

Analysis Of Interaction Of Grit And Social Intelligence With Entrepreneurial Intentions Among Youth In Public Sector Higher Educational Institutions Of Balochistan

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Abstract

Entrepreneurship has widely been recognized as a prominent mean of self-employment, job creation and economic development. The process of indulging in entrepreneurial activities begin with entrepreneurial intentions which is influenced by multiple factors. This paper intends to analyze the role of grit and social intelligence with mediating-moderating role of family occupational orientation and risk-taking propensity on entrepreneurial intentions of the undergraduate level university students. The data has been gathered from 378 final year business studies students at public sector universities through self-administrated questionnaire across Balochistan province of Pakistan by using multi-stage sampling methods. This study follows quantitative cross-sectional design and the foundation of the study is based on the principles of theory of planned behavior. The findings reveal positive significant relationship of underlying variables on entrepreneurial intentions. The study proposes practical implications and guidelines for understanding and promoting students' entrepreneurial intentions and is one of the first studies conducted in this region.

Keywords: Entrepreneurial intentions, Grit, Social intelligence, Family occupational orientation, Risk-taking propensity.

1. Introduction

The economies across the globe are under pressure and struggling to deal with various crises. These crises have further been triggered by Covid-19 pandemic (Aktar et al., 2021; WorldBank, 2021). One of the most general outcomes of global economic crisis is that many young educated individuals are unable to find jobs despite of efforts (ILO, 2021; OECD, 2020). Entrepreneurship has widely been considered as one of the finest solutions to reduce poverty and joblessness of the youth specifically when educated individuals find it difficult to get jobs despite of consistent efforts (Osakede et al., 2017). The process of indulging in entrepreneurial activities require purposeful intentional behavior (Bird, 1988). In literature, the intentional behaviors have been proven as the finest predictors of future behavior (Zapkau et al., 2015). Thus it is vital

to unfold different factors that motivate an individual to get engaged in entrepreneurial endeavors as the process of setting-up a new enterprise begins with entrepreneurial intentions (Schlaegel & Koenig, 2014).

The stakeholders such as academia, policymakers and businesses remain keenly concerned about studying those factors which promote entrepreneurial behaviors and intentions of individuals (Arshad et al., 2021; Turker & Selcuk, 2009). Research studies have explored entrepreneurial intentions from multiple perspectives including personal, psychological, environmental, cognitive, non-cognitive and demographic factors (Kickul & Krueger, 2004; Francisco Liñán & Fayolle, 2015; Shapero & Sokol, 1982). The decision to be a self-employed person may conceivably be deemed as voluntary and cognizant decision and it appears rational to examine factors which play significant part in taking decision related to be entrepreneur rather than job seeker (Esfandiar et al., 2019).

Grit, a non-cognitive factor has been gaining increased attention among researchers due to its influence on entrepreneurial intentions (Hmieleski & Carr, 2007). Grit deals with the perseverance in the quest of vigorous objectives in the academic, personal as well as professional perspectives (Duckworth & Quinn, 2009). The impact of grit has been associated with entrepreneurship (Wolfe & Patel, 2016) and on the intentions of creating own businesses (Arco-Tirado et al., 2019; Butz et al., 2018; Kwapisz et al., 2022; Mueller et al., 2017).

Another cognitive construct that has been proven to have significant practical implications in various fields including entrepreneurship is social intelligence. Socially intelligent individuals exhibit appropriate behavior for attaining required social objectives (Björkqvist et al., 2000; Tshishonga, 2022). Schwarz et al., (2009) suggested that social intelligence based on the environment has been recognized as a relevant aspect in supporting entrepreneurial success.

Similarly, risk-taking propensity is one of the crucial personal attributes of entrepreneurs which facilitates them to opt entrepreneurship despite of several risks (Antoncic et al., 2018). Entrepreneurial endeavors related to the launch of a new venture can be hazardous as probability of new venture failure carry an ample rate (Shepherd et al., 2017). Entrepreneurs acknowledge various types of risk (emotional, social, and monetary) during and after the launch of new ventures. Individual tendency towards risk-taking helps them to take decisions which may have high level of risk as well as high return (Antoncic et al., 2018).

Moreover, family occupation plays vital role on the development of occupational intentions in youth (Laspita et al., 2012). Another prominent factor among others is family occupational orientation. Entrepreneurial parents may increase the likelihood of a child to opt entrepreneur increases by 30 to 200% (Lindquist et al., 2015) as family entrepreneurial family background (EFB) helps off-springs in acquiring knowledge of business and skills, acquiring human and financial resources to grab business opportunities from pre-established networks (Nandamuri, 2013).

Since most of the individuals are likely to set up businesses at their young age (Hulsink & Koek, 2014; Lévesque & Minniti, 2011; Liles, 1974) therefore university students are known as the most apparent source of future entrepreneurs (Turker & Selcuk, 2009). The knowledge gained by the students during the pursuit of their degree influences greatly on the career selection of youngsters (Barba-Sánchez et al., 2022), hence universities can be regarded as potential platform of generating potential entrepreneurs. Scholars argue that entrepreneurial intention of students can determine and predict their tendency of choosing entrepreneurship (Barnir et al., 2011; Kickul et al., 2009; Sondari, 2014). Students enrolled at higher educational institutes can be more inclined towards entrepreneurship therefore exploring students'

entrepreneurial intentions is a vibrant domain which requires further exploration to grab and understand its various dimensions (Zreen et al., 2019). Many scholars have examined the entrepreneurial intentions or tendency of students from different perspectives (Ajike et al., 2015; Barba-Sánchez et al., 2022; Dohse & Walter, 2012; Esfandiar et al., 2019; Franco et al., 2010; Hou et al., 2019; Teixeira & Forte, 2017; Turker & Selcuk, 2009; P. Zhang et al., 2015). The critical issue of unemployment among youth may be resolved by understanding and exploring various factors which lead university graduates to start their own venture rather than being employed.

In emerging economies, where economic conditions are volatile and limited job opportunities exist for young graduates, the interactive study of these cognitive and personality factors are under theorized in existing literature of entrepreneurial intentions. Moreover, the mediation-moderation role of social networking ties and family occupational orientation along with risk-taking propensity in predicting entrepreneurial intentions among youth requires further investigation especially in context of evolving economies like Pakistan.

The findings of this study will support policymakers in devising such policies which may assist in promoting entrepreneurship in the region. It may also be beneficial for academia in designing such curriculum and teaching pedagogy which may help students in developing intentions to become entrepreneurs rather than job seekers. This study also provides empirical verification of cognitive and personality factors to explain risk-taking propensity and entrepreneurial intentions while taking into consideration the role of family occupational orientation. Hence, the prime objective of this study was to investigate the interaction of grit and social intelligence on students' entrepreneurial intentions with mediating-moderating role of family occupational orientation and risk-taking propensity.

2. Literature Review and Hypothesis Development

2.1 Grit, Social Intelligence and Entrepreneurial Intentions

The influence of grit has been explored in multiple contexts of individual performances including entrepreneurship (Wolfe & Patel, 2016). Grit has been explored as a positively influencing trait in successful accomplishment of career related tasks with respect to teaching effectiveness (Robertson-Kraft & Duckworth, 2014). Soldiers having high grit scores were proven to perform better professional tasks. Similarly, grittier sales related employees were more productive and students with more grittier tendency were more focused towards completion of their degrees (Eskreis-Winkler et al., 2014). In another study in which data was collected from the general population of nine developing counties, Wolfe and Patel (2016) discovered strong relationship of grit with self-employment specifically in risk-taker youngsters.

In recent years, numerous empirical research studies discovered the relationship between entrepreneurial intent and personality traits specifically by using big-five personality model. The findings of these studies carry varied results (Ahmed et al., 2022; Antoncic et al., 2015; Brice Jr., 2002).

Entrepreneurial studies have increasingly been exploring self-regulatory processes in various domains. Forgas et al. (2011) discovered that self-regulation can be developed through a person's control over beliefs, feelings, instincts, inspirations and finally behaviors. Self-regulation helps individuals to put continuous efforts into goal selection, devising and executing strategies for achievement of these goals, despite several obstacles and pressures. Another recent study through a sample of 500 United States of

America's Midwestern university students explored significant relationship of grit with entrepreneurial intent (Butz et al., 2018).

Similar study has been conducted to unleash the association between Grit and entrepreneurial intentions by taking a substantial sample of youngsters and controlling various potential confounding variables (Arco-Tirado et al., 2019). Currently, a limited studies have investigated the relationship of grit with entrepreneurial intent; therefore, there are sums of reasons to believe that grit is positively correlated with establishing entrepreneurial intension among students.

The significance of emotional intelligence in entrepreneurship literature is now well established individuals with high emotional intelligence level are assumed to be more inclined towards establishing and sustaining their own venture (Miao et al., 2018). Cherniss et al. (1998) reported that adaptive competencies play crucial role in making a person successful in career and those who lack flexible skills and social intelligence do not prove to be successful in their careers. Various persuasive evidence proves that emotional and social intelligence work as key career advancement factors for employees yet very limited empirical research studies highlight the relationship of social intelligence and entrepreneurial intentions. An Iranian study found substantial relationship of emotional intelligence with propensity of small and medium businesses managers towards entrepreneurship (Rahimi Pordanjani et al., 2013). Similarly, another study conducted in Pakistan found profound impact of social intelligence level on the development of an individual's mindset towards entrepreneurship (Soomro et al., 2019). Aykol and Yener (2009) found positive significant association between three elements of social intelligence and students' entrepreneurial intentions. Entrepreneurial leaders require significant level of social intelligence as they are required to motivate, understand and influence the behaviors of their subordinates for achievements of goals (Marecki, 2014). Hence, based on literature support and arguments, the following hypothesis has been developed.

Hypothesis 1: Grit and social intelligence have a significant relationship with entrepreneurial intentions.

2.2 Mediating Effects of Risk-taking Propensity

Risk-taking propensity has been emerged as one of the most challenging variables as on one side; it is considered as determining factor of entrepreneurial intention, contrary, it has also been studied as an endogenous variable in the models of entrepreneurial intention (Altinay et al., 2012). The studies also propose that the risk-taking propensity is a composite variable which must be studied with other personality attributes (Nicholson et al., 2005). Very few studies in business literature consider risk-taking propensity as mediating variable (Yordanova & Alexandrova-Boshnakova, 2011). Uncertainty exists regarding the role of risk-taking propensity as it is not evident from empirical studies that either risk-taking is a moderating, mediating or exogenous variable (Altinay et al., 2012).

A recent study used risk-taking propensity as a mediating variable to explore the relationship in between regional culture and ethical understanding (Vinson et al., 2020). Another study focusing on risky decision making behaviors took risk-taking propensity as mediating variable (Sitkin & Weingart, 1995). A study examining the gender role on entrepreneurs risk behaviors highlighted that risk-taking propensity mediates the effects on gender (Yordanova & Alexandrova-Boshnakova, 2011). An empirical research conducted in China explored the mediating role of risk-taking aptitude with the optimistic correlation between entrepreneurs and the performance of new venture (Liu et al., 2019). Zainon et al. (2020) found

significant mediation in between risk-taking propensity and the association between women personality traits and their venture's success.

Grit plays a significant role in defining self-employment intents. Gritty individuals carry higher risk-taking propensities while individuals having low grit scores carry little risk-taking propensities. Grit has also been associated with achievement of long-term intended goals despite failure. Therefore, it can be argued that gritty individuals have more propensities to take more risks as compared to those having lower grit level. Comparatively, similar arguments have been proposed by the study conducted by Wolfe and Patel (2016) explaining that individuals with higher propensities of risk-taking and more grit are more inclined towards self-employment rather than being job-seeker (Arco-Tirado et al., 2019).

Socially intelligent individuals are encompassed by social consciousness, responsiveness and human skills therefore socially intelligent employees are proven to be more creative, diverse, risk-takers and motivated (Buehring & Moore, 2018). Similarly, teams having high emotional and social intelligence level perform better in creative tasks, take more risks, learn and adapt steadily, and take better decisions (Barczak et al., 2010). Hence, it can be inferred that socially intelligent individuals having entrepreneurial intentions can better understand their own and others' behaviors which affect their risk-taking propensity. Therefore, the following hypothesis has been proposed.

Hypothesis 2: Risk-taking propensity mediates grit, social intelligence and entrepreneurial intentions.

2.3 Moderating Role of Family Occupational Orientation

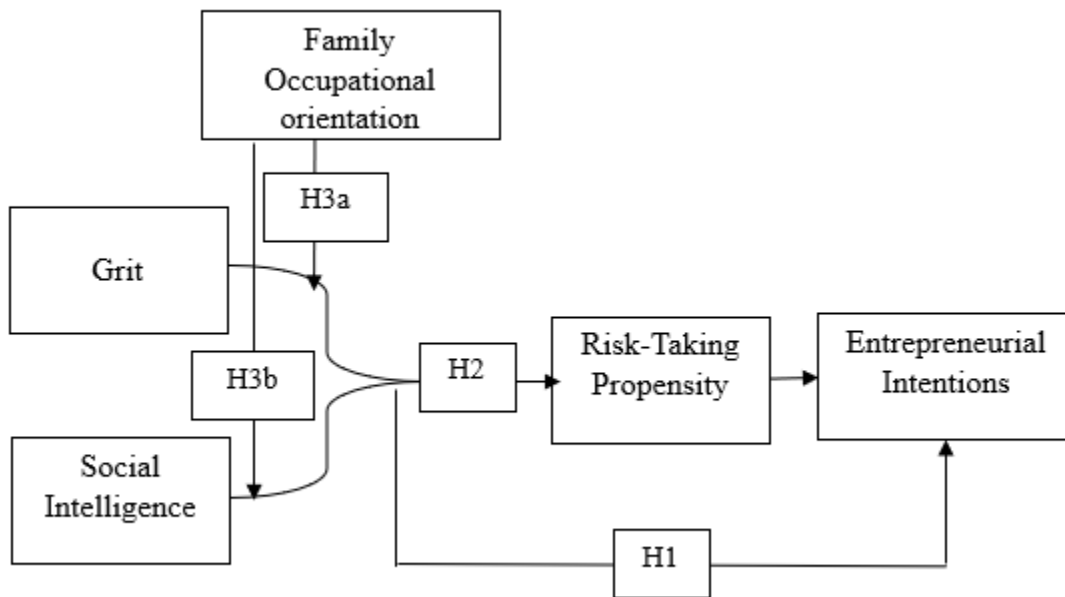
Family occupation orientation has been considered as one of the prominent factors to develop entrepreneurial intentions (Matthews & Moser, 1995). High propensity has been found in children to opt an occupation if the parents belong to the same occupation. By analyzing the family occupational orientation, a segment of prospective entrepreneurs can be identified who may intend to carry forward their inherited business legacy (Georgescu & Herman, 2020). A person having entrepreneurial family orientation is highly predicted to choose self-employment rather than those having non-entrepreneurial background (Nandamuri, 2016). Family occupation is the prime contributor that cultivates individuals' intention towards their career orientation. The self-employed parents provide a strong stimulation for the children to be independent entrepreneurs De Vries (1977) elaborated a psychoanalytic perspective and proposed that children of parents having business orientation are more inclined towards controlling their own actions and lives by becoming entrepreneurs. Many research studies conducted in past also proved that family occupation inculcates higher positives vibes in off-springs to start own business (Carr & Sequeira, 2007). Altinay et al., (2012) discovered positive correlation between family orientation and risk-taking and concluded that risk-taking is an essential component of self-employment which required family support. Georgescu and Herman (2020) explored the moderating effect of family occupation on the association with students' entrepreneurship education and the entrepreneurial intention. Family occupational orientation and risk-taking propensity are known as widely researched area in entrepreneurship literature in relation with building entrepreneurial intentions (Al-Mamary et al., 2020; Altinay et al., 2012; Martins & Perez, 2020) Surprisingly very few studies have been conducted to study family occupational orientation's relation with risk-taking propensity of individuals. No study has ever been conducted in Pakistan's context to probe the research gap. Further, no study has ever explored the mediating role of family occupational orientation with proposed variables of this study. Hence, this study aims to explore the mediating role of family occupational

orientation with grit, social intelligence and dispositional optimism in relation to risk-taking propensity of students in Pakistan’s context. Based on the literature support and arguments given, the following hypotheses have been proposed.

Hypothesis 3a: Family occupational orientation moderates the relationship between grit and risk-taking propensity.

Hypothesis 3b: Family occupation orientation moderates the relationship between social intelligence and risk-taking propensity.

Conceptual Model



3. Theoretical Background

Intentionality is a prime construct that unfolds the reasons of variations in an individual’s career choices. Although there are few opposite schools of thoughts, scholars generally find entrepreneurial activities as intentionally planned behavior. Exploring intentions help in understanding and predicting individuals behavior, whereas, certain specific attitudes are used to forecast intention thus intentions serve as an instrument to better understand the behavior or act itself (Ajzen, 1991; Krueger et al., 2000). This is also especially accurate for describing the decision to either choosing an entrepreneurial career track or by getting employed as intensions play most crucial role in this decision making process (Haase & Lautenschla, 2009). Several earlier studies have revealed that entrepreneurial intensions are determined by various factors (Haase & Lautenschla, 2009; Hoang et al., 2020; Karimi et al., 2017; Nguyen et al., 2019). Understanding entrepreneurial intentions require the insights of a rational and vigorous theoretical framework which should amply uncover new ventures’ intentionality.

The theory of planned behavior demonstrates a constructive theoretical framework for explaining complex social behaviors by integrating several significant variables from behavioral and social sciences domain to better understand and predict the certain behaviors in specified circumstances (Ajzen, 1991; Gieure et al., 2019). The fundamental assumption of the theory of planned behavior elaborates that certain sort of intentionality about the behavior should be present before any planned behavior. Since most of the individuals' behaviors are planned therefore becoming self-employed or entrepreneur requires an intentional and deliberate process for transforming the business idea into real business (Gieure et al., 2019). Various prior studies on the domain of entrepreneurial intention have been led along with the lines of the theory of planned behavior which makes this theory as one of the most popular and dominant theoretical frameworks for studying human intentions specially entrepreneurial intentions by generating valid results (Ajike et al., 2015; Alam et al., 2019; Munir et al., 2019).

Although the theory of planned behavior is not virtuously a model of entrepreneurial intentions; however, it has been widely used due to its conceptual sense, as new businesses are shaped with planning. Hence, entrepreneurship has been regarded in perceptive of theory of planned behavior as a planned behavior which can be predicted by entrepreneurial intentions (Alam et al., 2019).

4. Research Methodology

This study follows the positivism paradigm which is guided by the scientific principles of observation, reason, objectivity and deductive logic (Antwi & Kasim, 2015). Further, this study is quantitative and based on correlational and descriptive design.

4.1 Target population, sampling and data collection

The target population of this study was management science students at all public sector universities situated in Balochistan province of Pakistan. There are various reasons of choosing young students of university as target population of this study; students of universities are the most apparent source of future entrepreneurs in the country (Veciana et al., 2005), since the knowledge acquired through university influences greatly on the career selection of youngsters, universities are regarded as prospective sources of generating potential entrepreneurs (Turker & Selcuk, 2009). Students' tendency toward entrepreneurship can be seen as an imperious content for the establishment of a new venture. The inclination of students towards entrepreneurship can foster their intent and passion to indulge in new entrepreneurial endeavors in the future (Zreen et al., 2019). The Higher Education Commission and Government of Pakistan are also keenly working to promote entrepreneurship through higher educational institutes (N. Ahmed et al., 2019). Multi-stage sampling design with probability proportional to size (PPS) sampling method was opted for this study. By using PPS sampling method, samples were chosen from a predetermined population of units $i = 1, \dots, N$ in which a size measure x_i ($x_i > 0$) was already identified and accessible for each population unit i prior to drawing samples. The probability π_i of taking unit i was also proportionate to x_i (Skinner, 2016). Further, systematic sampling techniques have been used to collect data. Only final year students of undergraduate study program were contacted. With confidence level 95% and 2.5% margin of error with known population the proposed sample size for this study was 378 (Dell et al., 2002). Self-administered survey questionnaires were distributed through a systematic approach by taking approvals and lists from relevant university officials. Ethical and cultural perspectives were also considered and duly followed during the data collection process.

4.2 Scales

Valid and reliable scales were opted from earlier research studies. The construct grit was measured through 08-item Grit-S scale. This scale was developed by Duckworth and Quinn (2009) having 0.82 coefficient alpha. This scale contains 05-points ranging from “indicate how well it describes you on a scale from 1 (not like me at all) to 5 (very much like me)”. To measure Social Intelligence, Tromsø Social Intelligence Scale (TSIS) developed by Silvera et al. (2001) was opted. This 21-items scale contains 07 points ranging from “how well it describes you on a scale from 1 (Describes me extremely poorly) to 7 (Describes me extremely well)” having composite 0.82 Cronbach’s alpha coefficient. To measure family occupational orientation, 03-items dichotomous scale developed by Laspita et al. (2012) has been adopted, which is having Cronbach’s alpha 0.703. The risk-taking propensity was accessed through 08-item General Risk Propensity Scale (GRiPS) developed by Zhang et al. (2019) having 0.92 coefficient alpha. This scale contains 05-points ranging from “how well it describes you on a scale from 1 (strongly disagree) to 5 (strongly agree)”. The entrepreneurial intentions were measured through the scale developed by the Liñán and Chen (2009) which is in accordance with the Ajzen’s (1991) theory of planned behavior. The composite reliability of scale is 0.892. This 06-items scales contains 07 points ranging from “Indicate your level of agreement with the following statements from 1 (total disagreement) to 7(total agreement)”.

4.3 Validity and Reliability

To check the convergence and discriminant validity of scales, confirmatory factor analysis was applied. Cronbach’s alpha reliability estimate was applied by using SPSS for all the scales used in this study.

5. Results

Table 1 Convergent Validity and Reliabilities

Variables	Reliability-Items	The average variance extracted (AVE)
Grit	.736	.55
Social Intelligence	.755	.65
Family Occupational Orientation	.855	.45
Risk-Taking Propensity	.687	.68
Entrepreneurial Intentions	.898	.65

Table-1 highlights the reliability and average variance extract (AVE) of all variables of this study by using Cronbach's alpha. The reliability values of all variables are more than .60 thereby exhibiting significant reliability. The convergent validity is measured through Average-Variance extract having the value more than 0.50 which establishes significant level of convergent validity (Bell et al., 2022).

Table 2 Correlations and Descriptive Statistics

Pearson correlations	Mean	S.D	1	2	3	4	5
Grit (1)	3.21	.97	.74	.553**	.411**	.438**	.432
Social Intelligence (2)	3.11	1.09		.80	.356**	.414**	.471**
Family Occupational Orientation (3)	3.63	1.10			.67	.412**	.391**
Risk-Taking Propensity (4)	3.47	1.09				.82	.777**

Entrepreneurial Intentions (5)	3.49	1.08	.80
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Note: Correlation is significant at the .01 level (2-tailed); diagonal values are the square root of AVE

Table-2 illustrates the descriptive and correlational values. The descriptive (mean and standard deviation) scores of all the variables are near the agreeableness scale. It reflects that the respondents understood all variables within the required context.

Moreover, discriminant validity is ensured via two methods. The first method was recommended by O'Reilly et al. (1991), i.e., the predictors should yield a weak correlation with each other and the second method was suggested by Fornell and Larcker (1981), i.e., correlation values should be lesser than values of the square root of AVEs of each construct (Henseler et al., 2014). Table-2 demonstrates that the correlation values of predictors (grit, social intelligence, family occupational orientation and risk-taking propensity) carry positively significant correlation with mediator risk-taking propensity and outcome variable entrepreneurial intentions. The diagonal values in Table-2 exhibit the square root of AVEs which are greater than corresponding correlation values. Moreover, predictive validity is ensured because the predictors have significant and positive correlation with outcome variable. Highest correlation value was found between entrepreneurial intentions and risk-taking propensity (.77**) followed by the relationship between entrepreneurial intentions and social intelligence (.47**).

For hypotheses testing, regression models were used. For H1, multiple linear regression analysis was used. Results in Table 3 shows the predictors (Grit and Social Intelligence) are positively significant with Entrepreneurial Intentions ($R^2 = .34$, $p, .00 < .05$). the coefficient values indicate that social intelligence has higher effect (.33) as compared to grit (.24) on entrepreneurial intentions. As all the predictors are significant, thereby H1 is accepted.

Table 3 Results of Multiple Regression

Hypothesis	F-statistics (p-value)	R-Square	Coefficients (Beta)	T-statistics (p-value)	Decision
H1	53.26 (.00)	.26	.24** (Grit) .33** (Social Intell.)	4.12 (.03) 5.62 (.02)	Accepted

Note: ** significant at .05 level. Grit, SIN= social intelligence, ENT=Entrepreneurship intention

The mediation hypotheses H2 were tested through Hayes Process Model 4 with bootstrapping resample 5000 and 95% confidence interval (Preacher et al., 2008), this approach is highly preferred for mediation analysis (Kim & Chen, 2015). The condition for mediation entails that zero value should not be there between lower and upper intervals and, all pathways should be substantial for mediation (MacKinnon, 2008).

Grit and risk-taking propensity ($b=.49$, $.37-.61$), risk-taking propensity and entrepreneurial intention ($b=.71$, $.64 - .79$) and grit and entrepreneurial intention ($b=.12$, $.03 - .21$) are significant. When propensity to risk is added as mediator, the coefficient of indirect path between grit and entrepreneurial intentions reduced ($b=.49 - .37$, $.23-.42$) which shows that when risk-taking propensity is positively significant, the relationship between grit and entrepreneurial intentions is strengthened. Thus, partial mediation is present.

Social intelligence and risk-taking propensity ($b=.49, .37-.61$), risk-taking propensity and entrepreneurial intentions ($b= .71, .64 - .79$) and social intelligence and entrepreneurial intentions ($b= .18, .10 - .25$) are significant. When risk-taking propensity is added as mediator, the coefficient of indirect path between social intelligence and entrepreneurial intentions reduced ($b=.49 - .37, .23-.42$) which shows that when risk-taking propensity is positively significant, the relationship between grit and entrepreneurial intentions is strengthened. Thus, partial mediation is present. Hence, H2 is accepted.

Table 4 Results of Mediation Analysis

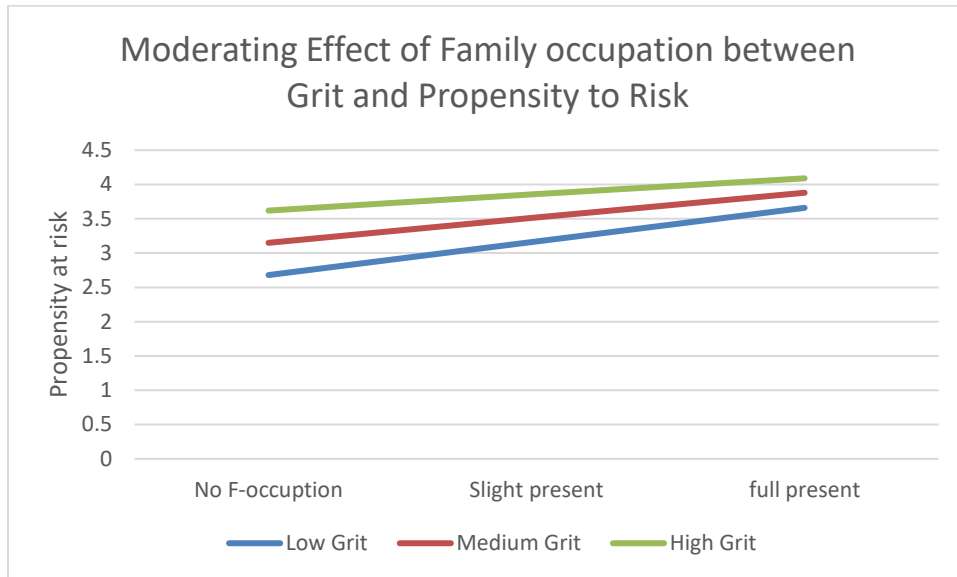
Variables	Outcome	P	Coefficient	S.E	T	LICT	UICT
Grit		.00	.4951	.0588	8.4211	.3794	.6108
Social Intelligence	Propensity to Risk	.00	.4191	.0534	7.8470	.3140	.5242
Grit		.00	.1257	.0448	2.8061	.0376	.2139
Social Intelligence	Enter Intention	.00	.1806	.0388	4.6544	.1042	.2570
Risk-taking Propensity		.00	.7192	.0397	18.1265	.6411	.7972
Indirect Effects of Risk-taking Propensity							
Grit	Entr:		.3275	.0466		.2380	.4216
Social Intelligence	Intention		.2909	.0450		.1902	.3426

According to H3a, family occupation orientation moderates the relationship between grit and risk-taking propensity. To test H3a, the Hayes process model-1 was applied with confidence interval of 95% and 5000 bootstrapping. The findings of this study exhibit that the interaction effect between grit and family occupation orientation is statistically significant [$B = -.11, 95\% C.I (-.21, -.02), P < .05$]. The conditional effect of family occupation orientation on risk-taking propensity explains comparable results. With minimal moderation of family occupational orientation, the conditional effect for risk-taking propensity is [conditional effect = .48, 95%, C. I (.32, .63.), $P < .05$], and with high-level moderation of family occupation orientation, the conditional effect for risk-taking propensity is [conditional effect = .21, 95%, C. I (.22, 47), $P < .05$] which indicates that when family occupation orientation is high, the risk-taking propensity decreases even when grit value is lower. Moreover, at low level of family occupation orientation, the risk-taking propensity is significantly different between low level of grit and high level of grit. Thus, grit is significant predictor for risk-taking propensity. Furthermore, when family occupation orientation interacts with grit, the risk-taking propensity becomes stronger and is increased. Thereby, the grit and family occupational orientation become necessary to risk-taking propensity. Overall, the Moderating effect of family occupation via H3a is accepted.

Table 5 Moderation effect of Grit and Family occupational orientation

Variables	Condition	Coefficient	S.E	T	P	LICT	UICT
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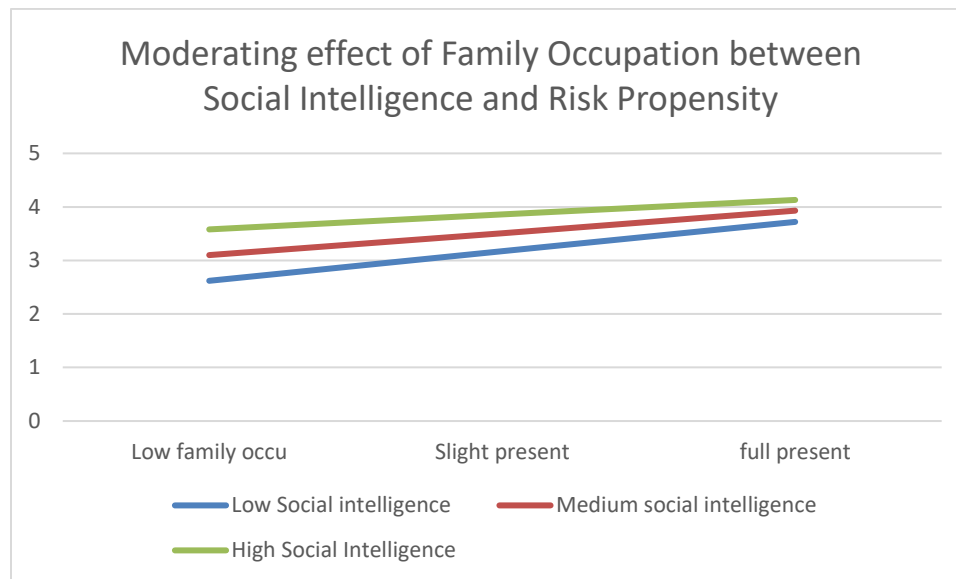
Risk Propensity at	Low Family Occupation		.48**	.07	6.24	.00	.32	.63
	High Family Occupation		.21**	.08	2.57	.01	.22	.47
Interaction-1	Grit * Family Occupation		-.11**	.04	-2.49	.01	-.21	-.02



According to H3b of the study, family occupation orientation moderates the relationship between social intelligence and risk-taking propensity. For testing H3b, the Hayes process model-1 was applied with confidence interval of 95% and 5000 bootstrapping. The results explain that the interaction effect between social intelligence and family occupational orientation are statistically significant [B = -.15, 95% C.I (-.19, -.04), P < .05]. The conditional effect of family occupation orientation on risk-taking propensity shows corresponding results. With low point moderation of family occupational orientation, the conditional effect for risk-taking propensity is [conditional effect = .44, 95%, C. I (.30, .58.), P < .05], and at high-level moderation of family occupation orientation, the conditional effect for risk-taking propensity is [conditional effect = .18, 95%, C. I (.05, .31), P < .05] indicating that when family occupation orientation is high, the risk-taking propensity decreases even for those having low social intelligence level. Moreover, at low level of family occupational orientation, the risk-taking propensity is significantly different between low and high level of social intelligence. Thus, social intelligence is a significant predictor for risk-taking propensity. Furthermore, when family occupational orientation interacts with social intelligence, the risk-taking propensity becomes stronger and increased significantly. Thereby, social intelligence and family occupational orientation become necessary to risk-taking propensity. Overall, the Moderating effect of family occupation via H3b is accepted.

Table 6 Moderation effect of family occupational orientation between social intelligence and risk-taking propensity

Variables	Condition	Coefficient	S.E	T	P	LICT	UICT
Propensity at Risk	Low Family Occupation	.44**	.06	6.38	.00	.30	.58
	High Family Occupation	.18**	.06	2.76	.00	.05	.31
Interaction-1	Social Intelligence* Family Occupation	-.15**	.03	-3.03	.00	-.19	-.04



6. Discussion

The prime objective of this study was to investigate the role of grit and social intelligence in determining entrepreneurial intentions of young university students. Findings of this study with respect to grit and entrepreneurial intentions have noteworthy alignment with previous research studies elaborating that high gritty individuals would be more inclined towards entrepreneurship (Arco-Tirado et al., 2019; Butz et al., 2018; Hmieleski & Carr, 2007; Wolfe & Patel, 2016). In recent years, grit has gained notable attention in studies related to the development and success of new business endeavors (Postigo et al., 2021). Several factors affect individuals' ability to proceed and continue in adverse circumstances and to uphold their momentum and motivation towards work for attaining long-term goals, the construct grit has gained an increasing level of attention as a key element in such persistence, predominantly in entrepreneurial domains (Wolfe, 2021).

Similarly, results of this study confirm the notion that social intelligence significantly affects the entrepreneurial intentions of students. Although the construct of social intelligence has been proven to have

promising practical implications but limited empirical research studies have been conducted to explore the relationship between social intelligence and entrepreneurial intentions. A study was conducted among students elaborating significant and positive relationship between these variables (Aykol & Yener, 2009). Another study conducted by Pekkan and Sisman (2020) concluded that a significant proportion of the relation between social intelligence and entrepreneurial intention is positively established via self-efficacy. Bonesso et al. (2018) found emotional, social and cognitive competencies counts into students' willingness to become entrepreneurs. Özdaşlı et al. (2018) also revealed that an individuals' social intelligence level significantly affects entrepreneurship tendencies.

Another objective of the study was to unfold the mediating role of risk-taking propensity between grit, social intelligence and entrepreneurial intentions. The findings of this study confirm the proposed notion, but no similar studies were found to generalize finding of this study. However, several studies have been conducted to examine the role risk-taking propensity as mediating variables in different perspectives (Liu et al., 2019; Sitkin & Weingart, 1995; Vinson et al., 2020; Yordanova & Alexandrova-Boshnakova, 2011; Zainon et al., 2020).

The role of family occupational orientation as moderating variable with the relationship between grit, social intelligence and risk-taking propensity has also been proven significant in this study. There is a vast scope of future research in this context.

7. Limitation and Scope of Future Research

This study delivers an empirical model of grit, social intelligence, family occupational orientation, risk-taking propensity and entrepreneurial intentions. However, these contributions are made under few limitations having vast scope of future research. The scope of this study is limited to only undergraduate students of business management departments of universities situated in Balochistan province of Pakistan having smaller sample size using cross sectional research design with self-reported questionnaire. Thus, future researchers may use longitudinal design with a bigger sample size encompassing respondents from varied disciplines to enhance generalizability with respect to other contexts and cultures. This study is a pioneering study conducted in this context, future studies may also consider including other relevant constructs or dimensions influencing entrepreneurial intentions of students, e.g., emotional intelligence, entrepreneurial eco-system, personality traits etc.

8. Implications and Conclusion

The findings of this study propose several practical implications for policymakers, government and academia. China-Pakistan Economic Corridor (CPEC) is part of "One Belt, One Road" (OBOR) Chinese government's initiative to connect China with rest of the world via Pakistan. This mega project is an emergent opportunity for Pakistan in general and Balochistan in particular to attain higher economic growth through overcoming the vicious cycle of poverty, and to enhance the living standards of its citizens (A. Ahmed et al., 2017). To fully capitalize these socio-economic opportunities, the role human resource development (HRD) and entrepreneurship has been considered very crucial (Castleman, 2016). Hence, the underlying study may help in availing the opportunities emerging through CPEC initiative by unfolding the factors which promote entrepreneurial intentions. The findings of this study are helpful for policymakers in devising policies through analysis of underlying variables which have proven role in creating or strengthening entrepreneurial intentions. It will also be beneficial for academia in designing such

curriculum and teaching pedagogy which may help students in developing intentions to become entrepreneur job providers rather than job seekers. This study has also contributed to existing literature by empirical verification of cognitive and personality factors to explain risk-taking propensity and entrepreneurial intentions while also considering the role of family occupational orientation.

This study concludes that social intelligence is a more significant predictor for entrepreneurship intention as compared to grit among students of higher education in the presence of risk-taking propensity. Thus, policymakers and academia should focus on increasing students cognitive, social and motivational aspects to strengthen their entrepreneurial intentions to reap the benefits for economy.

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