect of teaching methodology on the relationship between entrepreneurial vision and entrepreneurial intentions among university students in Pakistan.

1.5 Scope of the Study

The current study specifically concerns final-year undergraduate students of business universities in Pakistan since they are close to graduation and entering the practical life. Focus was given to the relationship between entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial vision and entrepreneurial intentions, moderated by teaching methodology.

The major focus of the current study was to examine the moderating effect of teaching methodology on the relationship between an individual's personalities encapsulated by META. Therefore, the dependent variable in the study was entrepreneurial intentions among the students. Furthermore, this study aimed to analyse only the intentions rather than actions of an individual, as the focus on actions would have change the nature of the study and increased the breadth of the study by manifold.

For studying the effect of teaching methodology on individual personality and intentions, this study was conducted on the final-year undergraduate students, specializing in the field of business from various HEIs of Islamabad, Pakistan. The scope was limited to only business management discipline due to entrepreneurship as a course being taught mainly in business schools.

Furthermore, the study focused only on the Higher Education Commission (HEC) approved HEIs. HEC is a regulatory body for all the HEIs in the country. The Commission ensures that the institutes are up to a minimum benchmark before being approved. As the course of entrepreneurship is compulsory for the business students therefore, only business schools were considered for this study. Although HEC has advised the inclusion of entrepreneurship as a course across disciplines, it has not been followed by all HEIs. The final year under graduate students of business schools were chosen for this study, as they consist of the appropriate that are on the verge of choosing a profession. Secondly, the final year undergraduate students have studied at least one entrepreneurship course / program which can affect their propensity towards the development of entrepreneurial intentions.

1.6 Significance of the Study

The curernt study was an endeavour to fill the gap in theoretical knowledge through empirical research with regards to the relationship of an individual's personality and entrepreneurial intentions. The most important trait of personality has been debated among researchers (Ahlin et al., 2014; Altinay et al., 2012; Caliendo, Fossen, & Kritikos, 2014). Furthermore, the holistic view of personality specifically catering to entrepreneurship has received limited researcher attention (Liñán & Fayolle, 2015; Zhao et al., 2010; Brandstätter, 2011). Furthermore, the limited studies conducted regarding the holistic view of personality have been unable to reach a unanimous conclusion (Envick & Langford, 2000; Ciavarella, Buchholtz, Riordan, & Gatewood, 2004; Zhao & Seibert, 2006; Saeed et al., 2013). This amalgamation of various individual traits and lack of consensus led to the definition of Measure of Entrepreneurial Tendency and Ability (META). Even though META is a relatively

new measure, its dimensions have been under study for long and the results are contradictory.

In the same vein, this study is of theoretical significance to the developing countries in general, and specifically Pakistan, since there are limited studies conducted in this context, in the field of entrepreneurial intentions (Rafiq et al., 2015; Saeed, et al., 2013; Salem, 2014). This encourages for investigating the role of individual's personality on development of entrepreneurial intentions of HEI students from the context of developing countries like, Pakistan, as suggested by Zhang et al. (2014).

Moreover, this study also measured the individual personality at a holistic level and the moderating impact of teaching methodology on entrepreneurial intentions of the students, from developing countries' perspective. From the theory perspective, the incorporation of human capital theory in the case of the moderator enhances the significance of this study since the impact of teaching methodology was measured on the personality of the students.

Additionally, use of the META instrument to assess an individual's personality provides further confirmation on the reliability, validity, and reusability of the instrument in a different context. Although there exists numerous measures of an individual's personality, META has been specifically designed for studies in entrepreneurship. It was also highlighted that META is better in description of variance among data than the much better known, Five Factor Model (FFM) of personality (Leutner et al., 2014). Since META is a new measure with limited empirical studies testing the validity in various contexts (Jakopec et al., 2013; Sušanj

et al., 2015), an empirical study focusing the impact of META on entrepreneurial intentions of students in a developing country, enhances the validity of this instrument. This study will also contribute to literature based on suggestion for studying the relationship between personality and entrepreneurial intentions by introducing moderators (Prabhu et al., 2012; Jain & Ali, 2013; Bae et al., 2014; Liñán & Fayolle, 2015). Therefore, the general objectives of the study are to contribute in the body of knowledge by validating this scale in the context of entrepreneurial intentions.

Practical significance of study can be useful for HEC as the governing body of academic institutions, HEI management, entrepreneurship educators and potential entrepreneurs. This study will be helpful for the policy makers and the Government in promoting entrepreneurial intention among the students which will ultimately help in overcoming rising unemployment rate in Pakistan. Furthermore, this study will also be helpful for entrepreneurship educators to develop the content delivery and inclusion of activities in the course for an improved result in creating entrepreneurial intentions among the students.

Furthermore, the specific objective of the study was to evaluate the moderating role of teaching methodology over the relationship among entrepreneurial creativity, entrepreneurial proactivity, entrepreneurial opportunism, entrepreneurial vision and entrepreneurial intentions. Therefore, this study attempted to bridge the gap in theoretical knowledge with regards to the effect of teaching methodology on relationship between personality traits and entrepreneurial intentions.

1.7 Pakistan: A Brief Overview

Pakistan is the 6th most populated country in the world with 188 million nationals. Pakistan was formed on 14th August, 1947, after the end of British occupation of South Asia. Pakistan is further divided into 4 provinces (Punjab, Sindh, Balochistan and Khyber Pakhtoonkha) and 4 administrative divisions in addition to the provinces (Gilgit-Baltistan, Federally Administered Tribal Areas, Azad Kashmir and Islamabad Capital Territory).

Initially, Karachi was the capital of Pakistan which was also the economic, manufacturing and financial hub of the country. Islamabad was officially declared as the capital of the country on 14th August, 1967, 20 years after the independence of the country. Reason for relocating the capital was to reflect the diversity of the Pakistani people (Islamabad, 2016). Being a newly formed city, there is no history or culture of Islamabad and is an amalgamation of the various cultures of the country.

Students in Pakistan go through 12 years of primary, secondary and higher secondary levels of education. Students are taught the national language (Urdu), the regional language, and English as a primary subject from grade 1, in addition to mathematics and sciences. The students then move to the tertiary level of education, where Higher Education Commission is the governing body related to all the universities in the country. Pakistan has more than 37 million individuals in the age group of 15-24 years, with a literacy rate of 71 % (The World Bank, 2015). This implies that majority of the young population is educated and is potentially directed towards higher education.

Population of Islamabad is two million, which is approximately 1% of the national population (Raza, 2012). Interestingly, Islamabad is home to 18 % of the universities in the country, attracting 18.3% of national HEI enrolment of students (Higher Education Commission, 2014). Moreover, students from all across the country, including the war struck tribal areas bordering Afghanistan, come to Islamabad in pursuit of higher education resulting in the mix of diversity Pakistan has to offer. Figure 1.1 provides a graphical representation of the business universities in Islamabad. Furthermore, business studies accounts for 8.7% of national student enrolment in HEIs (Higher Education Commission, 2014). This highlights the importance of Islamabad in the academic arena of the country, representing the diversity that the country has to offer.

Figure 1.1 *Business Universities in Islamabad*

However, there are limited job opportunities available within the country in comparison with the number of annual university graduates. This requires more focus of HEIs in creating entrepreneurship as a career option. This requisite becomes more strengthened when considering the entrepreneurial intentions among Pakistani individuals at 25%, in comparison with the average of 36% for the factor-driven economies globally (Kelley, Singer, & Herrington, 2011). Considering the limited studies conducted on personality and entrepreneurial intention's relationship in the context of Pakistan, it is much needed to understand the relationship and how it may be improved. Hence, this study focused on the teaching methodology adopted in HEIs for teaching of entrepreneurship in combination with the individual's personality, to better understand the impact of entrepreneurial intention.

1.8 Definition of Key Terms

The following definitions are provided for a better understanding and clarification of the terms used in this study.

Entrepreneurial intentions

Entrepreneurial intention is defined as the commitment to perform the behaviour that is necessary to launch the business venture (Krueger, Reilly, & Carsrud, 2000; Krueger & Carsrud, 1993). Having a mind-set focused on an intention to become is professed as the first step toward actually engaging in or executing an activity (Ahmetoglu et al., 2015).

Entrepreneurial proactivity

Entrepreneurial proactivity is defined as "the tendency to be proactive about projects and get stuff done" and relates to energy, confidence and self-determination (Ahmetoglu & Chamorro-Premuzic, 2010).

Entrepreneurial creativity

Entrepreneurial creativity is defined as "the ability to generate innovative business ideas" and relates to non-conformity, originality and preference for novel experiences (Ahmetoglu & Chamorro-Premuzic, 2010).

Entrepreneurial opportunism

Entrepreneurial opportunism is defined as "the tendency to spot new business opportunities" and relates to being alert, informed, and detecting future trends (Ahmetoglu & Chamorro-Premuzic, 2010).

Entrepreneurial vision

Entrepreneurial vision is defined as "the ability to see the bigger picture, the motivation to bring change and create progress" and relates to values and having a higher sense of purpose (Ahmetoglu & Chamorro-Premuzic, 2010).

Teaching methodology

Teaching methodology refers to "the methods of instruction implemented by the teachers to ensure the achievement of the desired learning objectives among the students" (Piperopoulos & Dimov, 2015; Ulrich, 2005).

1.9 Organisation of the Thesis

This study is organised broadly into five chapters. Chapter 1 outlines the introduction, study background, problem statement, research questions, research objectives, scope and significance of the study, and definition of key terms.

Chapter 2 focuses on reviewing relevant literature on entrepreneurial intentions, entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial vision and teaching methodology. The chapter is a review of empirical findings as to the relationship between entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism entrepreneurial vision and entrepreneurial intentions. Additionally, the underpinning theory is discussed in this chapter.

Chapter 3 describes the research methodology of the study. The research framework and hypotheses development are explained in this chapter. In addition, the chapter describes the operationalization of the variables and measurement instrument, research design, research population, sample size, sampling method, as well as the strategies and instrument for the data collection. The chapter discusses the method of data analysis and the statistical package used in the study. Finally, reliability testing of pilot or preliminary study is reported.

Chapter 4 describes the statistical analysis of the data collected, which include data examination, screening and preparation. Subsequently, the measurement model as well as the structural model which were assessed with PLS-SEM using the SmartPLS

v 2.0 were analysed and reported. Consequently, results of the hypotheses based on the assessment of the structural model are reported.

Chapter 5 discusses the research findings based on the research objectives and hypotheses. Furthermore, the chapter provides the theoretical and practical contributions and implications of the findings of this study. The chapter describes the research limitations and suggests future research direction. Finally, the chapter presents the conclusion of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter synthesises the review of available literature in the field of entrepreneurial intentions along with different contributions to entrepreneurial intention models and their application. The literature on personality and teaching methodology has also been reviewed in this chapter. This is followed by the discussion on the relationship between personality traits as the independent variables, entrepreneurial intentions as the dependent variables and the impact of teaching methodology on this relationship as the moderating variable. This is to give an idea of specific areas of the study that require new or additional research work. Moreover, the chapter discusses the theories of entrepreneurial event model and human capital theory which form the basis of the research framework. The chapter concludes by presenting hypothesis development and research framework used for the study.

2.2 Entrepreneurial Intentions

Studies in entrepreneurship have been enhanced by the inclusion of strategic management, sociology, psychology and economics literature, which assisted in contributing methodological tools and established theoretical frameworks (Sivarajah & Achchuthan, 2013). Viewing the complexity of entrepreneurship phenomenon, this multi-disciplinary approach is not surprising. The multi-disciplinary approach is viewed positively, suggesting the contribution in framework and methodologies from

other social sciences field as one of the strengths of entrepreneurship field (Chandler & Lyon, 2001). The field of entrepreneurship is maturing and the three underlying approaches in the entrepreneurship literature are widely accepted: (i) economic function of entrepreneurship, (ii) entrepreneurship as a process, and (iii) entrepreneur as an individual (Landstrom, 2005).

Furthermore, individual perspective of the entrepreneurship literature is further divided into three distinct streams (i) Trait approach – separation of entrepreneurs from non-entrepreneurs based on personality (Sivarajah & Achchuthan, 2013), (ii) Behavioural approach – bifurcation based on opportunity recognition, opportunity exploitation and venture creation (Bygrave & Minniti, 2000), and (iii) cognitive approach – an insight into the thinking process of entrepreneurs (Mitchell, et al., 2002). These approaches of study in the field of entrepreneurship, explain the concept of entrepreneurial intentions differently; where trait approach highlights the individual's differences, behavioural approach targets the opportunism, and cognitive approach targets the thought process of an entrepreneur, leading towards entrepreneurial intentions.

To further the understanding of entrepreneurial intentions, it is critical to establish the definition of the term. Entrepreneurial intention is defined as the commitment to perform the behaviour that is necessary to launch the business venture (Krueger & Carsrud, 1993; Krueger et al., 2000). According to Ajzen (1991), having a mind-set focused on an "intention to become" is perceived as the first step toward actually engaging in or performing an activity. The intention to act has been found to be a

consistent and reliable predictor of actual behaviour (Krueger et al., 2000; Ajzen, 1991; Kautonen, Gelderen, & Fink, 2015).

Alternatively, Baum, Frese, Baron, and Katz (2007) describe entrepreneurship as a "process" of new venture creation, involving three phases of pre-launch, launch and post-launch activities. The entrepreneurial process is entered into by either the act of planning or choosing "to become" an entrepreneur or by a triggering event that pushes one into the choice or action (Shapero & Sokol, 1982; Krueger et al., 2000). Similarly, previous studies have also highlighted the importance of entrepreneurial intentions, especially at the university level (Zhang et al., 2014; Bae et al., 2014; Sesen, 2013). It is found that greater rate of entrepreneurial intention increases the probability of entrepreneurship, thus helping the economy from diverse perspectives (Sautet, 2013; Alvarez et al., 2015; Acs et al., 2013). Thus, keeping in view the importance of entrepreneurial intention, it is necessary to identify factors that enhance entrepreneurial intentions among students.

Additionally, entrepreneurship researchers agree on the importance of promoting entrepreneurial intentions through entrepreneurial education (Bae et al., 2014). In line with the same argument, Piperopoulos and Dimov (2015) suggested that entrepreneurial education should become a policy instrument to generate awareness for the development of entrepreneurial intentions. This supported the solid argument in favour of promoting entrepreneurial intentions with the help of entrepreneurial education in Pakistan at various levels in general and at tertiary level in business institutes in particular. If educational institutes become successful in promoting

entrepreneurial intention, this effort will result in economic development and job creation in the country (Decker et al., 2014).

Additionally, researchers have also attempted to focus on entrepreneurial education's impact on entrepreneurial intentions. A study conducted by Franke and Lüthje (2004) found lesser entrepreneurial intentions among German students in comparison with American students, and attributed the difference to entrepreneurship education. A later study by Pittaway and Cope (2007) seconded the previous findings, highlighting the importance of entrepreneurship education in developing entrepreneurial intentions. Furthermore, entrepreneurship education programs (EEP) directed towards non-business students have also been assessed to have a positive impact on entrepreneurial intentions (Souitaris, Zerbinati, & Al-Laham, 2007; Fayolle, Gailly, & Lassas-Clerc, 2006).

The focus of researchers on entrepreneurial intentions has increased since the formation of Entrepreneurial Event Model (EEM) (Shapero & Sokol 1982). The literature available on entrepreneurial intentions and the issues discussed; are extremely diverse in nature (Liñán & Fayolle, 2015; Israr & Hashim, 2015). Where some studies focus on the core models of entrepreneurial intentions (Liñán & Chen, 2009), or impact of entrepreneurship education (Souitaris et al., 2007), others focus on entrepreneurial process (Kolvereid & Isaksen, 2006) and the contextual differences (Engle, et al., 2010).

Moreover, most studies in the field of entrepreneurial intentions have focused on personal level variables of individuals. Background of an individual has been studied

to further understand the phenomenon of entrepreneurial intentions. In this attempt, Zhao et al. (2010) analysed the mediating role of self-efficacy. The study revealed the full mediation of the relationship of perceived learning, previous entrepreneurship experience and risk propensity on entrepreneurial intentions by self-efficacy.

Previous literature also attempted to identify the context related differences in entrepreneurial intentions of individuals. Various cross-cultural studies were conducted to identify the differences in entrepreneurial intentions of individuals. Israr and Hashim (2015) identified 11 different studies on entrepreneurial intentions which compared 37 different regions. Although these studies find differences in entrepreneurial intentions across countries, they overlook the cause of the differences. In a comparison study of the developed and the developing economies, Iakovleva, Kolvereid, and Stephan (2011) found that the economic condition, development status and environmental context impact entrepreneurial intentions of an individual.

On the other hand, a review of previous literature shows a majority of the studies on entrepreneurial intentions to be focusing on the issue of personality traits, psychological variables, and the background factors of an individual. Among the background variables, prior family exposure to entrepreneurship has been found to have a significant impact on the entrepreneurial intentions of an individual (Carr & Sequeira 2007; Gird & Bagraim, 2008). Additionally, gender issues have also been highlighted from the context of entrepreneurial intentions (Wilson, Callaghan, Ringle, & Henseler, 2007; Gupta, Turban, Wasti & Sikdar, 2009).

However, identification of different personality traits that define the entrepreneur as an individual has received wider focus from researchers. Researchers have studied a variety of predictors of entrepreneurial intentions. Among the individual personality traits, risk perceptions (Nabi & Liñán, 2013; Segal, Borgia, & Schoenfeld, 2005), locus of control (Zellweger & Sieger, 2012; Zeng, Zheng, & Lee, 2015), innovativeness and creativity (Ahmed et al. 2010; Zampetakis, Gotsi, Andriopoulos, & Moustakis, 2011; Pérez-Luño, Wiklund & Cabreraa, 2011; Sahut & Peris-Ortiz, 2013; Almeida, Ahmetoglu & Chamorro-Premuzic, 2014; Ahmetoglu et al., 2015), proactivity (Crant, 1996; Almeida et al., 2014; Ahmetoglu et al., 2015; Jaskiewicz et al., 2015), opportunism (Carsrud & Brännback, 2011; Almeida et al., 2014; Ahmetoglu et al., 2015), vision (Bird, 1988; Anabela et al., 2013; Almeida et al., 2014; Ahmetoglu et al., 2015) and emotional intelligence (Zampetakis, Kafetsios, Bouranta, Dewett, & Moustakis, 2009), among others have been studied. Although individual personality traits are able to explain the relationship with entrepreneurial intentions, there is a dearth of literature which incorporates an all-inclusive perspective of an individual's personality.

Alternatively, a few studies have also attempted to evaluate the impact of holistic view of personality on entrepreneurial intentions (Ciavarella et al., 2004; Zhao & Seibert, 2006; Almeida et al., 2014; Ahmetoglu et al., 2015). Among the holistic measures of personality, Five Factor Model (FFM), also known as the Big Five personality traits, has been commonly and widely used in diverse fields of study. The five factors of personality as defined by FFM are (i) openness to experience, (ii) conscientiousness, (iii) extraversion, (iv) agreeableness, and (v) emotional stability

(John, Donahue & Kentle, 1991; John, Naumann & Soto, 2008). Studies reviewing the impact of FFM of personality on entrepreneurial intentions have resulted in a positive and significant relationship (Saeed, et al., 2013; Zhao & Seibert, 2006; Ciavarella et al., 2004). However, FFM is generic in nature and found to be less predictive (Leutner et al., 2014).

On the other hand, Ahmetoglu and Chamorro-Premuzic (2010) formulated a Measure of Entrepreneurial Tendencies and Abilities (META), specifically for the evaluation of an individual's abilities towards entrepreneurship. The personality traits identified in META include entrepreneurial creativity, entrepreneurial proactivity, entrepreneurial opportunism and entrepreneurial vision. Suárez-Álvarez and Pedrosa (2016) found META to be more relatable and providing a higher validity evidence for research in entrepreneurship. Validity of META variables were also confirmed by Jakopec et al. (2013) and Sušanj et al. (2015). Therefore, this study used the personality traits of an individual as proposed in META to guage the impact on entrepreneurial intentions.

Furthermore, of the majority of studies conducted on entrepreneurial intentions, USA, Spain, Germany, France and UK, among the developed economies have received greater focus, whereas the developing countries have received limited attention (United Nations, 2016; Israr & Hashim, 2015; Liñán, Nabi, & Krueger, 2013). Consequently, a dearth of literature exists which focuses on the specific issues of the developing countries (Iakovleva et al., 2011). Considering the importance of entrepreneurship and entrepreneurial intentions for the developing economy, there is a dire need for a focused study assessing the impact of personality on entrepreneurial

intentions in Pakistan (Samo & Mahar, 2016; Global Entrepreneurship Research Association, 2017).

Lack of entrepreneurial intentions is a critical concern for Pakistan (Saeed, et al., 2013; Qureshi & Mian, 2012). Entrepreneurial intentions among general public in Pakistan is lesser than the global average (Kelley et al., 2016; Global Entrepreneurship Research Association, 2017). Additionally, GUESSS survey specifically highlights a lack of entrepreneurial intentions among Pakistani university students (Samo & Mahar, 2016). Thus, this study mainly focused on entrepreneurial intentions among the university students of Pakistan. Hence, the role of personality in promoting entrepreneurial intentions was investigated in this study.

Hence, among the holistic personality measures, META promises to provide better understanding, more relatability and higher validity evidence for research in entrepreneurial intentions (Suárez-Álvarez & Pedrosa, 2016). Therefore, this study used the personality traits of an individual as proposed in META to guage the impact on entrepreneurial intentions. The personality variables composing META, i.e. entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism and entrepreneurial vision; are elaborated as under.

2.3 Measures of Entrepreneurial Traits and Abilities (META)

META was specifically designed for research within the field of entrepreneurship, and more strongly predicts entrepreneurial activity in comparison with FFM (Leutner et al., 2014). Furthermore, META has shown more validity evidence, making it a suitable measure for research in the field of entrepreneurial intentions (Suárez-

Álvarez & Pedrosa, 2016; Almeida et al., 2014). The META classification, serves as an integrative function as it can represent the entire diversity of personality descriptions in a common framework. This four-factor structure has been reproduced recently in a very precise way by Almeida et al. (2014) and Ahmetoglu et al. (2015). According to the study, these four traits and abilities are most powerful in determining the entrepreneurial intentions of an individual: The four main factors of personality as defined by META are (i) entrepreneurial proactivity, (ii) entrepreneurial creativity, (iii) entrepreneurial opportunism and (iv) entrepreneurial vision.

One of the evident qualities of META measure is that it can encapsulate the commonalities among most of the existing systems of personality traits, from the view of entrepreneurship. Hence, META provides an integrative descriptive model for entrepreneurial intentions research. A frequent opposition to the individual traits and attitudes is that four dimensions cannot possibly encapsulate all of the diversity in human personality (Caliendo et al., 2014; Gelderen, Kautonen & Fink, 2015). However, this objection cannot be neglected and cannot be fully accepted because personality can be conceptualised at different levels of abstraction or breadth. The META dimensions represent a wide level in the hierarchy of personality descriptors.

Personality traits independently are inadequate predictors, but together in combination with other variables, personality traits such as proactivity, creativity, opportunism and vision are capable of predicting entrepreneurial intentions. Specifically, everyone is unable to recognise an opportunity and among those who

realise an opportunity, not all can take advantage of it, but only proactive individuals (Rodrigues & Rebelo, 2013).

Israr and Hashim (2015) conducted a meta-analysis of existing literature where personality traits are considered leading to entrepreneurial intentions. The varying factors of personal level variables have also been studied by previous researchers for a better understanding of the current and future research areas (Liñán & Fayolle, 2015). A few studies have attempted to view the META dimensions from either individual personality traits or a holistic personality perspective. However, there is a consensus amongst scholars that intentions can be predicted from observing an individual's personality (Liñán & Chen, 2009; Liñán & Fayolle, 2015; Piperopoulos & Dimov, 2015).

Although relatively new, the META instrument has been used among a variety of respondents including employed, self-employed and students (Jakopec et al., 2013; Hogan & Chamorro-Premuzic, 2015; Ahmetoglu, Leutner, & Chamorro-Premuzic, 2011; Leutner et al., 2014). Additionally, entrepreneurial intentions have also been of keen interest for studies employing META instrument for measure of entrepreneurial tendencies and abilities of an individual (Jakopec et al., 2013; Hogan & Chamorro-Premuzic, 2015). From the studies, META has been found to be a more reliable and robust instrument for evaluation of an entrepreneurial personality (Suárez-Álvarez & Pedrosa, 2016). In light of these studies, it can be furthered that the traits of META have a potential to impact the entrepreneurial intentions of an individual. Additionally, education has an impact on the individual's abilities in general and

entrepreneurial abilities in specific. Table 2.1 presents selected studies using META instrument.

Table 2.1
Selected studies using META instrument

Study	**Context**	**Sample**	**Relationship**
Ahmetoglu et al., 2011	UK	Diverse	Student Entrepreneurship
Jakopec et al., 2013	Croatia	Undergraduate Students	EI
Almeida et al., 2014	UK	Working Adults	Income, Entrepreneurship, TEA
Leutner et al., 2014	Online	Diverse	TEA
Ahmetoglu et al., 2015	UK	Working Adults	Creative Achievement, Engagement

To provide a better understanding, the four broad personality traits of META are discussed at length as under:

2.3.1 Entrepreneurial proactivity.

Entrepreneurial proactivity is the individual's potential of action orientation and the ability to get the task completed. Specifically, proactivity indicates a high level of energy, goal orientation and competitive nature of an individual (Almeida et al., 2014; Leutner et al., 2014). Individuals who are more proactive are confident and willing to take risks, persevere in the face of difficulty and are not discouraged due to uncertainty or fear of failure.

Additionally, these characteristics have been highlighted as the key requirement for entrepreneurship, indicating that individuals who are proactive, possess greater

entrepreneurial intentions (Fini et al., 2012; Jaskiewicz et al., 2015). The importance of this relationship was suggested and studied in the initial stages of the field of entrepreneurial intentions by Crant (1996), who studied the proactive personality of an individual to predict entrepreneurial intentions among undergraduate and graduate university students. The study revealed that proactivity significantly explained the variance in entrepreneurial intentions of the individuals.

In the same vein, empirical studies have stressed upon the importance of proactivity. More recently, a study conducted among the undergraduate students of a university in USA revealed that proactivity is positively related to an individual's entrepreneurship perception (Yan, 2010). From the Asian context, a study conducted in Malaysia highlighted that a proactive personality had a greater impact on entrepreneurial intentions than that of university support (Mustafa et al., 2016). Similarly, the impact proactivity on entrepreneurial intentions was assessed among the undergraduate students of China, Russia, Finland and USA, which resulted in a positive and significant relationship (Prabhu et al., 2012). A few selected studies have been highlighted in Table 2.2.

Furthermore, proactive individuals entail a dynamic approach toward work as it encompasses intentions such as willingness to take charge and personal initiative and is closely associated with flexible role orientations. Proactivity affects at the individual level like job performance, feedback, careers, newcomer adaptation and leadership (Crant, 1996). Proactive individuals have also been studied at broader level such as work teams and socialisation (Caliendo et al., 2014). Hence, proactivity is an important factor, and requires more attention in the field of entrepreneurial

intentions, more specifically from the developing world context. Therefore, this study focuses on the impact of entrepreneurial proactivity of an individual on entrepreneurial intentions.

Table 2.2
Selected studies on Entrepreneurial Proactivity

Study	**Context**	**Sample**	**IV**	**DV**	**Findings**
Awang, Amran, Nor, Ibrahim, & Razali, 2016	Malaysia	University Students	Grade, Proactive Personality, Risk Taking Propensity	EI	positive and significant
Crant, 1996	USA	University Students	Proactive Personality	EI	positive and significant
Mustafa et al., 2016	Malaysia	University Students	Proactive Personality, University Support		positive and significant
Chen & Hsu, 2013	Taiwan	Senior Executive of Non Profit Organizations	Proactiveness, Innovativeness, Risk Taking	Firm Performance	Insignificant
Yan, 2010	USA	University Students	Achievement Motivation, Locus of Control, Risk Propensity, Proactivity	Entrepreneurship Perception	positive and significant
Prabu et al., 2012	China, Finland, Russia, USA	University Students	Proactive Personality, Entrepreneurial Self-Efficacy	EI	positive and significant

2.3.2 Entrepreneurial creativity.

Entrepreneurial creativity is the individual's potential for generating innovative ideas. Specifically, creativity deals with an individual's ability to look at business matters in a novel way and finding original solutions to problems (Almeida et al., 2014; Leutner et al., 2014). Individuals high in creativity are divergent thinkers with a capability of producing imaginative, original and inspiring ideas, while focusing on the bigger picture (Kibler, 2013).

Additionally, this factor is displayed in an individual as being intellectual, intelligent and creative. This variable has shown little association with occupational outcomes. However, its prime contribution is its direct relationship with cognitive ability (Truxillo, McCune, Bertolino, & Fraccaroli, 2012). The properties highlighted in this factor are prominent for initiating, shielding and success of a new venture because of thinking it in a different way (Phipps, 2012). In this regard, acquisition of new knowledge requires intelligence and creativity and ability to exploit untapped revenue sources requires an individual to have creative thinking (Dohse & Walter, 2012).

Furthermore, entrepreneurship is considered as an act of creativity. Schumpeter (1934) proposed that opportunities are created from the requirements of the time, where resource combinations result in superior products, services or processes. Yet recognition and development of new opportunities rely on individuals' ability to perceive connections between ideas or concepts. The entrepreneurial cognition literature has improved our understanding on the cognitive properties that support individuals to view novel items in a unique and creative manner (Ashourizadeh et al.,

2014). Creativity has been identified as playing a key role in the development of entrepreneurial intentions by Hamidi et al. (2008), who studied the impact of creativity on entrepreneurial intentions among the entrepreneurship students in Sweden. A later study by Smith et al. (2016) among the university students in USA revealed similar results. Furthermore, the positive and significant impact of creativity on entrepreneurial intentions was also found among university staff in Spain (Hormiga, Hancock, & Valls-Pasola, 2013). A few selected studies have been highlighted in Table 2.3.

Cognitive approaches to entrepreneurship hence emphasise a person's creativity as an important, yet understudied predictor of entrepreneurial intention. Therefore, creativity is an important factor, and requires more attention in the field of entrepreneurial intentions, more specifically from the developing world context. Hence, the current study emphasises on the impact of entrepreneurial creativity of an individual on the entrepreneurial intentions.

Table 2.3
Selected studies on Entrepreneurial Creativity

Study	**Context**	**Sample**	**IV**	**DV**	**Findings**
Smith et al., 2016	Sweden	EEP students	Self-efficacy, Risk Perception, Family Background Creativity	Entrepreneurial Intentions	Significant
Hamidi et al., 2008	Spain	University Staff	Risk Taking, Innovation, Propensity	Entrepreneurial Intentions	Significant
Hormiga et al., 2013	Greece	University Students	Creativity	Entrepreneurial Intentions	Significant

Study	Context	Sample	IV	DV	Findings
Zampetakis & Moustakis, 2006	USA, Slovenia	SMEs	Entrepreneurial Self-Efficacy, Creativity	Entrepreneurial Intentions	Generally positive, university creativity support is not significant
Ahlin et al., 2014	Portugal	Secondary Students	Locus of Control, Risk Propensity, Self Confidence, Need for Achievement, Tolerance to Ambiguity, Innovativeness	Entrepreneurial Intentions	Not significant
Ferreira et al., 2012	Sweden	students	Self-efficacy, Risk Perception, Family Background, Creativity	Entrepreneurial Intentions	Not Significant

2.3.3 Entrepreneurial opportunism.

Entrepreneurial opportunism is the individual's degree of alertness to new commercial openings, business trends and profitable ventures. Specifically, opportunism signifies the ability to see an opportunity within crisis and view possibilities where others see problems (Almeida et al., 2014; Leutner et al., 2014). Individuals who are more opportunistic continue to look for new prospects and do not like to miss out on opportunities.

Valliere (2013) delved into the previous studies to identify the antecedents of opportunism, and highlighted the importance of both entrepreneurial alertness and paying attention to evaluate opportunism. Upon defining entrepreneurial opportunism, Ahmetoglu et al. (2011) highlighted that opportunism is the practice of taking advantage of circumstances and lead to a viable solution, with little regard for consequences for others. Opportunist actions are motivated by self-interest. The term may be applied for development of entrepreneurial intentions when individuals tend to become an entrepreneur (Souitaris et al., 2007). In this light, opportunism has been considered a key factor of entrepreneurship.

Furthermore, previous studies have also highlighted the significant impact of opportunism on entrepreneurial intentions. Khefacha and Belkacem (2015) conducted a study in Tunisia on a diverse set of participants and concluded that opportunism had a positive and significant impact on entrepreneurial intentions. Earlier, program participants of an online entrepreneurship course in Taiwan were studied by (Wen-Long et al. (2014), who highlighted that entrepreneurship education plays an important role in improving the opportunism of an individual. More recently, the empirical studies conducted in Iran among undergraduate and graduate university students claimed entrepreneurial opportunism as being a major determining factor of entrepreneurial intentions (Karimi et al., 2016; Karimi, et al., 2015). A few selected studies have been highlighted in Table 2.4.

Therefore, opportunism is a key factor, and requires more attention in the field of entrepreneurial intentions, especially in the context of factor-driven economies which

provide numerous opportunities. Thus, the present study centres on the effect of entrepreneurial opportunism of an individual on entrepreneurial intentions.

Table 2.4
Selected studies on Entrepreneurial Opportunism

Study	**Context**	**Sample**	**IV**	**DV**	**Findings**
Khefacha & Belkacem (2015)	Tunisia	Diverse	Opportunism, Fear of Failure, Achievement Motivation	Entrepreneurial Intentions	positive and moderate
Wen-Long et al., (2014)	Taiwan	Online Program Participants	Entrepreneurship Education	Opportunism	positive and moderate
Karimi et al., (2015)	Iran	University Students	Need for Achievement, Risk Taking, Locus of Control, Perceived Support, Perceived Barriers	Entrepreneurial Intentions	Need for Achievement impacted attitude and PBC, Indirectly impacting EI
Karimi et al., (2016)	Iran	University Students	Attitude Subjective Norms Perceived Behavioural Control Opportunity Identification	Entrepreneurial Intentions	Opportunism has a direct impact on EI

2.3.4 Entrepreneurial vision.

Entrepreneurial vision on its core level includes foresightedness, visionary mind and efficiency (Rodrigues, Dinis, Paço, Ferreira, & Raposo, 2012). Dedicated and

persevering individuals end up with a higher score in this domain. Consistent job performance across a multitude of professions, specifically in personnel management and sales has been steadily predicted by entrepreneurial vision (Sesen, 2013).

Furthermore, traits such as motivation, and internal locus of control, have been found to have a direct relationship with entrepreneurial vision (Dai, Maksimov, Gilbert, & Fernhaber, 2014). The task of conceptualization of entrepreneurial vision as an important predictor was rigorously undertaken by Ahmetoglu et al (2011). The key features of entrepreneurial vision were identified to be desire for progress / need for achievement, forward looking approach, future orientation, and value creation. A study conducted in Sri Lanka on university students resulted in a positive and significant impact of entrepreneurial motivation on entrepreneurial intentions (Achchuthan & Nimalathasan, 2014). The findings of this study were also seconded later in Indonesia with a similar sample (Mahendra, Djatmika, & Hermawan, 2017). Additionally, a study conducted among Malaysian undergraduate students focused on the impact of need for achievement – another factor of entrepreneurial vision – also resulted in a positive and significant impact on entrepreneurial intentions (Hassan & Ghazali, 2016). Walker (2016) pressed that dire dedication, foresightedness and vision is the key for the success of any entrepreneur. Visionary thinking is associated with entrepreneurial intentions, thus it is expected that this factor is an important explanatory factor for the development of entrepreneurial intentions. A few selected studies have been highlighted in Table 2.5.

Therefore, it would be right to say that the enhancement of entrepreneurial intentions could not be achieved only by opportunities, innovativeness and proactivity, but also

a futuristic vision is needed for the development of entrepreneurial intentions (Crant, 1996). Entrepreneurs must have the capabilities of a leader (Wang et al., 2015), which enable them to define vision of possible actions considering the opportunities. Only a visionary person can develop entrepreneurial intentions when his personality has other traits which promote entrepreneurship (Krueger et al., 2000). Therefore, vision is a central determinant for entrepreneurial intentions. Considering a dearth of literature available on entrepreneurial vision, it becomes imperative to probe the relationship between entrepreneurial vision and entrepreneurial intentions. Therefore, this study focuses on the impact of entrepreneurial vision of an individual on his / her entrepreneurial intentions.

Table 2.5
Selected studies on Entrepreneurial Vision

Study	**Context**	**Sample**	**IV**	**DV**	**Findings**
Saha, 2014	India	University Students	Entrepreneurial Motivation	EI	No Impact
Mahendra et al., 2017	Indonesia	Students	Entrepreneurial Motivation, Entrepreneurship Education, Entrepreneurial Attitude	EI	Significant
Achchuthan & Nimalathasan, 2014	Sri Lanka	University Students	Entrepreneurial Motivation, Desirability of Self-employment, Feasibility of Self-employment, Tolerance for Risk, Perceived Support	EI	Significant

Study	Context	Sample	IV	DV	Findings
Hassan & Ghazali, 2016	Malaysia	University Students	Locus of Control Tolerance of Ambiguity Need for Achievement Innovativeness	EI	Significant

2.4 Teaching Methodology

The teaching methodology has been considered and researched upon by very few scholars. The term every researcher used might be different, although each refers to the same basis of teaching methodology. It has been known as experiential education, action learning, the active approach and entrepreneurial learning (Åsvoll & Jacobsen, 2012; Corbett, 2005). Teaching methodology is not based on research-driven theories but rather shaped due to past traditions and general teaching methodologies of the institutions (Volkmann, et al., 2009).

Furthermore, emphasis on teaching methodology has increased greatly over the past two decades (Carland & Carland, 1997; Ahmed, et al., 2010; Bae et al., 2014). Teaching methodology especially while teaching entrepreneurship course is crucial and can influence the mind-set of a person (Zhang et al., 2014; Jain & Ali, 2013; Prabhu et al., 2012). Inculcation of teaching methodology requires proper addition of training programs for teaching entrepreneurship. The initiation of these programs may be attributed to academic institutions, training centres and government departments with a focus towards the development of entrepreneurial intentions. These programs are diversified on the basis of audience, focus and level of education. Teaching methodologies that are used in teaching entrepreneurship are different than other subjects, since the personality of an entrepreneur is different. It

has been suggested, that faculty and institution should utilise an entrepreneur-directed methodology to teaching as it will assist in increasing the intention of becoming an entrepreneur (De Clercq, Honig, & Martin, 2012).

Similarly, teaching methodology has been credited with having a positive influence in developing entrepreneurial intentions (Lorz, Mueller, & Thierry Vollery, 2013; Mwasalwiba, 2010). The diverse audience of entrepreneurship-education programs includes graduate and undergraduate HEI students, minorities and disadvantaged groups, non-business and vocational disciplines and even secondary school students, seeking higher level theoretical knowledge and gaining required skills for entrepreneurship (Scuotto & Morellato, 2013). This wide variety of audiences seeking entrepreneurial education presents unique challenges to the discipline (Sánchez, 2011; Sánchez, 2013). This has resulted in a broad variation in courses offered and the teaching methodologies used.

To further elaborate teaching methodology, three different approaches to teaching entreprenurship were identified by Neck and Greene (2011) using the terms: the entrepreneur world, the process world and the cognition world. Firstly, the entrepreneur-world approach to teaching developed along the lines of trait approach. The researchers stress the inadequacy of the content, particularly the dominance of white male entrepreneurs which leads to complex issues in generalizing, as well as the restricted definition of success. This may easily be categorised as a one way approach as lecture based teaching method. Such practice is adopted due to ease in execution and lesser contribution by students (Neck & Greene, 2012).

Secondly, the process approach views at method of teaching entrepreneurship as a process (Neck & Greene, 2011). The linear method of teaching entrepreneurship includes steps of opportunity recognition, concept development, resource acquisition, appreciation of resource requirements and execution (Fayolle & Gailly, 2005). All this is done by adopting a suitable teaching methodology with the help of simulation workshops. The preferred pedagogies used are case-study and business-plan writing, which makes the process approach as a popular approach to teach entrepreneurship (Neck & Greene, 2011). Each area of study requires a different combination of teaching methodologies. Peltier and Scovotti (2010) conducted a study to assess the needs of marketing students towards entrepreneurial intentions. The study suggested that marketing students generally desire to be an entrepreneur. The teaching activities such as, exposure to entrepreneurial tools, experiential learning activities and providing networking opportunities to students were graded as highly important for better development of entrepreneurial intentions.

Thirdly, the cognition-world approach has been introduced quite recently in the classrooms and focuses on building entrepreneurial intentions among the students. This method aims at arming students with the ability to think entrepreneurially (Neck & Greene, 2012). The study reasoned that the instructor uses the knowledge structures that are commonly used, associated with appraisal of opportunity and new-venture creation.

Furthermore, a variety of approach based on the personality of an individual or a group should be assessed and implemented to develop entrepreneurial intentions. Nathalie (2013) conducted a study to inspect the characteristics and role of the

entrepreneur in the 21st century. The study recommends that a shift in focus is required from educating entrepreneurship to developing entrepreneurial intentions. Additionally, entrepreneurial education should have a holistic development approach in terms of entrepreneurial capabilities and entrepreneurial intentions. There is a need to change the methodology of teaching the course of entrepreneurship where teaching should focus on: communication skills, leadership skills, negotiation skills, critical thinking skills, social-networking skills problem solving skills and time management skills, innovative skills, pro-activeness, risk taking and being visionary. There is a strong need of incorporating an appropriate teaching methodology to improve the effectiveness of entrepreneurial education (Jain & Ali, 2013; Prabhu et al., 2012; Winkler et al., 2015; Qureshi et al., 2016) for development of entrepreneurial intentions.

Accordingly, Ulrich (2005) highlights that the techniques used for teaching entrepreneurs are different than others, since the personality of an entrepreneur and their learning style is different. Faculty and institution should utilise an entrepreneur-directed approach to teaching as it will assist in increasing the effectiveness of teaching. As earlier with the Kolb's learning model, 'One Size Fits All' approach is ineffective in teaching. A variety of approach based on the personality of an individual or a group should be assessed and implemented to ensure learning. The various teaching methodologies were classified in to four broad teaching strategies (Ulrich & Holman, 2000). The strategies defined in the study were (i) Instructor-centred strategy (general lectures, theory lectures, applied lectures and expert talks), (ii) Individual-learning strategy (homework, thinking alone, general exams, problem exams, readings, term papers, programmed instructions of skill and concepts), (iii)

Interactive strategy (cooperative learning, group projects, seminars, group discussions and argumentative discussions), and (iv) experiential-learning strategy (internships, case analyses, case studies, management simulations, experimental exercises, role playing and videos). Furthermore, the study proceeded to evaluate the perception of business students with differing majors. They concluded that even among the difference in area of specialisation of the same degree, the perceived effectiveness of teaching methodologies by individual students was varied (Ulrich, 2005). Furthermore, experiential learning strategies were highlighted to be most effective by students in the course of entrepreneurship.

Additionally, many notable researchers have posited on a viable methods to teach entrepreneurship. Researchers are moving away from the traditional individual-focused methods to teach entrepreneurship toward a more action-oriented teaching methodology. Laukkanen (2000) advocated an educational strategy towards teaching entrepreneurship that combined an individual focus with a real-business context. The objective of adopting the method of "business generation model" was to nurture the intention of students in becoming entrepreneur.

Moreover, Rasmussen and Sørheim (2006) referred to the approach as action-based teaching methodology founded on the concept of learning by doing. Other scholars also have referred to the methodology as learning by doing (Åsvoll & Jacobsen, 2012). This approach has also been termed as reflective practice (Neck & Greene, 2011). They contended that reflection is critical in knowledge development from experience and distinctly important when faced with complicated experiences, problem solving and high uncertainty workplace conditions. A dynamic cycle of

entrepreneurial intention dictates a pedagogical portfolio of reflection on practice and reflection of teaching methodology into entrepreneurial intention (Neck & Greene, 2011).

However, methodology of teaching entrepreneurship is also generally considered complex, with a clear lack of consensus on teaching outcomes. Duval-Couetil, (2013) and Winkler et al. (2015) have stressed on the development of an assessment method for the course delivery, in addition with course content while teaching entrepreneurship. Furthermore, HEIs have to holistically get involved in experimental teaching methodologies, create linkages among entrepreneurship educators in other HEIs and introduce entrepreneurship into other departments by involvement of all fields into one category for the effective development of entrepreneurial intentions (Duval-Couetil, 2013; Qureshi et al., 2016).

Moreover, students prefer practice-based situations that assist in developing creativity and consider individual assignments as being useful in deepening the learned concepts and stimulating individual thinking (Spiteri & Maringe, 2014). Furthermore, engagement of the students in the class activities and shifting towards a focus on learning by doing is crucial for entrepreneurship courses. The responsibility of effective teaching of entrepreneurship lies heavily on the HEIs as well as the educators.

This study highlights the importance of an appropriate teaching methodology required to develop entrepreneurial intentions among HEI students. Teaching methodology and the regional context have a major impact over development of

entrepreneurial intentions among the students (Walter & Dohse, 2012). Action-oriented or experiential teaching strategy courses may be more effective than theoretical courses in developing entrepreneurial intentions (Walter & Dohse, 2012; Winkler et al., 2015; Qureshi et al., 2016; Mueller, 2011; Mueller & Anderson, 2014; Morris, Webb, Fu, & Singhal, 2013).

In the same vein, effective teaching methodology has been identified to have a positive impact on the students and it has been observed more strongly in entrepreneurship courses (Walter & Dohse, 2012; Winkler et al., 2015; Qureshi et al., 2016). Among the various teaching techniques highlighted and categorised in various literature (Ulrich, 2005; Kolb & Kolb, 2005; Kolb, Kolb, Passarelli & Sharma, 2014), experiential learning methodologies has been found to be most effective in teaching entrepreneurship (Duval-Couetil, 2013; Walter & Dohse, 2012; Winkler et al., 2015; Qureshi et al., 2016). Furthermore, students at institutions with extensive action-oriented education are also more apt to take advantage of entrepreneurial opportunities, similar to individuals who learn by active experimentation.

Accordingly, there are numerous experiential teaching techniques employed by the entrepreneurship educators. Rodrigues et al. (2012) found that individual assignments are considered as useful to deepen the learned concepts and development of entrepreneurial intentions, whereas students considered role model lecturers to be inspiring. Engagement of the students in the class activities and shifting towards a focus on becoming entrepreneur by doing was highlighted as a key for developing entrepreneurial intention (Rodrigues et al., 2012). The activities that may enhance the entrepreneurial intentions may include guest lecturing, fun and

engaging activities, case studies, business plan competitions, simulation games and experiential learning activities (Peltier & Scovotti, 2010; Fellnhofer, 2015; Qureshi et al., 2016; Winkler et al., 2015). With the rapid growth of entrepreneurship programs across the world and a rise in research interest in this field, it is also important to have the right approach and the right teacher in combination with the right teaching methodology.

Although there is a lack of available literature on specific teaching activities, many studies have highlighted the importance of a variety of techniques which can be useful for students to better understand the complexity of entrepreneurship. The teaching activities under this study include, internships, case studies and case analysis, (Duval-Couetil, 2013), business plan (Qureshi et al., 2016), simulation games (Fellnhofer, 2015), roleplaying and videos; among other experiential learning activities (Peltier & Scovotti, 2010; Winkler et al., 2015).

On the basis of the above discussion it is obvious that teaching methodologies used, have the potential to develop entrepreneurial intentions among the students. Teaching methodology has the potential to enhance the capabilities of students to become entrepreneurs. Thus, it would be right to argue that entrepreneurial tendencies and capabilities can be groomed to develop entrepreneurial intentions among the students. In this regard experiential teaching methodologies are considered as a key factor for the development of entrepreneurial intentions among the HEI students. It is because when the students actually practice in class, the exercises enhance their capacities of becoming an entrepreneur.

2.5 Underpinning Theories

The literature on entrepreneurship intentions described many models for studying the intentions but the two main contributions to intention theory, one from Ajzen (1991): Theory of Planned Behaviour (TPB) and the other from Shapero and Sokol (1982): Entrepreneurial Event Model (EEM), are most widely used (Liñán & Fayolle, 2015; Israr & Hashim, 2015). These models are attributed to the significance of an individual's perception of abilities to perform the particular behaviour which Ajzen (1991) terms as Perceived Behavioural Control (PBC) in TPB, and Shapero and Sokol (1982) term as perceived feasibility. Both of these models have been proven over time as successful theories in the field of entrepreneurial intentions.

Krueger et al. (2000) has highlighted that both models provide similar results for predicting entrepreneurial intention. However, variance explained by EEM on entrepreneurial intentions is higher when compared with the overall variance explained by TPB. The variance explained (R^2) for entrepreneurial event model was reported at 40.8% and the variance explained (R^2) for TPB model was reported at 35% (Krueger et al., 2000). Furthermore, EEM may be extended using contextual and personal factors (Liñán et al., 2011). The two models are considered to be "largely homologous" (Krueger et al., 2000) in applicability and analysis of entrepreneurial intentions.

Researchers have long focused on developing a model which can identify and encapsulate the predictors of intentions. They have been described as being action-oriented and requiring that the potential entrepreneur has a "propensity to act" (Shapero & Sokol, 1982; Krueger et al., 2000) in order to move from an attitude to

an intention and subsequently from an intention to behaviour. In summary, it may be observed that EEM offers an explanation of how an individual forms entrepreneurial intentions. An individual's entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism and entrepreneurial vision are linked with EEM, which is elaborated as under.

2.5.1 Entrepreneurial event model.

Entrepreneurial event model is the effort by Shapero and Sokol (1982), developed specifically for research on intentions in the entrepreneurship domain. As suggested by EEM, the perception of desirability and feasibility drives the intentions to start the business with tendency to act upon opportunities (Shapero & Sokol, 1982). The model suggests that an 'entrepreneurial event formation', displays entrepreneurial intentions. Shapero and Sokol (1982) admitted that the perception of desirability and feasibility related to new venture formation is impacted by the experiences of an individual. The critical life changes of an individual are termed as 'displacement' in the entrepreneurial event model, and drives a change in entrepreneurial intention. The displacement can be both positively or negatively. The negative displacement pushes away an individual and positive displacement pulls an individual towards potential business ventures. Displacement guides people to act based on their perception of desirability and feasibility to initiate a business. Thus, the potential to start a business in required in an individual, prior to starting the business.

Furthermore, EEM suggests that human behaviour is inactive until there is a displacement, which results in altering the behaviour of the individual decision maker, where he tries to find out a viable opportunity from available alternatives

(Krueger & Carsud, 1993). Then the behaviour is dependent on credibility of proxy behaviour along with propensity to act. Therefore, credibility necessitate that the behaviour should be both desirable and feasible (Shapero & Sokol, 1982).

Additionally, perceived feasibility is the degree to which an individual feels capable of starting a business. Bird (1988), highlights that 'intuitive thinking' forms the individual's desirability, and 'rational thinking' forms the individual's feasibility. The intention to become an entrepreneur depends on the perceived desirability and feasibility of the entrepreneurial event. "Each entrepreneurial event is the endpoint of a process and the beginning of another" (Shapero & Sokol, 1982, p. 79). An event is not perceived similarly by all individuals – therefore the psychological differences can provide a better insight in the changes of entrepreneurial intentions depending upon the personality. Shapero and Sokol (1982) suggest that two individuals may view the same event differently based on their perceptions of feasibility and desirability. Established on this core assumption of the entrepreneurial event, it has been suggested that the dependent variable in EEM is entrepreneurial intention (Krueger, 1993). The interaction of perceived feasibility, perceived desirability and propensity to act, with entrepreneurial intentions is displayed in Figure 2.1.

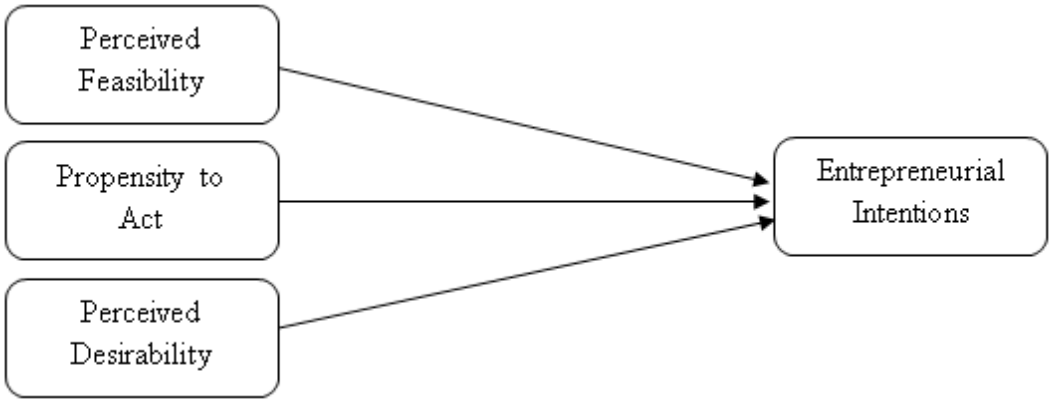

Figure 2.1
Entrepreneurial Event Model (Shapero & Sokol, 1982)

2.5.1.1 Perceived feasibility and perceived desirability.

Perceived desirability is defined as "the degree to which individual is deviated towards the development of entrepreneurial intentions". In other words, the perception of an individual about his / her own desire to become an entrepreneur is termed as perceived desirability (Krueger, 1993; Shapero & Sokol, 1982).

Accordingly, this study evaluated the impact of entrepreneurial vision towards entrepreneurial intentions. Entrepreneurial vision is the ability of an individual to see the bigger picture, having the motivation to bring about a change and create progress. A visionary individual relates to values and has a higher sense of purpose. With reference to the entrepreneurial event model, entrepreneurial vision is directly linked with perceived desirability.

Furthermore, perceived feasibility is defined as "the extent to which individual consider him / she fit to carry out certain entrepreneurial behaviour". In other words,

self-perception of an individual regarding one's own capabilities to undertake entrepreneurship is termed as perceived feasibility (Krueger, 1993; Shapero & Sokol, 1982).

Therefore, the current study evaluated the impact of entrepreneurial creativity and entrepreneurial opportunism towards entrepreneurial intentions. Entreprenruail creativity is the ability of an individual to generate innovative business ideas. A creative individual relates to non-conformity, originality and prefers innovative experiences. Additionally, entrepreneurial opportunism is the ability to spot new opportunities. An opportunistic individual is alert, informed and good at identifying future needs and trends. With reference to the entrepreneurial event model, entrepreneurial creativity and entrepreneurial opportunism are directly linked with perceived feasibility.

2.5.1.2 Propensity to act.

Shapero and Sokol (1982) conceptualised 'propensity to act' as "the personal disposition to act on one's decisions", thus reflecting volitional aspects of intentions ("I will do it"). It is difficult to visualise intentions without the existence of propensity to act. Conceptually, propensity to act on an opportunity depends on control perceptions: that is, the desire to gain control by taking action (Krueger, 1993; Shapero & Sokol, 1982).

Therefore, this study evaluated the impact of entrepreneurial proactivity towards entrepreneurial intentions. Entrepreneurial proactivity is the tendency of an individual to be proactive about projects and getting the work done and takes charge

of a situation. Proactivity relates to energy, confidence and self-determination. With reference to the entrepreneurial event model, proactivity is directly linked with propensity to act.

2.5.1.3 Application of entrepreneurial event model.

Several empirical studies on entrepreneurial intentions are based on EEM adopting various methodologies (Almobaireek & Manolova, 2012; Krueger, 1993; Peterman & Kennedy, 2003; Segal et al., 2005; Saadin & Daskin, 2015; Xiao & Fan, 2014; Saeed, Yousafzai, Yani-De-Soriano & Muffatto, 2015; Arranz et al., 2016; Fayolle & Gailly, 2015). A study conducted by Audet (2002) examined the entrepreneurial intentions of the business students, which concluded that opportunity recognition, money, maturity and freedom had significantly positive impact on entrepreneurial intentions. Furthermore, students who underwent an entrepreneurship program were found to have higher level of perceived desirability and perceived feasibility towards entrepreneurship (Peterman & Kennedy, 2003). It was suggested further past experience was significantly related to perceived desirability and perceived feasibility.

Similarly, studies have been conducted to evaluate various facets using EEM; including impact of gender (Saadin & Daskin, 2015), impact of education (Fayolle & Gailly, 2015), role of university support (Saeed et al., 2015), and effect of curricular and extracurricular activities (Arranz et al., 2016) among others. These studies have shown the significant impact and explained variation using EEM. In conclusion, it is observed that EEM offers a better explanation regarding an individual's personality and has more validity evidence for study in entrepreneurial intentions. Hence, this

study used EEM as the core underpinning theory to evaluate the relationship between entrepreneurial creativity, entrepreneurial proactivity, entrepreneurial vision, entrepreneurial opportunism and entrepreneurial intentions.

2.5.2 Human capital theory.

The human capital theory (HCT) was developed to evaluate the impact investments on human capital over employee income distribution (Becker, 1964). The theory suggests that investments in human capital (education and work experience) assist the individual to acquire skills and knowledge. This has led researchers to evaluate the construct of human capital via education and work experience, and use it as a substitute of an entrepreneurs' human capital (Solesvik et al., 2014).

According to theory of human capital the knowledge and skills possessed by an individual will enhance their cognitive abilities, which results in more efficient and productive potential activity (Becker, 1964). Hence, individuals possessing a higher level of human capital are in a better position to discover and exploit that opportunity.

Similarly, human capital theory acquired significant interest among entrepreneurship researchers and resulted in diverse studies of direct relationships between entrepreneurship and human capital (Solesvik et al., 2014; Volery, Müller, Oser, Naepflin & Rey, 2013; Sánchez, 2013; Miralles, Giones & Riverola, 2015; Martin, McNally & Kay, 2013; Unger, Rauch, Frese & Rosenbusch, 2011; Chandler & Hanks, 1998). Entrepreneurship researchers have been interested in identifying the relationship between human capital and education, skills, work experience and

knowledge of entrepreneurial opportunity discovery and exploitation, attitude, intentions and success. In a meta-analysis of previous 30 years research on human capital and entrepreneurship, a positive relationship between entrepreneurial success and human capital was discovered (Unger et al., 2011). Various researchers have emphasised the requirement of a high level of human capital significantly influencing entrepreneurship (Shepherd & DeTienne, 2005; Haynie, Shepherd, & McMullen, 2009).

Moreover, research in entrepreneurship has presented different arguments to support the impact of human capital on entrepreneurial success. Firstly, opportunity identification and opportunity exploitation of an individual can be improved by human capital (Shane & Venkataraman, 2000; Baptista, Karaöz, & Mendonça, 2013). Furthermore, prior knowledge gained through education and experience also impacts the human capital; assisting an individual opportunity identification whi generally overlooked by others (Shane & Venkataraman, 2000). Secondly, studies have revealed that human capital impacts venture planning strategy, leading to venture success (Baum, Locke & Smith, 2001; Rauch & Frese, 2007). Thirdly, human capital is helpful in acquisition of useful resources such as physical resource and financial resources (Brush, Greene, & Hart, 2001). Finally, human capital is considered as a precondition to learning new skills and knowledge (Ackerman & Humphreys, 1990).

Also, many scholars suggested that the human capital for an entrepreneurial career is much broader than the human capital vital for employment. Entrepreneurs are termed as generalists who possess human capital with diverse applicability, endowed with

diverse skills and abilities therefore they are ´jack-of-all trades' (Cho & Orazem, 2014). Fitzsimmons and Douglas (2005) identified that human capital required for entrepreneurship includes entrepreneurial abilities and entrepreneurial attitudes, as they are determinants of opportunity, means and motivation. Souitaris et al. (2007) in their study concluded that human capital acquired through education, helps in accumulation and assimilation of new knowledge and capabilities to discover entrepreneurial opportunities. They suggested that knowledge acquired during the entrepreneurial education program about entrepreneurship by the students will increase the ability of opportunity identification which results in enhancement of entrepreneurial attitudes and intentions of those individuals.

Moreover, Ucbasaran, Westhead and Wright (2008) consider the general human capital (education and work experience) and specific human capital related to entrepreneurship (business ownership experience, technical capabilities and entrepreneurial skills) are supposed to be linked with the entrepreneurs' capabilities of identifying profitable business opportunity and pursuing it. Therefore, the individual required both general and specific human capital to become an entrepreneur. This can be the result of formal education, experience entrepreneurial education, practical learning, non-formal education and training courses or different combination of these elements (Martin et al. 2013). Accordingly, human capital is associated with entrepreneurial activities for opportunism, to become an entrepreneur (Ucbasaran et al., 2008).

In conclusion, entrepreneurship courses / programs enhance the ability of opportunity identification which increases entrepreneurial intention for opportunity exploitation,

resulting in venture creation (Solesvik et al., 2014). The meta analysis conducted by Martin et al. (2013) based on quantitative analysis of different studies on human capital and entrepreneurship concluded that entrepreneurial education and training programs have a positive impact on entrepreneurship related human capital assets and entrepreneurship outcomes. Moreover, entrepreneurial education and training programs have significant relationship with human capital assets such as entrepreneurship skills and knowledge and have positive impact on an individual's entrepreneurial intentions. Therefore, this study uses the support of human capital theory to assess the moderating effect of teaching methodology on the relationship between entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial vision and entrepreneurial intentions.

2.5.3 EEM and HCT.

The review of entrepreneurial event model demonstrates that an individual who possesses the key features of perceived desirability, perceived feasibility and a propensity to act has a higher level of entrepreneurial intentions (Shapero & Sokol, 1982). Furthermore, a review of the individual items of the personality traits defined by META reveals that they are closely linked with the predictors of entrepreneurial intentions in EEM. With reference to the entrepreneurial event model, proactivity is directly linked with propensity to act, entrepreneurial vision is directly linked with perceived desirability, and entrepreneurial creativity and entrepreneurial opportunism are directly linked with perceived feasibility.

According to theory of human capital the knowledge and skills possessed by an individual will enhance their cognitive abilities, which results in more efficient and

productive potential activity, and the investments in human capital assist the individual to acquire skills and knowledge (Becker, 1964). The theory provides credence to entrepreneurship education and its impact on an individual's tendencies and abilities, i.e. entrepreneurial proactivity, entrepreneurial opportunism, entrepreneurial creativity and entrepreneurial vision. Furthermore, the entrepreneurial abilities are evidence of a competent individual in diverse settings, and may lead to entrepreneurial achievement, creative achievement, higher income, job performance, employee engagement, and entrepreneurial intentions (Ahmetoglu et al., 2015; Almeida et al., 2014; Ahmetoglu et al., 2011; Sušanj et al., 2015).

Therefore, a combination of the two theories in this study resulted in a unification of the concept of personality, education and entrepreneurial intentions where EEM forms the core underpinning theory to elaborate the entrepreneurial intentions of an individual, and HCT plays a supporting role in explaining the importance, strength and need for the moderating variable.

2.6 Hypothesis Development

The present study aims to explain the relationship between entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial vision and entrepreneurial intentions, with the moderating effect of teaching methodology. Previous discussion, review on available literature and formulated research questions, resulted in the development of hypotheses.

2.6.1 Entrepreneurial proactivity and entrepreneurial intentions.

Numerous researches have been conducted on proactivity of an individual. Entrepreneurial proactivity is the proactive behaviour of individual that leads to entrepreneurial intentions and success (Kreiser, Marino, Kuratko, & Weaver, 2013). A study conducted by Renko, Tarabishy, Carsrud and Brännback (2015) associated the entrepreneurial leadership role to proactive individuals. Furthermore, Diánez-González and Camelo-Ordaz (2015) associated success in personnel management and sales to be linked with proactive behaviour. Semrau, Ambos and Kraus (2016) explained that proactive individual were more successful entrepreneurs than their submissive peers as they are assertive and are in between the two extremes. This indicates the high importance of proactivity in terms of entrepreneurial success.

Similarly, proactivity is crucial for a healthy and successful business. Proactivity is also linked with risk taking behaviour. Usually proactive individuals are aggressive and risk takers (Brettel, Chomik & Flatten, 2015; Dai et al., 2014). This risk taking leads them to success as they have a willingness to take risk and it ultimately helps them in taking risky decisions which leads them to success (Brettel et al., 2015; Dai et al., 2014).

Furthermore, studies have linked entrepreneurial proactivity to entrepreneurial intentions (Gupta et al., 2009; Gupta & Bhawe, 2007). Proactive individuals are usually risk-takers; a key trait differentiating founders from non-founders was risk-taking propensity because of being proactive. This strengthens the importance of proactivity in the field of entrepreneurial intentions. Conceptually there is a relationship between the two constructs, i.e. entrepreneurial proactivity and

entrepreneurial intentions. Moreover, proactivity is positively associated with success, virtue of execution and implementation of ideas.

However, it has been pointed out that excessive proactivity can have a negative impact on entrepreneurial intentions (Chen & Hsu, 2013; DeNisi, 2015). It was also suggested that highly proactive individuals are easily frustrated due to bureaucracy, lack of support or anything which hinders the advancement of their objective. In light of the literature on proactivity, there is a contradictory finding on the relationship between proactivity and entrepreneurial intentions (DeNisi, 2015; Brettel et al., 2015), which require further research to provide a better understanding on this relationship. Therefore, based on the previous literature and presented arguments, it is hypothesised that:

Ha1: Entrepreneurial proactivity significantly affects entrepreneurial intentions among students of higher education institution in Pakistan.

2.6.2 Entrepreneurial creativity and entrepreneurial intentions.

Many studies have highlighted the positive impact of entrepreneurial creativity in explaining entrepreneurial intentions (Sahut & Peris-Ortiz, 2013; Ashourizadeh et al., 2014). Entrepreneurial creativity deals with the innovativeness of an individual. Studies have focused on the impact of creativity on entrepreneurial intentions and have found a positive relationship (Zampetakis & Moustakis, 2006; Hamidi et al., 2008). Empirical studies conducted recently have also supported the earlier findings (Hormiga et al., 2013; Smith et al., 2016).

However, Ferreira et al. (2012) refuted the findings, stating insignificant relationship of creativity on entrepreneurial intentions. They argued that the negative aspects associated to creativity; such as failing to pay attention to detail and indifference towards others ideas, nullified the impact. Similarly, Ahlin et al. (2014) study resulted in only a moderate impact caused by creativity on entrepreneurial intentions.

Creativity can influence the degree and type of originality that entrepreneurs introduce to the economy, promoting innovative entrepreneurship (Ahmetoglu et al., 2015). Creativity, innovation and entrepreneurship are, hence, inextricably linked (Lee, Florida, & Acs, 2004). Yet scholars highlight that this link may be a result of social individual variations (Arribas et al., 2012). Nonetheless, the recognised models of entrepreneurial intentions have mostly ignored the creativity and entrepreneurial intention relationship, and the potential impact of social and individual influences on this relationship.

In the cognitive perspective on entrepreneurship, an increasing number of researches highlight the link between creativity and entrepreneurial intentions (Zampetakis & Moustakis, 2006). Creativity has been identified as a major constituent of entrepreneurship, as entrepreneurs must be able to think out-of-the-box, generate novel ideas and innovate (Lee et al., 2004). Creativity, therefore, comes as no surprise that it has the potential to develop entrepreneurial intentions as it is one of the main predictors of entrepreneurial intentions.

Hence, in view of the above discussion, entrepreneurial creativity has been observed to have a significant positive impact on entrepreneurial intention (Sahut & Peris-

Ortiz, 2013; Ashourizadeh et al., 2014; Zampetakis & Moustakis, 2006; Hamidi et al., 2008; Hormiga et al., 2013; Smith et al., 2016). In view of the literature on creativity, there is a contradictory finding on the relationship between creativity and entrepreneurial intentions (Smith et al., 2016; Ferreira et al., 2012). Moreover, majority of the studies on creativity have been conducted from the perspective of developed countries. This implies a gap in the literature, and requires further research to provide a better understanding on this relationship. Therefore, based on previous literature and presented arguments, it is hypothesised that:

Ha2: Entrepreneurial creativity significantly affects entrepreneurial intentions among students of higher education institution in Pakistan.

2.6.3 Entrepreneurial opportunism and entrepreneurial intentions.

Entrepreneurial opportunism is an internal factor that focuses on catering the opportunities available in the environment. The initiation of a new venture requires catering and grasping all the opportunities which are fundamental for success in business. Being opportunistic is associated with success, specifically in customer service related occupations (Judge, Higgins, Thoresen, & Barrick, 1999). Schumpeter (1934) highlighted the involvement of entrepreneurial opportunism for the development of entrepreneurial intention which ultimately leads to behaviour of entrepreneurship.

More specifically, opportunism encompasses opportunity recognition and opportunity exploitation; behaviours which are consistently identified to individual differences in entrepreneurial success (Leutner et al., 2014). Entrepreneurial

opportunism is based on the premise that entrepreneurship comprises of a specific set of behaviours and that the tendency to engage in such intention is normally distributed across individuals (Ahmetoglu et al., 2015; Almeida et al., 2014). Additionally, there is a specific personality related to an individual's intention to start a business. In view of these results, it may be suggested that opportunism is a strong personality trait for the development of entrepreneurial intentions, provided that the personality of the person is opportunistic.

However, an earlier study highlighted insignificant impact of opportunism on entrepreneurial intentions (Hyytinen & Ilmakunnas, 2007). Furthermore, a recent study also advised to further assess the relationship between entrepreneurial opportunism and entrepreneurial intentions, stating that excessive opportunism can make an individual lose focus, thus leading to a negative impact on entrepreneurial intentions (DeNisi, 2015). Additionally, highly opportunistic individuals may overestimate the value of prospective projects resulting in a negative outcome. Hence, in line with the above discussion, entrepreneurial opportunism has been observed to have a significant positive impact on entrepreneurial intention (Brännback & Carsrud, 2009; Valliere, 2013; Wen-Long et al., 2014; Khefacha & Belkacem, 2015; Karimi et al., 2016). With reference to the literature discussed on opportunism, there is a contradictory finding on the relationship between opportunism and entrepreneurial intentions, which requires further research to provide a better understanding on this relationship. Therefore, based on previous literature presented, it is hypothesised that:

Ha3: Entrepreneurial opportunism significantly affects entrepreneurial intentions among students of higher education institution in Pakistan.

2.6.4 Entrepreneurial vision and entrepreneurial intentions.

Entrepreneurial vision is an individual's desire for progress, positive change and creating value. Specifically, entrepreneurial vision signifies an individual's self-belief that things can be changed for the better and the inner desire to improve and create things valuable to other people (Almeida et al., 2014; Leutner et al., 2014). Visionary individuals believe in making a difference, preferring transformational projects and wish their achievements to bring about a constructive change.

Moreover, there is a scarcity of literature available on vision of an individual. Mostly the studies have been restricted to one of the factors of entrepreneurial vision. Earlier studies have stated a positive impact of entrepreneurial vision on entrepreneurial intentions (Hyytinen & Ilmakunnas, 2007; Renko et al., 2012). Study by Lackéus and Middleton (2015) resulted in a positive but moderate impact of vision on entrepreneurial intentions. However, a study conducted in the context of SME sector of Slovakia highlighted the insignificant impact of vision on entrepreneurial intentions (Belás et al., 2015).

Therefore, in line with the above discussion, entrepreneurial vision has been observed to have a positive impact on entrepreneurial intention (Hyytinen & Ilmakunnas, 2007; Renko et al., 2012). With reference to the literature discussed on vision, besides lack of focused literature, there are contradictory findings on the relationship between vision and entrepreneurial intentions, which requires further

research to provide a better understanding on this relationship. Therefore, based on literature presented, it is hypothesised that:

Ha4: Entrepreneurial vision significantly affects entrepreneurial intentions among students of higher education institution in Pakistan.

2.6.5 Moderating role of teaching methodology.

Previous literature has highlighted the importance of education in creating better individuals and imparting appropriate skills for the potential workforce. Moreover, the teaching methodology has also been the focus in many studies, to improve the understanding beyond the contents and curriculum of the course content (Duval-Couetil, 2013; Fellnhofer, 2015; Winkler et al., 2015; Qureshi et al., 2016).

Additionally, teaching methodology has been evaluated in various areas to identify the ideal activity set to be deployed by teachers for maximum effectiveness. In the case of entrepreneurial intentions, the literature has focused more on the content of the course rather than the teaching methodology itself. Bae et al. (2014) in their study of entrepreneurial intention literature, highlighted the need for a better understanding of entrepreneurial intentions, suggested using teacher profiles and teaching methodologies incorporated in the course to be used as moderators. Similarly, Liñán and Fayolle (2015) categorizing available literature into different classification and themes; highlighted the need for combining different themes for a better understanding of the entrepreneurial intentions field. They further suggested the need for evaluating the teaching effectiveness and teaching methodology used to reach a better understanding.

Although studies have emphasised on the importance of experiential learning methodologies to enhance the entrepreneurial intentions among students, there is a dearth of research in assessing the impact of each teaching activity separately (Prabhu et al., 2012). It has further been suggested that entrepreneurial intentions are influenced by the personality of an individual and are moderated by the situational factors such as teaching methodology (Jain & Ali, 2013; Bae et al., 2014). It is therefore, imperative to assess the impact of teaching methodology as a moderator on the relationship between individual's personality and entrepreneurial intentions. As suggested by Baron and Kenny (1986), a moderating variable is introduced where the relationships between independent variables and the dependent variable is inconsistent or vague. A review of previous literature for this study suggests that the impact of entrepreneurial proactivity (DeNisi, 2015; Brettel et al., 2015), entrepreneurial creativity (Smith et al., 2016; Ferreira et al., 2012), entrepreneurial opportunism (Karimi et al., 2016; DeNisi, 2015) and entrepreneurial vision (Belás et al., 2015; Lackéus & Middleton, 2015) on entrepreneurial intentions is inconsistent. Based on the suggestions of using a moderating variable to elaborate on the inconsistencies (Baron & Kenny, 1986), and the usability of potential moderator (Bae et al., 2014; Prabhu, et al. 2012; Fellnhofer, 2015; Qureshi et al., 2016; Winkler et al., 2015), this study considered the moderating effect of teaching methodology to further the understanding of the presented relationship.

On the basis of the above discussion, it is argued that teaching methodology moderates the relation between tendencies and abilities of an individual and development of entrepreneurial intentions. In other words teaching methodology is

presumed to strengthen the relationship of personality and entrepreneurial intentions. Therefore, on the basis of the previous literature and presented arguments, it is hypothesised that:

Ha5: Teaching methodology moderates the relationship between entrepreneurial proactivity and entrepreneurial intentions.

Ha6: Teaching methodology moderates the relationship between entrepreneurial creativity and entrepreneurial intentions.

Ha7: Teaching methodology moderates the relationship between entrepreneurial opportunism and entrepreneurial intentions.

Ha8: Teaching methodology moderates the relationship between entrepreneurial vision and entrepreneurial intentions.

2.7 Research Framework

Research framework proposed in this study was developed on the basis of entrepreneurial event model (EEM) (Shapero & Sokol, 1982) and human capital theory (HCT) (Becker, 1964). EEM works on the premise that intentions are the direct outcome of personality traits. Furthermore, intentions are a collective representation of perceived desirability, perceived feasibility and a propensity to act of an individual (Almobaireek & Manolova, 2012; Saeed et al., 2015)

In this regard, studies have often highlighted the impact of different personality traits on entrepreneurial intentions. Holistic approaches to personality variables have also been observed by various researchers to have a direct impact on entrepreneurial intention (Ciavarella et al., 2004; Altinay et al., 2012; Caliendo et al., 2014; Zhang et

al., 2014; Ahmetoglu et al., 2015). This provides support for building a proposed framework displaying the moderating impact of teaching methodology on relationship among entrepreneurial creativity, entrepreneurial proactivity, entrepreneurial opportunism and entrepreneurial vision with entrepreneurial intentions.

Furthermore, entrepreneurial intention has been correlated with a specific skill set (Martin et al., 2013), learned entrepreneurial education (Åsvoll & Jacobsen, 2012; Walter & Dohse, 2012; Zhang et al., 2014) and personality of an individual based on his tendencies and abilities (Leutner et al., 2014; Almeida et al., 2014; Ahmetoglu et al., 2015).

Additionally, it has often been debated whether tendencies and ability of an individual can link to entrepreneurial intentions. Recent researches in the study of personality traits and its impact on entrepreneurial intentions have changed the way researchers have looked at this field in the past (Gupta & Bhawe, 2007; Anabela et al., 2013). Individuals possessing certain tendencies and abilities display a higher degree of entrepreneurial intentions (Audretsch, 2012; De Clercq et al., 2012; Espíritu-Olmos & Sastre-Castillo, 2015; Ahmetoglu et al., 2015).

Moreover, it has been discussed, whether entrepreneurial intention can be developed by conventional teaching methodology (Bae et al., 2014). Additionally, researchers have also attempted to evaluate the teaching methodology of entrepreneurship course in terms of content for the development of entrepreneurial intentions (Fayolle & Gailly, 2015; Hussain & Hashim, 2015). Studies have also focused on the activities

and teaching methodology for the development of entrepreneurial intentions (Neck & Greene, 2011; Åsvoll & Jacobsen, 2012). The connection of individual and opportunity is dependent on the conversion of experience and education in to knowledge. Proponents of experiential learning techniques assert its importance in education, specifically entrepreneurial education (Winkler et al., 2015; Qureshi et al., 2016; Duval-Couetil, 2013; Fellnhofer, 2015). Thus, individuals' tendencies and abilities, with the use of appropriate teaching methodology, increase the likelihood of the students in developing entrepreneurial intentions. The use of teaching methodology as a moderator is further strengthened via HCT (Becker, 1964), which suggests that investments in human capital assist the individual to acquire skills and knowledge (Solesvik et al., 2014).

Furthermore, the researchers categorise all the personality traits studied into the vast breadths of the Five Factor Model (FFM) personality traits in past (Ciavarella et al., 2004; Carsrud & Brännback, 2011; Ghina et al., 2014) and currently the researchers are working and considering META as more appropriate measure for the development of entrepreneurial intentions (Anabela et al., 2013; Ahmetoglu et al., 2015). The review of literature revealed that entrepreneurial proactivity, entrepreneurial opportunism, entrepreneurial creativity and entrepreneurial vision were significantly related, towards the development of an individual's entrepreneurial intentions. However, inconsistencies in the results have been observed. Therefore, in the light of the above discussion the proposed research framework is presented in Figure 2.2.

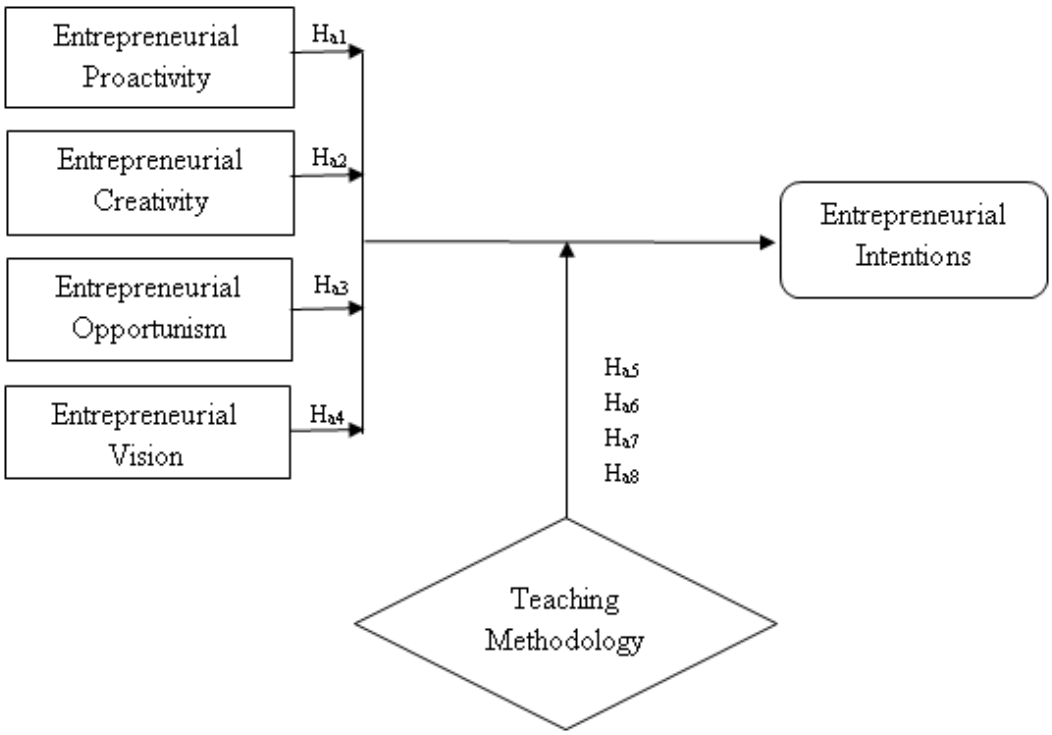

Figure 2.2
Research Framework

2.8 Summary

The research literature indicates several reoccurring items as strong independent variables for entrepreneurship. Several of those variables are identified in this study too. The areas of the research study cover the four personality traits, namely; entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial proactivity and entrepreneurial vision. How these personality traits impact entrepreneurial intentions among HEI student. Additionally, what methodology should be used while delivering entrepreneurial education to achieve the maximum result for creating entrepreneurial intentions?

Purpose of the current study was to analyse the moderating effect of teaching methodology on the relationship among four personality traits and entrepreneurial

intentions. Therefore, the literature review chapter discussed the entrepreneurial intentions. This chapter introduced and detailed the three main variables involved, i.e. entrepreneurial intentions, four personality traits and teaching methodology. This chapter also discussed in detail the relationship between personality and entrepreneurial intentions and the impact of teaching activities towards a better understanding of this relationship.

Although studies have identified various models for studying the individual intentions to become an entrepreneur, but review of literature, consistency of results, breadth of usage, common use among entrepreneurial intentions researchers and the specific nature of the model led to EEM by Shapero and Sokol (1982). Literature available on EEM was discussed extensively for a better understanding of the standing and validity of EEM for the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes research design proposed for conducting this study. Moreover, operationalization of the variables used in this study and measurement of the variables has been elaborated. The chapter then discusses the study population and sampling procedures used for collecting the data. The pilot test conducted to ensure validity and reliability of the instrument is also presented. Finally, the chapter elaborates on the statistical techniques that were used for conducting the data analysis to fulfil the objectives of this study.

3.2 Research Design

The nature of research study dictate the approach for research design. This study used the quantitative approach. The quantitative research design is a systematic and scientific for identifying associations and interaction between different variables under study because different researchers concern about trends or relationships between variables applying theories, models and hypotheses (Creswell, 2013). The quantitative approach is objective and based on positivist ontology (Berry & Feldman, 1985). As the current study aimed to test the moderating effect of teaching methodology on relationship between and individual's personality and entrepreneurial intention, thus it required the collection of numerical data for determining the relationship among personality traits, teaching methodology and

entrepreneurial intentions, which makes the use of quantitative approach as ideal for this study.

Quantitative research "is an inquiry into a social or human problem, based on testing a theory composed of variables, measured with numbers and analysed with statistical procedures, in order to determine whether the predictive generalisations of the theory held true" (Cooper & Schindler, 2006). Since quantitative approach is not only widely accepted for testing a theory in terms of hypothesis but was also best fit for the objective of this study (Cameron & Trivedi, 2013). This study adopted a survey research design. A survey method is adopted when a study is trying to assess thoughts, feelings and opinions about a given situation by collecting primary data from the respondents (Zikmund, Babin, Carr, & Griffin, 2012). The survey method allows the researcher to gather quantitative data and analyse it using descriptive and inferential statistics.

3.2.1 Research methods.

Survey research provides a fast, economical, accurate and efficient assessment and information about a given population (Zikmund et al., 2012). Additionally, survey research using questionnaires compared to observation, secondary data and interview is inexpensive and easy, especially when collecting data from a large sample. Alternatively, in an interview, the nature and characteristics of the interviewer may influence the answers of respondents compared to the questionnaire. Observation, may not give a better understanding of certain behaviours because people may behave differently when they know they are being observed (Zikmund et al., 2012). Similarly, secondary data may be inappropriate for study similar to the current one,

because of record keeping problem of the respondents. In the event where records are available, the information may be outdated, since the data was collected many years ago. Also, the information may refer to an entire region whereas this study aimed to study a specific country. Hence, the quality of the secondary data may not be guaranteed.

3.2.2 Unit of analysis.

Unit of analysis is the one over which the study is being conducted defining the potential respondent. Unit of analysis for the proposed study was individual students; specifically, the final year undergraduate business students enrolled in HEIs of Islamabad. The area of study was selected as Islamabad to address the cultural, provincial and background diversity of the entire country. Islamabad is a newly formed city established and made capital of the country in 1967. To operate the public offices, public employees from all over the country were invited to settle in the newly formed capital. Furthermore, Islamabad was considered to truly represent even the remote regions of the country, where students of the war struck tribal areas bordering Afghanistan come for higher education. Moreover, with a population representing 1% of the entire country, the city houses 18.3% tertiary student population of the country and 18% universities offering business education, making it a healthy mix and ratio for a generalizable research.

The final year undergraduate business students were considered to ensure that the students had taken the mandatory entrepreneurship course. As per the recommendation of HEC, entrepreneurship course is taught in the third year of undergraduate business study. The respondents were selected from the enrolment

register of the HEIs to ensure that the students have undertaken entrepreneurship course and are in the final-year of their undergraduate studies at the time of survey.

3.2.3 Time frame of study.

Time frame of the study guides the researcher regarding the completion of the work (Zikmund et al., 2012). The data collection for the study was completed in four months (July, 2016 – October, 2016). The questionnaires were distributed and collected in September, 2016. Proper time was given to the students so that they filled the questionnaire with convenience.

3.3 Population, Sample and Sampling Process

This section explains in detail the population, sampling technique and the sample size for this study.

3.3.1 Population.

The population for this study was the final-year undergraduate students of HEIs of Pakistan. According to Hirschi (2013), final year undergraduate students are a significant group of nascent entrepreneurs in the business school of HEIs. Many studies have taken undergraduate and graduate university students as a sample for investigating entrepreneurial intentions (Fatoki, 2010; Tanveer, Shafique, Akbar, & Rizvi, 2013; Premanda, Brodmanna, Almeidaa, Gruna, & Barounib, 2016). According to Fayolle and Gailly (2005) and Liñán et al. (2011) the final year students of HEIs consist of the appropriate group or community for studying entrepreneurship as they are about to decide for career they have to choose as

profession and they belong to such section of population which has empirically highest inclination toward entrepreneurship.

Accordingly, previous literature discussed various examples of studies which have used a similar sample for studying entrepreneurial intentions (Krueger et al., 2000; Ulrich & Holman, 2000; Ulrich, 2005; Gelderen, et al., 2008; Saeed et al., 2013). The major reason behind taking such sample is because students of business program in comparison with other programs get more exposure to entrepreneurship activities and education during their study (Hyder et al., 2011). Business students are also considered as future business leaders, hence it is necessary to study and evaluate the profile of these students (Hisrich, 2000). According to Gelderen et al. (2008), there are multiple advantages of using undergraduate business students due to being well educated in the business studies, they are pulled towards the entrepreneurship rather than pushed.

Similarly in Pakistan, it has been highlighted and suggested to include entrepreneurship courses in degrees other than business studies (Higher Education Commission, 2012). However, only a fraction of the HEIs have included entrepreneurship and related courses in non-business specialisations. Business schools have ensured inclusion of entrepreneurship as per the recommendation of HEC. A number of studies on entrepreneurial intention conducted in Pakistan have used the sample of business students for example Hunjra, Rehman, Ahmad, Safwan, and Rehman (2010), Ahmed et al. (2010), Hyder et al. (2011), Tanveer et al. (2013), Saeed et al. (2013).

Furthermore, there are 161 public and private HEIs across Pakistan, of which 79 HEIs and their campuses are offering business studies (NEMIS-AEPAM, 2015). These HEIs were in top, middle and lower level quality ranking of HEIs issued by HEC Pakistan (Higher Education Commission, 2014). As per the annual report of HEC, a total of 597,746 students were enrolled in the HEIs during 2012-13, of which 51,077 enrolled in business education amounting to 8.5% of the population. Enrolment of students is represented as per provincial basis i.e. Punjab (39.5%), Sindh (25.1%), Islamabad Capital Territory (ICT) (18.3%), Khyber Pakhtoonkha (12.3%), Baluchistan (2.9%) and Azad Jammu and Kashmir (1.9%) (NEMIS-AEPAM, 2015).

Since this study was focused towards the entrepreneurial intentions of the final year undergraduate students of business management HEIs, the population for the study was homogenous as per the curriculum defined by HEC. This helped in focusing and identifying the relationships in a specific and a key fraction of the population with reference to entrepreneurial intentions.

3.3.2 Sampling frame.

For this study, the business schools of Islamabad were considered. Islamabad is the capital of the country which was established in late 1960's. The capital along with the public infrastructure was moved to Islamabad. In terms of population, there is no native of the newly formed city. For administration and government functioning reasons, people from all over the country migrated towards Islamabad and helped in the establishment of the city. Hence, Islamabad represents the ethnic diversity of the country to the fullest extent (Islamabad, 2016). Furthermore, for a city with a

population of almost 2.0 million (approximately 1% of total population), Islamabad houses 18 % of the national HEIs with 18 % national student enrolment (Higher Education Commission, 2014). The student population of the business schools of Islamabad is further diversified by students coming in from even the remote areas of the country resulting in a harmony of diversification. Therefore, the student population of Islamabad represented a mix of ethnicity, mother language, sectarian as well as regional diversity (NEMIS-AEPAM, 2015).

3.3.3 Determination of sample size.

This study considered the representation of different universities in the population of Islamabad. Furthermore, being the capital of the country which was formed recently, the city constitutes only of people who migrated here from all across the country. The different HEIs of Islamabad were contacted to provide information regarding the students enrolled in the final-year of undergraduate studies. The total working population was found to be 1581 students. To determine the sample size, this study used Krejcie and Morgan's (1970) sampling table for finite population, which is elaborated in Table 3.1.

Table 3.1
Table for Determining Sample Size for a Given Population

N	S	N	S	N	S	N	S	N	S
10	10	150	108	700	248	1800	317	4000	351
20	19	200	132	800	260	2000	322	5000	357
30	28	250	152	900	269	2200	327	10000	373
40	36	300	169	1000	278	2400	331	20000	379
50	44	400	196	1200	291	2600	335	30000	380
75	63	500	217	1400	302	2800	338	40000	381
100	80	600	234	**1600**	**310**	3000	341	50000	382

Source: (Krejcie & Morgan, 1970)

Based on the sampling size determination in Table 3.1, this study required a total of 310 responses (Zikmund et al., 2012). Furthermore, Table 3.2 illustrates the proportionate sample size required from each HEI. The total eligible student population in each HEI is different and the appropriate sample required is determined on the total number of students enrolled in these HEIs. Table 3.2 also specifies the percentage of each HEI population in the total working population. The required sample was also distributed as per the percentage representation of each HEI in the total working population.

Considering the nature of the respondents there was chance of response bias. There is a less chance of response bias when the response rate is high (Babbie, 2013). A response rate of 60% is considered very good for analysis and reporting (Babbie, 2013). Based on this guidance, the distribution of questionnaire among potential respondents was increased to 500 for the study, which was equally represented in the total questionnaires distributed for each individual HEI to ensure the quality of data gathered. Table 3.2 presents the total working population of the HEIs to be taken for this study.

3.3.4 The sampling technique.

The sample was selected from the final year undergraduate students using probability proportionate sampling for data collection (Babbie, 2013). The population percentage representation of each HEI in the total working population was mirrored in the sample to ensure appropriate representation of HEI in the study. Proportionate sampling is important to ensure the appropriate representation of the population in the sample. The questionnaires were distributed proportionately according to the population of final year undergraduate business students in each HEI. Once the individual required sample from each HEI is finalised, the sample from individual HEI was collected randomly using Microsoft Excel "RANDBETWEEN" function. Participants were selected according to the number of enrolled students in final year. Table 3.2 illustrates the sample representation of each HEI for this study.

Table 3.2
Total Working Population for HEIs

S. No	Higher Education Institute Name	% Population	No of Students	Required Sample	Research Instrument Distributed
1	Air University (AU)	2.72%	43	8	13
2	Bahria University (BU)	14.67%	232	45	74
3	COMSATS Institute of Information Technology (CIIT)	16.95%	268	53	86
4	Capital University of Science and Technology (CUST) (formerly Muhammad Ali Jinnah University - MAJU)	5.88%	93	18	29
5	Foundation University (FU)	5.82%	92	18	29

S. No	Higher Education Institute Name	% Population	No of Students	Required Sample	Research Instrument Distributed
6	National University of Computer and Emerging Sciences (NUCES, FAST-NU)	5.88%	93	18	29
7	Federal Urdu University of Arts, Science and Technology (FUUAST)	4.68%	74	15	24
8	International Islamic University, Islamabad (IIUI)	9.68%	153	30	48
9	Iqra University (IU)	4.74%	75	15	24
10	Isra University	3.10%	49	10	16
11	National University of Modern Languages (NUML)	4.24%	67	13	21
12	National University of Sciences and Technology (NUST)	2.91%	46	9	15
13	Quaid-e-Azam University (QAU)	3.67%	58	11	18
14	Riphah International University	5.82%	92	18	29
15	Shaheed Zulfiqar Ali Bhutto Institute of Sciences and Technology (SZABIST)	3.98%	63	12	19
16	University of Lahore (UoL)	5.25%	83	16	26
	Total		1581	310	500

3.4 Research Instrument

The data for this study was collected using questionnaires which were duly filled by the final-year undergraduate business students of the HEIs in Islamabad. The current study used questionnaire as a primary data-gathering instrument. The questionnaire was developed according to the research problem and objectives of the research. The

items in the questionnaire were adapted through review of available literature on entrepreneurial intentions, teaching methodology and personality traits defined under META.

Accordingly, the questionnaire based on measures is adapted for collecting the student's response. The questionnaire (Appendix A) for this study consisted of four sections. First section based on the construct of intention of individual to become entrepreneur. The second section addressed the constructs of teaching methodology (Experiential-Learning Strategies). While the third section dealt with the individual's personality based on META. This section was subdivided into dimensions, namely; entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial proactivity and entrepreneurial vision. The final section was about demographic information of the student. During the designing of the questionnaire to minimise the biases, three aspects were considered. These included; wording of the questions, the variable categorisation planning and the general appearance of the instrument (Sekaran, 2007). Table 3.3 highlights the number of measurement items against each variable. Additionally, Table 3.3 also recognises the source from where the instrument is adapted. The complete questionnaire is available at Appendix A.

Table 3.3
Summary of Measures of Variables

Variable / Dimension	No. of Items	Adapted from
Entrepreneurial Intentions	6	Liñán and Chen (2009)
Entrepreneurial Proactivity	7	Ahmetoglu and Chamorro-Premuzic (2010)
Entrepreneurial Creativity	7	Ahmetoglu and Chamorro-Premuzic (2010)
Entrepreneurial Opportunism	8	Ahmetoglu and Chamorro-Premuzic (2010)
Entrepreneurial Vision	8	Ahmetoglu and Chamorro-Premuzic (2010)
Teaching Methodology	7	Ulrich (2005)

The personality measure for this study was adapted from META (Ahmetoglu & Chamarro-Premuzic, 2010). The measure of the scale included categorisation of the individual personality traits into the four broad spectrums of entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial proactivity and entrepreneurial vision. In total 120 individual personality traits were identified from literature and categorised. The items were screened by experts, who removed individual items based on redundancy, difficulty and relevance, resulting in 55 items. The instrument was administered in select UK universities with mostly student respondents. 25 items were further removed to increase parsimony, validity and reliability, resulting in a 30 items instrument, used for this study.

The entrepreneurial intention measure was adapted from EIQ developed by Linan and Chen (2009). The EIQ was further based on previous studies based on behavioural intention (Chen, Greene, & Crick, 1998; Armitage & Conner, 2001). The psychometric properties of the instrument were tested based on data collected from a sample of final-year university students, resulting in appropriate validity and reliability. It was suggested to further test the psychometric properties of the instrument in order to increase the reusability of the scale (Linan & Chen, 2009).

The instruments adapted for the study have been previously validated by various studies. These studies have assessed the reliability of the instruments by computing the reliability coefficient, Cronbach's Alpha (α). Table 3.4 presents the Cronbach's alpha values computed for each variable.

Table 3.4
Reliability Coefficients of the Constructs in Previous Studies

Study	**Cronbach's Alpha (α)**				
	EP	EC	EO	EV	EI
Ahmetoglu et al., 2011	0.85	0.81	0.91	0.94	
Jakopec et al., 2013	0.92	0.97	0.95	0.93	0.90
Almeida et al., 2014	0.89	0.88	0.87	0.85	
Leutner et al., 2014	0.90	0.86	0.88	0.84	
Ahmetoglu et al., 2015	0.87	0.85	0.83	0.80	
Hogan & Chamorro-Premuzic, 2015					0.94
Hockerts, 2017					0.83
Miralles, Giones, & Gozun, 2017					0.72
Buana, Hidayat, Prayogi, & Vendy, 2017					0.93

Finally, the survey instrument was distributed in English, without translation to the national language of Pakistan, i.e. Urdu. English is the medium of instruction in all the universities in Pakistan. Additionally, students are introduced to English since Kindergarten and majority of the primary and secondary schools have medium of instruction as English. Moreover, at the time of admission in universities besides the grades scored during primary and secondary education, students are required to pass an admission test which is entirely in English language, and also includes an English section; where passing the test is the basic requirement for scoring admission. Hence, the translation of the instrument to Urdu was not required.

3.5 Operationalisation and Measurement of Variables

This section describes operationalisation and measurement of the variables. Each variable is discussed in the terms of how it is used in the study, followed by the measurement items and inspiration of the scale. The base instrument adapted for this study is the META S-30 questionnaire, which has been developed using a 5-point Likert scale (Leutner et al., 2014; Ahmetoglu et al., 2015). For comparability of the results, this study also utilised the 5-point Likert scale. Furthermore, the Likert scale is commonly used in survey questionnaires (Chamorro-Premuzic, 2011; Dawes, 2008) and is suggested to be useful in behavioural research and suitable in the use for factor analysis (Hinkin, 1998). Cronbach's alpha reliability with Likert scales increases up to the use of five point Likert scale but there is negligible difference from seven point and above Likert scale (Lissitz & Green, 1975; Ahmetoglu et al., 2015). Each section of the questionnaire is further elaborated as following.

3.5.1 Entrepreneurial intentions.

Entrepreneurial intention is defined as "the commitment to perform the behaviour that is necessary to launch the business venture" (Krueger et al., 2000; Krueger & Carsrud, 1993). Examining the 'intention to become' self-employed as an initial stage of the career decision offers interesting insight of the role of personality and personal identity in the entrepreneurial process (Katz, 1994; Lewis & Kosine, 2008).

This section of the questionnaire was adapted from Entrepreneurial Intention Questionnaire (EIQ) developed by Liñán & Chen (2009). EIQ deals with a number of other variables which have been left out due to the specific context of this study,

therefore, only the entrepreneurial intentions section was adopted for this study. For this section, the respondents were required to conduct a self-evaluation on a 5-point Likert scale ranging from completely disagree (1) to completely agree (5). Table 3.5 highlights the measurement items for entrepreneurial intentions used in the instrument.

Table 3.5
Measurement Items for Entrepreneurial Intentions

S. No	Measurement Item for Entrepreneurial Intention
1	I am ready to do anything to be an entrepreneur.
2	My professional goal is to become an entrepreneur.
3	I will make every effort to start and run my own firm.
4	I am determined to create a firm in the future.
5	I have very serious thought of starting a firm.
6	I have a firm intention to start a firm someday.

3.5.2 Entrepreneurial proactivity.

Entrepreneurial proactivity is defined as "the tendency to be proactive about projects and get stuff done" and relates to energy, confidence and self-determination (Ahmetoglu & Chamorro-Premuzic, 2010). Entrepreneurial proactivity is the ability to get the job done efficiently, being productive, and willingness to lead people and projects. Proactive people are dominant and fearless and like to get things done immediately. They have a practical approach to things and may dislike people that have a slower pace and prefer enjoying life to the fast pace at work (Almeida et al., 2014; Leutner et al., 2014).

This section of the questionnaire was adapted from Measure of Entrepreneurial Tendency and Ability (META) developed by Ahmetoglu and Chamorro-Premuzic

(2010) and used in various studies (Jakopec et al., 2013; Sušanj et al., 2015). Table 3.6 highlights the measurement items for entrepreneurial proactivity used in the instrument.

Table 3.6
Measurement Items for Entrepreneurial Proactivity

S. No	Measurement Item for Entrepreneurial Proactivity
1	If I see an opportunity I jump on it
2	Creating something that is useful to people and a profitable for myself is my idea of perfection
3	I try to take advantage of every profitable opportunity I see
4	I don't always grab the opportunities that I have
5	Even when I spot a profitable opportunity I rarely act on it
6	I often fail to act on valuable opportunities
7	I rarely act on profitable opportunities, even when believe they can benefit me or others

3.5.3 Entrepreneurial creativity.

Entrepreneurial creativity is defined as "the ability to generate innovative business ideas" and relates to non-conformity, originality and preference for novel experiences (Ahmetoglu & Chamorro-Premuzic, 2010). Entrepreneurial creativity is the tendency of an individual to be original, imaginative, open minded and a source of new ideas. Highly creative people habitually think outside the box. They view a situation from various angles and enjoy playing with ideas. Such individuals dislike conforming to traditions and like pushing established boundaries (Almeida et al., 2014; Leutner et al., 2014).

This section of the questionnaire was adapted from Measure of Entrepreneurial Tendency and Ability (META) developed by Ahmetoglu and Chamorro-Premuzic

(2010) and used in various studies (Jakopec et al., 2013; Sušanj et al., 2015). Table 3.7 highlights the measurement items for entrepreneurial creativity used in the instrument.

Table 3.7
Measurement Items for Entrepreneurial Creativity

S. No	Measurement Item for Entrepreneurial Creativity
1	People tend to think of me as highly innovative
2	I usually have the innovative ideas in group tasks or projects
3	I see myself as highly innovative
4	I am very good at coming up with novel solutions to problems
5	I am very creative
6	There is little point in trying to find new ways of doing something if old ways work
7	I like following accepted procedures at work or school

3.5.4 Entrepreneurial opportunism.

Entrepreneurial opportunism is defined as "the tendency to spot new business opportunities" and relates to being alert, informed, and detecting future trends (Ahmetoglu & Chamorro-Premuzic, 2010). Entrepreneurial opportunism is the ability to see business opportunities in the surroundings, which other people may overlook. Opportunistic people look for business openings and are updated regarding economic trends. The way opportunistic individuals perceive and evaluate information is also different than other individuals, resulting in a more optimistic outlook with respect to business ventures (Almeida et al., 2014; Leutner et al., 2014).

This section of the questionnaire was adapted from Measure of Entrepreneurial Tendency and Ability (META) developed by Ahmetoglu and Chamorro-Premuzic (2010) and used in various studies (Jakopec et al., 2013; Sušanj et al., 2015).

Table 3.8 highlights the measurement items for entrepreneurial opportunism used in the instrument.

Table 3.8
Measurement Items for Entrepreneurial Opportunism

S. No	Measurement Item for Entrepreneurial Opportunism
1	I am quick to spot profitable opportunities
2	I see profitable opportunities where others do not
3	I'm very alert to opportunities to create commercial or social value
4	If there is a profitable opportunity, I will see it
5	I'm generally the first to see a commercial opportunity when it appears
6	I always know when there is a "gap in the market" for a new product or service
7	It is not that I don't see profitable opportunities, I just don't have the motivation to do anything about them
8	I rarely think outside the box

3.5.5 Entrepreneurial vision.

Entrepreneurial vision is defined as "the ability to see the bigger picture, the motivation to bring change and create progress" and relates to values and having a higher sense of purpose (Ahmetoglu & Chamorro-Premuzic, 2010). Entrepreneurial vision is an individual's desire to improve things, make a real world impact and create things that are valued by others. Visionary individuals want to change things for the better and constantly strive for progress in the world. Others may find a visionary's ambitious goals to be unrealistic. They firmly believe that they can make an impact on things and people around them (Almeida et al., 2014; Leutner et al., 2014).

This section of the questionnaire was adapted from Measure of Entrepreneurial Tendency and Ability (META) developed by Ahmetoglu and Chamorro-Premuzic

(2010) and used in various studies (Jakopec et al., 2013; Sušanj et al., 2015). Table 3.9 highlights the measurement items for entrepreneurial vision used in the instrument.

Table 3.9
Measurement Items for Entrepreneurial Vision

S. No	Measurement Item for Entrepreneurial Vision
1	I have a strong desire for progress
2	I am very forward-looking
3	I am highly future oriented
4	I have great business ideas before others do
5	I always dreamed of creating something (e.g., a product or service) that has an objectively recognised value
6	My aim in life is finding new ways to make economic or social progress
7	I always strive to make things better for myself and/or others
8	I'm not particularly interested in creating something of commercial or social value

3.5.6 Teaching methodology.

Teaching methodology is the variation of activities used by the lecturer of entrepreneurship course to facilitate the students in a better understanding of the concept and process of entrepreneurship. Ulrich (2005) has categorised the various teaching methodologies in to four major categories, of which experiential learning strategies have been found to be the most relevant teaching methodology for teaching entrepreneurship (Winkler et al., 2015; Fellnhofer, 2015; Qureshi et al., 2016).

Moreover, this study adapts the 25 measure construct of teaching methodology proposed and developed by Ulrich (2005). The initial categorisation of teaching activities was done by Ulrich and Cole (1987). The measure was later improved and the teaching methodologies were categorised by Ulrich and Holman (2000) and

Ulrich (2005) among others. The later studies proved the consistency and reliability of the instrument. These studies aimed to assess the preference in teaching methodology among students of two HEIs across the different departments of business studies.

This study concerns only with the experiential teaching strategy as defined by Ulrich (2005). The respondents were required to evaluate the effectiveness of various teaching techniques categorised under experiential learning strategies (Ulrich, 2005). For this section, the respondents were instructed to rate the effectiveness of the teaching methodology on a 5-point Likert scale ranging from very ineffective (1) to very effective (5). An additional option – "Not Applicable" (N/A) – was given to the students to ensure the data collected is relevant (Rost, 1988; Langeheine & Rost, 2013). Table 3.10 exhibits the measurement items for teaching methodology used in the instrument.

Table 3.10
Measurement Items for Teaching Methodology

S. No	Measurement Item for Teaching Methodology
1	Internships
2	Case Analysis
3	Case Studies
4	Management Simulations
5	Experiential Exercises
6	Role Playing
7	Videos

3.6 Measurement Scale

According to the possibility, items in the questionnaire were built on 5-point Likert type scale. The questionnaire was adopted from the instrument of META S-30 which uses the 5-point Likert scale (Leutner et al., 2014; Ahmetoglu et al., 2015). The Likert scale is extensive used in survey questionnaires (Chamorro-Premuzic, 2011; Dawes, 2008) and is recommended to be useful in behavioural research and suitable for factor analysis (Hinkin, 1998). Cronbach's alpha reliability with Likert scales increases up to the five point Likert scale but then plateaus (Lissitz & Green, 1975; Ahmetoglu et al., 2015). An additional option of "Not Applicable" was provided in the teaching methodology section. This option was given to identify if that specific teaching methodology was not applied during the course (Rost, 1988; Langeheine & Rost, 2013).

3.7 Pilot / Preliminary Test

A pilot study was conducted prior to the complete roll out of the research. Purpose of the pilot study was to (i) gauge the validity and reliability of the survey instrument, and (ii) view the conditions of impact assessment. This allowed the researcher to foresee potential issues and adjust accordingly. The pilot study is also used to ensure the validity and reliability of the instrument; where validity measures the extent to which an instrument measures what it is designed to measure, and reliability measures the extent to which an instrument is consistent across the various items of the scale (Sekaran & Bougie, 2010).

3.7.1 Validity test.

To ensure how well an instrument measures the supposed constructs, content/face validity was conducted in this study. Consultations were made with a small sample of respondents and a panel of experts to make a judgment on the appropriateness of items chosen to measure the construct. Experts consulted included associate professors and professors in the Department of Management Sciences, Bahria University, Islamabad, Pakistan. Furthermore, the director of Office of Research Innovation and Commercialisation (ORIC) at Bahria University was also consulted. On account of this, some items were re-phrased appropriately to measure the construct and a better understanding by the respondents in Pakistan. This process was completed within the month of July, 2016.

After taking into account the observations of experts, the researcher adapted and improved the instrument, which was administered for the pilot study. In most pilot tests, the sample is generally small (Fink, 2003), although it is usual to increase it to 100 responses. Therefore, a total of 45 questionnaires were distributed and personally-administered. Out of the distributed questionnaires, 42 were collected and six were not properly completed, resulting in only 36 responses considered for analysis. The high response rate of about 80% was achieved due to personally administering the distribution and collection of questionnaires. This process ended within one week in August, 2016.

3.7.2 Reliability test.

Different types of testing reliability are used. However, the most popular method used by researchers to test the inter-item consistency and reliability is the Cronbach's alpha coefficient (Sekaran & Bougie, 2010). It indicates the extent to which answers of the respondents are consistent across the items of the instrument. After running reliability test using SPSS v 20, it was found that all the measures had appropriate reliability standard ranging from 0.73 to 0.91 (refer Table 3.11). The threshold value of 0.60 for Cronbach's alpha is considered to be of average reliability, and a value of greater than 0.7 indicates a high reliability of the instrument (Hair, Black, Babin, & Anderson, 2010; Sekaran & Bougie, 2010). Table 3.11 shows the results of the reliability test (Cronbach's alpha) for each construct of the instrument, for the pilot study.

Table 3.11
Reliability Test

Constructs	**Number of Items**	**Cronbach's Alpha**
Entrepreneurial Intentions	6	0.91
Entrepreneurial Creativity	7	0.81
Entrepreneurial Opportunism	8	0.80
Entrepreneurial Proactivity	7	0.86
Entrepreneurial Vision	8	0.82
Teaching Methodology	7	0.73

Table 3.11 presents the summary of reliability results. The reliability results for all the constructs are above the threshold requirement of 0.7 (Hair et al., 2010; Sekaran & Bougie, 2010). Consequently, it can be concluded all the constructs are reliable, and therefore there was no need to remove any item on this basis.

3.8 Data Collection

3.8.1 Data collection method

Data was collected through self-administrated questionnaires for this study. Survey method for data collection has the possibility of social desirability biases which suggests that the respondent may report the inclination of presenting themselves in a way which is viewed favourably by others (Podsakoff, MacKenzie, & Podsakoff, 2012). This indicates that individuals are tempted to give socially desirable responses rather than describing what they actually believe, think or do. To overcome this problem, the survey instrument instructions put emphasis on the importance of honesty on the self-administrated survey questionnaire (Chen et al., 1998). The researcher also explained the purpose of the study and importance of honest opinion to the students to overcome social desirability bias.

Furthermore, the cross sectional method provides the data which consist of various opinions, attitudes and / or trends in quantitative description of population through study of sample. Survey is also helpful to examine the causal relationships between variables (Leedy & Ormrod, 2015). The survey method does not require a visual or objective perception of the information being sought (Cohen, Manion, & Morrison, 2011), which is the core strength of the survey method. Furthermore, in survey research, higher number of respondents can enhance the allowance of model testing using multivariate statistical tools. This was supported by numerous studies using structural equation modelling as statistical tool (Hair et al., 2010; Tabachnick & Fidell, 2012).

Therefore, by use of the survey design the statistical tools were used to test the relationship between the personality, teaching methodology and entrepreneurial intention. This design approach offered a reliable standard for research. The measurement (in proper scales) can gauge fine differences between responses given by the participants. The resulting scale was based for providing precise estimates of the association between variables (Cohen et al., 2011).

3.8.2 Data collection procedure

After computing the total number of required sample from each HEI, the total number of questionnaires to be distributed in each HEI was determined (see Table 3.2). The questionnaires were validated from academicians and practitioners for pre-testing and face validity. The suggestions received were incorporated in the questionnaire and reapproved. Pre-testing and face validity was conducted in July, 2016. Furthermore, pilot study was conducted to assess validity and reliability of the questionnaire, which was conducted in August, 2016.

Prior to data collection, an official letter for data collection was taken from School of Business Management, Universiti Utara Malaysia, and an assistance letter from the Office of Research Innovation and Commercialisation (ORIC) at Bahria University was acquired, where the researcher is serving as a senior lecturer. Copies of these two letters were officially sent to the program offices of business schools at the selected HEIs.

Data collection was administered by the researcher, in coordination with the respective program office and full knowledge of the individual departments. The

purpose, importance and possible benefits of the study were highlighted in the cover letter attached with each questionnaire to avoid social desirability bias (Podsakoff et al., 2012). The program office and Head of Departments were requested to provide a complete list of the students enrolled in the final-year of undergraduate business studies. The sample was selected at random from the enrolment list using Microsoft Excel. The questionnaires were personally administered by the researcher. The students were guided by the researcher regarding the procedure to be followed for data entry. The confidentiality of the information provided by the students was ensured at the time of data collection. Data collection from the universities was completed in the months of September and October, 2016.

3.8.3 Non-response bias

Non response bias was evaded by avoiding the use of mail questionnaires. Non-response bias may be defined "the differences in the answers between non-respondents and respondents" (Lambert & Harrington, 1990). To estimate the possibility of non-response bias, a time-trend extrapolation approach is suggested, which compares between the set of early respondents and late respondents (i.e., non-respondents) (Armstrong & Overton, 1977). Since this study used self-administered questionnaires where all the responses were collected at same time, hence avoiding the possibility of non-response bias.

3.9 Data Analysis Technique

Data screening was done as the first step to check whether the missing data is significant or not and is data distributed randomly. The data collected from different HEIs was verified and merged together for further analyses.

The study employed a number of techniques for data analysis. Firstly, data screening and data cleaning was done in order to deal with any missing values, removing the outliers and making the data normal. The normality tests were followed by analysis using descriptive statistics such as frequency distributions and percentages regarding the demographics. Furthermore, reliability and validity tests were conducted to minimise the measurement errors.

After ensuring that the data is normal in all the respect, PLS-SEM which is the second generation SEM technique was adopted. SEM has become an important approach for investigating the cause and effect relations between latent constructs (Hair, Hult, Ringle, & Sarstedt, 2016). Generally, PLS-SEM is a path modelling statistical method for modelling complex multivariate analysis of relationships between observed and latent variables (Esposito Vinzi, Chin, Henseler, & Wang, 2010). The approach of PLS-SEM is a strong, superior and flexible tool for statistical model building, and testing and predicting theory (Lowry & Gaskin, 2014). Afthanorhan (2013) stresses that reliable and valid confirmatory factor analysis is better achieved using PLS-SEM path modelling. For SEM, bootstrapping method was used with 5000 sampling, followed by inspection of the p value where lesser than 0.05 was considered as acceptable (Hair et al., 2010).

PLS-SEM is a statistical methodology, widely used and accepted in different research areas of social sciences, including business research (Hair et al., 2016). Among the business research, PLS-SEM has been used in marketing (Hair, Sarstedt, Ringle & Mena, 2012; Henseler, Ringle & Sinkovics, 2009); management information system (Chin, Marcolin & Newsted, 2003; Marcoulides, Chin & Saunders, 2009); human resource (Becker, Klein, & Wetzels, 2012); operations management (Peng & Lai, 2012); family business (Sarstedt, Ringle, Smith, Reams, & Hair, 2014); and strategic management (Gudergan, Devinney, Richter & Ellis, 2012; Lew & Sinkovics, 2013). The wide use of PLS-SEM is due to the fact that it has the ability to evaluate the latent variables and their relationships with the items (inner model), and assess the relationship between the latent variables (outer model) (Hair et al., 2012; Henseler et al., 2009). PLS-SEM is more robust in handling non-normal data because it has flexible assumptions about the normality of the distribution of variables (Henseler et al., 2009). Therefore, this study used Smart PLS v 2.0 to determine the outer model (reliability, convergent validity and discriminant validity) and inner model (significance of the path coefficients, coefficient determination, the effect size and predictive relevance) where a t-value greater than 1.64 was considered acceptable as suggested by Hair et al. (2012).

Correlation analysis was also conducted on the collected data. Correlation analysis is a bi-variate measure of the strength or degree of the linear relationship between the variables under discussion (Berry & Feldman, 1985). In this study Pearson Correlation was employed in order to find any association that exists between independent variables (entrepreneurial creativity, entrepreneurial proactivity, entrepreneurial opportunism and entrepreneurial vision) and dependent variable

(entrepreneurial intention). Furthermore, structural equation modelling was conducted to investigate the prognostic ability of independent variables towards the dependent variable. Teaching methodology is the moderating variable in this study. It was expected that teaching methodology would moderate the relationship between independent variables (Entrepreneurial creativity, entrepreneurial proactivity, entrepreneurial opportunism and entrepreneurial vision) and dependent variable (entrepreneurial intention). Structural equation modelling was used to test the moderating effect using Smart PLS v 2.0. The correlation matrix of the independent variables was examined where a correlation coefficient of greater than 0.90 indicates multicollinearity (Hair et al., 2010).

3.9.1 Reliability test.

Different types of reliability testing are used by various researchers. However, the most popular method used by researchers to test the inter-item consistency and reliability is the Cronbach‘s alpha coefficient (Sekaran & Bougie, 2010). It indicates the extent to which answers provided by the respondents are consistent across the instrument. Cronbach’s alpha was calculated to estimate the internal consistency of items measuring a construct. Cronbach’s alpha value of greater than 0.7 were considered as acceptable, as per the suggestion by Sekaran and Bougie (2010) and Zikmund et al. (2012).

3.9.2 Normality test.

To check the normality, i.e., assessing possible deviation from normality and the shape of the distributions, this study applied graphical method of normality and

statistical method of Skewness and Kurtosis for checking normality of the data (Hair et al., 2010). Following similar argument Tabachnick and Fidell, (2012) states that the absolute value of Skewness greater than 3 and Kurtosis value greater than 10 may indicate a problem.

3.9.3 Multicollinearity.

Multicollinearity refers to the relationship among independent variables, where one independent variable demonstrates correlation with other independent variables (Hair et al., 2010). The most widely accepted statistical test of multicollinearity is examination of tolerance and Variance Inflation Factor (VIF). The value of tolerance should be more than 0.2, and VIF value is suggested to be lesser than 5 to avoid multicollinarity (Hair et al., 2012). In this study, the issue of multicollinearity was analysed using VIF and Tolerance.

3.9.4 Structural Equation Modelling.

To ensure the significance in structural equation modelling, initially composite reliability and average variance extracted was checked, then the path coefficients were analysed and finally boot strapping was done to check the significance of the variables.

3.9.4.1 Composite reliability.

Composite reliability varies between 0 and 1; the threshold value should not be under 0.60 (Henseler et al., 2009), however, a composite reliability value above 0.70 is more desirable (Hair, et al., 2012). Accordingly, composite reliability values between

0.6 and 0.7 indicates average internal consistency, while value between 0.70 and 0.90 is regarded as more adequate.

3.9.4.2 Average variance extracted.

With regards to identifying an element of convergence in the measurements of the construct, Average Variance Extracted (AVE) is used with a threshold value of 0.50 and above (Hair et al., 2012; Henseler et al., 2009).

3.9.4.3 Significance level.

The bootstrapping was done to find the significance of the variables. Significance level was measured based on p value; where p value less than 0.001 indicates significance at 99% confidence, p value less than 0.05 indicates significance at 95% confidence and p value less than 0.01 indicates significance at 90 % confidence level. (Henseler et al., 2009; Hair et al., 2012).

3.10 Summary

This chapter starts with description of the research design for the study by discussing the logic behind using quantitative research technique for the study. According to the requirement of quantitative technique the measurement of each variable and its dimension adopted or adapted from the literature based on operational definitions. This develops the basis for the development of the instrument used for the collection of data from the respondents through survey. Before sending questionnaire for final study the instrument content was validated by two academicians and two entrepreneurs from Pakistan. After completing the content validity of the instrument,

pilot study was conducted to confirm instrument reliability using Cronbach's Alpha statistics. The final section of this chapter describes the data analysis techniques used for this study after data collection through survey instrument.

CHAPTER FOUR

RESULTS AND FINDINGS

4.1 Introduction

This chapter reports and presents the results of data analysed using PLS path modelling. The chapter begins by detailing the data collection procedure and response. The initial data screening and preliminary analysis including missing values, outlier assessment, normality test and multicollinearity test, are presented. Demographic profile of the respondents and descriptive statistics of the variables are also reported. Successively, the key results of this study are presented in two main sections. Firstly, measurement model to determine the individual item reliability, internal consistency reliability, convergent and discriminant validity was assessed. Secondly, structural model results are reported including, significance of the path coefficients, variance explained, effect size, and predictive relevance of the model. To conclude, results of complementary PLS-SEM analysis, which examine the moderating effects of teaching methodology on the structural model, are presented.

4.2 Survey Response

In this study, 500 questionnaires were distributed among final-year undergraduate business students of HEC recognised universities in Islamabad, Pakistan. Program coordinators were approached of each individual university to obtain information regarding the number of students suitable for the study. The researcher was able to

obtain the requisite number of sample in the first cycle, hence a follow up was not required (Silva, Smith, & Bammer, 2002; Traina, MacLean, Park, & Kahn, 2005).

Henceforth, the outcomes of these attempts yielded 383 returned questionnaires, out of 500 questionnaires that were distributed to the target respondents. This gives a response rate of 76.6% based on Jobber's (1989) definition of response rate. Of these 383 questionnaires, 68 were not usable due to a significant portion being unfilled by the respondents, or the respondents reported other than the desired value on control variables. The remaining 315 questionnaires were subsequently used for analysis. This accounted for 63% valid response rate which is considered adequate for analysis in this study, as suggested by Sekaran and Bougie (2010) (refer Table 4.1). Based on the sampling size determination proposed by Krejcie and Morgan (1970), the current study required a total of 310 responses (Zikmund et al., 2012).

Table 4.1
Response Rate of the Questionnaires

Response	**Frequency Rate**	**Percentage**
Number of distributed questionnaires	500	
Returned questionnaires	383	76.6 %
Response rate	76.6%	
Returned and usable questionnaires	315	63%
Valid response rate	63%	

4.3 Data Screening and Preliminary Analysis

Preliminary data screening is critical for multivariate analysis as it helps the researcher to identify any possible violations of the key assumptions regarding the application of multivariate techniques in data analysis (Hair, Money, Samouel, &

Page, 2007). Furthermore, it assists in a better understanding of the collected data for further analysis.

All the 315 returned and usable questionnaires were entered into SPSS. At the time of data entry, the negatively worded items were reverse coded. The negatively worded items that were reverse coded include EP4 – EP7, EC6 – EC7, EO7 – EO8, and EV8. Subsequently, preliminary data analyses were performed. These included, missing value analysis, assessment of outliers, normality and multicollinearity test (Hair et al., 2010; Tabachnick & Fidell, 2012).

4.3.1 Missing value analysis.

In the original dataset, 13,545 data points were recorded with 19 missing data points, accounting for 0.14%. Specifically, teaching methodology had 6 missing values, entrepreneurial creativity had 4 missing values, entrepreneurial proactivity and entrepreneurial opportunism each had 3 missing values, entrepreneurial intentions had 2 missing values and entrepreneurial vision had 1 missing value. Even though there is no established threshold of missing values, researchers have agreed that data point missing rate of lesser than 5% is acceptable and has no significant impact on data analysis (Tabachnick & Fidell, 2012). Moreover, it is suggested to use mean substitution if the total number of missing values is lesser than 5% to avoid altering the results (Little & Rubin, 1987; Raymond, 1986; Tabachnick & Fidell, 2012). Therefore, missing values were replaced using mean substitution (Tabachnick & Fidell, 2012). Table 4.2 shows the individual construct and total number of randomly missing values in this study along with the total percentage.

Table 4.2
Total and Percentage of Missing Values

Latent Variables	**Number of Missing Values**
Entrepreneurial Proactivity	3
Entrepreneurial Creativity	4
Entrepreneurial Opportunism	3
Entrepreneurial Vision	1
Teaching Methodology	6
Entrepreneurial Intentions	2
Total	19 out of 13,545 data points
Percentage	0.14%

4.3.2 Assessment of outliers.

Outliers are defined as "observations or subsets of observations which appear to be inconsistent with the remainder of the data" (Barnett & Lewis, 1994). Presence of outliers can seriously distort the regression coefficient estimates and lead to unreliable results in a regression-based analysis (Barnett & Lewis, 1994). To detect any observations appearing outside the SPSS value labels due to incorrect data entry, frequency tables were tabulated using minimum and maximum statistics. In the initial analysis of frequency statistics, all values were within the expected range.

Moreover, the data were examined for univariate outliers using standardised values with a cut-off of ±3.29 ($p < 0.001$) (Tabachnick & Fidell, 2012). Adopting the criterion for outlier detection, no cases were identified exceeding the threshold value of ±3.29. Additionally, Mahalanobis distance (D2) was used to detect multivariate outliers. Mahalanobis distance is defined as "the distance of a case from the centroid of the remaining cases where the centroid is the point created at the intersection of the means of all the variables" (Tabachnick & Fidell, 2012). The recommended threshold of chi-square based on 43 observed variables was 20.51 ($p = 0.001$).

Values exceeding this threshold value are suggested to be removed (Tabachnick & Fidell, 2012). From the computed values of chi-square based on the Mahalanobis distance test, 6 responses were discarded as being outliers (ID 94, 179, 246, 268, 285 and 301). This resulted in total remaining responses of 309.

4.3.3 Normality test.

Previous research has traditionally assumed that PLS-SEM provides accurate model estimations even in case of non-normal data (Cassel, Hackl, & Westlund, 1999; Reinartz, Haenlein, & Henseler, 2009; Wetzels, Odekerken-Schroder, & Van Oppen, 2009). Alternatively, Hair et al. (2012) suggested that normality test should be performed on the data none-the-less. Non-normal data can inflate the standard error estimates at the time of bootstrapping (Chernick, 2008), resulting in a probable underestimation of the statistical significance of beta values (Dijkstra, 1983; Ringle, Sarstedt, & Straub, 2012).

Against this background, this study employed a graphical method to check for normality of the data (Tabachnick & Fidell, 2012). For a sample of above 200, it is suggested to view the graphical representation of the normality distribution (Field, 2009). Following this suggestion, this study examined the histogram and normal probability plots, to ensure that the collected data did not violate normality assumptions. Figure 4.1 presents the histograms bars of the data collected and shows the relative close proximity with the normal curve. Figure 4.1 indicates the graphical representation of the collected data against the normal curve.

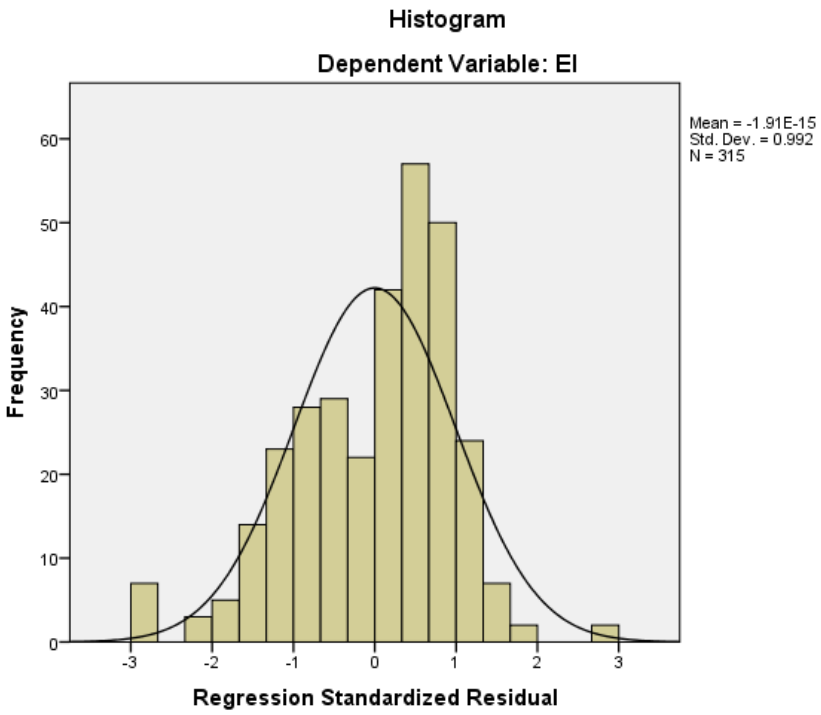

Figure 4.1
Histogram and Normal Probability Plots

Furthermore, this study also applied statistical method of Skewness and Kurtosis (Curran, West & Finch, 1996; Hair et al., 2010; Kline, 2011; Tabachnick & Fidell, 2012). However, Tabachnick and Fidell (2012) state that deviation from normality often does not make a considerable difference in analysis for samples greater than 200. The threshold value for Skewness has been suggested to be less than 2 and kurtosis values should be less than 7 (Curran et al., 1996), or skewness lesser than 3 and kurtosis values lesser than 10 (Kline, 2011). The skewness and kurtosis values of all the items were evaluated and found to be within the acceptable ranges of lesser than 2 and lesser than 7, respectively. Table 4.3 tabulates the results of skewness and kurtosis for the latent constructs.

Table 4.3
Result of Skewness and Kurtosis for Normality Test

Factors	Skewness		Kurtosis	
	Statistic	**Std Error**	**Statistic**	**Std Error**
Entrepreneurial Intentions	-.614	.139	-.535	.276
Entrepreneurial Proactivity	-.161	.139	-.208	.276
Entrepreneurial Creativity	-.450	.139	-.202	.276
Entrepreneurial Opportunism	-.406	.139	-.344	.276
Entrepreneurial Vision	-.619	.139	.280	.276
Teaching Methodology	-.932	.139	.685	.276

4.3.4 Multicollinearity test.

Multicollinearity refers to a situation where two or more predictor variables become highly correlated. Multicollinearity can substantially distort the estimates of regression coefficients and their tests of statistical significance (Chatterjee & Yilmaz, 1992; Hair et al., 2010). Particularly, multicollinearity increases the coefficient standard errors, which renders the coefficients statistically non-significant (Tabachnick & Fidell, 2012).

Two methods were used in this study to detect multicollinearity; (i) examination of correlation matrix of the predictor variables, and (ii) examination of variance inflated factor (VIF), tolerance value, and condition index (Chatterjee & Yilmaz, 1992; Peng & Lai, 2012).

The threshold value of correlation coefficient is 0.9 (Hair et al., 2010). A value of higher than the threshold indicates multicollinearity between the predictor variables. Table 4.4 presents the correlation matrix of all predictor variables.

Table 4.4
Correlation Matrix of the Predictor Variables

No.		EI	EP	EC	EO	EV	TM
1	Entrepreneurial Intentions	1					
2	Entrepreneurial Proactivity	.445**	1				
3	Entrepreneurial Creativity	.541**	.493**	1			
4	Entrepreneurial Opportunism	.428**	.556**	.629**	1		
5	Entrepreneurial Vision	.599**	.391**	.700**	.534**	1	
6	Teaching Methodology	.331**	.304**	.277**	.336**	.374**	1

Note: ** correlation is significant at the 0.01 level (1-tailed)

Table 4.4 reveals the correlations between the variables to be well within the accepted threshold value of 0.90, suggesting no correlation.

Subsequently, VIF, tolerance value and condition index were examined. As per the suggestion of Hair et al. (2012), the desired values of VIF to be lesser than 5, and tolerance value to be above 0.20. Table 4.5 presents the VIF values and tolerance values for the predictor variables, where all the values of VIF and tolerance were found to be within the acceptable ranges. Thus, multicollinearity is not an issue in this study.

Table 4.5
Tolerance and Variance Inflation Factors (VIF)

Latent Variables	Collinearity Statistics	
	Tolerance	VIF
Entrepreneurial Proactivity	0.645	1.550
Entrepreneurial Creativity	0.403	2.483
Entrepreneurial Opportunism	0.504	1.983
Entrepreneurial Vision	0.468	2.136
Teaching Methodology	0.817	1.225

4.4 Common Method Variance Test

Common method variance (CMV), refers to "variance that is attributable to the measurement method rather than to the construct of interest" (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). Researchers have generally agreed that in case of self-report surveys, common method variance becomes a major concern (Spector, 2006; Podsakoff et al., 2003; Lindell & Whitney, 2001). For example, Conway & Lance (2010) stated that "common method bias inflates relationships between variables measured by self-reports". Studies using self-report surveys may have higher correlations CMV (Organ & Ryan, 1995).

To reduce the effects of CMV, the present study implemented remedies (Podsakoff et al., 2003; Podsakoff et al. 2012). Firstly, the participants were notified regarding the nature of the questions, highlighting that the answers provided inform about the individual and there is nothing right or wrong. This assisted in reducing evaluation of apprehension. Additionally, the respondents were assured that all the data will remain confidential. Secondly, enhancing scale items were used to reduce method bias. For this purpose, established instruments were adapted, avoiding vague concepts. Due to the differences in the culture and language, the questionnaire was also vetted by the "Office of Research, Innovation and Commercialisation" of one of the leading universities in Islamabad.

Furthermore, a principal component factor analysis was conducted on the items of the study (Podsakoff & Organ, 1986). The results of the analysis produced factors, explaining a total of 82.64% of the variance; with the largest factor explaining 27.68%. The results indicated that no single factor represented majority of the

covariance in the predictor and criterion variables (Podsakoff et al., 2012). Results of the cumulative factor analysis suggest that, in this study, common method bias was not a major concern.

4.5 Demographic Profile of the Respondents

This section describes the demographic profile of the respondents in the sample. The demographic characteristics examined in this study include gender, age, work experience, specialisation, university, parents' entrepreneurship experience, friends' entrepreneurship experience, teachers' entrepreneurship experience, teachers' corporate experience, and students' accommodation. (Refer Table 4.6).

Table 4.6
Demographic Characteristics of the Respondents

	Frequency	**Percentage**
Gender		
Male	218	70.55%
Female	91	29.45%
Age		
20 years	8	2.59%
21 years	23	7.44%
22 years	98	31.72%
23 years	87	28.16%
24 years	59	19.09%
25 years	16	5.18%
26 years	14	4.53%
27 years	4	1.29%
Work Experience		
Yes	189	61.17%
No	120	38.83%
Specialisation		
Finance	173	55.99%

	Frequency	Percentage
Human Resources	41	13.27%
Marketing	95	30.74%
University		
Air University	8	2.59%
Bahria University	45	14.56%
Comsats	52	16.83%
CUST	19	6.15%
Foundation University	18	5.83%
FAST	17	5.50%
Federal Urdu University	12	3.88%
IIUI	30	9.71%
Iqra University	14	4.53%
ISRA	9	2.91%
NUML	13	4.21%
NUST	13	4.21%
QAU	12	3.88%
Riphah	19	6.15%
SZABIST	12	3.88%
UoL	16	5.18%
Parent's Entrepreneurship Experience		
Yes	156	50.49%
No	153	49.51%
Friend's Entrepreneurship Experience		
Yes	234	75.73%
No	75	24.27%
Teacher's Entrepreneurship Experience		
Yes	239	77.35%
No	70	22.65%
Teacher's Corporate Experience		
Yes	234	75.73%
No	75	24.27%
Student's Accommodation		
Local Resident	159	51.46%
Hostel	150	48.54%

As shown in Table 4.6, the difference in respondents based on gender showed that there were 218 male respondents (70.55%), and 91 female respondents (29.45%). Previous studies have also demonstrated similar distribution regarding the gender of the respondents (Wagner, Stempliuk, Zilberman, Barroso & Andrade, 2007; England & Bearak, 2014; Piperopoulos & Dimov, 2015).

Regarding the age of respondents, since the respondents were chosen based on their year of education, i.e. final-year undergraduate students, the variance is very little and did not justify forming age groups. The age of the respondents varied from 20 years to 27 years. 8 of the respondents were at the age of 20 accounting for 2.59%. 23 respondents were 21 years old accounting for 7.44%. 98 respondents were at the age of 22 accounting for 31.72%. 87 respondents were at the age of 23 accounting for 28.16%. 59 respondents were at the age of 24 accounting for 19.09%. 16 respondents were at the age of 25 accounting for 5.18%. 14 respondents were at the age of 26 accounting for 4.53%. Finally, 4 respondents were at the age of 27 accounting for 1.29%.

Additionally, the respondents were asked regarding their previous work experience. As suggested by Piperopoulos and Dimov (2015) and Hadjimanolis (2016), entrepreneurial intentions is impacted by an individual's work experience. From the collected sample, 189 respondents had some work experience, representing 61.17% of the population; as compared to 120 respondents, representing 38.83% who had no work experience.

Furthermore, the specialisation being undertaken by the respondents in their undergraduate programs was also considered. 173 respondents (55.99%) were specializing in Finance, as compared to 41 respondents (13.27%) specializing in Human Resources and 95 respondents (30.74%) specializing in Marketing.

Moreover, there were 16 universities in Islamabad that fell under the scope of this study. It was ensured to have appropriate representation of each university with respect to the student strength.

The respondents were asked whether their parents or friends have any entrepreneurship background. It has been observed that parents' entrepreneurship background (Polin, Ehrman, & Kay, 2016; Laspita, Breugst, Heblich, & Patzelt, 2012) and friends' entrepreneurship background (Kibler, 2013) has an impact on entrepreneurial intentions of an individual. From the study, 156 respondents (50.49%) stated that their parents had previous entrepreneurship experience as compared to 153 respondents (49.51%) whose parents did not have any previous entrepreneurship experience. Similarly, 234 respondents (75.73%) reported having a friend with previous entrepreneurship experience, in comparison with 75 respondents (24.27%) who did not have a friend with previous entrepreneurship experience.

Considering the importance of teaching methodology at the core of this study, the respondents were inquired about their teachers' entrepreneurship experience and teachers' corporate experience. Of the 309 respondents who participated in the study, 239 respondents (77.35%) reported that their teachers had previous entrepreneurship

experience. Additionally, 234 respondents (75.73%) reported that their teachers had previous corporate experience.

Finally, the students were asked about their hometown / current residence. Fitting to the diverse nature of the city of Islamabad, Pakistan, 150 respondents (48.54%) were residents of Islamabad / Rawalpindi and stayed at home with families, in comparison with 159 respondents (51.46%) who lived in the hostels and hailed from various parts of the country.

4.6 Descriptive Analysis of the Latent Constructs

Descriptive statistics of the variables used in the current study are presented in this section. Means and standard deviations for the latent variables were computed in this regard. Five point Likert scale was used to measure variables in this study ranging from completely disagree (1) to completely agree (5). For a better understanding of descriptive statistics, it is suggested to view the mean values in comparison with the mean range (Baba, 1997). Table 4.7 provides the range of the values to better understand the mean scores.

Table 4.7
Mean Value Interpretation

Mean Range	**Interpretation**
1.00 – 2.00	Low level
2.01 – 3.00	Moderately low level
3.01 – 4.00	Moderately high level
4.01 – 5.00	High level

Source: Baba (1997)

Furthermore, the results of the descriptive statistics are presented in Table 4.8.

Table 4.8
Descriptive Statistics for Latent Variables

Latent Constructs	**Number of Items**	**Mean**	**Standard Deviation**
Entrepreneurial Intentions	6	3.52	1.00
Entrepreneurial Proactivity	7	3.57	0.63
Entrepreneurial Creativity	7	4.02	0.55
Entrepreneurial Opportunism	8	3.60	0.56
Entrepreneurial Vision	8	3.93	0.53
Teaching Methodology	7	3.63	0.82

Table 4.8 presents the descriptive statistics which may be interpreted using the key presented in Table 4.7, as suggested by Baba (1997). Table 4.8 presents the mean score for the latent variables which ranged between 3.52 and 4.02. In particular, the mean for entrepreneurial proactivity was 3.57, with a standard deviation of 0.63, suggesting that the respondents reported themselves as moderately proactive. Furthermore, the Table 4.8 indicates the mean for entrepreneurial creativity at 4.02, with a standard deviation of 0.55, suggesting that respondents highly regarded creativity. Moreover, the results show a moderate score for entrepreneurial opportunism (Mean 3.60, Standard deviation 0.56), entrepreneurial vision (Mean = 3.93, Standard deviation = 0.53), teaching methodology (Mean = 3.63, Standard deviation = 0.82), and entrepreneurial intentions (Mean = 3.52, Standard deviation = 1.00)

This indicates that the respondents tended to have moderate level of entrepreneurial intentions, entrepreneurial proactivity, entrepreneurial vision, entrepreneurial

opportunism and perceptions of teaching methodology, but high level of entrepreneurial creativity.

4.7 Assessment of PLS-SEM Path Model Results

In case of model validation, goodness-of-fit (GoF) index is not suitable since it cannot distinguish between valid and invalid models (Henseler & Sarstedt, 2013; Hair et al., 2016). Therefore, this study implemented a two-step process to evaluate and report the results of PLS-SEM, as suggested by Henseler et al. (2009), i.e. measurement model assessment and structural model assessment, as depicted in Figure 4.2 (Hair et al., 2016; Hair et al., 2012; Henseler et al., 2009).

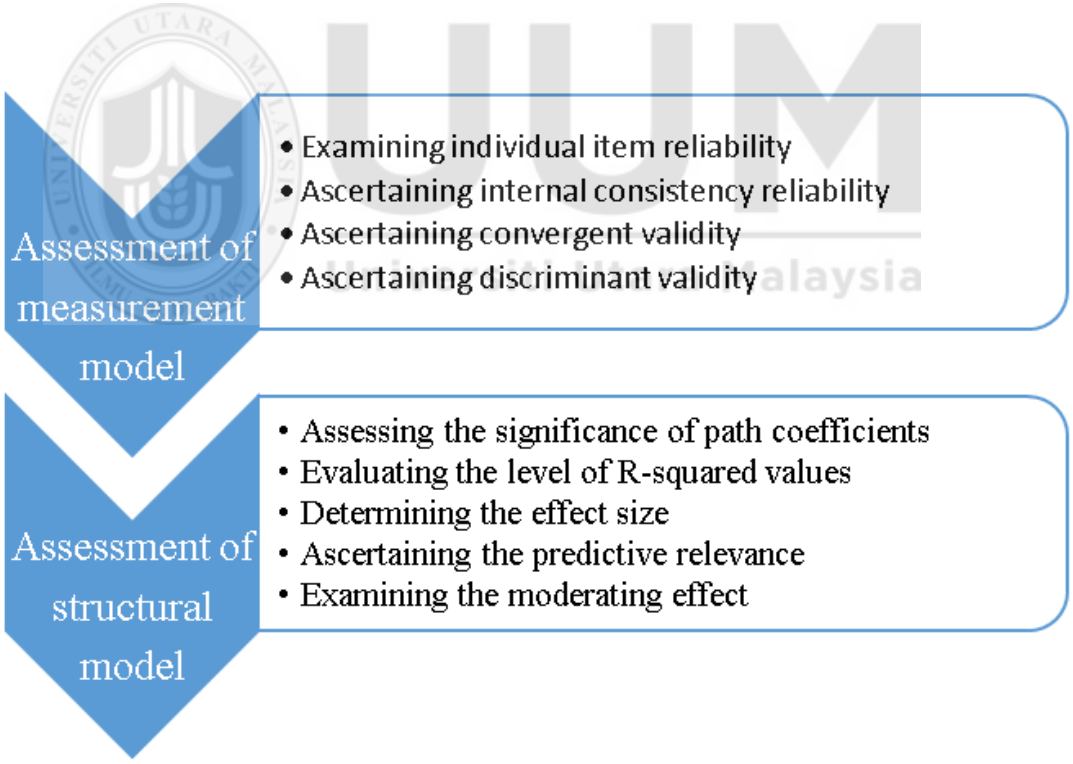

Figure 4.2
A Two-Step Process of PLS Path Model Assessment
Source: (Henseler et al., 2009)

4.8 Assessment of Measurement Model

Measurement model assessment involves determining individual item reliability, internal consistency reliability, content validity, convergent validity and discriminant validity (Hair et al., 2016; Hair et al., 2012; Henseler et al., 2009). Figure 4.3 presents the research model, including all the questions of each construct before removal of the question items. Figure 4.4 presents the measurement model after deletion of the questions with item loadings below 0.5 to retain an AVE of greater than 0.5 (Hair et al., 2016).

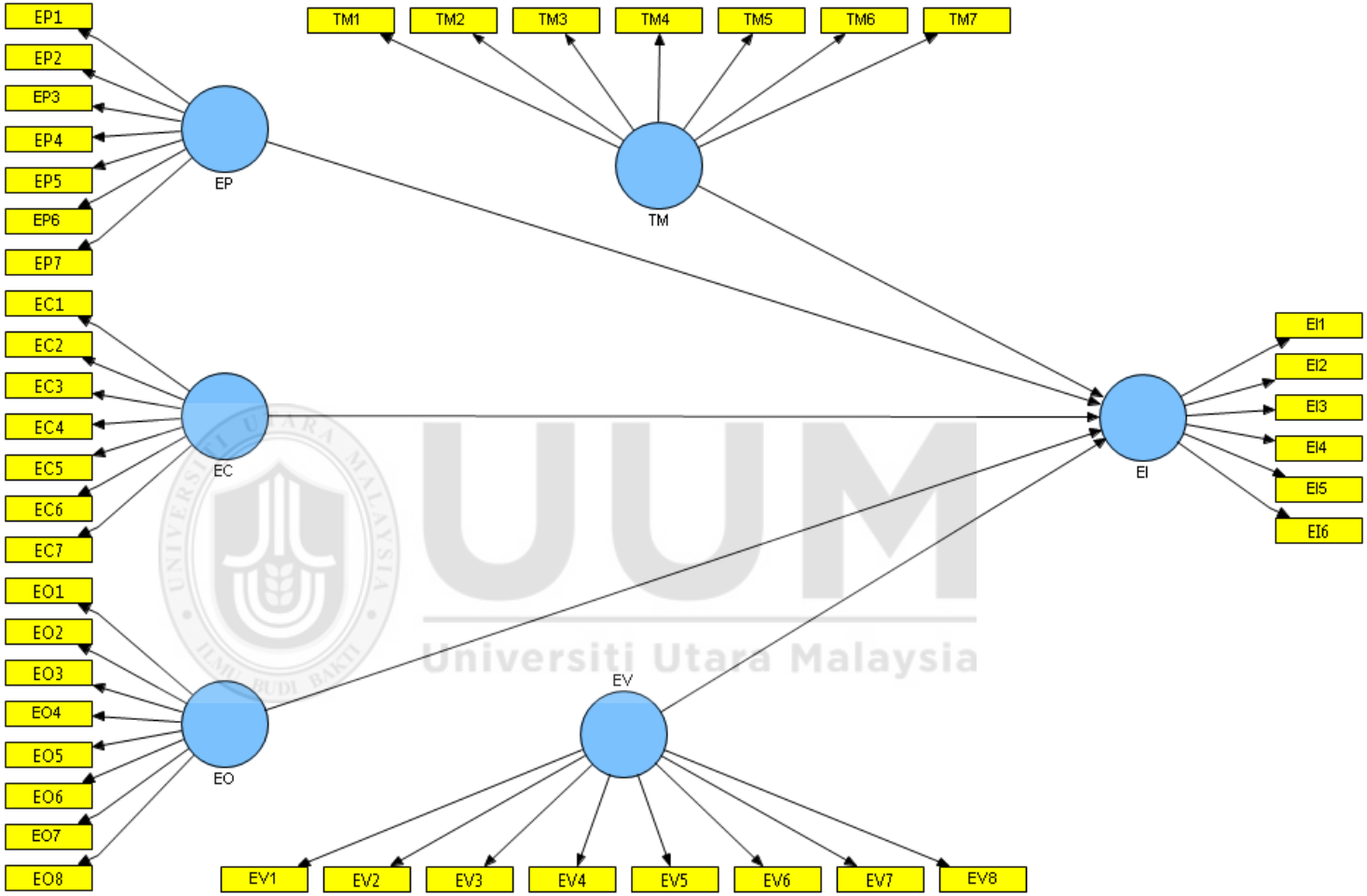

Figure 4.3
Research Model

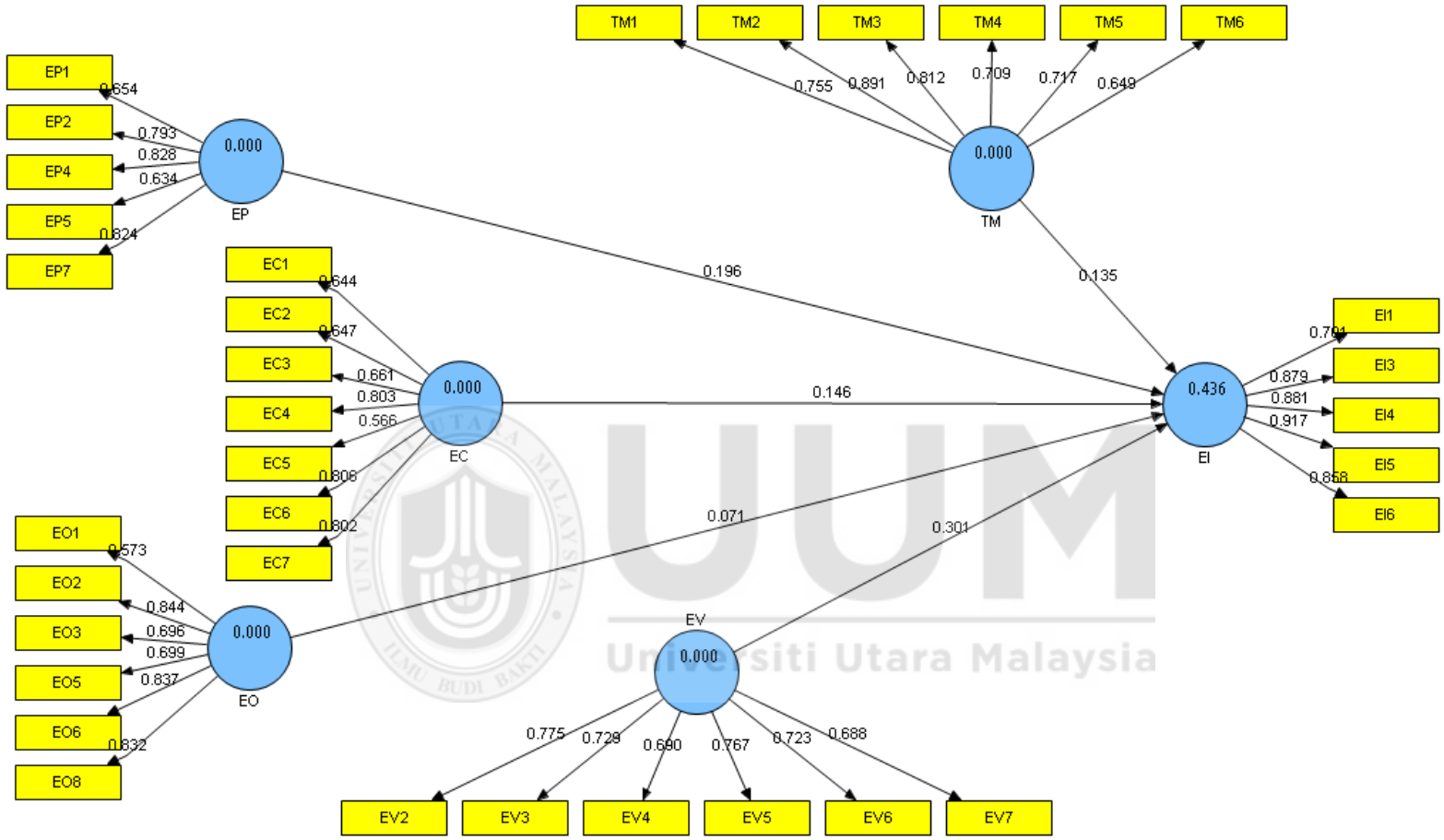

Figure 4.4
Measurement Model

4.8.1 Individual item reliability.

Assessment of individual item reliability requires examination of the outer loadings of each construct's measure (Hulland, 1999; Hair et al., 2016; Hair et al., 2012). Resultantly, items with loadings above 0.50 were retained (Hair et al., 2016). Consequently, 8 items were deleted from a total of 43, as the associated loadings were below 0.50. The items deleted due to lower item loadings were EI 2, EP 3, EP 6, EO 4, EO 8, EV 1, EV 8, and TM 7. This resulted in retention of 35 items with loadings above 0.5 in the entire model (refer Table 4.9, Figure 4.4).

4.8.2 Internal consistency reliability.

Internal consistency reliability is the extent, to which all items within a construct are measuring the same construct (Bijttebier, et al., 2000; Sun, et al., 2007). The two most widely used and accepted estimators of internal consistency reliability are Cronbach's alpha coefficient and composite reliability (Peterson & Kim, 2013; McCrae et al., 2011; Bacon, Sauer, & Young, 1995).

In comparison with Cronbach's alpha, composite reliability coefficient provides a lesser biased estimate of reliability. Additionally, Cronbach's alpha does not account for the variance within the item loadings, resulting in over or under-estimation of the scale's reliability. For this reason, the current study used composite reliability coefficient to determine the internal consistency reliability of the adapted measures (Gotz, Liehr-Gobbers, & Krafft, 2010; Barclay, Higgins, & Thompson, 1995).

Table 4.9
Loadings, Composite Reliability and Average Variance Extracted (AVE)

Latent Constructs and Indicators	**Standardised Loadings**	**Composite Reliability (ρc)**	**Average Variance Extracted (AVE)**
Entrepreneurial Creativity		0.875	0.504
EC1	0.644		
EC2	0.647		
EC3	0.661		
EC4	0.803		
EC5	0.566		
EC6	0.806		
EC7	0.802		
Entrepreneurial Intentions		0.929	0.724
EI1	0.701		
EI3	0.879		
EI4	0.881		
EI5	0.917		
EI6	0.858		
Entrepreneurial Opportunism		0.886	0.568
EO1	0.573		
EO2	0.844		
EO3	0.696		
EO5	0.699		
EO6	0.837		
EO8	0.832		
Entrepreneurial Proactivity		0.865	0.564
EP1	0.654		
EP2	0.793		
EP4	0.828		
EP5	0.634		
EP7	0.824		
Entrepreneurial Vision		0.872	0.532
EV2	0.775		
EV3	0.729		
EV4	0.690		

Latent Constructs and Indicators	Standardised Loadings	Composite Reliability (ρc)	Average Variance Extracted (AVE)
EV5	0.767		
EV6	0.723		
EV7	0.688		
Teaching Methodology		0.890	0.577
TM1	0.755		
TM2	0.891		
TM3	0.812		
TM4	0.709		
TM5	0.717		
TM6	0.649		

Table 4.9 shows the standard loadings, composite reliability coefficients and AVE of the latent constructs. The threshold value of composite reliability coefficient is 0.7 (Hair, Ringle, & Sarstedt, 2011; Bagozzi & Yi, 1988). Composite reliability coeeficients for the variables in this study ranged between 0.865 and 0.929, suggesting adequate internal consistency reliability of the measures used in this study.

4.8.3 Convergent validity.

Convergent validity is the extent to which individual items truly represent the construct and correlate with other items within the construct (Hair et al., 2007). Fornell and Larcker (1981) suggest the examination of AVE of each construct to assess the convergent validity. Chin (1998) recommends the minimum threshold value of AVE to be 0.50, in order to ensure adequate convergent validity. Table 4.9

presents the AVE values of the constructs, where all the values are above the threshold value, indicating adequate convergent validity.

4.8.4 Discriminant validity.

Discriminant validity is the extent to which a construct is different from other constructs in the model (Duarte & Raposo, 2010). To assess appropriate discriminant validity, it is suggested to compare the correlations among the constructs with square roots of AVE, where the square root of AVE should be greater than the correlations among latent constructs (Fornell & Larcker, 1981). Furthermore, Chin (1988) recommends comparing the indicator loadings with other reflective indicators in the cross loadings table.

Table 4.9 presents the values of AVE of the constructs to be between 0.504 and 0.724, which are acceptable. Table 4.10 displays the latent variable correlations in comparison with the square root of AVE (highlighted). This comparison revealed that the square roots of AVE for the variables in the current study were greater than the correlations among the constructs, suggesting adequate discriminant validity (Fornell & Larcker, 1981).

Table 4.10
Latent Variable Correlations and Square Roots of Average Variance Extracted (AVE)

Latent Variables	**EC**	**EI**	**EO**	**EP**	**EV**	**TM**
Entrepreneurial Creativity	0.71					
Entrepreneurial Intentions	0.56	0.85				
Entrepreneurial Opportunism	0.64	0.48	0.75			
Entrepreneurial Proactivity	0.66	0.52	0.62	0.75		
Entrepreneurial Vision	0.68	0.57	0.50	0.47	0.73	
Teaching Methodology	0.26	0.35	0.32	0.29	0.32	0.76

Note: Entries shown in bold face represent the square root of the average variance extracted.

Another examination to determine discriminant validity is by comparison of indicator loadings with cross-loadings (Chin, 1998). For adequate discriminant validity, the indicator loadings of an item should be higher than the cross-loadings. Table 4.11 compares the indicator loadings with indicator loadings (highlighted). The comparison found adequate discriminant validity for the current study.

Table 4.11
Cross Loadings

	EC	**EI**	**EO**	**EP**	**EV**	**TM**
EC1	0.644	0.422	0.506	0.574	0.349	0.174
EC2	0.647	0.468	0.573	0.623	0.378	0.182
EC3	0.661	0.434	0.361	0.415	0.575	0.174
EC4	0.803	0.350	0.330	0.359	0.478	0.188
EC5	0.566	0.334	0.502	0.364	0.395	0.196
EC6	0.806	0.353	0.327	0.359	0.479	0.182
EC7	0.802	0.339	0.328	0.355	0.473	0.179
EI1	0.417	0.701	0.346	0.364	0.406	0.341
EI3	0.538	0.879	0.535	0.497	0.522	0.327
EI4	0.466	0.881	0.360	0.438	0.481	0.283
EI5	0.517	0.917	0.408	0.506	0.547	0.241
EI6	0.432	0.858	0.373	0.367	0.458	0.297
EO1	0.547	0.468	0.573	0.523	0.378	0.182

	EC	EI	EO	EP	EV	TM
EO2	0.323	0.305	0.844	0.433	0.353	0.308
EO3	0.555	0.319	0.696	0.350	0.382	0.191
EO5	0.570	0.344	0.699	0.362	0.407	0.180
EO6	0.313	0.309	0.837	0.432	0.346	0.297
EO8	0.315	0.310	0.832	0.430	0.342	0.294
EP1	0.644	0.422	0.506	0.654	0.349	0.174
EP2	0.414	0.348	0.452	0.793	0.365	0.255
EP4	0.394	0.353	0.424	0.828	0.368	0.234
EP5	0.547	0.417	0.456	0.634	0.300	0.182
EP7	0.391	0.353	0.428	0.824	0.364	0.240
EV2	0.649	0.421	0.349	0.410	0.775	0.162
EV3	0.348	0.432	0.472	0.292	0.729	0.364
EV4	0.487	0.388	0.254	0.314	0.690	0.148
EV5	0.675	0.437	0.369	0.416	0.767	0.175
EV6	0.352	0.439	0.479	0.305	0.723	0.371
EV7	0.483	0.376	0.259	0.316	0.688	0.144
TM1	0.132	0.198	0.102	0.084	0.220	0.755
TM2	0.295	0.403	0.390	0.375	0.311	0.891
TM3	0.198	0.286	0.305	0.269	0.262	0.812
TM4	0.099	0.219	0.152	0.081	0.124	0.709
TM5	0.203	0.215	0.213	0.184	0.332	0.717
TM6	0.208	0.144	0.173	0.203	0.136	0.649

4.9 Assessment and Significance of the Structural Model

After measurement model is established, this study assessed the structural model. In this regard, the current study applied the standard bootstrapping procedure with a number of 5000 bootstrap samples and 309 cases to assess significance of the path coefficients (Hair et al., 2016; Hair et al., 2011; Hair et al., 2012; Henseler et al., 2009). Figure 4.5 and Table 4.11 therefore show the estimates for the full structural model, which includes moderator variable (i.e., teaching methodology).

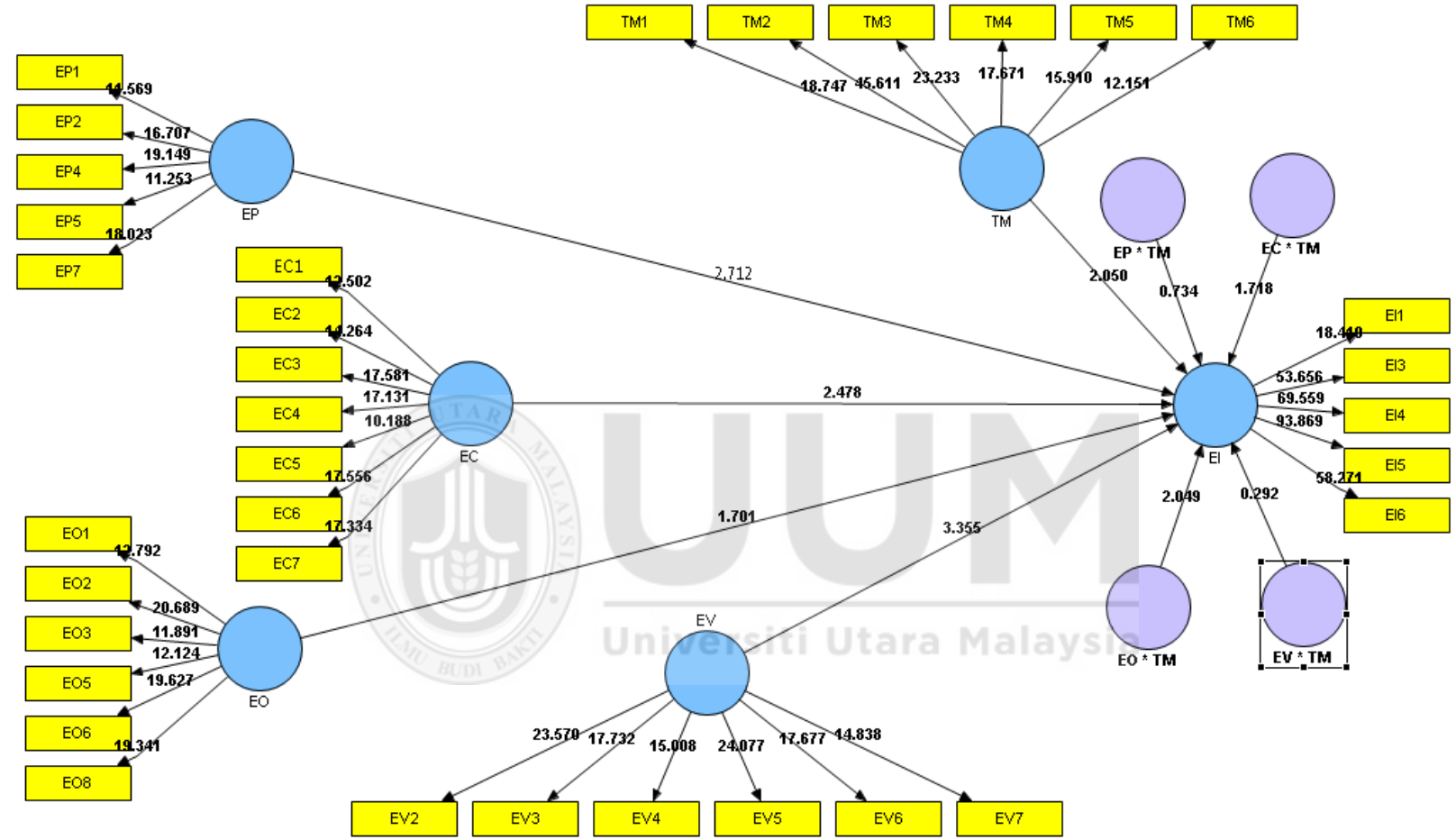

Figure 4.5
Structural Model with Moderator (Full Model)

At the outset, Hypothesis 1 predicted that entrepreneurial proactivity is positively related to entrepreneurial intentions. Result of the study revealed a significant positive relationship between entrepreneurial proactivity and entrepreneurial intentions ($\beta = 0.15$, $t = 2.71$, $p < 0.001$), supporting Hypothesis 1 (see Table 4.12, Figure 4.5).

Table 4.12
Structural Model Assessment with Moderator (Full Model)

Hypotheses	**Relation**	**Beta**	**SE**	**T-Value**	**Findings**
H1	Entrepreneurial Proactivity -> Entrepreneurial Intentions	0.15	0.06	2.71***	Supported
H2	Entrepreneurial Creativity -> Entrepreneurial Intentions	0.17	0.07	2.48***	Supported
H3	Entrepreneurial Opportunism -> Entrepreneurial Intentions	0.09	0.05	1.70**	Supported
H4	Entrepreneurial Vision -> Entrepreneurial Intentions	0.22	0.06	3.36***	Supported
H5	Entrepreneurial Proactivity * Teaching Methodology -> Entrepreneurial Intentions	0.03	0.04	0.73	Not Supported
H6	Entrepreneurial Creativity * Teaching Methodology -> Entrepreneurial Intentions	0.13	0.07	1.72**	Supported
H7	Entrepreneurial Opportunism * Teaching Methodology -> Entrepreneurial Intentions	0.13	0.06	2.05**	Supported
H8	Entrepreneurial Vision * Teaching Methodology -> Entrepreneurial Intentions	0.02	0.06	0.29	Not Supported

Note: ***Significant at 0.001 (1-tailed), **significant at 0.05 (1-tailed), *significant at 0.01 (1-tailed).

Hypothesis 2 predicted that entrepreneurial creativity is positively related to entrepreneurial intentions. Result of the data analysis revealed a significant positive

relationship between entrepreneurial creativity and entrepreneurial intentions (β = 0.17, t = 2.48, $p < 0.001$), supporting Hypothesis 2 (see Table 4.12, Figure 4.5).

Hypothesis 3 predicted that entrepreneurial opportunism is positively related to entrepreneurial intentions. Result of the data analysis indicated a significant and positive relationship between entrepreneurial opportunism and entrepreneurial intentions (β = 0.09, t = 1.70, $p < 0.05$), supporting Hypothesis 3 (see Table 4.12, Figure 4.5).

Hypothesis 4 predicted that entrepreneurial vision is positively related to entrepreneurial intentions. As shown in Table 4.12 and Figure 4.5, a significant positive relationship exists between entrepreneurial vision and entrepreneurial intentions (β = 0.22, t = 3.36, $p < 0.001$), indicating support for Hypothesis 4.

4.9.1 Assessment of variance explained in criterion variables.

Another important criterion for assessing the structural model in PLS-SEM is the coefficient of determination, represented by R^2 (Hair et al., 2011; Hair et al., 2012; Henseler et al., 2009). The proportion of variation in the dependent variable that can be explained by one of more independent variables is termed as the coefficient of determination (R^2) (Hair et al., 2010; Hair et al., 2007; Elliott & Woodward, 2007). Although the acceptable level of R^2 depends on the context of research (Hair et al., 2010), Chin (1998) suggests that the R^2 values of 0.67, 0.33, and 0.19 in PLS-SEM can be considered as substantial, moderate, and weak, respectively. Table 4.13 presents the R^2 values of the latent variable.

Table 4.13
Variance Explained in the Criterion Variable

Criterion Variable	Variance Explained (R^2)
Entrepreneurial Intentions	43.60%

As indicated in Table 4.13, the research model of this study explains 43.6% of the total variance in entrepreneurial intentions. This suggests that entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial proactivity, entrepreneurial vision and teaching methodology; collectively explain 43.6% of the variance of entrepreneurial intentions. Following Chin's (1998) criteria, the dependent variable showed acceptable levels of R^2 values, which moderately explain the variance.

4.9.2 Assessment of effect size (f^2).

The effect of each predictor variable when included in the model on the change in R^2 value is termed as effect size (Chin, 1998). Thus the effect size could be expressed using the following formula (Selya, Rose, Dierker, Hedeker & Mermelstein, 2012; Wilson et al., 2007; Cohen, 1988):

$$Effect\ size: f^2 = \frac{R^2_{Included} - R^2_{Excluded}}{1 - R^2_{Included}} \qquad (4.1)$$

Cohen (1988) describes f^2 values of lower than 0.02 as 'very small effect', f^2 value between 0.02 and 0.15 as 'small effect', f^2 value between 0.15 and 0.35 as 'moderate effect' and f^2 value greater than 0.35 as 'strong effect'. However, according to Chin

et al. (2003), a low effect size does not necessarily mean that the underlying moderating effect is 'not significant'. "Even a small interaction effect can be meaningful under extreme moderating conditions, if the resulting beta changes are meaningful, then it is important to take these conditions into account" (Chin et al., 2003). Table 4.14 presents the respective effect sizes of the latent variables of the structural model.

Table 4.14
Effect Sizes of the Latent Variables on Cohen's (1988) Recommendation

Latent Variable	**R-squared**		**f-squared**	**Effect Size**
	Included	**Excluded**		
Entrepreneurial Proactivity	0.44	0.42	0.02	Small
Entrepreneurial Creativity	0.44	0.43	0.01	Very Small
Entrepreneurial Opportunism	0.44	0.43	0.01	Very Small
Entrepreneurial Vision	0.44	0.39	0.05	Small

As indicated in Table 4.14, the effect sizes for entrepreneurial creativity, entrepreneurial proactivity, entrepreneurial opportunism and entrepreneurial vision were 0.02, 0.01, 0.01, and 0.05 respectively. Hence, following Cohen's (1988) guideline, the effects sizes of these four predictor variables on entrepreneurial intentions can be considered as small, very small, very small, and small, respectively.

4.9.3 Assessment of predictive relevance.

This study applied the blindfolding procedure to test predictive relevance as per the suggestion of Stone (1974) and Geisser (1974). The Stone-Geisser test of predictive relevance is usually used as a supplementary assessment of goodness-of-fit in PLS-SEM (Duarte & Raposo, 2010). Even though this study used blindfolding to ascertain the predictive relevance of the research model, it is worth noting that

according to Sattler, Völckner, Riediger and Ringle, (2010) "blindfolding procedure is only applied to criterion variables that have a reflective measurement model operationalisation" (p. 320). Reflective measurement model "specifies that a latent or unobservable concept causes variation in a set of observable indicators (McMillan & Conner, 2003). Since the nature of this study reflective, a blindfolding procedure was applied to the criterion variable.

Furthermore, a cross-validated redundancy measure (Q^2) was also applied to assess the predictive relevance of the research model (Geisser, 1974; Hair et al., 2016; Ringle et al., 2012; Stone, 1974). The Q^2 is a criterion to measure how well a model predicts the data of omitted cases (Chin, 1998; Hair et al., 2016). Henseler et al. (2009) suggest a Q^2 value of greater than zero, for the model to have predictive relevance (Henseler et al., 2009). Additionally, a higher Q^2 value suggests higher predictive relevance. Table 4.15 presents the results of cross-validated redundancy Q^2 test.

Table 4.15
Construct Cross-Validated Redundancy

Total	**SSO**	**SSE**	**1-SSE/SSO**
Entrepreneurial Intentions	1575	1119.517	0.2892

As shown in Table 4.15, the cross-validation redundancy measure Q^2 was greater than zero, suggesting appropriate predictive relevance of the model (Chin, 1998; Henseler et al., 2009).

4.9.4 Testing moderating effect.

The present study applied a product indicator approach using PLS-SEM to identify and evaluate the strength of the moderating effect of teaching methodology on the relationship between personality and entrepreneurial intentions (Chin et al., 2003; Esposito Vinzi et al., 2010). The product term approach is considered appropriate in this study because the moderating variable is continuous (Rigdon, Schumacker, & Wothke, 1998). According to Henseler and Fassott, (2010) "given that the results of the product term approach are usually equal or superior to those of the group comparison approach, we recommend always using the product term approach" (p. 721).

To apply the product indicator approach in testing the moderating effects of teaching methodology on the relationship between personality and entrepreneurial intentions, the product terms between the indicators of the predictor variable and the indicators of the moderator variable need to be created. Hence, these product terms were used as indicators of the interaction term in the structural model (Kenny & Judd, 1984). Furthermore, to ascertain the strength of the moderating effects, the present study applied Cohen's (1988) guidelines for determining the effect size. Figure 4.6 and Figure 4.7 therefore show the estimates after applying the product indicator approach to examine the moderating effect of teaching methodology on the relationship between predictor and criterion variables.

Hypothesis 5 stated that teaching methodology moderates the relationship between entrepreneurial proactivity and entrepreneurial intentions. The results in Table 4.12 and Figure 4.5 show that the interaction terms representing the impact of teaching

methodology as a moderator on the relationship between entrepreneurial proactivity and entrepreneurial intentions was not statistically significant ($\beta = 0.03$, $t = 0.73$, $p > 0.01$), hence, Hypothesis 5 was rejected.

Additionally, hypothesis 6 stated that teaching methodology moderates the relationship between entrepreneurial creativity and entrepreneurial intentions. As expected, the results shown in the structural model indicated that the interaction term representing the relationship of teaching methodology as a moderator on the relationship between entrepreneurial creativity and entrepreneurial intentions was statistically significant ($\beta = 0.13$, $t = 1.72$, $p < 0.05$), supporting Hypothesis 6. the interaction effect of entrepreneurial creativity and teaching methodology on entrepreneurial intentions was plotted using the information from the path coefficients (Dawson, 2013). Figure 4.6 indicates that there exists a stronger positive relationship between entrepreneurial creativity and entrepreneurial intentions for high teaching methodology than it is for low teaching methodology. This implies that not only entrepreneurial creativity has a positive impact on entrepreneurial intentions, but when appropriate teaching methodology is used to provide a better understanding to the students, the relationship between entrepreneurial creativity and entrepreneurial intentions is further enhanced.

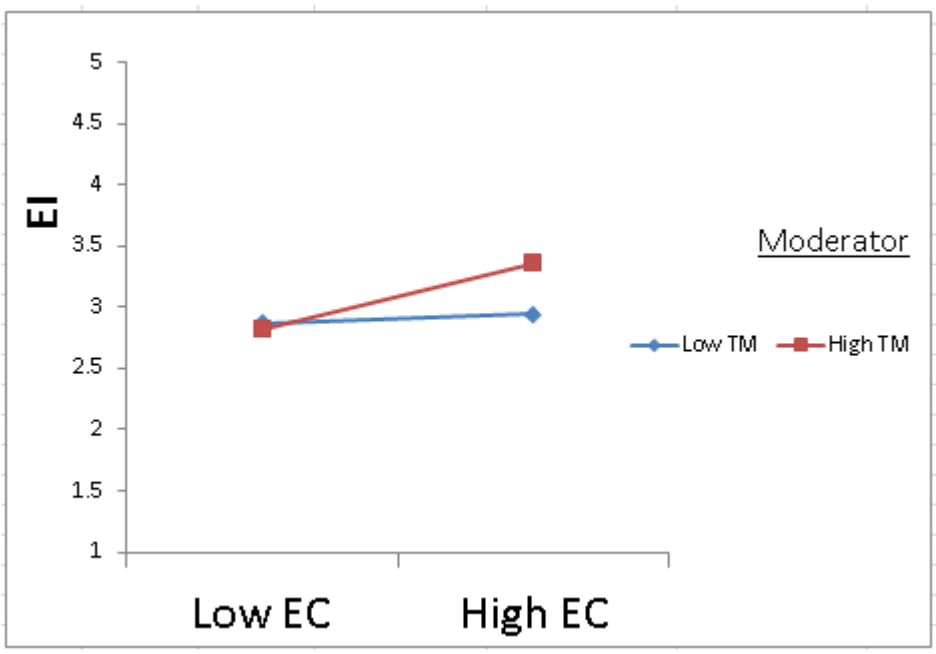

Figure 4.6
Interaction Effect of Entrepreneurial Creativity and Teaching Methodology on Entrepreneurial Intentions

Similarly, Hypothesis 7, stating that teaching methodology moderates the relationship between entrepreneurial opportunism and entrepreneurial intentions, is supported (see Table 4.12, Figure 4.5), such that the relationship is stronger for high teaching methodology than it is for low teaching methodology ($\beta = 0.13$, $t = 2.05$, $p < 0.05$). The moderating effect of teaching methodology on the relationship between entrepreneurial opportunism and entrepreneurial intentions as depicted in Figure 4.7, indicates that there exists a stronger positive relationship between entrepreneurial opportunism and entrepreneurial intentions for high teaching methodology than it is for low teaching methodology. Hence implying, that not only entrepreneurial opportunism has a positive impact on entrepreneurial intentions, but when appropriate teaching methodology is used to provide a better understanding to the students, the relationship between entrepreneurial opportunism and entrepreneurial intentions is improved.

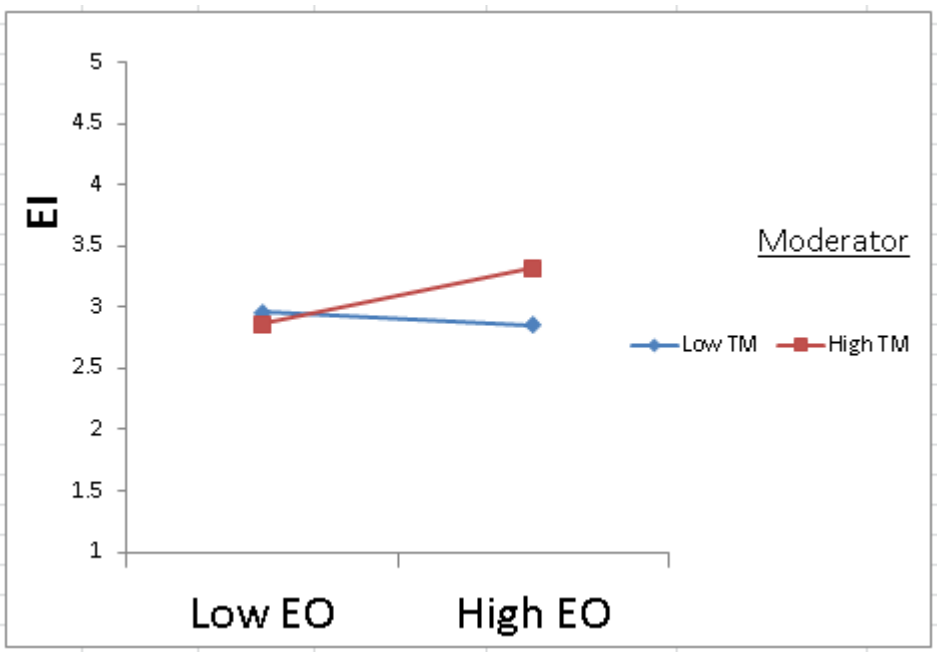

Figure 4.7
Interaction Effect of Entrepreneurial Opportunism and Teaching Methodology on Entrepreneurial Intentions

Finally, the results shown in the structural model did not support Hypothesis 8, which posited that teaching methodology moderates the relationship between entrepreneurial vision and entrepreneurial intentions. Results show that the interaction terms representing the impact of teaching methodology as a moderator on the relationship between entrepreneurial vision and entrepreneurial intentions was not statistically significant ($\beta = 0.02$, $t = 0.29$, $p > 0.10$), hence rejecting Hypothesis 8.

4.9.5 Determining the strength of the moderating effects.

In order to determine strength of the moderating effects of teaching methodology on the relationship between entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial vision and entrepreneurial intentions, Cohen's (1988) effect sizes were calculated. Furthermore, the strength of the

moderating effects can be assessed by comparing the coefficient of determination (R^2) of the main effect model with the R^2 of the full model that incorporates both predictor variables and moderating variable (Henseler & Fassott, 2010; Wilden, Gudergan, Nielsen & Lings, 2013). Thus, the strength of the moderating effects could be expressed using the following formula (Cohen, 1988; Henseler & Fassott, 2010):

$$Effect\ size f^2 = \frac{R^2_{Model\ with\ moderator} - R^2_{Model\ without\ moderator}}{1 - R^2_{Model\ with\ moderator}} \quad (4.2)$$

Moderating effect sizes (f^2) of lower than 0.02 as 'very small effect', f^2 value between 0.02 and 0.15 as 'small effect', f^2 value between 0.15 and 0.35 as 'moderate effect' and f^2 value greater than 0.35 as 'strong effect'. (Cohen, 1988; Henseler & Fassott, 2010). However, according to Chin et al. (2003), a low effect size does not necessarily mean that the underlying moderating effect is 'not significant'. "Even a small interaction effect can be meaningful under extreme moderating conditions, if the resulting beta changes are meaningful, then it is important to take these conditions into account" (Chin et al., 2003). Result of the strength of the moderating effects of teaching methodology is presented in Table 4.16.

Cohen (1988) describes f^2 values of lower than 0.02 as 'very small effect', f^2 value between 0.02 and 0.15 as 'small effect', f^2 value between 0.15 and 0.35 as 'moderate effect' and f^2 value greater than 0.35 as 'strong effect'. Table 4.16 shows that the

effect size for teaching methodology was 0.05 suggesting that the moderating effect was small (Wilden et al., 2013).

Table 4.16
Strength of the Moderating Effects

Criterion Variable	R-squared		f-squared	Effect Size
	Included	Excluded		
Teaching Methodology	0.49	0.44	0.05	Small

4.10 Summary of Findings

After the presentation of the results of main and moderating effects in the previous sections, Table 4.17 summarises the results of tested hypotheses.

Table 4.17
Summary of Hypotheses Testing

Hypotheses	Statement	Finding
1	Entrepreneurial proactivity significantly affects entrepreneurial intentions among students of higher education institution.	Supported
2	Entrepreneurial creativity significantly affects entrepreneurial intentions among students of higher education institution.	Supported
3	Entrepreneurial opportunism significantly affects entrepreneurial intentions among students of higher education institution.	Supported
4	Entrepreneurial vision significantly affects entrepreneurial intentions among students of higher education institution.	Supported
5	Teaching methodology moderates the relationship between entrepreneurial proactivity and entrepreneurial intentions.	Not Supported
6	Teaching methodology moderates the relationship between entrepreneurial creativity and entrepreneurial intentions.	Supported
7	Teaching methodology moderates the relationship between entrepreneurial opportunism and entrepreneurial intentions.	Supported

Hypotheses	Statement	Finding
8	Teaching methodology moderates the relationship between entrepreneurial vision and entrepreneurial intentions.	Not Supported

4.11 Summary

This chapter presents the justification for using PLS path modelling to test the theoretical model in this study. The key findings of the study were presented after the assessment of significance of the path coefficients. Generally, self-report techniques have provided considerable support for the moderating effects of teaching methodology on the relationship between entrepreneurial creativity and entrepreneurial opportunism on entrepreneurial intentions. In particular, the path coefficients revealed a significant positive relationship between: (1) entrepreneurial proactivity and entrepreneurial intentions, (2) entrepreneurial creativity and entrepreneurial intentions, (3) entrepreneurial opportunism and entrepreneurial intentions, and (4) entrepreneurial vision and entrepreneurial intentions.

Importantly, concerning the moderating effects of teaching methodology on the relationship between the four predictor variables and criterion variable, PLS path coefficients revealed that of four formulated hypotheses, two were significant. In particular, teaching methodology moderates the relationship between: (1) entrepreneurial creativity and entrepreneurial intentions, and (2) entrepreneurial opportunism and entrepreneurial intentions.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter relates the main research findings presented in the preceding chapter to the previous studies and theoretical perspectives related to entrepreneurial intentions. The chapter starts by recapitulating the study, followed by a discussion on findings of this study in view of the underpinning theories and previous literature. The theoretical implications and the practical implications are discussed afterwards. Finally, the chapter concludes by illustrating the limitations of the study, and proposing the directions for future research.

5.2 Recapitulation of the Study

This section presents recapitulation of the study based on the research objectives. The key objective of this study was to examine the moderating effect of teaching methodology on the relationship between entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial proactivity, entrepreneurial vision and entrepreneurial intentions, among the undergraduate students of Pakistani universities. Studying these relationships provides avenue to enhance entrepreneurship education and entrepreneurial intentions among the students of Pakistan.

Based on the objectives of the study, 8 hypotheses were formulated and tested using Smart PLS v 2.0, where 4 hypotheses examined the direct relationship and 4

hypotheses evaluated the impact of moderator on these relationships. With reference to the direct relationship between predictor and criterion variables, the empirical results provide support to all four of the hypotheses (H1 – H4). The results of the PLS path model showed that entrepreneurial proactivity was positively and significantly related to entrepreneurial intentions. Entrepreneurial creativity was also found to be significantly and positively related to entrepreneurial intentions. Furthermore, entrepreneurial opportunism was also found to be significantly and positively related to entrepreneurial intentions. Finally, among the direct relationships between predictor variables and criterion variables, entrepreneurial vision was found to be significant and positive most strongly in relation to entrepreneurial intentions.

From the perspective of teaching methodology as a moderator on the relationship between personality traits and entrepreneurial intentions, results provided empirical support for 2 hypotheses (H6, H7). Explicitly, teaching methodology moderated the relationship between entrepreneurial creativity and entrepreneurial intentions. The results also revealed that teaching methodology moderates the relationship between entrepreneurial opportunism and entrepreneurial intentions. However, teaching methodology was not found to moderate the relationship between entrepreneurial proactivity and entrepreneurial intentions. In the same vein, the results revealed that teaching methodology does not moderate the relationship between entrepreneurial vision and entrepreneurial intentions.

5.3 Discussion

Findings of the current study in light of theories and previous research findings are discussed in this section. The following subsections are organised to answer the 8 research questions set earlier in line with the research objectives.

5.3.1 The relationship between personality and entrepreneurial intentions.

Personality refers to an individual's innate complexities in abilities, beliefs and cognition. The studies on personality have considered a wide array of variables influencing the way individuals see, interpret and respond to reality (Baron & Kenny, 1986; Bird, 1988; Envick & Langford, 2000; Ciavarella et al., 2004; Wang et al., 2015; Espíritu-Olmos & Sastre-Castillo, 2015).

Previous studies have found personality as the strongest predictor of entrepreneurial intentions amongst a wide array of respondents (Ahmetoglu et al., 2015; Leutner et al., 2014; Ciavarella et al., 2004; Saeed, et al., 2013; Suárez-Álvarez & Pedrosa, 2016; Liñán & Fayolle, 2015). Researchers have pondered upon finding the right mix of personality which can precisely predict entrepreneurial intentions of an individual (Suárez-Álvarez & Pedrosa, 2016). A comprehensive classification of literature on entrepreneurial intentions has found personality to be the most explanatory, yet illusive predictor of entrepreneurial intentions (Liñán & Fayolle, 2015).

Following these arguments, this study undertook the META approach towards personality, forming the initial set of research questions (RQ1 – RQ4), subsequently forming Hypothesis (H1 – H4). These research questions identified whether the four

facets of META, i.e., entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism and entrepreneurial vision, had a positive and significant impact on entrepreneurial intentions.

5.3.1.1 The relationship between entrepreneurial proactivity and entrepreneurial intentions.

Entrepreneurial proactivity refers to an individual's ability to get stuff done efficiently, be productive, courageous, influential, and possess a disposition to lead people and projects. Proactive individuals are dominant and fearless and like to get things done immediately. They have a hands-on approach to things and tend to dislike people that have a slower pace and prefer enjoying life to the fast pace at work (Almeida et al., 2014; Leutner et al., 2014).

As hypothesised that there is a significant relationship between entrepreneurial proactivity and entrepreneurial intentions, the finding of this study revealed a significant relationship between entrepreneurial proactivity and entrepreneurial intentions ($\beta = 0.15$, $t = 2.71$, $p < 0.01$), supporting Hypothesis 1.

This study's finding is consistent with earlier studies which highlight a positive and significant impact of entrepreneurial proactivity on entrepreneurial intentions (Prabhu et al., 2012; Mustafa et al., 2016; Crant, 1996). This study was conducted from the context of the developing countries, specifically Pakistan, whereas previous studies were largely conducted in America and Europe (Smith et al., 2016; Ahlin et al., 2014; Hormiga et al., 2013; Ferreira et al., 2012; Hamidi et al., 2008; Zampetakis & Moustakis, 2006). Previously, Hormiga et al. (2013) focused on university staff,

Ahlin et al. (2014) considered SMEs, whereas Smith et al. (2016), Hamidi et al. (2008) and Zampetakis and Moustakis (2006) focused on university students.

This suggests that undergraduate students of business universities in Pakistan, with high entrepreneurial proactivity are competitive and persistent; traits which are an indicator for entrepreneurial intentions. Furthermore, Ahmetoglu and Chamorro-Premuzic (2010) have highlighted that proactive individuals are energetic, enthusiastic, persevering, confident, productive and posess leadership skills and a competitive spirit. These traits are characteristic of entrepreneurial intentions in an individual. Moreover, this finding also supports the notion of EEM. This may further infer that a proactive individual has a greater propensity to act, hence leading to higher entrepreneurial intentions.

5.3.1.2 The relationship between entrepreneurial creativity and entrepreneurial intentions.

Entrepreneurial creativity refers to an individual's ability to be original, imaginative, open minded and a source of new ideas. Creative individuals make it a habit to think outside-the-box. They view a situation from various angles and enjoy playing with ideas. Such individuals dislike conforming to traditions and like pushing established boundaries (Almeida et al., 2014; Leutner et al., 2014).

As hypothesised that there is a significant relationship between entrepreneurial creativity and entrepreneurial intentions, the finding of this study revealed a significant relationship between entrepreneurial creativity and entrepreneurial intentions ($\beta = 0.17$, $t = 2.48$, $p < 0.01$), supporting Hypothesis 2.

This study's finding is consistent with earlier studies which highlight a significant and positive impact of entrepreneurial creativity on entrepreneurial intentions (Smith et al., 2016; Hamidi et al., 2008; Hormiga et al., 2013). This study was conducted from the developing world perspective, i.e. Pakistan; whereas previous studies have focused mainly on USA (Crant, 1996; Yan, 2010), Taiwan (Chen & Hsu, 2013) and a comparative analysis of USA, Russia, Finland and China (Prabhu et al., 2012). More recently, impact of creativity has also been assessed from the ASEAN perspective in Malaysia (Awang et al., 2016; Mustafa et al., 2016). Moreover, similar to this study, previous studies have also focused more on using university students as the unit of analysis (Awang et al., 2016; Mustafa et al., 2016; Prabhu et al., 2012; Yan, 2010; Crant, 1996) besides Chen and Hsu (2013) who focused on senior executives of non-profit organisations.

Hence, undergraduate students of business universities in Pakistan, with high entrepreneurial creativity are divergent thinkers, non-conformist and adaptable, traits which are representative of a creative individual leading to entrepreneurial intentions. Furthermore, Ahmetoglu and Chamorro-Premuzic (2010) have highlighted that creative individuals are divergent thinkers, problem solvers, adaptable, can work independently and handle complexity with novel ideas. These traits are characteristic of entrepreneurial intentions in an individual. Additionally, this finding also supports the notion of EEM. This may further infer that a creative individual has a greater perceived feasibility, hence leading to higher entrepreneurial intentions.

5.3.1.3 The relationship between entrepreneurial opportunism and entrepreneurial intentions.

Entrepreneurial opportunism refers to an individual's ability to see business opportunities in his surroundings, which other people may often overlook or perceive as obstacles. Opportunistic individuals tend to look for business openings and be highly alert to economic trends; they may also differ in the way they perceive and evaluate information, possessing a more optimistic view in regards to business ventures in comparison with others (Almeida et al., 2014; Leutner et al., 2014).

As hypothesised that there is a significant relationship between entrepreneurial opportunism and entrepreneurial intentions, the finding of this study revealed a statistically significant relationship between entrepreneurial opportunism and entrepreneurial intentions ($\beta = 0.09$, $t = 1.70$, $p < 0.05$), supporting Hypothesis 3.

This study's finding is consistent with earlier studies which highlight a positive impact of entrepreneurial opportunism on entrepreneurial intentions (Khefacha & Belkacem, 2015; Wen-Long et al., 2014; Valliere, 2013; Brännback & Carsrud, 2009). This study focuses on the perspectives of Pakistani undergraduate studenst, whereas previous studies have assessed a diverse array of respondents in different contexts. Specifically, Wen-Long et al. (2014) studied the participants of an online entrepreneurship program in Taiwan, and Khefacha and Belkacem. (2015) attempted to study the impact of opportunism on entrepreneurial intentions in Tunisia. This study is similar to the previous two studies of Karimi et al. (2015) and Karimi et al. (2016) who studied undergraduate students in Iran. However, the context of Iran and Pakistan; although developing countries; are extremely diverse in culture,

international relations, business opportunities and education. Furthermore, the two studies were focused on a small set of public universities in one region, where as the current study focused on the vast majority of the universities in the country.

The results of this study suggest that undergraduate students of business universities in Pakistan, with high entrepreneurial opportunism are able to connect seemingly unrelated events, have a broad view of the surroundings, but may get distracted, traits characteristic of an opportunistic individual, that leads to entrepreneurial intentions. Furthermore, Ahmetoglu and Chamorro-Premuzic (2010) have highlighted that opportunistic individuals are attentive, multitaskers, updated with the latest trends, good at identifying and exploring opportunities. These traits are characteristic of entrepreneurial intentions in an individual. Furthermore, this finding also supports the notion of EEM. This may further infer that an opportunistic individual has a greater perceived feasibility, hence leading to higher entrepreneurial intentions.

5.3.1.4 The relationship between entrepreneurial vision and entrepreneurial intentions.

Entrepreneurial vision refers to an individual's desire to improve things, make a worthy impact in the world and to create valuable things for others. They are visionary and have ambitious goals; goals that many people would find unrealistic. Furthermore, they are inspired and believe that they can make a real impact on things and people around them (Almeida et al., 2014; Leutner et al., 2014).

As hypothesised that there is a significant relationship between entrepreneurial vision and entrepreneurial intentions, the finding of this study revealed a statistically

significant relationship between entrepreneurial vision and entrepreneurial intentions ($\beta = 0.22$, $t = 3.36$, $p < 0.01$), supporting Hypothesis 4.

This study's finding is consistent with earlier studies which highlight a positive impact of entrepreneurial vision on entrepreneurial intentions (Renko et al., 2012; Lackéus & Middleton, 2015; Hyytinen & Ilmakunnas, 2007). Previously, the studies have not considered entrepreneurial vision as a broad personality trait, rather individual personality traits that add up to entrepreneurial vision. This study addressed the combination of individual personality traits such as future orientation, motivation, and need for achievement in the broad spectrum of entrepreneurial vision. Previously, Saha (2014), Achchuthan and Nimalathasan (2014) and Mahendra et al. (2017) studied the impact of motivation on entrepreneurial intentions among Indian, SriLankan and Indonesian students respectively. Additionally, Hassan and Ghazali (2016) studied the impact of need for achievement on entrepreneurial intentions in Malaysia. Whereas the current study combined the various personality traits into the broader perspective of entrepreneurial vision and assesses its impact on entrepreneurial intentions from the perspective of Pakistani undergraduate students.

This study reveals that undergraduate students of business universities in Pakistan, with high entrepreneurial vision are motivated and optimistic, traits characteristic of higher entrepreneurial intentions. Furthermore, Ahmetoglu and Chamorro-Premuzic (2010) have highlighted that visionary individuals are self-motivated, big thinkers, optimistic, future-oriented individuals who can sacrifice short-term incentives for larger long-term benefits. These traits are characteristic of entrepreneurial intentions in an individual. Likewise, this finding also supports the notion of EEM. This may

further infer that a visionary individual has a greater perceived desirability, hence leading to higher entrepreneurial intentions.

5.3.2 The moderating effect of teaching methodology.

This study proposes teaching methodology as a moderator on the relationship between entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism, and entrepreneurial vision on entrepreneurial intentions. Prior studies have suggested using teaching methodology in general (Bae et al., 2014; Prabhu et al., 2012; Jain & Ali, 2013; Liñán & Fayolle, 2015) and experiential teaching techniques in specific (Winkler et al., 2015; Qureshi et al., 2016) as a moderator to assess the impact on entrepreneurial intentions.

Following these arguments, the research questions (5 – 8) were proposed, inquiring whether teaching methodology moderates the relationship between entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial vision and entrepreneurial intentions. In line with these research questions, the objectives of this study were to assess the moderating effect of teaching methodology on the relationship between entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial vision and entrepreneurial intentions.

5.3.2.1 The moderating effect of teaching methodology on the relationship between entrepreneurial proactivity and entrepreneurial intentions.

To answer the research question related to assessment of moderating effect of teaching methodology on the relationship between entrepreneurial proactivity and

entrepreneurial intentions, hypotheses 5 was formulated and tested using the PLS path modelling. The hypothesis H5 stated that teaching methodology moderates the relationship between entrepreneurial proactivity and entrepreneurial intentions. However, the empirical results did not support this hypothesis ($\beta = 0.03$, $t = 0.73$, $p > 0.01$).

Proactive individuals jump into an opportunity and get the work completed. Such individuals are characterised as being more energetic, enthusiastic, confident and persevering. A possible explanation for the lack of significant moderating effect of teaching methodology on the relationship between entrepreneurial proactivity and entrepreneurial intentions may have to deal with the specific nature of this personality trait. Energy, enthusiasm, confidence and perseverance, comes from within an individual which may be transformed on the basis of experience. A proactive individual has the ability to immediately grab an opportunity and generate profit. Although experiential teaching methodologies provide an understanding of how others have benefited (case study) or how one may benefit in an artificial setting (management simulation exercises, role play), a proactive individual is more realistic in nature. Hence, experiential teaching methodology may not be much effective in case of a proactive individual.

Furthermore, teaching methodologies have been classified into four categories, i.e. (i) Instructor-centred strategy (general lectures, theory lectures, applied lectures and expert talks), (ii) Individual-learning strategy (homework, thinking alone, general exams, problem exams, readings, term papers, programmed instructions of skill and concepts), (iii) Interactive strategy (cooperative learning, group projects, seminars,

group discussions and argumentative discussions), and (iv) experiential-learning strategy (internships, case analyses, case studies, management simulations, experimental exercises, role playing and videos). Entrepreneurial proactivity may be enhanced using a different set of teaching methodology. Since a proactive individual is characterised with the ability to lead projects, persist in the face of adversity, enjoying hard challenges, and as being energetic, enthusiastic and confident; traits which are more in line with the interactive strategy of teaching, therefore, entrepreneurial proactivity may be moderated by interactive teaching strategy. Since this study focused specifically on the experiential teaching methodology, the result was not significant.

5.3.2.2 The moderating effect of teaching methodology on the relationship between entrepreneurial creativity and entrepreneurial intentions.

To answer the research question related to assessment of moderating effect of teaching methodology on the relationship between entrepreneurial creativity and entrepreneurial intentions, hypotheses 6 was formulated and tested using the PLS path modelling. The hypothesis H6 stated that teaching methodology moderates the relationship between entrepreneurial creativity and entrepreneurial intentions. The empirical results disclosed a positive and significant impact of the moderator on the relationship, hence, supporting this hypothesis ($\beta = 0.13$, $t = 1.72$, $p < 0.05$).

Creative individuals are known to think "outside of the box", identifying and solving problems in new and interesting ways. Such individuals are characterised as being more adaptable, non-conformist and able to work independently. These findings are not surprising as they are in consistence with the Human Capital Theory.

Entrepreneurship research has presented a number of arguments to support the impact of human capital on entrepreneurial success (Baum et al., 2001; Rauch & Frese, 2007). Human capital is considered as a requirement to improve and learn further, which facilitates in acquiring new skills and knowledge (Ackerman & Humphreys, 1990). Entrepreneurial education and training programs have a significant relationship with human capital assets such as creativity (Martin et al., 2013). Furthermore, it has been stated that creativity can be taught at varying levels of education and how teachers can enhance creativity of the students (Thorsteinsson & Page, 2015; Metcalfe, 2013).

The results suggest that when a student is engaged in a different approach to teaching which involves more experiential learning techniques, the student's creativity is enhanced, having a higher impact on the entrepreneurial intentions of the individual. Additionally, the results suggest that teaching methodology plays a significant role in fostering creativity. Furthermore, students with high level of creativity tend to be more responsive to unique teaching methodology, especially experiential teaching techniques.

For a deeper understanding of the positive moderation effect of experiential teaching methodology on the relationship between entrepreneurial creativity and entrepreneurial intention, the facets of entrepreneurial creativity may be observed. A creative individual is characterised as being divergent thinkers, non-conformists, adaptable, and able to identify and solve problems in novel ways. These traits are more in line with the experiential teaching methods of internships, management simulations, experimental exercises, role playing and videos where an individual is

required to find out innovative ideas and strategies; situations which fall in line with entrepreneurial creativity as a trait representing a creative individual. Hence, this result of the study is not surprising, i.e. experiential teaching methodology moderates the relationship between entrepreneurial creativity and entrepreneurial intentions.

5.3.2.3 The moderating effect of teaching methodology on the relationship between entrepreneurial opportunism and entrepreneurial intentions.

Research question 7 was aimed at the assessment of moderating effect of teaching methodology on the relationship between entrepreneurial opportunism and entrepreneurial intentions, hypotheses 7 was formulated and tested using the PLS path modelling. The hypothesis H7 stated that teaching methodology moderates the relationship between entrepreneurial opportunism and entrepreneurial intentions. The empirical results revealed a significant and positive impact of the moderator on the relationship, hence, supporting this hypothesis ($\beta = 0.13$, $t = 2.05$, $p < 0.05$).

Opportunistic individuals can easily spot trends, new opportunities and connect seemingly unrelated events. Such individuals are updated, multi-tasker, and pay close attention to details around the environment. These findings are not surprising as they are in consistence with the Human Capital Theory. These findings are supported by previous studies related to opportunity identification and opportunity exploitation (Baptista, et al., 2013; Shane & Venkataraman, 2000). It has been suggested that human capital acquired through education help in improving capabilities to discover entrepreneurial opportunities (Souitaris et al., 2007; Ucbasaran et al., 2008). Furthermore, entrepreneurship courses/programs enhance an individual's ability related to opportunity identification within one's environment, which increases

entrepreneurial intention for exploiting the opportunities and starting a new venture (Solesvik et al., 2014).

The results suggest that when a student is engaged in a different approach to teaching which involves more experiential learning techniques, the student's opportunism is enhanced, having a higher impact on the entrepreneurial intentions of the individual. Additionally, the results suggest that teaching methodology plays a significant role in fostering opportunism. Furthermore, students with high level of opportunism tend to be more responsive to unique teaching methodology, especially experiential teaching techniques. The results also highlight that identification of various opportunities may be easily communicated. In general, an experienced teacher can guide the students via various teaching methodologies, on how to spot opportunities in the real world.

For a deeper understanding of the positive moderation effect of experiential teaching methodology on the relationship between entrepreneurial opportunism and entrepreneurial intention, the facets of entrepreneurial opportunism may be observed. An opportunistic individual is characterised as being attentive multi-taskers with the ability to easily spot trends and new opportunities, connect seemingly unrelated events, and are updated with new market trends. These traits are more in line with the experiential teaching methods of internships, case analyses, case studies, management simulations and videos, where an individual is required to point out the trends, connect unrelated events and look at ambiguous information to produce concrete results.; situations which fall in line with entrepreneurial opportunism as a trait representing an opportunistic individual. Hence, this result of the study is not

surprising, i.e. experiential teaching methodology moderates the relationship between entrepreneurial opportunism and entrepreneurial intentions.

5.3.2.4 The moderating effect of teaching methodology on the relationship between entrepreneurial vision and entrepreneurial intentions.

The research question 8 related to assessment of moderating effect of teaching methodology on the relationship between entrepreneurial vision and entrepreneurial intentions, led to formation of hypotheses 8, which was formulated and tested using the PLS path modelling. The hypothesis H8 stated that teaching methodology moderates the relationship between entrepreneurial vision and entrepreneurial intentions. However, the empirical results did not support this hypothesis ($\beta = 0.02$, $t = 0.29$, $p > 0.01$).

Visionary individuals have a much broader and optimistic picture of self and environment. Such individuals are characterised as strategic thinkers, future oriented and self-motivated. A possible explanation for the lack of significant moderating effect of teaching methodology on the relationship between entrepreneurial vision and entrepreneurial intentions may have to deal with the specific nature of this personality trait. Optimism, future orientation and long-term approach, comes from within an individual which may be transformed on the basis of experience. A visionary individual may tend to question authority and be rebellious. The desire for economic and social progress, future orientation and value creation aspects of a visionary individual, conflict with the defined and out-dated case studies. Furthermore, the management simulation exercises, role plays and videos may tend to be of an extremely basic nature for a visionary individual. Hence, experiential

teaching methodology may not be effective in case of a visionary individual and may conflict with his personality.

Furthermore, teaching methodologies have been classified into four categories, i.e. (i) Instructor-centred strategy (general lectures, theory lectures, applied lectures and expert talks), (ii) Individual-learning strategy (homework, thinking alone, general exams, problem exams, readings, term papers, programmed instructions of skill and concepts), (iii) Interactive strategy (cooperative learning, group projects, seminars, group discussions and argumentative discussions), and (iv) experiential-learning strategy (internships, case analyses, case studies, management simulations, experimental exercises, role playing and videos). Entrepreneurial vision may be enhanced using a different set of teaching methodology. Since a visionary individual is characterised as being self-motivated, strategic, big thinker, optimistic and future-oriented individual who is able to sacrifice short-term incentives for greater long-term benefits; traits which are more in line with instructor-centred teaching methodology or individual-learning strategy, therefore, entrepreneurial vision may be moderated by instructor-centred strategy or individual-learning strategy of teaching. Since this study focused specifically on the experiential teaching methodology, the result was not significant.

5.4 Contributions of the Study

The current study and its findings have given rise to significant theoretical and practical contributions. These contributions and implications are discussed at length in the following sections.

5.4.1 Theoretical implications.

This study provides empirical evidence for the theoretical relationships hypothesised in the research framework. Specifically, it highlights the moderating role of teaching methodology on the relationship between entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial vision and entrepreneurial intentions in Pakistan. This study furnishes 8 hypotheses, out of which 6 were supported. This study has contributed towards body of knowledge concerning the field of entrepreneurial intentions. This study has also advanced the conceptualisation and measurement of personality and entrepreneurial intentions to capture the phenomenon more responsively among tertiary level students. The research framework of this study was based on the prior empirical evidences and theoretical gaps identified in the literature. It was also supported and explained from two theoretical perspectives, i.e., EEM (Shapero & Sokol, 1982) and HCT (Becker, 1964).

To the utmost of researcher`s knowledge, a comprehensive evaluation of holistic personality traits and experiential teaching methodology, have not been tested on entrepreneurial intentions using EEM and HCT. Although there have been studies on the relationship between personality and entrepreneurial intentions, the focus of the studies in general, and detailed studies in specific, has been on the developed economies / countries. Although the studies on developed economies provide an insight on entrepreneurial intentions, however, they cannot be generalised in the developing world context, such as Pakistan.

This study empirically investigated the relationship between entrepreneurial proactivity, entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial vision and entrepreneurial intentions in the context of Pakistan. The outcomes of the present study have confirmed that personality has a direct and significant impact on entrepreneurial intentions of students enrolled in various universities of Pakistan. An in-depth study on the impact of personality and teaching methodologies on entrepreneurial intentions in Pakistan has not been conducted. Furthermore, this study highlights that not only the undergraduate students of business universities in Pakistan with the specific personality traits of entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial proactivity and entrepreneurial vision, possess entrepreneurial intentions, these relationships between personality and entrepreneurial intentions may be enhanced using the right teaching methodology.

Previous studies have focused on a diverse range of individual personality traits. The present study was focused to understand the broader perspective of personality on entrepreneurial intentions, in context of developing countries such as Pakistan. The structural relationships between entrepreneurial proactivity, entrepreneurial opportunism, entrepreneurial creativity and entrepreneurial vision as relevant variables, positively affecting entrepreneurial intentions are examined in a single model. The results highlight a positive direct impact of broad personality traits on entrepreneurial intentions. This study adds further knowledge on the importance of teaching methodology in moderating the relationship between personality and entrepreneurial intentions. The results provide further empirical support for the research framework. Thus, this study contributes to the entrepreneurial event model by providing empirical evidence to support the assertion of the theory.

Entrepreneurial event model postulates that entrepreneurial intentions of an individual are influenced by perceived desirability, perceived feasibility and propensity to act. In the context of the current study, entrepreneurial creativity and entrepreneurial opportunism are furthered to explain perceived feasibility, entrepreneurial proactivity is expanded to clarify propensity to act, and entrepreneurial vision is advanced to explain perceived desirability.

The results establish the ability of an individual to focus on the key personality traits required to become an entrepreneur. Furthermore, this study attempted to understand the importance of various experiential teaching activities employed by the teacher of a university, in order to enhance the understanding of various concepts of the subject. Hence, the study enhances the knowledge of entrepreneurial event model, human capital theory and literature on entrepreneurial intentions.

Previous studies have focused on evaluating the intervening effect of level of education, experience, family background on the study between personality and entrepreneurial intentions. On this account, no attention has been given to the moderating role of teaching methodology in explaining how entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial proactivity, entrepreneurial vision and entrepreneurial intentions' relationship exists. Although past studies have demonstrated that entrepreneurial intentions depend mainly on personality of an individual, studies fail to explore the moderation role of teaching methodology in enhancing this relationship. In view of that, previous studies recommend that the moderating role of variables, such as teaching methodology need to be explored further (Qureshi et al., 2016; Winkler et al., 2015; Liñán & Fayolle, 2015; Bae et al.,

2014; Prabhu et al., 2012). Therefore, this study incorporated the recommendation of evaluating the moderating effect of experiential teaching methodology.

As expected, this study contributes theoretically, by empirically testing the moderation role of teaching methodology on the relationship between entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial proactivity, entrepreneurial vision and entrepreneurial intentions. The result indicates that teaching methodology moderates the relationship between entrepreneurial creativity, entrepreneurial opportunism and entrepreneurial intentions. This implies that to enhance entrepreneurial intentions of a student by entrepreneurial creativity and entrepreneurial opportunism, teaching methodology being adopted has to be experiential in nature. Thus, this research implies that teachers may need to ensure a more experiential approach in teaching entrepreneurship to enhance the students' entrepreneurial intentions. The findings make another expected contribution to the entrepreneurial event model, personality and entrepreneurial intentions literature by clarifying the role played by teaching methodology.

Furthermore, a review of previous literature on entrepreneurial intentions suggests that most studies have been conducted in developed countries of the world, thereby, ignoring the developing countries. The current study bridged the gap in entrepreneurial intentions literatures in the context of Asia specifically in Pakistan. The studies conducted on personality's role in defining entrepreneurial intentions are too narrow. Even the studies which provide a broader perspective of personality are meta-analysis of previous studies of narrow personality traits, or have a respondent base too general to successfully evaluate the impact of teaching methodology.

Precisely, the present study enriched our understanding that how personality influences entrepreneurial intentions and how they can be enhanced via various teaching methodologies. Therefore, by conducting this study in Pakistan, it is expected that it will improve the understanding of entrepreneurial intentions in Pakistan and other developing countries. Finally, the vast majority of studies on entrepreneurial intentions have focused on a few universities of a region rather than all the universities. Therefore, this study is among the few studies that considers all the universities of a region, especially in Pakistan.

5.4.2 Practical implications.

Along with theoretical contributions, this study also has contributed to a number of practical implications. Entrepreneurship has been recognised as a major contributor to employment, economic growth and poverty alleviation. Government and policymakers have to recognise that their decisions relating to entrepreneurship development have a direct impact on activities of the enterprises. Furthermore, entrepreneurial intentions have been recognised as a direct precursor to rise in entrepreneurial ventures. It is, however, necessary to reveal what government, universities, teachers, and policy makers may do to achieve a higher level of understanding of entrepreneurial intentions in Pakistan.

Moreover, the general populace of Pakistan is more focused towards a specific set of careers which are defined sometimes even at birth. The focus towards preferred fields is instilled in the youth from their parents and family. This results in a lower focus towards business studies, eventually resulting in a self-criticism by the students. Young individuals who are unable to get into the preferred career paths are

then suggested to look for a stable career path, resulting in an employee-focused mind-set.

The findings suggest that personality is a strong predictor of entrepreneurial intentions. Personality testing of students at the time of admission may be introduced to achieve a higher level of success in fostering entrepreneurship. Personality testing may also be replicated at government and non-government training programs to record and ensure a high degree of entrepreneurial intentions leading to entrepreneurship. Furthermore, appropriate personality testing and learning style testing can provide students with a better understanding of their own strengths and weaknesses, providing them with a self-agenda of highlighting their strengths and overcoming their weaknesses. This may also assist students in their career choices before entering into the job market.

Furthermore, entrepreneurship education may be introduced in universities across all the faculties of study. Entrepreneurship as a course is beneficial for not only business students, but also other fields, such as engineering, agriculture, and medicine among others. This holds particularly true in case of Pakistan which is witnessing a rise in technology based ventures. By introducing entrepreneurship as a core and introductory course in all fields of study, the success rate and diversity in the nature of business may be enhanced. Furthermore, the universities should facilitate the students by introducing the co-curricular activities targeting entrepreneurial intentions. These activities may include business plan competitions, idea competitions, entrepreneur role models and entrepreneurship festival.

Additionally, the results suggest that perceptions of an individual's personality are a key consideration in determining entrepreneurial intentions among students. Universities can make considerable efforts in enhancing entrepreneurial intentions by understanding the students' personality. Universities may ensure that the subjects are taught using a wide array of teaching methodologies, focusing specifically on experiential learning techniques. For example, the course coordinators or head of departments can communicate the requirement of experiential teaching and cross check using already existing performance evaluation methods.

Moreover, the management of the universities can introduce appropriate training of teachers to achieve a higher involvement of teachers and getting them accustomed with the new teaching methods requirement. This task can be assisted by the existing network of teacher trainers available at Learning Innovation Division (LID) of HEC. The introductory training during orientation of the teachers can assist in introducing experiential teaching methodology. A broader program may be initiated by HEC to ensure a continuous evaluation and improvement of teaching methodologies incorporated by the teachers. Furthermore, the teachers should be introduced with the concept of teaching for entrepreneurship. This will result in fostering entrepreneurial intentions among students across the fields of study. The general teaching methodology used across most of Pakistan's HEIs is lecture based. Specifically, entrepreneurship teachers should ensure a wide array of teaching techniques to use, focusing on the experiential teaching techniques. In this regard, entrepreneurship teachers should include internships, case analyses, case studies, management simulations, experimental exercises, role playing and videos in their teaching design.

Likewise, university ranking criteria being used by HEC should be updated to include entrepreneurship, innovation and commercialisation initiatives by the universities. A separate category of entrepreneurial university may be initiated; a concept already established and used in Malaysia and other countries. Such a ranking will entice the universities' management to incorporate an entrepreneurial approach to teaching all its subjects. This may be fuelled further by introducing awards for entrepreneurial universities. Such an initiative by HEC will prove to be beneficial for the students, teachers and universities of Pakistan.

Also, assessment of the individual's personality can also be beneficial to universities with on-campus Business Incubation Centres (BICs). Personality testing may also be replicated at government and non-government training programs to record and ensure a high degree of entrepreneurial intentions leading to entrepreneurship. This may further be extended to public and private initiatives of business incubation centres (e.g. WBIC) and technology incubation centres (e.g. Plan 9, Microsoft initiative of technology incubation). A careful evaluation of an entrepreneurial individual prior to induction in BICs can improve the success rate of incubation to successful business. Furthermore, the incubation centres should ensure a hands-on experiential teaching approach to increase the knowledge and potential of the resident businesses.

In conclusion, this study identifies that entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial proactivity and entrepreneurial vision are critical and differentiating factors of an individual. Therefore, they should be viewed as matching resources, which directly improve the entrepreneurial intentions. Personality traits

are very different in nature; concentrating on one may not be enough. Thus, this study supports the argument that the personality is a major predictor of entrepreneurial intentions and an appropriate evaluation may be beneficial to the government, universities and training institutes, teachers and trainers, incubation centres and students themselves.

5.5 Limitations and Future Research Directions

Despite the enormous contributions given by this study theoretically and practically, as in numerous investigative studies, several limitations must be taken into consideration. However, despite of their limitations, the findings of this study are believed to indicate directions for future research. The limitations and recommendations for future research are discussed as under.

5.5.1 Limitations.

There are several limitations in regard to what has been compiled, analysed, presented and discussed in this study. These limitations are identified and it is hoped that the drawbacks could assist in generating new opportunities and agendas for future research.

The first limitation lies on the nature of the study that have been applied in a cross-sectional manner, indicating that the perceptions of an individual's personality, teaching methodology and entrepreneurial intentions are collected at a single point in time and conditions and influences can change overtime. The cross-sectional study only provides a snapshot view of the researched phenomena where data on all

measures were collected at the same time. Additionally, Sekaran and Bougie (2010) highlight the limitation of the cross-sectional study has restricting to prove the cause-effect relationship amongst the variables. Hence the conclusions themselves must be treated as correlational rather than causal.

Furthermore, the present study adopts a probability proportionate sampling and focuses on Islamabad for the study. Islamabad presents a more homogenous and diverse base of ethnicity, culture and background, along with representing the healthiest student population ratio. Although considerations have been made to incorporate the diversity of the population of the country, other concerns of the provincial nature may have been left out.

Additionally, while the empirical results are interesting, caution should be exerted when generalizing the findings beyond the scope of this study. This study only concerns with the final-year under-graduate students of business universities recognised by the higher education commission (HEC). This is small compared to the total number of students of all disciplines enrolled in any stage of the business degree. This fact limits the generalizability of the findings.

Moreover, personality traits were assessed using self-report measures. Self-report measures are valid, particularly when anonymity is assured during the data collection (Bennett & Robinson, 2000). Nevertheless, the use of self-reports is associated with common method variance (Podsakoff et al., 2003) and social desirability bias (Dodaj, 2012; Randall & Fernandes, 1991; Podsakoff & Organ, 1986). Although this study tried to reduce these problems by ensuring anonymity and improving the scale items

(Podsakoff et al., 2003; Podsakoff et al., 2012), there is a possibility that the participants of this study may have over-reported their proactivity, creativity, opportunism, vision, or entrepreneurial intentions on survey questionnaires.

Likewise, the findings of the study suggested that teaching methodology does not moderate the relationship between entrepreneurial proactivity and entrepreneurial intentions and entrepreneurial vision and entrepreneurial intentions. There might be other intervening factors as well which may enhance the understanding between entrepreneurial proactivity, entrepreneurial vision and entrepreneurial intentions. Based on these limitations, this study offers future research directions which may assist in a further understanding of the entrepreneurial intention phenomenon.

5.5.2 Future research directions.

This study's findings provide several opportunities for future research. It is hoped that despite their limitations, the findings of this study will indicate directions for further research in entrepreneurial intentions. The research model was able to explain 43.6% of the total variance in entrepreneurial intentions, which means there are other latent variables that could significantly explain the variance in entrepreneurial intentions. This implies that the remaining 56.4% of the variance for entrepreneurial intentions could be explained by other factors. Therefore, future research is needed to consider other possible factors that could enhance entrepreneurial intentions of the students. In particular, future research might examine how family background, perceived barriers and gender issues impact entrepreneurial intentions of an individual.

In relation to the first limitation of this study that concerns with its cross-sectional nature in which data were collected over a single period of time from a number of students in Islamabad, Pakistan, the use of longitudinal data would provide a remedy for this limitation. In additional, caution should be exercised when drawing causal inferences and by employing longitudinal data. Furthermore, as is the limitation with all the studies in the field of entrepreneurial intentions, a longitudinal study is vital to determine the relationship between entrepreneurial intentions and entrepreneurial behaviour.

With reference to the second limitation of the study regarding the sampling technique and focus on Islamabad alone, future research may involve all the universities to achieve a more holistic view of the education sector and its practices and evaluate the differences of entrepreneurial intentions based on different factors related to university location and university ranking.

With reference to the third limitation of the study regarding the selection of only the final-year undergraduate students of business universities in Islamabad, Pakistan, future research may include experiential teaching among the entirety of the undergraduate program. Furthermore, a differentiation based on undergraduate and postgraduate programs may also be evaluated. Additionally, a comparison of entrepreneurial intentions among the different faculties of a university may also be assessed. Diversity in the research may be added by assessing the experiential teaching methods employed by various schools and faculties within a university. Moreover, the impact of experiential teaching methodology and personality on entrepreneurial intentions may be assessed from the students of polytechnic institutes

and technical and vocational institutes running under Technical Education and Vocational Training Authority (TEVTA) Pakistan.

With reference to the fourth suggestion on the limitation regarding the self-report assessment, future research might consider utilizing a hybrid design. For instance, qualitative study conducted with the respondents might provide insights that reveal more of the fact components of the variables and hence, produce a more thorough understanding on the issues.

With regards to the fifth limitation, no significant moderating effect of teaching methodology on the relationship between entrepreneurial proactivity, entrepreneurial vision and entrepreneurial intentions was found. Possibly some other moderating or mediating effect could also occur (Bae et al., 2014; Liñán & Fayolle, 2015). Specifically, the relationship between personality and entrepreneurial intentions may be mediated by personal values and social capital (Liñán & Santos, 2007). Examining teacher profile with respect to work experience and entrepreneurship experience as mediator on the combined relationship between personality and background factors could be an avenue for future research because literature indicates that less attention has been paid to the combination of these two major contributing factors. Thus, more research is needed to investigate such mediator effects. Similarly, understanding on teaching methodology may be enhanced further by incorporating the different teaching techniques, other than experiential teaching methodology. It may assist in finding, the right combination of teaching techniques which may moderate the relationship between entrepreneurial proactivity, entrepreneurial vision and entrepreneurial intentions.

Finally, the study included a number of demographic variables (University name, specialisation, gender, age, home town, work experience, parents' entrepreneurship background, friends' entrepreneurship background, teachers' entrepreneurship experience and teachers' corporate experience). Evaluation of data disclosed a number of interesting results with reference to demographic variables. (see Appendix C). Future research may consider the university rankings to evaluate the universities' entrepreneurial environment on entrepreneurial intentions of the students. Additionally, students' specialisation and hometown may also be considered with respect to their entrepreneurial intentions.

Furthermore, a difference in background factors based on the students' work experience, prior parents' entrepreneurship background and prior friends' entrepreneurship background may provide an interesting avenue for future research in individuals' entrepreneurship experience. Finally, teachers' entrepreneurship and corporate experience highlighted a sizable difference among students' perception of teaching methodology. Future research may consider using teacher's profile as moderator for a better understanding of entrepreneurial intentions.

5.6 Conclusion

Taken together, the present study has provided additional evidence to the growing body of knowledge regarding entrepreneurial intentions. Incorporation of teaching methodology as the moderator on the relationship between entrepreneurial creativity, entrepreneurial opportunism, entrepreneurial proactivity, entrepreneurial vision and entrepreneurial intentions, enhances the understanding of the role. Results of this

study provide support to the key theoretical propositions. Particularly, the current study was successful in answering the research questions regardless of its limitations. The study has also managed to evaluate how teaching methodology moderates the relationship between predictor and criterion variables. While there have been many studies examining the underlying causes of entrepreneurial intentions, however, the present study addressed the theoretical gap by incorporating teaching methodology as a significant moderating variable. The theoretical framework of this study has also added to the domain of entrepreneurial event model and human capital theory by examining the influence of a holistic view of personality on entrepreneurial intentions.

In addition to the theoretical contributions, the results from this study provide some important practical implications to universities, regulatory / governing body, policy makers and government and nongovernment initiatives. Furthermore, on limitations of the current study, several future research directions were drawn. In conclusion, the present study has added valuable theoretical and practical ramifications to the ever-growing body of knowledge in the field of entrepreneurship, psychology, andragogy, and more particularly entrepreneurial intentions.

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APPENDICES

Appendix A

Questionnaire

Dear Respondent,

I am conducting research on "Impact of Personality on Entrepreneurial Intentions: The Moderating Role of Teaching Methodology", through this survey questionnaire as part of my PhD Research. There is no right or wrong answer to any question in this survey questionnaire. The data collected through this survey will be used for the research purpose only. Therefore your objective opinion in answering these questions will be highly valuable. All data will be kept confidential.

The directions for each section are given at the start of each individual section for your continuous assistance.

Your participation is crucial for this research. We sincerely appreciate your time and efforts for contribution in this survey

Aqeel Israr
PhD Scholar (95933),
UUM Malaysia
Senior Lecturer,
Bahria University, Islamabad Campus

Dr. Norashidah Hashim
Deputy Director (Training)
CEDI, UUM Malaysia

Section 1: Entrepreneurial Intentions

This section deals with the Intention of becoming an Entrepreneurs and initiating a new venture. You are required to assess your own self in this respect. Your response in this section ranges from (1) denoting "completely disagree" to (5) denoting "completely agree". Kindly mark your selection with a ✓

S. No		(1)	(2)	(3)	(4)	(5)
1	I am ready to do anything to be an entrepreneur.	☐	☐	☐	☐	☐
2	My professional goal is to become an entrepreneur.	☐	☐	☐	☐	☐
3	I will make every effort to start and run my own firm.	☐	☐	☐	☐	☐
4	I am determined to create a firm in the future.	☐	☐	☐	☐	☐
5	I have very serious thought of starting a firm.	☐	☐	☐	☐	☐
6	I have a firm intention to start a firm someday.	☐	☐	☐	☐	☐

Section 2: Personality

For this section, you are required to assess your own self as per the statements provided. Your response in this section ranges from (1) denoting "completely disagree" to (5) denoting "completely agree". Kindly mark your selection with a "✓".

Sr. No.	Statement	(1)	(2)	(3)	(4)	(5)
7	Creating something that is useful to people and a profitable for myself is my idea of perfection	☐	☐	☐	☐	☐
8*	Even when I spot a profitable opportunity I rarely act on it	☐	☐	☐	☐	☐
9	I always dreamed of creating something (e.g., a product or service) that has an objectively recognised value	☐	☐	☐	☐	☐
10	I always know when there is a "gap in the market" for a new product or service	☐	☐	☐	☐	☐
11	I always strive to make things better for myself and/or others	☐	☐	☐	☐	☐
12	I am highly future oriented	☐	☐	☐	☐	☐
13	I am quick to spot profitable opportunities	☐	☐	☐	☐	☐
14	I am very creative	☐	☐	☐	☐	☐
15	I am very forward-looking	☐	☐	☐	☐	☐
16	I am very good at coming up with novel solutions to problems	☐	☐	☐	☐	☐
17*	I don't always grab the opportunities that I have	☐	☐	☐	☐	☐
18	I have a strong desire for progress	☐	☐	☐	☐	☐
19	I have great business ideas before others do	☐	☐	☐	☐	☐
20*	I like following accepted procedures at work or school	☐	☐	☐	☐	☐
21*	I often fail to act on valuable opportunities	☐	☐	☐	☐	☐
22*	I rarely act on profitable opportunities, even when believe they can benefit me or others	☐	☐	☐	☐	☐
23*	I rarely think outside the box	☐	☐	☐	☐	☐
24	I see myself as highly innovative	☐	☐	☐	☐	☐

25	I see profitable opportunities where others do not	☐	☐	☐	☐	☐
26	I try to take advantage of every profitable opportunity I see	☐	☐	☐	☐	☐
27	I usually have the innovative ideas in group tasks or projects	☐	☐	☐	☐	☐
28	I'm generally the first to see a commercial opportunity when it appears	☐	☐	☐	☐	☐
29*	I'm not particularly interested in creating something of commercial or social value	☐	☐	☐	☐	☐
30	I'm very alert to opportunities to create commercial or social value	☐	☐	☐	☐	☐
31	If I see an opportunity I jump on it	☐	☐	☐	☐	☐
32	If there is a profitable opportunity, I will see it	☐	☐	☐	☐	☐
33*	It is not that I don't see profitable opportunities, I just don't have the motivation to do anything about them	☐	☐	☐	☐	☐
34	My aim in life is finding new ways to make economic or social progress	☐	☐	☐	☐	☐
35	People tend to think of me as highly innovative	☐	☐	☐	☐	☐
36*	There is little point in trying to find new ways of doing something if old ways work	☐	☐	☐	☐	☐

Section 3: Teaching Methodology

For this section, grade the effectiveness of a teaching methodology / activity used by the teacher during your course on Entrepreneurship. Your response in this section ranges from (1) denoting "Very ineffective" to (5) denoting "very effective". If any certain activity was not conducted / used, kindly select "N/A", denoting "Not Applicable". Kindly mark your selection with a ✓

S. No		N/A	(1)	(2)	(3)	(4)	(5)
37	Internships	☐	☐	☐	☐	☐	☐
38	Case Analysis	☐	☐	☐	☐	☐	☐
39	Case Studies	☐	☐	☐	☐	☐	☐
40	Management Simulations	☐	☐	☐	☐	☐	☐
41	Experiential Exercises	☐	☐	☐	☐	☐	☐
42	Role Playing	☐	☐	☐	☐	☐	☐
43	Videos	☐	☐	☐	☐	☐	☐

Section 4: Demographic Information

44 Name of University _____

45 Have you taken any Entrepreneurship course during your study at the university?

☐ Yes ☐ No

46 What is your program of study (e.g. BBA, MBA etc.)? _____

47 What is your area of specialisation (e.g. Marketing, Finance, HR etc.)? _____

48 Gender

☐ Male ☐ Female

49 Your age in years. _____

50 What is your hometown? _____

51 Do you have any work experience?

☐ Yes ☐ No

52 Have your parents ever started a business?

☐ Yes ☐ No

53 Have your friends ever started a business?

☐ Yes ☐ No

54 Does your teacher of Entrepreneurship have any prior experience of starting a business?

☐ Yes ☐ No

55 Does your teacher of Entrepreneurship course have any corporate experience?

☐ Yes ☐ No

Section 5: Contact Information

Any information provided will be considered as strictly confidential and will only be used for the aims of this research.

Name: _____

Mobile: _____

Email: _____

Appendix B

Permission to use Questionnaire

Re: Entrepreneurial Intention Questionnaire

Francisco Liñán <fLiñán@us.es> Tue, Dec 22, 2015 at 8:54 PM
Reply-To: Francisco Liñán <fLiñán@us.es>
To: aqeelisrar@gmail.com

Dear Aqeel Israr,

Thank you for your interest in our work. Please find attached 3 versions of the EIQ and the papers in which they were used. The first versions (EIQ2and EIQ3) are designed as aggregated scales. The papers in which they were used are Liñán & Chen (2009) and Liñán, Urbano & Guerrero (2011), respectively. More recently, within the VIE Project (http://institucional.us.es/vie), we have developed a newer and more refined questionnaire. In it, Personal Attitude and Subjective Norm has been measured by pondering personal beliefs with the relevance attached to each belief.
I attached this newer version of the questionnaire (Original in Spanish, the translation made by ourselves) and one of the papers in which it was used (Liñán, Moriano & Jaén, 2016).
You can use them as you feel is best, but do please acknowledge your source.
Best regards,
- -
Prof. Francisco Liñán
Universidad de Sevilla // University of Seville
Av. Ramon y Cajal, 1. E41018 - Sevilla (Spain)
T:+34.954554487. F:+34.954551636. M:+34.654982383. Skype: franciscoLiñánalcalde
Web: https://www.researchgate.net/profile/Francisco_Liñán ; https://es.linkedin.com/in/franciscoLiñán
http://www.masteremprendedoresus.com

Ahmetoglu, Gorkan <g.ahmetoglu@ucl.ac.uk> Tue, May 3, 2016 at 5:27 AM
To: Aqeel Israr <aqeelisrar@gmail.com>

Hi Aqeel,

Very happy to hear about your interest in META.

Please find attached the questionnaire.

All the best,

Gorkan

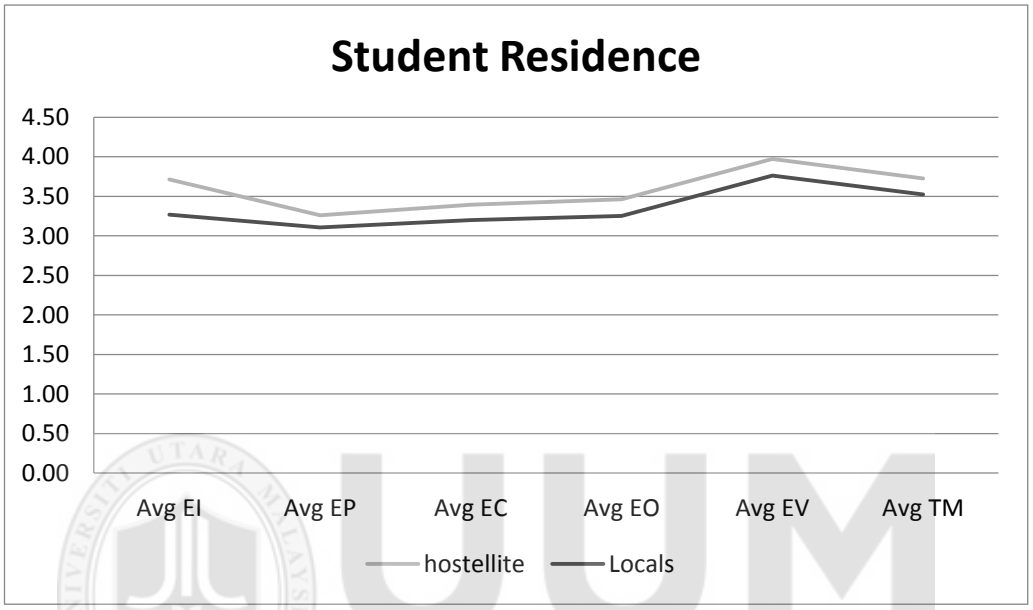
Dr Gorkan Ahmetoglu
Lecturer of Business Psychology
University College London
www.metaprofiling.com
Mob: ++ 44 (0) 788 648 3637
Office: ++ 44 (0) 207 679 5401

Appendix C

Additional Data Analysis Results

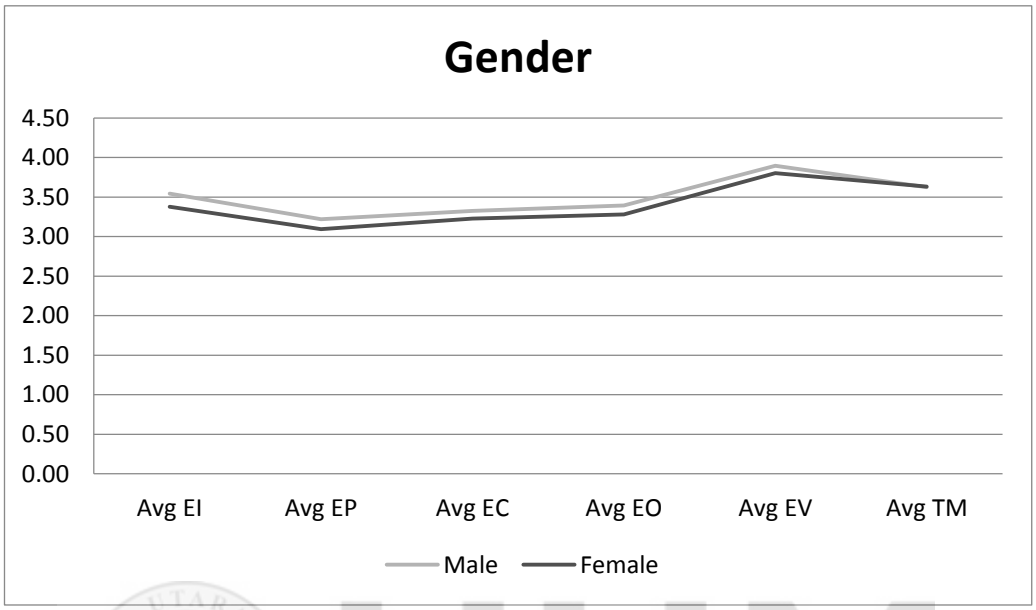
Home Town

	EI	EP	EC	EO	EV	TM
Hostellite	3.71	3.26	3.39	3.46	3.97	3.73
Locals	3.27	3.10	3.20	3.25	3.76	3.52



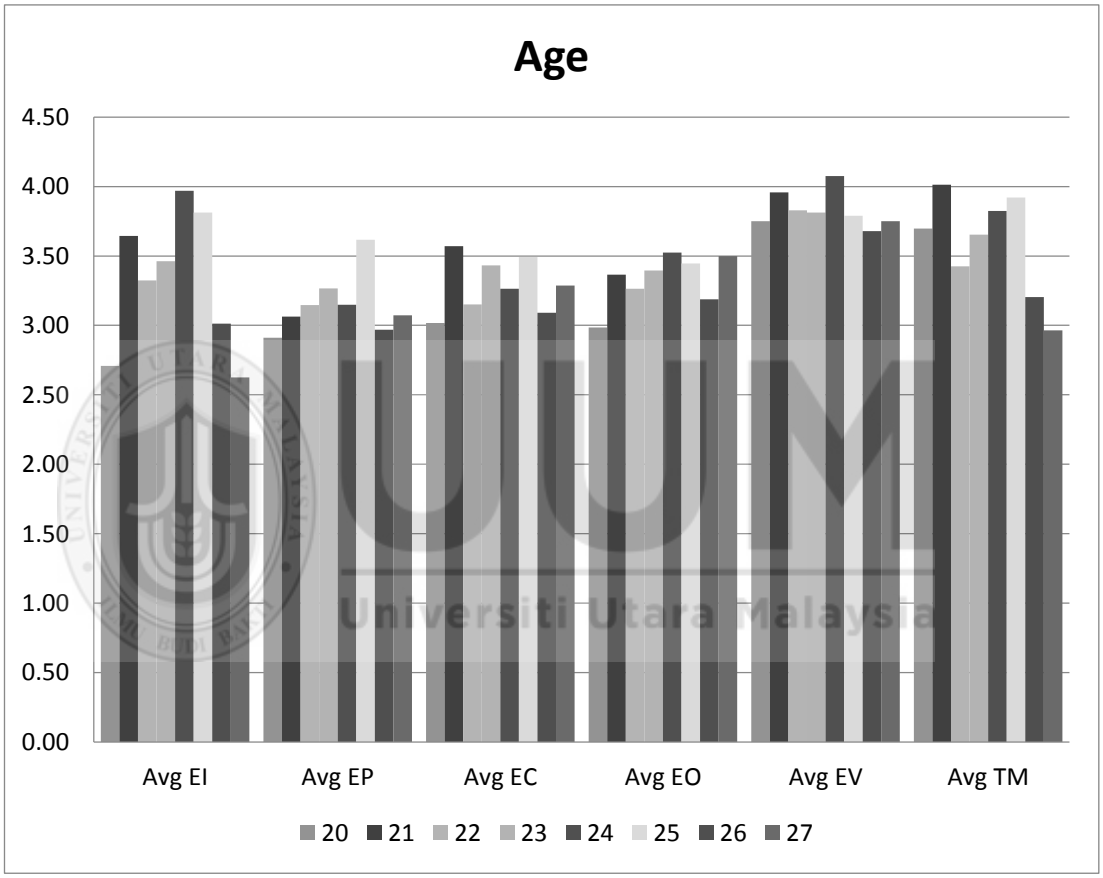
Gender

Gender	EI	EP	EC	EO	EV	TM
Male	3.54	3.22	3.33	3.39	3.89	3.62
Female	3.38	3.09	3.23	3.28	3.80	3.63



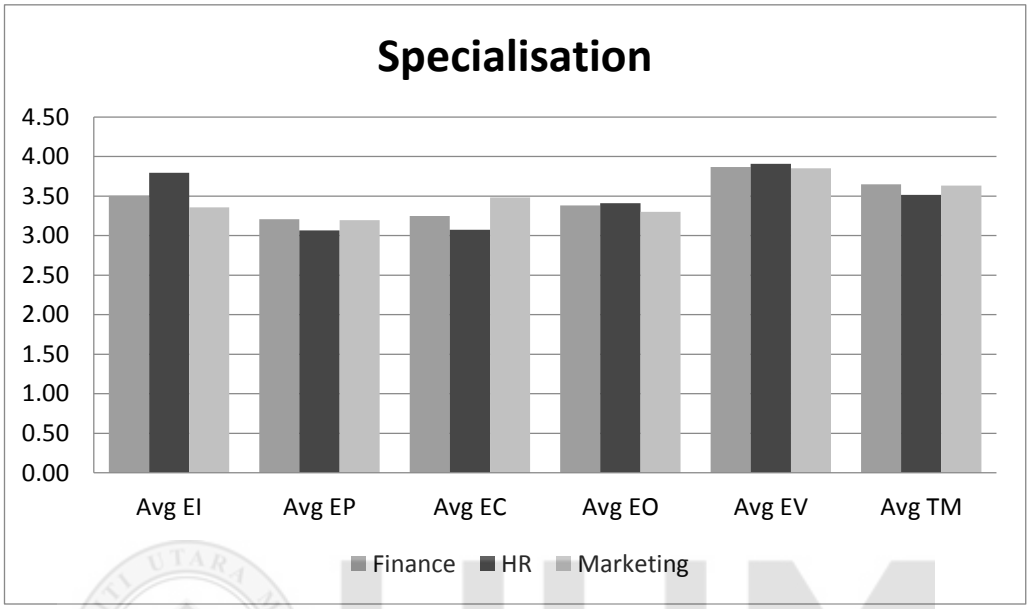
Age

Age	EI	EP	EC	EO	EV	TM
20	2.71	2.91	3.02	2.98	3.75	3.70
21	3.64	3.06	3.57	3.36	3.96	4.01
22	3.32	3.15	3.15	3.26	3.83	3.42
23	3.46	3.27	3.43	3.40	3.81	3.65
24	3.97	3.15	3.26	3.52	4.07	3.82
25	3.81	3.62	3.49	3.45	3.79	3.92
26	3.01	2.97	3.09	3.19	3.68	3.20
27	2.63	3.07	3.29	3.50	3.75	2.96



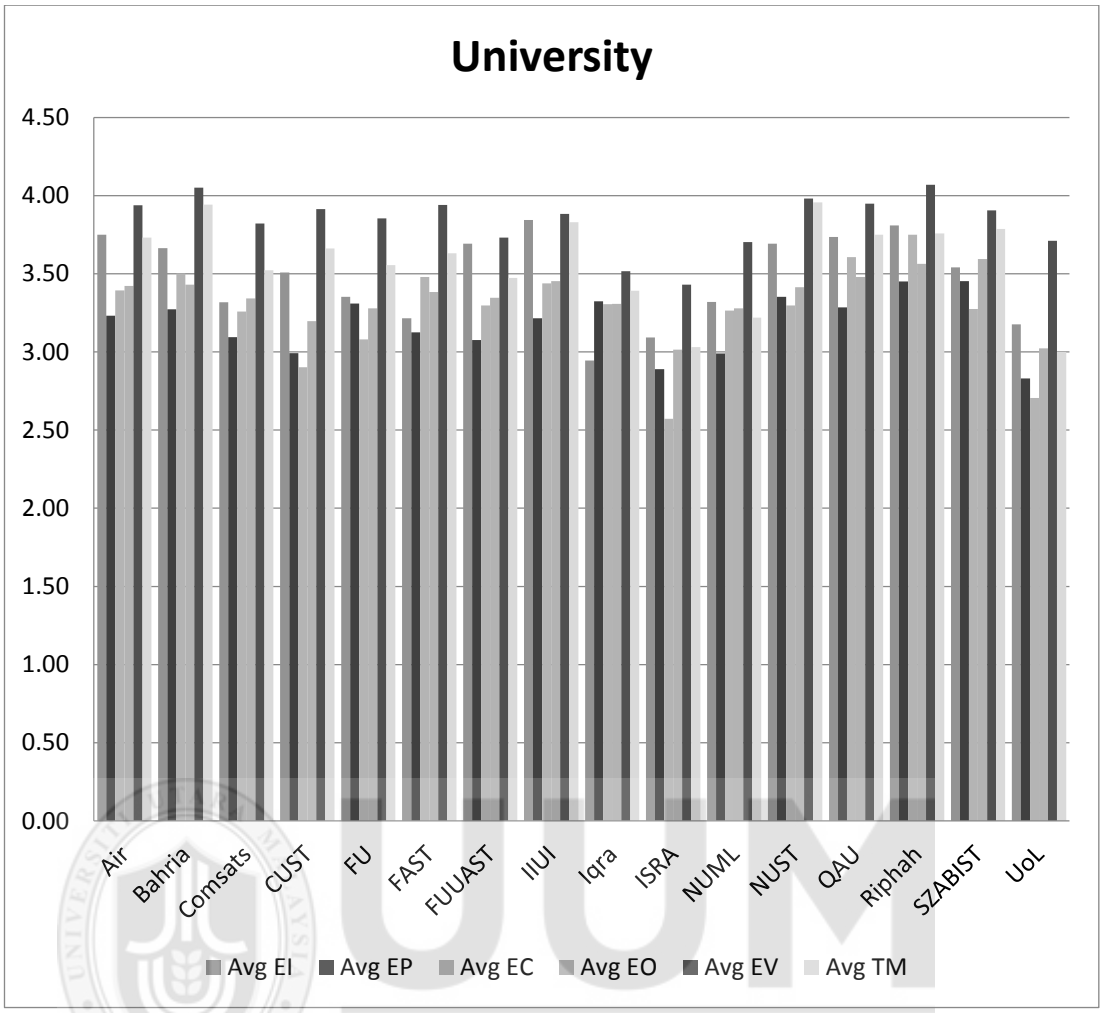
Specialisation

Specialisation	EI	EP	EC	EO	EV	TM
Finance	3.50	3.21	3.25	3.38	3.87	3.65
HR	3.79	3.07	3.07	3.41	3.91	3.52
Marketing	3.36	3.20	3.48	3.30	3.85	3.63



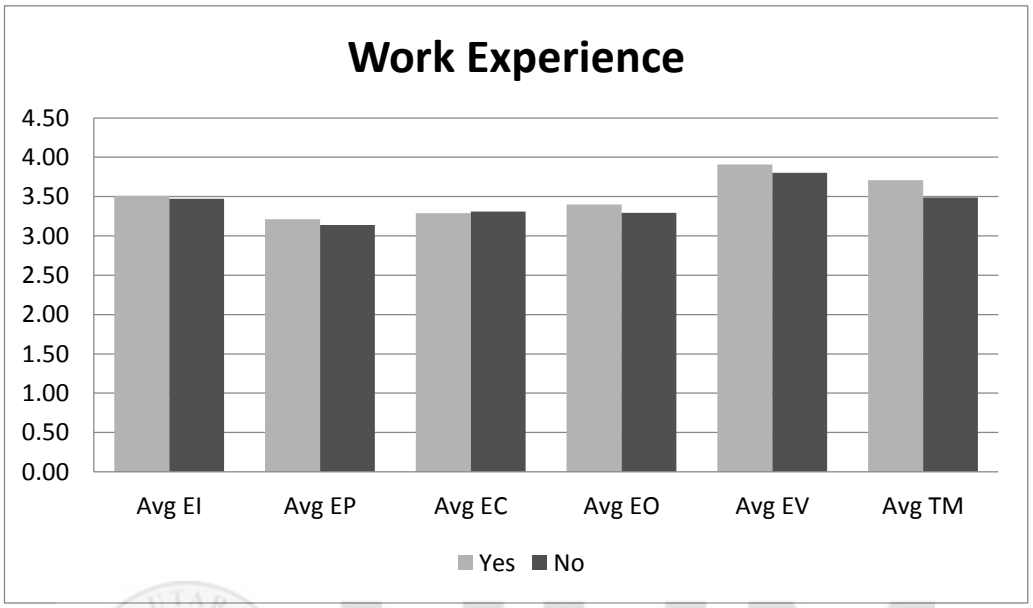
University

University	EI	EP	EC	EO	EV	TM
Air University	3.75	3.23	3.39	3.42	3.94	3.73
Bahria University	3.66	3.27	3.50	3.43	4.05	3.94
Comsats University	3.32	3.09	3.26	3.34	3.82	3.52
Capital University of Science and Technology (CUST)	3.51	2.99	2.90	3.20	3.91	3.66
Foundation University (FU)	3.35	3.31	3.08	3.28	3.85	3.56
Foundation for Advancement of Science and Technology (FAST)	3.22	3.13	3.48	3.38	3.94	3.63
Federal Urdu University of Arts Science and Technology (FUUAST)	3.69	3.08	3.30	3.35	3.73	3.47
International Islamic University Islamabad (IIUI)	3.84	3.21	3.44	3.45	3.88	3.83
Iqra University	2.94	3.32	3.30	3.31	3.52	3.39
ISRA University	3.09	2.89	2.57	3.01	3.43	3.03
National University of Modern Languages (NUML)	3.32	2.99	3.26	3.28	3.70	3.22
National University of Science and Technology (NUST)	3.69	3.35	3.30	3.41	3.98	3.96
Quaid e Azam UniversityQAU	3.74	3.29	3.61	3.48	3.95	3.75
Riphah University	3.81	3.45	3.75	3.56	4.07	3.76
Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology (SZABIST)	3.54	3.45	3.27	3.59	3.91	3.79
University of Lahore (UoL)	3.18	2.83	2.71	3.02	3.71	3.00



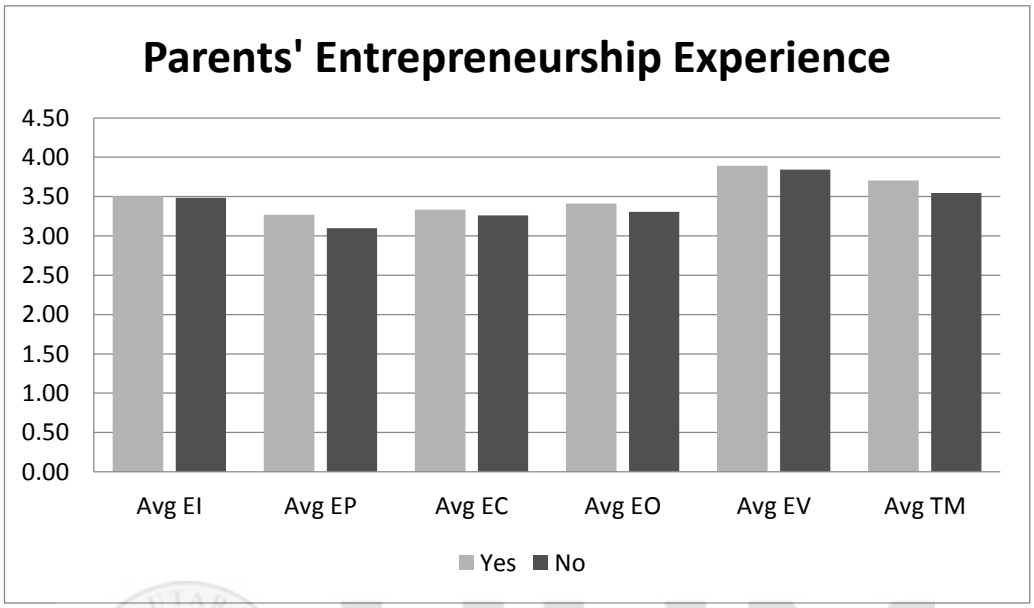
Work Experience

	EI	EP	EC	EO	EV	TM
Yes	3.51	3.21	3.29	3.40	3.91	3.71
No	3.47	3.14	3.31	3.29	3.80	3.49



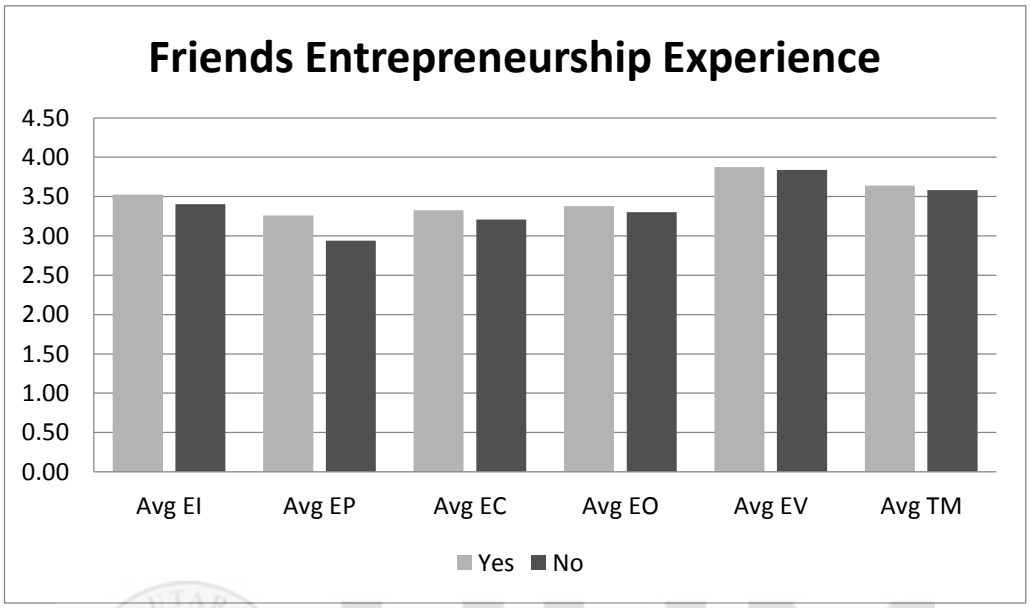
Parents' Entrepreneurship Background

	EI	EP	EC	EO	EV	TM
Yes	3.50	3.27	3.33	3.41	3.89	3.71
No	3.49	3.10	3.26	3.31	3.84	3.55



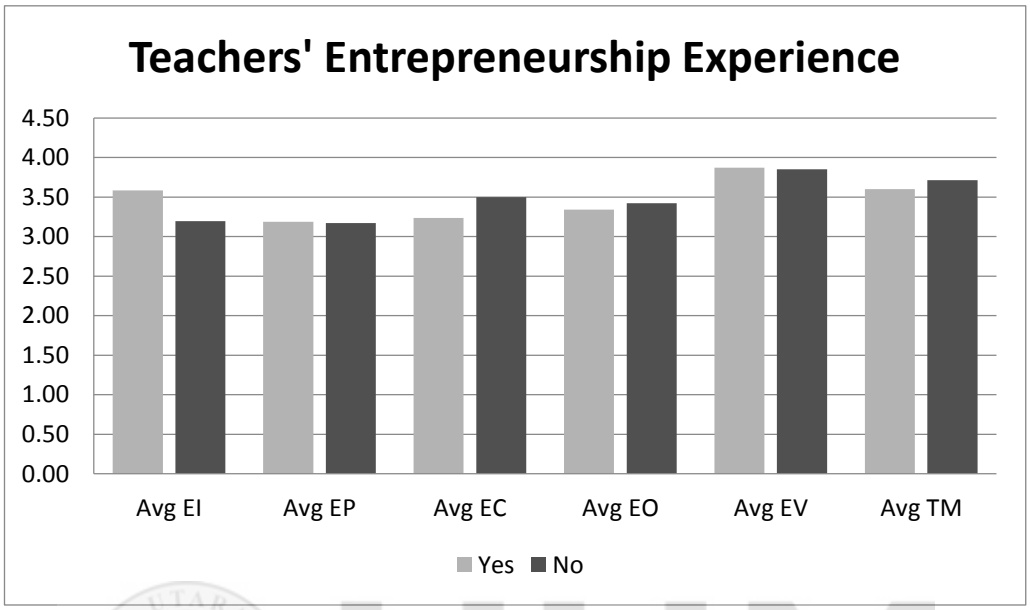
Friends' Entrepreneurship Background

	EI	EP	EC	EO	EV	TM
Yes	3.52	3.26	3.33	3.38	3.88	3.64
No	3.40	2.94	3.21	3.30	3.84	3.58



Teachers' Entrepreneurship Experience

	EI	EP	EC	EO	EV	TM
Yes	3.59	3.19	3.24	3.34	3.87	3.60
No	3.19	3.17	3.50	3.42	3.85	3.71



Teachers' Corporate Experience

	EI	EP	EC	EO	EV	TM
Yes	3.52	3.20	3.25	3.34	3.84	3.65
No	3.40	3.14	3.45	3.43	3.96	3.56