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Personality, Passion and Entrepreneurial Self Efficacy in Agricultural Sector of Pakistan

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Abstract

Purpose: Pakistan has least number of entrepreneurial firms among factor driven economies, and being depending upon agriculture, the study is concerned to assess potential of individuals to create firms based on newness and innovation. As entrepreneurial efficacy (ESE) predicts the entrepreneurial intention requiring a clear understanding of opportunity, risk and future prospects of growth of entrepreneurial firms, the study assessed the effect of personality factors on ESE when mediated with passion of creating agriculture based business.

Methodology: All the variables in the list are latent variables adopted from different previous studies. After conducting exploratory and confirmatory factor analyses, the study then used Structural Equation Modeling (SEM) to assess the impact of personality traits of entrepreneurus in agricultural sector of Paksitan on ESE when mediated by entrepreneurial passion.

Main Findings: The results of SEM revealed that direct effect of personality on entrepreneurial self efficacy is stronger than when it is mediated by entrepreneurial passion. The mediating role of entrepreneurial passion is not as strong as required to include in innovation based entrepreneurial activity in agricultural sector of Pakistan. The study found that entrepreneurs in agricultural sector of Pakistan lack the ability to create innovations based startups, and most of entrepreneurial activity is either need based or imitation with little or no differentiation.

Application of Study: In the light of the findings of the results if the policies directed to create easy access to finances and improve measures related to 'ease of doing business' can enhance entrepreneurship in agricultural sector of Pakistan. The technology shows and short trainings at the grass root level can enhance the efficacy and passion of agriculture sector entrepreneurs.

Originality and Novelty of the Study: The study is the first attempt to study ESE for four sub-sectors of agriculture in Pakistan i.e. crop production, live stock, agricultural engineering, and agricultural marketing.

Key words: Entrepreneurial Self Efficacy; Entrepreneurial Personality; Passion; Ecological Environment.

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1. Introduction

The organizational literature does not concentrate just on optimal strategy for opportunity maximization or risk management for minimizing risk impact; rather it seeks to assess risk-opportunity tradeoff to maximize the value of the firm. In this context the risks faced by any organization are internal as well as external including operational, competition, compliance, innovation, credit, taxation, and economic risks. Risk treatment in the form of risk avoidance, reduction, transfer, acceptance and sharing has provided the bases for different hypotheses tested in traditional and behavioral finance theory to present the managers and shareholders with risk management and mitigation measures. But risk management strategies differ for established and entrepreneurial firms because of difference in the contractual arrangements due to sources of capital, payback expectations and growth strategies. Entrepreneurial activity describes the capacity of individual or a team to develop and start a business in the face of risk and uncertainty to earn profits (Kerr, Kerr, Özden, & Parsons, 2016). Therefore, skills set required to launch and manage entrepreneurial firms are different from the other business investments. In entrepreneurial literature Entrepreneurial Self Efficacy (ESE) describes mastering skills specifically needed to establish and manage an entrepreneurial firm. These skills reflect the nature of innovation entrepreneurs are involved in and contractual obligations linked with financial, managerial and marketing agreements in the light of opportunity instead of risk perception by the entrepreneur. Entrepreneurial Efficacy (ESE) predicts the entrepreneurial intention which requires a clear understanding of opportunity, risk and future prospects of growth of entrepreneurial firms (Hsu, Wiklund, & Cotton, 2017). The expeditious changing landscape of the world economy is seen in rapidly changing technology, higher pace of innovations, shorter life cycles of goods and services, higher global competition, innovative processes, and improved distribution methods. Some authors (Zouaghi, Sánchez, & Martínez, 2018; Sarkar & Osiyevskyy, 2018; Brancati, Brancati, & Maresca, 2017) indicated that the lack of innovativeness in firms lead to economic crisis but at the same time caution is needed to balance the research and development expenditure to keep this investment relevant to market performance and competitiveness (Hansen & Nybakk, 2018). Therefore, entrepreneurial activity has attracted the attention of business owners, policy makers, social scientists and philosophers regardless of the economic conditions. Even during and after the financial crises in industrialized nations, entrepreneurs displayed the resilience and continued to undertake risks to create new firms producing innovative goods and services.

Although literature on entrepreneurial efficacy is divided over its sufficiency in explaining reasons for firm creation, growth and survival but it helps to understand decision making process of entrepreneurs especially in challenging circumstances. The study induced the understanding for self learning entrepreneurs and it will help them understand the importance of self efficacy and its affecting factors. This improves understanding of the reality of entrepreneurship in Pakistan that may help the young as well as existing business owners to develop a world view that is more consistent with the real life factors creating a synergy for enabling business and entrepreneurial environment.

The entrepreneurial intention and ESE are closely related to the personality aspects of entrepreneurs. The individual personality traits drive the behavioral responses towards different environmental stimuli (Goldberg, The development of markers for the big-five factor structure., 1992). The empirical evidence to link entrepreneurial success with the personality traits is scanty (Baron, Frese, & Baum, 2007). But it is

general consensus that individual entrepreneurial behavior is associated with differing abilities in terms of creating value by recognizing and exploiting opportunities and brining innovation and newness.

Entrepreneurs generally have short term goals but it is not essential as those with 'grit' are willing to continuously indulge in innovations and creating newness displaying the passion and perseverance for long term goals (Duckworth & Quinn, 2009). They found a strong correlation of grit with Big Five but a negative correlation with individual IQ. Grit and intention to innovate describe the perseverance and indulgence to continuously look for challenges that eventually enables entrepreneurs to attain success (Mooradian, Matzler, Uzelac, & Bauer, 2016). Later (Duckworth, 2016) explored the entrepreneurial mindset and tried to learn it due to influence of varying factors that can prompt entrepreneurial response in individuals. Passion compels an entrepreneur to engage in entrepreneurial activity and it dominates its 'self'. Passion also allows the individual to attain balance in the 'self' and avoid conflict with other activities of life that one performs as well. The literature on entrepreneurial passion concentrates more on harmonious passion that makes entrepreneur feel good about its behavior and passion controls it. The identity of an entrepreneur is defined in terms of personality characteristics and experiences, and how it integrates them to perform entrepreneurial activities. Certain characteristics profoundly dominate others that start to form the identity of an individual. The self determining theory emphasizes that the tendency to attain higher order organization is an inherent desire of any individual. Therefore, the entrepreneurs continue to evolve the characteristics that enable them to overcome the complexities associated with greater interaction with their environment which is generally uncertain and uncontrollable (Ryan & Deci, 2000).

2. Objectives of the Study

- To evaluate the influence of Big Five personality traits (i.e. Agreeableness, Emotional Stability, Extraversion, Openness and Conscientiousness) on entrepreneurial efficacy of agripreneurs.
- To assess the mediating effect of entrepreneurial passion between Big Five personality traits and entrepreneurial efficacy.

3. Significance of the Study

The foremost concern of study is to assess potential of individuals to try to attempt establishing an entrepreneurial business but study will be confined to entrepreneurial startups that are based on agriculture factor inputs due to the fact that still around 60% of population of Pakistan is directly or indirectly employed in agriculture sector (Finance, 2020). Among factor driven economies Pakistan has lowest number of established firms and economic policy makers continue to ignore and neglect the role of entrepreneurship (Global Entrepreneurship Monitor, 2016). The inability to tap and convert available resources – agriculture and non-agriculture - into valuable products and services is putting pressure on the future generations as the available national wealth then may not be sufficient to support and nurture healthy progressive generations. One of reasons for lingering underdevelopment and perpetual high rates of unemployment in developing countries like Pakistan is the lack of entrepreneurial abilities of masses in general and youth in particular (Audretsch, 2014). Creating policies and targeted programs to enhance skills of the populous can promote entrepreneurial activity that has immediate bearing on economic growth and well being of the people (Fritsch & Wyrwich, 2017). Therefore, the results so generated are of

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importance for not only the public policy makers responsible for agricultural sector alone but also for the industrial development as this sector not only provides the food but also raw material for a wide variety of industries. The study is only confined to the largest employment generating sector of Pakistan i.e. agriculture. Due to the forward and backward linkages of agricultural sector in any economy the scope is limitized. Broader conclusions can only be drawn if the population is extended to other related sectors as well, but the limitation of funds and time is a hurdle. Despite this the study has generated the results can be of value in generally understanding the behavioral aspects of entrepreneurial intentions. The future research can focus on other sectors of the economy and comparative studies can be done to assess the differences in entrepreneurial efficiacy across sectors in Pakistan.

4. Review of Literature

Decisions-set related to business is quite complex due to the diverse nature of circumstances that are businesses are exposed to. These circumstances continue to change from time to time and from industry to industry. This nature of varying circumstances causes degree of uncertainty linked with business decisions. The better the skills set related to business decision making the higher is the probability of success, and it is a matter of experience and exposure to challenging environment that sharpen such risk facing situations.

Task specific expertise along with independence to make necessary decisions at the crucial time provide enabling environment to the management teams to collectively attain the organizational goals. The shift in the typical horizontal management structures have lost their importance due to increased competition, better technologies, and reduced product life cycles.

This competitive environment needs an innovative approach of doing business that encourages newness and motivate employees to be creative in their approach of performing any specific task. In this perspective, an individual that intends to initiate an entrepreneurial business must possess a set of skills that enables it to make challenging decisions from idea creation to the growth of the firm.

Entrepreneurs are differentiated from non-entrepreneurs generally on the basis of individual level factors. The individual personality traits drive the behavioral responses towards different environmental stimuli (Goldberg, The development of markers for the big-five factor structure., 1992). Numerous studies have assessed Big Five personality traits (i.e. Agreeableness, Openness, Extraversion, Conscientiousness and Emotional Stability) in terms of indulgence of individuals in creative activities at workplace and beyond. The empirical evidence to link entrepreneurial success with the personality traits is scanty (Baron R. A., 2007) but it is general consensus that individual entrepreneurial behavior is associated with differing abilities in terms of creating value by recognizing and exploiting opportunities and brining innovation and newness.

Some of the scholars have linked personality as the predictor of entrepreneurial passion that then enhances entrepreneurial efficacy. Investors, clients, and employees give value to passion when socially interacting with entrepreneurs. They perceive such entrepreneurs to be more successful due to their perseverance and dedication. Entrepreneurial passion is the feeling of self identity that enables a person to deliberately access positive feeling due to indulgence in risk bearing entrepreneurial activities (Cardon M. S., 2009). Ample

management literature indicates that personality traits that are genetically influenced increase the propensity of a person becoming an entrepreneur. The big five personality model describes the personality in most simplified and yet complete manner. An entrepreneur is more creative than non-entrepreneurs and if the project thrives, entrepreneur fulfills the dream of financial success but more than this, the contended feeling of success as a social norm enables him to earn and create the social network that is enabling for entrepreneurial culture. Therefore, the Big Five personality traits may explain the variations that are present in entrepreneurial behaviors for ownership and start up intention in response to recognizing entrepreneurial opportunity, taking actions to exploit it, make decisions to bring innovation and adding value by enhancing returns to efforts and financial investments.

Entrepreneurial emotions, specifically entrepreneurial passion (EP), are considered to be one of most important aspect of entrepreneurial process (Cardon M. S., 2012). Self realization and independence drives an entrepreneur to suppose out of the regular and come up with ideas that can be translated into new goods and services. Rationalists have for quite some time been keen on the idea of passion with two particular positions developing. The main places that passion involves lost explanation and control and satisfactory contemplations began from reason while unsatisfactory considerations got from passion. Individuals beset with passion encountered a sort of anguish, in accordance with the historical underpinnings of the word passion (from the Latin "passio" for affliction). As per this point of view, people with an passion are viewed as latent, as captives to their passion and their passion controls them. The second, progressively constructive, point of view depicts individuals as increasingly dynamic according to their passion.

Entrepreneurial research in Pakistan has a very narrow scope and needs more attention from the researchers to bring forth the issues pertaining to it. Most of the entrepreneurial studies in Pakistan have focused on entrepreneurial competencies and success in challenging internal and external environments (Hashim, 2018). Similarly role of success in technology and innovation (Raza, 2018); effect of family funding (Akhtar, 2015); entrepreneurial intention ((Moudassir, Alamzeb, Imran, & Waheed, 2020) and individual personality factors of entrepreneur (Kareem, 2015) have been given attention in the recent past. The focus on management and organizational level factors like educational support and business development support (Ahmad, 2014), culture and entrepreneurship (Imran, et al., 2018) are also brought into focus. Whereas some studies have focused on external factors like energy crisis, skilled labor insufficiency, low level of ease of doing business (Yaqub & Hussain, 2010), and investment Climate Assessment (ICA) Survey (Bank, 2009).

Baseline Theories

The study is about the concept of entrepreneurial efficacy and the abilities regarding creating entrepreneurial firms. Theoretical underpinnings identify the factors to be considered to evaluate the prevalence of certain aspects of different theories interacting to shape the social reality.

5.1 Entrepreneurial Efficacy

According to Hsu, Wiklund and Cotton (2017) entrepreneurial self efficacy (ESE) predicts the entrepreneurial intention which requires properly understanding of opportunity, risk and future prospects

of growth of entrepreneurial firms. The theory itself is an extension of theory of self efficacy (Bandura, 1986). Scholars like Bandura (2012), Chen et al. (2001) and Urban (2006) describe that self efficacy vary among different individuals on the basis of level (magnitude), strength and generality. Level is described in terms of difficulty about handling a specific task either in terms of performance or creating a 'never tried before' solution. Strength is degree of efficiency in terms of successfully accomplishing a task, whereas, generality refers to the abilities needed to be relevant to a specific domain. ESE provides a guideline that one must be aware of to deliberately indulge in entrepreneurial profit making activity. Entrepreneurs understand the importance of enacting systems for business management i.e. financial management, planning cash flows, marketing, human resources development, and strategic planning, etc. Therefore, theory of entrepreneurial self efficacy is specifically concerned with tasks related to creating, managing and progression of an entrepreneurial firm.

5.2 Big Five Personality Traits

The feeling of independence and self drive enables an individual to follow the path of risky entrepreneurial initiatives (Douglas & Shepherd, 2002). But for Carter et al. (2003) self realization and self actualization are the drivers of entrepreneurial intention. At the same time need for achievement (Smith, 2005) and financial success (Carter, Gartner, Shaver, & Gatewood, 2003) is also strong cause of entrepreneurial activity. Stewart and Roth (2004) emphasized that the propensity of an individual to understand and taking risk for business investments describes the entrepreneurial behavior. The big five model of personality is one of the most complete and closefisted character scientific categorizations (Cooper, 1993). An entrepreneur is more creative than non-entrepreneurs (Lee & Wong., 2004). If the project thrives, entrepreneur fulfills the dream of financial success but more than this, the contended feeling of success as a social norm enables him to earn and create the social network that is enabling for entrepreneurial culture (Turker & Selcuk, 2009). Therefore, the Big Five personality traits (i.e. Extraversion, Openness, Agreeableness, Conscientiousness and Emotional Stability) may explain the differences that are present in entrepreneurial behaviors for ownership and start up intention in response to opportunity acknowledgment, opportunity utilization, development, and worth creation.

H₁₁: Big five personality traits have a positive influence on entrepreneurial efficacy.

5.3 Entrepreneurial Passion

Passion for creating firms is related with exercises, for example, growing new markets and extending the size of the endeavor. In the first place, people ought to appreciate taking part in exercises where they have a solid faith in their capacity to succeed (Cardon & Kirk, 2015) Individuals like to prevail at things they take part in, and foreseen achievement conceived from high self-adequacy for a specific action should prompt extraordinary full of feeling pleasure in that movement. Personality hypothesis proposes that people are bound to relate to things that they are positive about doing, in order to ensure their sentiments of self-viability (Vallerand, et al., Les Passions de l'A^ me: On Obsessive and Harmonious Passion., 2003). In addition they pointed out that this manner, recognizable proof with a pioneering job ought to be bound to happen when business people feel effectual about assignments related with that job. This distinguishing proof is a significant part of innovative passion; individuals are most joyful about the parts of their

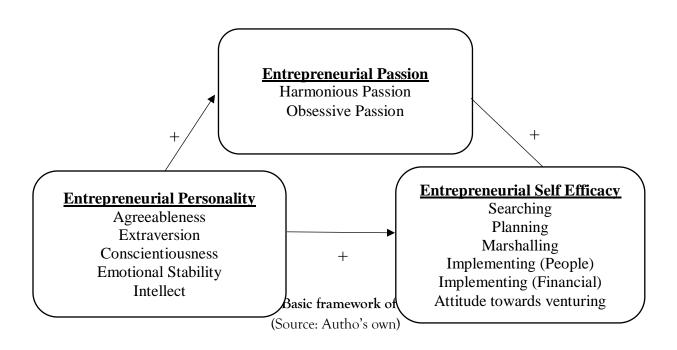
personality that most fulfill their confidence and self-adequacy needs. Entrepreneurs identify themselves with entrepreneurial tasks and roles whenever their sense of self-fulfillment is addressed. This identifying characteristic is important as people draw happiness passionately from this activity to foster their self-esteem and efficacy (Vallerand, et al., Les Passions de l'A^ me: On Obsessive and Harmonious Passion., 2003). The literature on entrepreneurial passion concentrates more harmonious and obsessive passion that makes entrepreneur feel good about its behavior and passion controls it. The self determining theory emphasizes that the tendency to attain higher order organization is an inherent desire of any individual. Therefore, the entrepreneurs continue to evolve the characteristics that enable them to overcome the complexities associated with greater interaction with their environment which is generally uncertain and uncontrollable.

 H_{21} : Entrepreneurial passion has a positive impact on entrepreneurial efficacy.

 H_{31} : Big five personality traits have a positive influence on entrepreneurial efficacy when mediated by entrepreneurial passion.

5.4 Theoretical Framework

Entrepreneurial efficacy defines and explains the reasons of actions of entrepreneurs in making the real decisions that have financial, management and marketing implications. These decisions are not taken in isolation and alertness of entrepreneurs has impact on the distance they are able to travel in an uncertain and dynamic environment where control of events is not entirely as per the expectations. Therefore, efficacy is influences by the personality and also mediated by entrepreneurial passion.



6. Data and Methods

The study followed the deductive approach and used the survey strategy to collect questionnaire based data from the sample. The data so obtained from agricultural sector allowed the use of statistical techniques to extract meaningful information about the entire sector. Survey strategy helped the study to collect data on the observed variables pertaining to different latent constructs used in the study. The study is based on mono method as it adopted single data collection techniques and single quantitative analytical technique.

6.1 Research Design

The study is based on cross-sectional data as it collected data about the implied variables only once from the respondents in agricultural sector of Pakistan comprising of four sub-sectors or strata that are mutually exclusive and collectively exhaustive (i.e. crop production, live stock, agricultural engineering, and agricultural marketing). Population of the study is the entrepreneurs operating in agricultural sector of Pakistan. Purposive sample was drawn from all the regions of Pakistan where agripreneurial activity is ongoing and snowballing sampling procedure was used to identify agripreneurs. These regions include: Lahore, Faisalabad, Gujranwala, Sheikupura, Peshawar, Hattar, Karachi, Haiderabad, and Hub. Reason for using snowball sampling technique is due to difficulty in finding participants that can contribute their feedback voluntarily. As there is no organized data base of firms operating in agricultural sector of Pakistan, therefore, the study used the information in pilot study to predict the adequate sample size by using Cochran's formula $[n_0=p.q.(Z/e)^2]$, where: p=0.88, q=0.12, e=0.025; thus, $n_0=650$.

6.2 Instrument and Measures

The study used three variables in the analysis: entrepreneurial efficacy, entrepreneurial passion and entrepreneurial personality.

6.2.1 Entrepreneurial Efficacy

The McGee-scale used the factors identified by other researchers (McGee, Peterson, Mueller, & Sequeira., 2009) to develop their linear phase-based measure: searching, planning, marshalling, and implementing. The McGee-scale of Entrepreneurial Efficacy has-items measure consisting of six distinct factors specifically related to: searching, planning, marshalling, implementing people, implementing financial, and attitude towards venturing: searching - (3 items), planning - (4 items), marshalling - (3 items), implementing People - (6 items), implementing Financial - (3 items), and attitude towards Venturing - (3 items). Therefore, study used McGee-scale for assessing entrepreneurial efficacy.

6.2.2 Big Five Personality Factors

(Goldberg, The development of markers for the big-five factor structure., 1992) utilized the elements that best portray the particular attributes relating to a particular activity and utilized scales that recorded reactions on a five point Likert scale running from 'mistaken' to 'extremely exact' for five components with 35 things. These builds are between related and have sway on one another (for example presence of invert causality). Moreover, the writing shows effect of a portion of the character qualities on pioneering

capacities. Along these lines, the Big Five character qualities may clarify the distinctions that are available in pioneering practices for possession and start up expectation in light of chance acknowledgment, opportunity misuse, development, and worth creation. Accordingly, study utilized scales created by Goldberg (1992) for surveying enterprising personality.

6.2.3 Entrepreneurial Passion

The study considered measures of passion as in Vallerand et al. (2003) for obsessive passion (OP) and harmonious passion (HP). OP describes the viw point where the individual feels constrained to participate in the action and the action takes a prominent position in the individual's self. HP accentuates a functioning viewpoint where the individual has power over the actions and decisions permits the person to completely take part in the perceived activity compliance with the individual's expertise towards task accomplishment. The study measured these aspects of passion on a 7-point likert scale with five factors describing each OP and HP.

Table 2: Description of constructs

Scale	Number of Factors	Number of Items	Reference
Entrepreneurial Self	6 (McGee-scale)	22	(McGee, Peterson,
Efficacy			Mueller, &
	Searching; planning; marshalling;		Sequeira., 2009)
	implementing people; implementing		-
	financial, and; attitude towards		
	venturing.		
Big Five Personality	5	35	Goldberg (1992).
Traits			
	Extraversion; Openness;		
	Agreeableness; Conscientiousness,		
	and; Emotional Stability.		
Entrepreneurial Passion		10	(Vallerand, et al.,
	2		Les Passions de
			l'A^ me: On
	Harmonious Passion, and; Obsessive		Obsessive and
	Passion.		Harmonious
			Passion., 2003)

6.3. PILOT TESTING

Pilot test is done in order to ascertain the appropriateness of instruments used in the study. The issue of submitting an instrument for collecting data from the sample that is in turn used for predictions about the entire population needs very careful assessment of the way research is approached and designed. Results of pilot testing helped the study to fine tune the instruments and also check for the validity and consistency so that the predictions thus made are not marred by errors. The results of pilot testing revealed some very important attributes of the target population that were taken into consideration in finalizing not only the instruments of the study but also in understanding the problems pertaining to data collection. The study conducted the EFA and CFA to finalize the research instruments for all the variables used. Although study used the adopted instruments but the change of scale of measurement from five to seven point Likert scale needed to be assessed again for suitability for the study and the structure of the vairbales was confirmed in the pilot testing.

7. RESULTS OF STRUCTURAL MODEL

This section discusses the SEM analysis to bring forth the impact of personality, ecology and choice of financial sources on entrepreneurial efficacy. It can be seen that the effect of personality on effectual entrepreneurial activity is stronger than the effect of entrepreneurial ecology and choice of financial sources. Although there are mixed evidences regarding linking personality with entrepreneurial efforts but the varying results for different industries and societies makes it worth to explore its impact. This lead the study to assess the personality of entrepreneurs indulged in entrepreneurial startups in agricultural sector of Pakistan. Sarasvathy (2002) linked success and failure of businesses to the personality of entrepreneurs.

It can be readily seen that personality has strong impact on effectual entrepreneurial startups in agricultural sector of Pakistan. But varying impact is seen for effectual financial decisions and entrepreneurial ecology. While the moderating effect of passion is not as strong as it was perceived to be at the outset of the study. The realization of weak support mechanism makes the individual to have stronger need for autonomy and self reliance. These results indicate that effectual decisions are made by strong passionate personalities within favorable financial and ecological environment. Entrepreneurial literature is generally concerned with understanding the differences in entrepreneurial activity in different countries using different measures. The Global Entrepreneurship Monitor (GEM) provides a general framework for cross-country analysis of entrepreneurial activity but yet the entrepreneurial literature is divided in expounding a consensus on unified methodology to assess these differences.

Table 3: Regression path coefficients

	Estimates	<i>p</i> -value	Hypotheses
Entrepreneurial Personality → Entrepreneurial Passion	0.64	0.00	H ₁₁ Validated
Entrepreneurial Passion \rightarrow Entrepreneurial Efficacy Entrepreneurial Personality \rightarrow Entrepreneurial	0.61	0.00	H ₂₁ Validated
Efficacy Entrepreneurial Personality → Entrepreneurial Passion → Entrepreneurial Efficacy	0.82	0.00	H ₃₁ Validated
	0.39	0.00	H ₄₁ Validated

Sobel Test for testing mediation effect: $t = {}^{(\alpha\beta)}/_{SE} = 2.6188$ (p = 0.0088),where SE is the pooled standard error term and SE = $\sqrt{\alpha^2 \sigma_\beta^2 + \beta^2 \sigma_\alpha^2}$, and $\sigma_\beta^2 = 0.0396$, is the variance of β and $\sigma_\alpha^2 = 0.016129$, is the variance of α .

For developing countries there are multiple factors that impede the development of entrepreneurial activity that are not only macro in nature but also affect at individual level in intensities higher than in developed economies. Read and Sarasvathy (2005) deliberate on individual expertise that is at the helm of entrepreneurial activity. Individuals make it happen but set of skills differentiate them in terms of abilities and inclination to undergo the risk bearing entrepreneurial activities. Individual differences, knowledge structure, experience, and will to deliberately indulge in entrepreneurial activity differentiate individuals within and across cultures. Sarasvathy (2014) stresses that loss aversion compels everyone to opt for the occupations that can generate a reasonable stream of returns, and being over ambitious to grab every opportunity coming in the way might not always be beneficial (Dar, Ahmed, & Raziq, 2017). The effectual logic and thinking can help a person to control the unknowable and uncertain future associated with new opportunities.

Knowledge and experience helps to make rational predictions enabling the entrepreneurs to choose the best possible alternatives in a dynamic impending environment. But having knowledge and expertise does not establish the expertise to include in entrepreneurial startups. The process view of entrepreneurship links the expertise with: motivation, understandability, feedback, repetition, and fit to plan according to the need of situation (Yaqub & Hussain, 2010). At the same time the networking is also essential for not only arranging the potential investors but also to crate market for the products and services. Networking process is dynamic in nature and continues emerge with the organizational age and shifts taking palace in task and

macro environments. But networking also needs personality skills to coordinate and cooperate with others and assess the mutual benefits in differing situations. Aldrich (1999) found that those having strong social and business networks are more likely to engage in entrepreneurial activity. Social networks and geographical structure have a strong correlation with opportunity recognition, and stronger the social cohesion higher is the propensity of an individual to engage in entrepreneurial activity (Yan, He, & Cheng, 2017). The emergence of entrepreneurial districts and agglomeration effects are created generally in such settings and ecological factors reinforce these new startup efforts (Carroll & Khessina, 2005).

Entrepreneurial personality reflects not only on product/services innovations and improvements but also on general and financial management. Although locus of control and risk propensity also describes the business related aspects of entrepreneurial businesses (Stewart & Roth, 2004), but Big Five Personality markers are more comprehensive, stable and robust that encompass most of the aspects of personality (Goldberg, 1992). The high and significant value of coefficient of entrepreneurial personality with entrepreneurial startup indicates that effectuation is explained by the personality. The important aspects of risk bearing ability and deliberating efforts for unknowable future outcomes of one's actions need a stable and self sustaining personality. The literature on entrepreneurial passion concentrates more on harmonious passion that makes entrepreneur feel good about its behavior and passion controls it. The identity of an entrepreneur is defined in terms of personality characteristics and experiences, and how it integrates them to perform entrepreneurial activities. Certain characteristics profoundly dominate others that start to form the identity of an individual. The self determining theory emphasizes that the tendency to attain higher order organization is an inherent desire of any individual. Therefore, the entrepreneurs continue to evolve the characteristics that enable them to overcome the complexities associated with greater interaction with their environment which is generally uncertain and uncontrollable (Chemin, 2008). It can be inferred from the results that agents in agricultural sector of Pakistan have the abilities to create effectual business startups. As most of the entrepreneurs are in their middle age indicating that adolescent behavior driving the efforts to create personality of themselves that may not entirely due to their educational and professional demands. Theoretically this behavior is linked with transitional personalities that are evolving from being a recipient to the one becoming a carrier of its culture. Grigorenko and O'Keefe (2004) describe that this behavior shapes from the expectations attached to the persons in the respective cultural setting. Individual not only transform its personality accordingly by utilizing its abilities to the best of its abilities. Therefore, the strong personality of adolescents is linked with high degree of self efficacy and effectual entrepreneurial decisions. This finding is not consistent with the findings of previous studies (Hsu, Wiklund, & Cotton, Success, failure, and entrepreneurial reentry: An experimental assessment of the veracity of self-efficacy and prospect theory., 2017) that found low self efficacy in Asian school students than in Western schools. They found that Asian students tend to put more effort in their success than ability resulting in low self efficacy in task accomplishment. But the expectations of parents and peers become the source of self motivation and Bandura et al. (2006) linked it with choice of careers and occupations. The entrepreneurs in agricultural sector of Pakistan seem to draw motivation from their culture and family structure that then drives them to include in entrepreneurial business startups. The impact of financial decision making also has a strong impact on effectual entrepreneurial startups. The principles of effectuation driving the entrepreneurial intention to raise necessary finances for the business drives the intention of effectual decisions in the face of uncertainty. This result is important to discover that an effectual decision for making the startup actually happening needs effectual financial planning.

Entrepreneurial efficacy is a process in which an entrepreneur proceeds through different phases in a cognitive manner. In order to understand the phenomenon of firm creation in agricultural sector of Pakistan, the research tried to assess and validate each respondent on the basis of events occurring in entrepreneurial firm creation. The study interacted with novice as well as expert entrepreneurs in different branches of agricultural business in Pakistan. The surge of newness, value addition and breaking free from the traditional market structures for doing business generally describes the entrepreneurial behavior in all four sub-sectors of agricultural business in Pakistan. The need for supportive entrepreneurial ecosystem is felt gravely for creating a thriving agricultural sector that can innovate in multiple uses of available resources. Planning for an entrepreneurial startup needs careful assessment of all the aspects of planning (i.e. operational, strategic, and contingency). The skills related to planning are not as strong as these should be for an entrepreneurial firm in a risk prone agricultural market of Pakistan. Relatively low factor loading for marketing campaign design indicates this deficiency of making efforts to create the most viable future circumstances to manage risk of survival. It has been proven wrong in empirical literature that big businesses started without any proper plan; therefore, the entrepreneurs in Pakistan must plan properly to enact entrepreneurial businesses. It was also indicated by Khwaja (2006) that only 5% of small and medium enterprises survive beyond 25 years. Therefore, planning aspect for entrepreneurs is very important to avoid liability of newness and obsolescence. The team building is as important as the growth and survival of a venture especially for entrepreneurial startups in developing economies with less developed factor and labor markets.

8. CONCLUSION

The study found that entrepreneurial personality, choice of financial sources and ecological environment significantly influence entrepreneurial efficacy. The study interacted with novice as well as expert entrepreneurs in different branches of agricultural business in Pakistan. The surge of newness, value addition and breaking free from the traditional market structures for doing business generally describes the entrepreneurial behavior in all four sub-sectors of agricultural business in Pakistan. The need for supportive entrepreneurial ecosystem is felt gravely for creating a thriving agricultural sector that can innovate in multiple uses of available resources. Planning for an entrepreneurial startup needs careful assessment of all the aspects of planning (i.e. operational, strategic, and contingency). The skills related to planning are not as strong as these should be for an entrepreneurial firm in a risk prone agricultural market of Pakistan Although entrepreneurs show a strong sense of venturing but surprisingly they do not put significant efforts in search of entrepreneurial opportunities. Although there are mixed evidences regarding linking personality with entrepreneurial efforts but the varying results for different industries and societies makes it worth to explore its impact. This lead the study to assess the personality of entrepreneurs indulged in entrepreneurial startups in agricultural sector of Pakistan. The high and significant value of coefficient of entrepreneurial personality with entrepreneurial startup indicates that efficacy is explained by the personality. The important aspects of risk bearing ability and deliberating efforts for unknowable future outcomes of one's actions need a stable and self sustaining personality. As most of the entrepreneurs are in their middle age indicating that adolescent behavior driving the efforts to create personality of themselves that may not entirely due to their educational and professional demands. Theoretically this behavior is linked with transitional personalities that are evolving from being a recipient to the one becoming a carrier of its culture. Therefore, the strong personality of adolescents is linked with high degree of self efficacy and

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effectual entrepreneurial decisions. The entrepreneurs in agricultural sector of Pakistan seem to draw motivation from their culture and supportive family structure that then drives them to indulge in entrepreneurial business startups.

Authors Contribution

The study was co-authored and it was completed only after the collaborative effort by distribution different tasks from data colletion, analysis and the write up.

M. Mansoor Ali	Data collection, data analysis, write up
Saima Shafique	Data entry and editing, data analysis
Zakia Batool	Data entry and editing, write up
Syed Zain Ul Abidin	Final draft preparation

References:

- Ahmad, S. M. (2014). Integrating strategies of entrepreneurship Gourmet Pakistan. *International J. Academic Research and Reflection*, 2(2), 51–61.
- Akhtar, C. I.-u.-R. (2015). Investigating the moderating effect of family on the relationship between entrepreneurial orientation and success of enterprise: Case of Pakistani manufacturing SMEs. *International Journal of Entrepreneurship and Small Business*, 233-247.
- Aldrich, H. (1999). Organizations Evolving. . California: Sage Publications Ltd., Thousand Oaks.
- Audretsch, D. B. (2014). From the entrepreneurial university to the university for the entrepreneurial society. 39, 313–321. doi:https://doi.org/10.1007/s10961-012-9288-1
- Bandura, A. (1986). Social Foundations of Thought and Action. . Englewood Cliffs, NJ: Prentice-Hall.
- Bank, T. W. (2009). Bringing Finance to Pakistan's Poor: Access to Finance for Small Enterprises and the Undeserved. The World Bank.
- Baron, R. A. (2007). Research gains: Benefits of closer links between I/O psychology and entrepreneurship. In M. F. J. R. Baum., *The Psychology of Entrepreneurship* (pp. 347–373). New Jersey: Lawrence Erlbaum Associates Publishers.
- Baron, R. A., Frese, M., & Baum, J. R. (2007). Research gains: Benefits of closer links between I/O psychology and entrepreneurship. In M. Frese, & R. A. Baron, *The Psychology of Entrepreneurship* (pp. 347–373). New Jersey: Lawrence Erlbaum Associates Publishers.
- Brancati, E., Brancati, R., & Maresca, A. (2017). Global value chains, innovation and performance: firm-level evidence from the Great Recession. *Journal of Economic Geography*, 17(5), 1039-1073.

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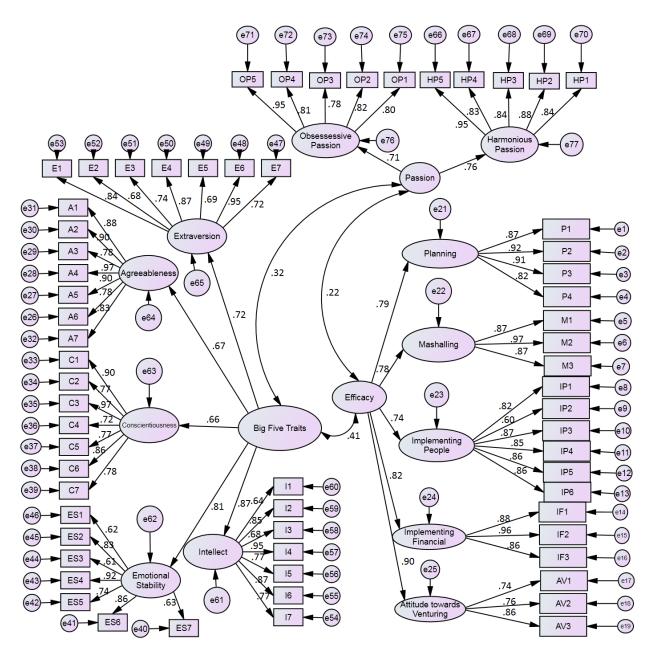
- Cardon, M. S. (2009). The nature and experience of entrepreneurial passion. *Academy of Management Review*, 511-532.
- Cardon, M. S. (2012). Exploring the heart: Entrepreneurial emotion is a hot topic. *Entrepreneurship Theory* and Practice, 36(1), 1-10. doi:http://dx.doi.org/10.1111/j.1540-6520.2011.00501.
- Cardon, M., & Kirk, C. (2015). Entrepreneurial passion as mediator of the self-efficacy to persistence relationship. *Entrepreneurship: Theory and Practice*, 39(5), 1027–1050.
- Carroll, G., & Khessina, O. (2005). The Ecology of Entrepreneurship. . (R. Agrawal, S. Alvarez, & O. Sorenson, Eds.) New Yord: Disciplinary Perspectives.
- Carter, N. M., Gartner, W. B., Shaver, K. G., & Gatewood, E. J. (2003). The career reasons of nascent entrepreneurs. *Journal of Business Venturing*, 18(1), 13–39.
- Chemin, M. (2008). Entrepreneurship in Pakistan: Government policy on SMEs. Environment for entrepreneurship. *Internationalisation of Entrepreneurs and SMEs*, 18(1), 13–39.
- Cooper, A. C. (1993). Challenges in predicting new firm performance. J. Business Venturing, 8(3): 241-253. *Journal of Business Venturing*, 8(3), 241-253.
- Dar, M. S., Ahmed, S., & Raziq, A. (2017). SMALL AND MEDIUM-SIZE ENTERPRISES IN PAKISTAN: DEFINITION AND CRITICAL ISSUES. . Pakistan Business Review, 19(1), 46-70.
- Douglas, E., & Shepherd, D. (2002). Self-employment as a career choice: attitudes, entrepreneurial intentions, and utility maximization. *Entrepreneurial Theory and Practice*, 26(3), 81-90.
- Duckworth, A. (2016). Grit: The power of passion and perseverance. NY: Scribner.
- Duckworth, A. (2016). Grit: The power of passion and perseverance. New York: Scribner.
- Duckworth, A., & Quinn, P. (2009). Development and Validation of the Short Grit Scale (Grit-S). *Journal Of Personality Assessment*, 91(2), 166-174. doi:doi:10.1080/00223890802634290
- Finance, M. o. (2020). Economics Survey of Pakistan. Government of Pakistan.
- Fritsch, M., & Wyrwich, M. (2017). Persistence of regionalentrepreneurship: Causes, effects, and directions for future research. *Jena Economic Research Papers*, 2017-003.
- (2016). Global Entrepreneurship Monitor. London (UK): London Business School.
- Goldberg, L. R. (1992). The development of markers for the big-five factor structure. *Psychological Assessment*, 4, 26–42.
- Goldberg, L. R. (1992). The development of markers for the big-five factor structure. *Psychological Assessment*, 4, 26–42.
- Hansen, E., & Nybakk, E. (2018). Response to the global financial crisis: a follow-up study. *Journal of Innovation and Entrepreneurship*, 7(1), 1-12.

- Hashim, N. R. (2018). Relationship between Entrepreneurial Competencies and Small Firm Performance: Are Dynamic Capabilities the Missing Link? . Academy of Strategic Management Journal, 17(2).
- Hsu, ,. D., Wiklund, ,. J., & Cotton, ,. R. (2017). Success, failure, and entrepreneurial reentry: An experimental assessment of the veracity of self-efficacy and prospect theory. *Entrepreneurship: Theory and Practice*, 17(1), 3-31. doi:http://dx.doi.org/10.1111/etap.12166
- Hsu, D., Wiklund, J., & Cotton, R. (2017). Success, failure, and entrepreneurial reentry: An experimental assessment of the veracity of self-efficacy and prospect theory. *Entrepreneurship: Theory and Practice*, 128-145. doi:http://dx.doi.org/10.1111/etap.12166.
- Hsu, D., Wiklund, J., & Cotton, R. (2017). Success, failure, and entrepreneurial reentry: An experimental assessment of the veracity of self-efficacy and prospect theory. *Entrepreneurship: Theory and Practice*, 17(1), 3-31. doi:http://dx.doi.org/10.1111/etap.12166
- Imran, M., Aziz, A., Hamid, S., Shabbir, M., Salman, R., & Jian, Z. (2018). The mediating role of total quality management between entrepreneurial orientation and SMEs export performance. *Management Science Letters*, 8 (6), 519-532.
- Kareem, R. (2015). Impact of entrepreneurship on poverty alleviation. *Journal of Business Administration and Education*, 7(1), 1-16.
- Kerr, S. W. (2016). Global Talent Flows. Journal of Economic Perspectives, 30(4): 83-106.
- Kerr, S., Kerr, W., Özden, Ç., & Parsons, C. (2016). Global Talent Flows. *Journal of Economic Perspectives*, 30(4), 83-106.
- Lee, S. H., & Wong., P. K. (2004). An Exploratory Study of technopreneurial intentions: a career anchor perspective. *Journal of Business Venturing*, 19(1), 7–28.
- McGee, J. E., Peterson, M., Mueller, S. L., & Sequeira., J. M. (2009). Entrepreneurial self-efficacy: Refining the measure. *Entrepreneurship Theory & Practice*, 33(1), 965–988.
- Mooradian, T., Matzler, K., Uzelac, B., & Bauer, F. (2016). Perspiration and inspiration: Grit and innovativeness as antecedents of entrepreneurial success. *Journal of Economic Psychology*, *56*, 232-243. doi:https://doi.org/10.1016/j.joep.2016.08.001
- Moudassir, H., Alamzeb, A., Imran, K., & Waheed, U. (2020). Role of Entrepreneurship Education in Poverty Alleviation: Mediating by Entrepreneurial Intention. CITY UNIVERSITY RESEARCH JOURNAL, 10(2), 205-228.
- Raza, S. M. (2018). The determinants of small firm performance in surgical instruments manufacturing sector of Pakistan. . *Asian Journal of Multidisciplinary Studies*, 6(2).
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78. doi:https://doi.org/10.1037/0003-066X.55.1.68

- Sarkar, S., & Osiyevskyy, O. (2018). Organizational change and rigidity during crisis: A review of the paradox. European Management Journal, 36(1), 47-58. doi:https://doi.org/10.1016/j.emj.2017.03.007
- Smith, D. E. (2005). Institutional Ethnography: A Sociology For People. Walnut Creek, CA.: AltaMira Press.
- Stewart, W. H., & Roth, P. L. (2004). Data quality affects meta-analytic conclusions: A response to entrepreneurial risk propensity. *Journal of Applied Psychology*, 89 (2), 14–21.
- Turker, D., & Selcuk, S. S. (2009). Which factors affect entrepreneurial intention of university students? *Journal of European Industrial Training*, 33(2), 142–59.
- Vallerand, R. J., Ce´line, B., Genevie`ve, A. M., Richard, K., Catherine, R., Maude, L., . . . Jose´e, M. (2003). Les Passions de l'A´ me: On Obsessive and Harmonious Passion. *Journal of Personality and Social Psychology*, 85(4), 756-767.
- Vallerand, R. J., Ce'line, B., Genevie've, A. M., Richard, K., Catherine, R., Maude, L., . . . Jose'e, M. (2003). Les Passions de l'A' me: On Obsessive and Harmonious Passion. *Journal of Personality and Social Psychology*, 85(4), 756-767.
- Yan, H., He, X., & Cheng, B. (2017). Managerial Ties, Market Orientation, and Export Performance: Chinese Firms Experience. . *Management and Organization Review*, 1-28.
- Yaqub, M. Z., & Hussain, D. (2010). Micro-enterpreneurs: Motivations challenges and success factors. International Research J. Finance and Economics, 20(3), 557–585.
- Zouaghi, F., Sánchez, M., & Martínez, M. G. (2018). Did the global financial crisis impact firms' innovation performance? The role of internal and external knowledge capabilities in high and low tech industries. *Technological Forecasting and Social Change*, 132: 92–104.

Appendix:

A.1 Results of Measurement Model



A.2 Results of Structural Model

