

**Individual Entrepreneurial Orientation, Access to Finance, and SME Performance: Fortifying Role of Entrepreneurial Alertness**

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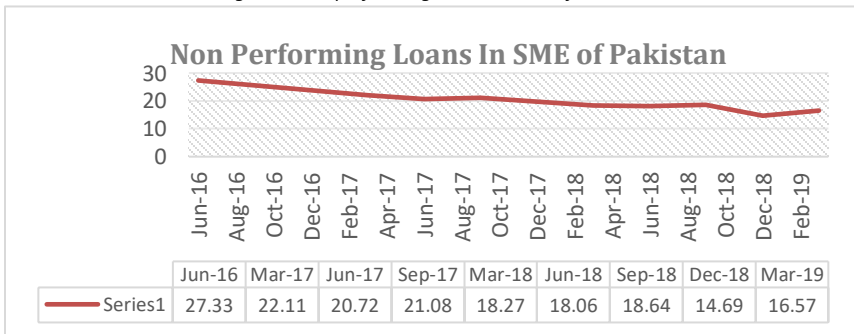
**Abstract**

The crucial factors deciding the performance of small and medium scale enterprises (SME) are amply discussed in the literature, however, the factors mediating and moderating this association are rarely addressed. To confiscate this discrepancy, we used individual entrepreneurial orientation (IEO) as a psychological construct deciding the SME performance. Moreover, the theory of action regulation is used and access to finance is deemed as a suitable action characteristic mediating the above relationship along with the moderating role of entrepreneurial alertness. Using cluster sampling to finalize 189 respondents, we found evidence that IEO and SME performance relationship is mediated by access to finance and the IEO and access to finance link amplify for alert SME owners. Our results are consistent with the action regulatory theory and lead important implications that without an arrangement of adequate capital, and owners’ psychological and responsive capabilities, the higher SME performance cannot be achieved. We offer important insights for SME owner-managers, training institutions and regulatory agencies.

**Keywords:** Individual entrepreneurial orientation, access to finance, entrepreneurial alertness success.

Small and Medium Scale Enterprises (SME) form 90% of the total businesses in Pakistan, provide 80% of the employment and contribute 40% towards Gross Domestic Product (SMEDA, 2019). Unlike large enterprises, SME face multiple constraints in their survival and growth phase due to limited financial resources (Bilal, Khan, & Akoorie, 2016; SMEDA, 2019). This fact is also reflected in higher delinquency in SME as the nonperforming ratio (NPR) of this sector has reached 16.57% (SBP report, 2019) that is significantly higher than the level of 2-3% of their counterparts in developed nations (See Figure 1 for the trend of NPR over past 5 years).

*Figure 1. Nonperforming Loans in SME of Pakistan*



Resultantly, this limited capital sector is facing serious constraints for easy access to finance and SME owners are unable to organize the low-cost capital structure to sustain survival and growth probability (Bilal et al., 2016; Fatoki, 2012; SMEDA, 2019). This study highlights this chronic issue of increasing SME delinquency in Pakistan that is one of the major impediments in their effective performance.

The above statistical facts indicate a slump in SME performance. Most of the prior research has examined external causes of this issue i.e., external regulatory complexities, economic downturn and internal infrastructural issues (Ali, 2018; Bilal et al., 2016) coupled with personal entrepreneurial characteristics i.e. education, age, gender (Raza et al., 2018) and lacked focus on building and utilizing the psychological capabilities of SME owners to overcome the issue of lower success rates.

Departing from the external factors that determine SME performance (Ali, 2018; Bilal et al., 2016; Raza, Minal, Zain, Tariq, & Khuwaja, 2018), this study has taken a recently emerged stance of entrepreneurial psychological aspects and the way they decide SME fate (Li, Qu & Huang, 2018). Currently, there is a handful research on entrepreneurial psychology in SME context that primarily investigated the constructs of passion, self-efficacy (Schenkel, Farmer, & Maslyn, 2019), burnout, and firm-level entrepreneurial orientation (EO) (De Mol, Ho, & Pollack, 2018; Fernet, Torrès, Austin, & St-Pierre, 2016; Imran et al. 2018; Hussain, Salia & Karim, 2018). Therefore we aim to extend the field of entrepreneurial psychology by investigating the psychological traits of SME owners that impart them the capacity to drive business performance.

In this backdrop, EO offers a holistic approach to understand the way entrepreneurial psychological factors impact business outcomes in SME (Hussain, Salia & Karim, 2018; Imran et al. 2018). Individual-level psychological construct of EO (Bolton & Lane, 2012) is more relevant in the SME context (Bernoster, Mukerjee, & Thurik, 2018; McGee & Peterson, 2019) because owners are the prime decision-makers in SME and their individual entrepreneurial orientation (IEO) determines the business decisions and actions (Palmer, Niemand, Stöckmann, Kraus, & Kailer, 2019). For this purpose, a consolidated seven-dimensional construct comprising proactiveness, risk-taking, competitive aggressiveness, learning orientation, achievement orientation, autonomy and innovative capabilities (Krauss, Frese, Friedrich, & Unger, 2005) is taken which is an overarching psychological component needed for successful SME operations. Despite the importance of IEO in the SME sector, past studies signaled limited understating of the mediating and moderating mechanisms that translate into business outcomes (Krauss et al., 2005; Palmer et al., 2019).

The psychological characteristics result in business success only when entrepreneurs take appropriate actions by building on them (Zacher & Frese, 2018). However, the studies of entrepreneurial psychology are unvoiced on their relationship with operational business actions and subsequent business success (Kantur, 2016). Therefore, this study has used the lens of Action Regulation Theory that affirms that entrepreneurial psychology is not useful until transformed into actions that are needed for business growth and survival (Zacher & Frese, 2018). Johnson, Christensen, and Kagerman's (2008) Orientation-Action-Outcome framework also take a similar stance that orientations are converted into outcomes based on actions taken by individuals.

The above arguments highlight the need for examination of mediating mechanisms explaining how IEO translates into entrepreneurs' actions that translate into business outcomes (Bolton & Lane, 2012; Krauss et al., 2005; Palmer et al., 2019). The firm-level entrepreneurial orientation construct has been previously linked to SME performance via firm-level strategic stances such as marketing capability (Sok, Snell, Lee, & Sok, 2017) and strategic orientation (Boohene, 2018). The IEO construct has been directly linked with outcomes such as business performance (Krauss et al., 2005) and entrepreneurial intention (Bolton & Lane, 2012). This shows that in the past either the firm-level strategic capabilities have been examined as mediators that are more relevant in the case of larger-scale business. In the small business context, the direct relation of IEO and its outcomes has been examined previously. Frese and Gielnik (2014) theorized that entrepreneurs' psychological constructs such as IEO can only result in business level outcomes if they improve their ability to take

certain business actions. Based on this notion, we argue that action characteristics would serve as a more practical underlying mechanism in the case of IEO and consequent business performance because the actions of owners are most important for small business success (Fatima & Bilal, 2019).

The ability to access finance is an important entrepreneurial action (Yoshino & Taghizadeh-Hesary, 2018). Finance is the lifeblood of SME and one of the prime factors in ensuring business success (SMEDA, 2019). SME in Pakistan are facing maintenance and long-term survival nuisances (Ali, 2018; Bilal et al., 2016; Raza et al., 2018) mainly due to the reduced capabilities of SME owners to obtain adequate finance to run their business operations (Yoshino & Taghizadeh-Hesary, 2018). The assumptions of the theory of action regulation, as well as the framework of Orientation-Action-Outcome (Johnson et al. 2008; Zacher & Frese, 2018), become the basis of, introducing action characteristics (access of essential resources e.g. finance) as a mediator between IEO and SME performance.

There is limited understanding of the relationship between IEO and access to finance (Fatoki & Oni, 2015) we assert that access to finance is easier in case of certain personal dispositions. For accessing resources SME owners need to be alert regarding the relevant information in the market and analyze it for capturing resources and performing business operations (Tang et al., 2012). Entrepreneurial alertness imparts individuals with perceptual and cognitive skills to be more vigilant in capturing the opportunities in the market (Adomako, Danso, Boso, & Narteh, 2018). Therefore, it is proposed as a moderator in the relationship between IEO and access to finance. Such that the IEO of SME owners will enable them to access financial resources more successfully if they possess entrepreneurial alertness as compared to those SME owners that fail to be alert.

We aim to answer three questions in this study, first, does IEO improves SME performance? Second does IEO enhance the capability of SME owners to have greater access to financial resources and in turn, make improve their business performance? And lastly, does IEO and access to finance relationship? The objectives of this study are stated as follows:

- To test the impact of individual entrepreneurial orientation (IEO) on SME performance.
- To investigate the mediating role of access to finance between IEO and SME performance relationship.
- To investigate the moderating role of entrepreneurial alertness between IEO and access to finance relationship.

This study has significance for theoretical as well as practical contributions. First, this research has theoretically contributed to SME performance literature by introducing the individual-level conceptualization of IEO (Krauss et al., 2005) as its determinant in contrast to the prior focus on external and firm-level factors. Second, it has clarified the theoretical basis of the IEO-performance link by introducing access to finance as a mediating action characteristic based on the Theory of Action Regulation. Third, it has demonstrated that SME owners IEO has a greater impact on access to finance if they possess entrepreneurial alertness. In this way, this study has enlightened the psychological factors attributed to SME performance and their underlying mediating and moderating mechanisms by using the emergent theoretical foundation of Action Regulation. Practically, this study has takeaways for SME owners who can improve their IEO and alertness for greater access to financial resources and enhance their performance. Moreover, the Small and Medium Scale Enterprise Development Authority (SMEDA) can introduce psychological training interventions for developing and improving IEO behavior in SME owners.

## **Literature Review**

### **Individual Entrepreneurial Orientation**

From a psychological perspective, EO is explained as an individual entrepreneurial attitude and action characteristic (Frese & Gielnik, 2014). The IEO construct has been developed by Krauss et al. (2005) that demonstrates the ideal entrepreneurial characteristics to maximize small business performance in developing countries. These characteristics include competitive aggressiveness, proactive personality, achievement orientation, autonomy orientation, learning

orientation, risk-taking, and innovativeness. The component of competitive aggressiveness equips entrepreneurs with the ability to make efforts for beating the competition (Lumpkin & Dess, 1996), proactive personality imparts future orientation and self-initiative (Frese & Gielnik, 2014), autonomy allows self-regulation and achievement orientation promotes intrinsic motivation for pursuing challenging goals (Wales, 2016). Moreover, risk-taking makes entrepreneurs better in dealing with uncertain situations and acts boldly in unknown situations (Kim & Vonortas, 2014) and innovativeness fosters a unique and distinctive approach in business actions. The element of learning orientation inculcates a habit of learning from experiences and enhancing ones' business knowledge (Minniti & Bygrave, 2001).

#### **Access to Finance**

It is the general capacity of an individual or organization to obtain financial resources i.e., cash, deposits, and liquid finance. The ease, reliability, flexibility, and continuity with which the supply of finance is available to a business at a reasonable cost (Claessens & Tzioumis, 2006; Leitch, Welter, & Henry, 2018). For the specific context of this study, it means the ability of SME owners to obtain finance for running their business operations either through informal sources or through debt financing (Yoshino & Taghizadeh-Hesar, 2018).

#### **Entrepreneurial Alertness**

Entrepreneurial alertness is referred to as actively searching for information and increasing knowledge level about market challenges to realize opportunities. It is a psychological, perceptual, and information processing skill that enables scanning, connection, and evaluation of information for the purpose of identifying and realizing market opportunities (Tang et al., 2012). The SME owners having more alertness are able to find out the overlooked and untapped ways to gain finance because they are 'on-call' to the changes in the market (Adomako et al., 2018).

#### **SME Performance**

Business performance is indicated by growing sales, profits, and the ability of the business to surpass its competitors by accomplishing goals related to products and services. There is no single method to gauge business success, it can be taken as the performance on financial (e.g. sales, profit, return on investment) and non-financial (e.g. reputation, owners' satisfaction) indicators (Frese et al., 2007). For this study, Van Gelderen et al. (2005) measurement of SME performance is used that is based on the success of business in attaining overall goals and the goals related to products, services, consumers, competitors, suppliers, regulations, and market.

#### **Individual Entrepreneurial orientation and SME Performance**

The entrepreneurial climate of SME has the features of uncertainty, ambiguity, change, and competition (Yoshino & Taghizadeh-Hesary, 2018). In order to survive in such market conditions, IEO is essential for SME owners to operate a successful business. All seven dimensions of IEO impart requisite psychological mindset to improve SME performance (Bernoster et al., 2018; Fatima & Bilal, 2019). Autonomy orientation imparts self-organization and self-regulation needed for successful goal attainment (Fischer, Mauer, & Brettel, 2018). Proactivity enables SME owners to take advance actions for future issues, overcome barriers, and make things happen, all of which are considerably linked to business success (Frese & Gielnik, 2014). Due to competitive aggressiveness, SME owners actively shape strategies for getting beyond competitors and outperform them. Furthermore, risk-taking orientation enables SME owners to take calculated risks and effectively mitigate the possible risks that are essential to survive in the contemporary business environment (Van Gelderen, Thurik, & Bosma, 2005). By being innovative the SME owners overcome the barriers of falling victim to routine business ideas and it is found that innovation is a prime determinant of distinguished business performance (Sok, O'Cass, & Miles, 2016). Higher learning orientation prompts SME owners to acquire new knowledge and learn from experiences to pursue better performance (Gnizy, Baker, & Grinstein, 2014). Lastly, a high level of achievement orientation motivates the SME owners to improve continuously by setting challenging standards and displaying behavior that promotes business growth (Staniewski & Awruk, 2019). These arguments depict that all dimensions of IEO serve as an important precursor of improving business performance by being ahead of competitors.

It signifies that SME owners' proactiveness, risk-taking, competitive aggressiveness, learning orientation, achievement orientation, autonomy orientation, and innovative capabilities enables them to have better performance on key business indicators (Krasuss et al., 2005; McGee & Peterson, 2019). Therefore, it is hypothesized that:

*H<sub>1</sub>: IEO has a significant influence on SME performance.*

#### **Mediating Role of Access to Finance- An Action Characteristic**

Theory of Action Regulation that postulates that entrepreneurial psychology and business level outcomes are linked through action characteristics (Zacher & Frese, 2018). The Orientation-Action-Outcome framework (Johnson et al. 2008) also supports this notion that orientations result in outcomes based on actions taken by individuals by virtue of those orientations. We propose that IEO that is a psychological entrepreneurial capability is linked with SME performance through an important action characteristic (Frese & Gielnik, 2014) of access to finance (Fatoki, 2012). In SME finance is the major resource needed to run smooth operations (Hussain et al., 2018) and it is claimed that SME owners with greater IEO, have increased capacity to get easy access to financial resources as compared to business owners who have a low level of IEO. Owners of SME are the key actors who select the strategic stance for their business. Therefore, owners' high IEO reflects in the successful performance of business operations (Krauss et al., 2005). More precisely, the qualities of being proactive, innovative, autonomous, along with orientation towards learning, achievement, competition, and risk makes SME owner have high IEO (Krauss et al., 2005); all these factors enable easy access to finance in SME (Fatoki, 2012; Frese & Gielnik, 2014). Yoshino and Taghizadeh-Hesary (2018) deemed financial resources as an important element in enhancing SME performance in developing states. Thus, SME owners with IEO take appropriate actions to gain an adequate supply of finance for their business and their business performance will be improved. Therefore, we put forth the following hypothesis:

*H<sub>2</sub>: Access to finance mediates the association in IEO and SME performance.*

#### **Moderating Role of Entrepreneurial Alertness**

The psychological capabilities of SME owners result in increased performance outcomes in case of some personal action-oriented dispositions. Therefore we argue that IEO of SME owners will not unconditionally facilitate access to finance. Rather some SME owners will be more likely to translate their IEO capabilities to attract business funds based on their active characteristics. One such distinguishing action-based trait is entrepreneurial alertness. It helps in environmental scanning for recognition of trends and opportunities and also aids in devising strategies to realize those opportunities that go unnoticed by their competitors (Tang et al., 2012). With regard to accessing financial resources, some entrepreneurs are better than others because of their individual tendencies (Pickernell, Jones, Miller, & Thomas, 2011). For further elaboration, we state that all SME owners are not alike in being alert about the market information and using it to capture opportunities and utilizing these opportunities for business advantage (Adomako, Danso, Boso, & Narteh, 2018; Tang et al., 2012). It is argued that SME owners that possess entrepreneurial alertness will better utilize IEO to keenly scan, associate and evaluating market information (Tang et al., 2012) for finding and obtaining finance from diverse sources as compared to those SME owners who have no or low entrepreneurial alertness (Adomako et al., 2018). Thus, it is posited:

*H<sub>3</sub>: Entrepreneurial alertness acts as a moderator in the relationship between IEO and access to finance.*

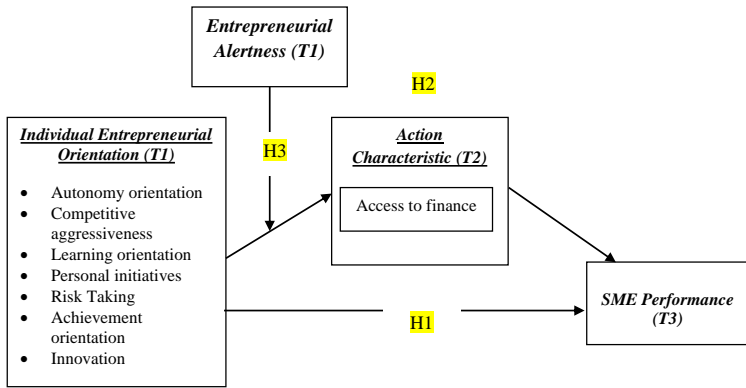


Figure 2. Framework of Study

## Method

### Nature of Study

A time-lagged (three-wave) quantitative survey is used in this study, which is well a suited method in the context of SME and entrepreneurship research (Lussier & Halabi, 2010).

### Population

The population was SME owners located in the manufacturing sector of Faisalabad, Peshawar, Sialkot, Sargodha, Multan, Lahore, Jhang, Karachi, Gujranwala, and Bahawalpur because these cities contain the majority of SME (SMEDA, 2019). According to the criteria of SBP (State Bank of Pakistan, 2018), the small enterprises have up to 400 million PKR annual revenue with not more than 50 employees and medium enterprises have up to 800 million PKR revenue annually and employees not exceeding 250.

### Sample Size

The study followed a sample size criterion of Hair, Black, Babin, Anderson, and Tatham (2010) who deemed a sample size of 100-150 adequate for a research framework having up to seven constructs as we have used a framework based on 5 constructs. Moreover, as per the sampling size threshold suggested by Tabachnick and Fidell (2007),  $N \geq 50 + 8 \times m$  where N is the number of respondents and m is the number of predictor variables in the model. So as per the research framework in this study, the minimum sample size is  $N \geq 50 + 8 \times 4 = 82$ . Given both criteria sample size of 189 is above the threshold level and all scales are found to meet the validity and reliability criteria.

### Sampling Technique

Cluster sampling for used for the current study, in this sampling multiple clusters are developed within population due to their homogeneous characteristics and all of them have equal chance of being selected. Either the clusters are randomly selected or chosen based on their appropriateness to research objectives. From each selected cluster the sample is drawn on a random basis (Bell, Bryman, & Harley, 2018). Manufacturing SME owners were clustered based on cities in Pakistan. After that nine most industrialized cities having manufacturing SME from diverse sectors were selected i.e., Sargodha (5 percent), Faisalabad (18 percent), Peshawar (7 percent), Sialkot (14 percent), Multan (7 percent), Lahore (13 percent), Jhang (8 percent), Karachi (12 percent),

Gujranwala (9 percent) and Bahawalpur (9 percent) (SMEDA, 2019) for sampling. The reason for choosing these cities was the maximum availability of Manufacturing SME owners from all sectors.

The lists of SME in each city were obtained from the respective chambers of commerce that contained the name and contact information of business owners and it acted as the sampling frame. Based on the percentage of manufacturing business each selected city a random sample was drawn proportionately. Approximately, 300 questionnaires were circulated, out of these 189 were returned in the usable form with a 63 percent response rate.

**Questionnaire Sources**

**Individual Entrepreneurial Orientation.** The scale of IEO has been adapted from Krauss et al. (2005) that contained 28 items. For example, “Do you explore the potential threats and opportunities?” and responses were taken on a 5-point Likert scale (5-always to 1-never).

**Access to Finance.** Lee, Sameen, and Cowling, (2015) scale was adopted to measure access to finance that had 2-items. It is a valid, reliable and well-accepted method of measuring access to finance in SME and used by various published and cited studies (i.e., Lee & Drever, 2014). A sample item is, “I faced difficulty in getting access to finance for my enterprise” and responses were reported on a 5-point Likert scale (5-always to 1-never).

**Entrepreneurial Alertness.** The 13 scale items of entrepreneurial alertness were adapted from Tang et al. (2012). For example, “I am a keen information seeker” and responses were gathered on a 5-point Likert scale (5-to very great extent to 1-not at all).

**SME Performance.** SME performance was measured by Van Gelderen et al. (2005) 7-items scale. For example, “Your business has accomplished the goals of services and products”. Responses were recorded on a 5-point Likert scale (5-to very great extent to 1-not at all).

**Analysis Technique**

To investigate the results of this study, SPSS 22 software was used. First correlation, means, and standard deviation were determined and regression analysis was used for testing direct impact. In order to test the mediation, Hayes (2017) PROCESS macro (model 4) and for testing moderation (model 1) were used. It is deemed to be as efficient in doing path analysis as structural equation modeling (SEM) with greater ease and less coding requirements. For the model based on observed variables, trivial differences occur in using PROCESS instead of SEM, and the focus on bootstrapping and indirect impacts overcomes the issue of treating model into pieces rather as a whole (Hayes, Montoya, & Rockwood, 2017).

**Results**

**Descriptive Analysis**

Table 1 shows the SD (.71 to .92), mean (2.05 to 2.89) and significant positive correlation among variables.

Table 1. *Descriptive Statistics*

Variables	Correlations				Mean	Standard Deviation(SD)
	1	2	3	4		
Individual Entrepreneurial Orientation	1				2.66	.87
Access to Finance	.709**	1			2.89	.92
Entrepreneurial Alertness	.655**	.808**	1		2.77	.80
SME Performance	.475**	.721**	.656**	1	2.05	.71

Notes: \*\*p< 0.01

**Construct Validity and Reliability**

Results displayed that all scales of this study had an acceptable value of Cronbach’s (1951) alpha, ranging 0.7-0.9, were showing good average consistency (George & Mallery, 2003) as seen in Table 2. For the 2-item scale of access to finance, split-half reliability was also measured and the Spearman-Brown coefficient was 0.82 that is acceptable as it is beyond the threshold value of 0.80. Thus, we fulfilled an additional criterion for acceptable reliability of a two-item scale as suggested by Eisinga, Te Grotenhuis, and Pelzer (2013). In addition, construct validity was accessed by the convergent validity values (AVE > 0.50, IEO=0.67, S=0.62, AF=0.55, EA=.58). Discriminant validity values were acknowledged in this way (MSV < AVE and ASV < AVE). The composite reliability was depicted such as CR> 0.70 (IEO=0.76, AF=0.77, EA=0.80, S=0.72) that lied in the range of threshold values as defined by (Hair et al., 2011).

Table 2. *Reliability and Validity*

Variables	Number of Items	Alpha	AVE	CR	MSV	ASV
Individual Entrepreneurial Orientation	28	.81	0.67	0.76	.43	.38
Access to Finance	2	.72	0.77	0.77	.42	.37
Entrepreneurial Alertness	13	.79	0.55	0.80	.41	.39
SME Performance	7	.88	0.62	0.72	.44	.36

Notes: “Reliability range: ≥0.9=excellent, ≥0.8= good, ≥0.7= acceptable, ≥ 0.6= questionable ≥=0.5=poor and < 0.5 =unacceptable

**Common Method Bias**

Harman single-factor test indicated a single factor has 21.88 percent of the variance. Moreover, the data were collected in 4 waves to further reduce the chances of common method bias. At T1 the data of IEO and entrepreneurial alertness were collected, at T2, the data of access to finance and at T3 the data of SME performance were collected. Taris and Michiel (2014) suggested that time-lag should be adequate for the independent variable to impact its outcomes. Accessing finance and its impact on business outcomes is visible at least in one quarter, so all waves were 3 months apart. The studies in entrepreneurship rely on a longer time-lag when performance outcomes are dependent variables (Ling, Simsek, Lubatkin, & Veiga, 2008).

**Confirmatory Factor Analysis**

AMOS 20 was used to carry out the confirmatory factor analysis (CFA). In this regard, we tested two models i.e., one that had segregated dimensions of IEO that are, autonomy orientation, achievement orientation, competitive aggressiveness, innovativeness, risk-taking and proactive personality along with entrepreneurial alertness, access to finance and success. This 10 factor model did not meet the threshold values;  $\chi^2$  (df)=1988.22 (267)=7.44, standardized root mean square residual (SRMR) =.18, root mean square error of approximation (RMSEA) = .28, incremental fit index (IFI) = .23 and comparative fit index (CFI) = .44. After that a 4 factor model was investigated that had seven combined IEO dimensions, access to finance, entrepreneurial alertness and success; the model presented better fit,  $\chi^2$  (df) = 400.12(267)=1.5, SRMR = .068, RMSEA = .054, IFI = .91 and CFI = .89.

**Hypothesis Testing**

**Direct Impact.** Firstly the direct impact of the combined construct of IEO was measured on SME performance, and the results indicated that IEO ( $\beta$ =0.67,  $t$ =14.22,  $p$ ≤ 0.01) is positively related to SME performance. The model fit is Adj.  $R^2$ =.611,  $R^2$ =627 and  $F$ = 217.103 (Table 3). It shows that all dimensions of IEO i.e. competitive aggressiveness, proactive personality, achievement orientation, autonomy orientation, learning orientation, risk-taking, and innovativeness contribute to improved SME performance. Therefore, H1 is supported.



Table 3. Regression for direct Impact

Variable	SME Performance	
	$\beta$	t
Individual Entrepreneurial Orientation	0.67**	14.22
R <sup>2</sup>	0.62	
Adj. R <sup>2</sup>	0.61	
F-stat	217.10	
Sig.	0.00	

Notes. \*\*p<0.01

**Mediation Impact.** The hypotheses of mediation were examined by model 4 via the PROCESS bootstrapping method. The bias-adjusted bootstrapping was performed with a 95 percent confidence interval and 5000 draws (Tables 4). The aim of mediation analysis is to unlock the intervening mechanism between independent and dependent variables. The mediating influence of access to finance was investigated between IEO and success. It was reported that IEO and access to finance ( $\beta=0.59$   $t=12.09$ ,  $p \leq 0.01$ ) has a positive relationship; a similar trend was found in access to finance and success association ( $\beta=0.70$ ,  $t= 17.02$ ,  $p \leq 0.01$ ). The total IEO impact on success was significant ( $\beta=0.67$ ,  $t=14.22$ ,  $p \leq 0.01$ ), and indirect impact (after controlling mediator) was reduced in a manner that was significant ( $\beta=0.27$   $t=2.90$ ,  $p \leq 0.05$ ). Thus, access to finance is proved as a partial mediator among IEO and success at 95 percent confidence interval, and it does not contain 0 between (ULCI=0.60 and LLC1=0.41) having the impact of 0.43. First of all, the independent variable (IEO) and the dependent variable (business success) had a significant positive association showing the total effect. Secondly, the independent variable (IEO) had a significant positive impact on the mediator variable (access to finance). Moreover, a significant positive relationship between the mediating variable (access to finance) and the dependent variable (business success) was traced. Lastly, after controlling for the mediator the impact of the independent variable (IEO) and dependent variable (business success) was significantly reduced showing a partial indirect impact. This indicates that the IEO of SME owners improves their business performance through their action of having better access to finance and deems it as the underlying process that links IEO and SME Performance. Therefore, H2 was accepted.

Table 4. Meditation Test for the Indirect Impact

Variables	Access to Finance (a) (T2)			SME Performance (b) (T3)			SME Performance (c) (T3)			SME Performance (c') (T3)		
	Model 1.1			Model 1.2			Model 1.3			Model 1.4		
	$\beta$	S	t	$\beta$	SE	t	$\beta$	SE	t	$\beta$	SE	t
IEO (T1)	0.59**	0.03	12.09				0.67**	0.40	14.22	0.27*	0.04	2.90
Access to Finance (T2)				0.70**	0.05	17.02						
R	.648			.696			.632			.696		

F	212.	562.	287.	562.
Sig.	.00	.00	.00	.00
Bootstrapping for Indirect Impact				
Effect Size	p	LLCI	ULCI	
0.43	<0.01	0.41	0.60	

Notes. \*\*p<0.01, \*p<0.05, IEO= individual entrepreneurial orientation, CI=95 percent, No. of bootstraps resamples=5000, BCa=Bias Corrected and accelerated, LLCI=lower-level confidence interval, ULCL, upper-level confidence interval.

**Moderation Impact.** To examine the moderation impact model 1 was used through PROCESS macro. In Table 6, results showed that IEO had a significant positive impact on access to finance ( $\beta=0.59$ ,  $t=12.09$ ,  $p<0.01$ ) and entrepreneurial alertness and access to finance relationship was positively significant ( $\beta=0.23$ ,  $t=2.35$ ,  $p<0.01$ ). After introducing the interaction term (IEO× entrepreneurial alertness) its relationship with access to finance was still significant and positive ( $\beta=0.25$ ,  $t=2.88$ ,  $p<0.01$ ). Moreover, the  $R^2$  value of the model with interaction terms also enhanced ( $\Delta R^2=0.033$ ). This shows that entrepreneurial alertness positively moderates the IEO and access to finance association. It means that the IEO of SME owners has a stronger impact on their ability to access finance if they possess entrepreneurial alertness. So, H3 is accepted (see Table 5).

Table 5. Multiple Moderated Regressions

Variables	Access to Finance (T2)			SME Performance (T3)		
	Model 1.1			Model 1.2		
	$\beta$	SE	t	$\beta$	SE	t
IEO (T1)	0.59**	0.03	12.09			
Entrepreneurial Alertness (T1)	0.23**	0.06	2.35			
Int_1				0.25**	0.11	2.88
R <sup>2</sup>	0.688			0.701		
				0.033		
F	347.70			454.02		
Sig.	0.00			0.00		

Notes. \*\*p<0.01, IEO= individual entrepreneurial orientation, Int\_1= individual entrepreneurial orientation × entrepreneurial alertness

The results of moderation are represented in Figure 3. It shows that the IEO and access to finance relationship become stronger in the presence of high entrepreneurial alertness and weaker in the presence of low entrepreneurial alertness.

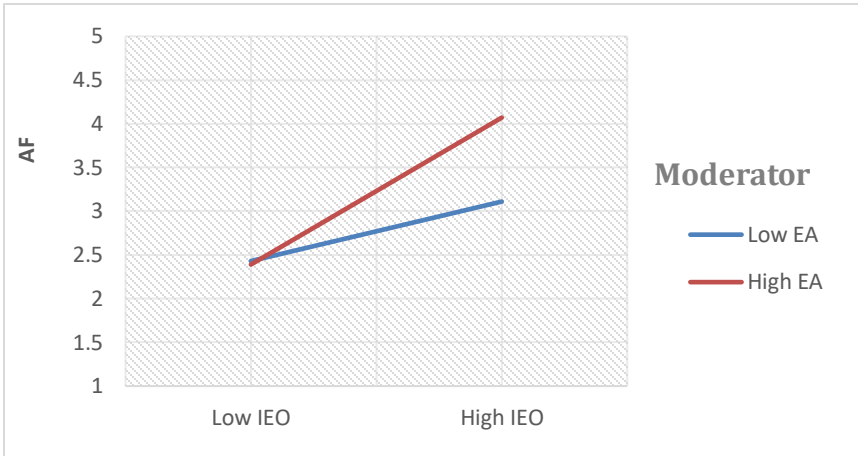


Figure 3. Moderation of EA=entrepreneurial alertness between IEO=individual entrepreneurial orientation and AF=access to finance

### Discussion

In line with the first research objective, this study shows a positive association between IEO and the SME performance in Pakistan and affirms that the fate of SME in developing countries comes not only from external factors, but it also depends on the psychology of its owners (Gindling & Newhous, 2012). Our findings confirmed the importance of IEO in enhancing the business performance in the SME sector (Bernoster et al., 2018; Fatima & Bilal, 2019; Krauss et al., 2005). It supports the previous findings that entrepreneurs that are achievement-oriented set challenging goals and exert maximum efforts to attain them (Staniewski & Awruk, 2019), their high quest for competition. In addition, autonomy imparts them the self-determination to attain business goals, and a proactive approach enables future insight and self-starting actions (Frese & Gielnik, 2014) that makes them perform better than counterparts. The risk-taking tendency has been tied to entrepreneurial success for long (Van Gelderen et al., 2005) and creating new products and ideas makes SME owners capture the market by differentiation (Sok et al., 2016). Lastly, the learning orientation enables them to learn from mistakes and have improved knowledge to carry out market compatible business operations (Gnizy et al. 2014).

For addressing the second research objective, this study examined above and beyond the direct relationship of IEO and SME performance. The outcomes of this study declare a mediating role of access to finance that affirms the theory of action regulation (Zacher & Frese, 2018). It highlighted that IEO, that is a psychological characteristic of SME owners, result in the action of seeking required finance that enables the business to run its operations successfully. This is in line with the recent EO research that emphasizes examining the underlying effect between IEO and small business performance (Bernoster et al., 2018). As reasoned by Gielnik and Frese (2014), psychological cognitive/affective constituents allow for ease in accessing resources that entrepreneurs need for their business operations. The firm-level construct of IEO enables better access to debt financing. SME owners that were high risk-takers, autonomous, proactive, and innovative were found to have ease in accessing external finance (Fatoki, 2012). Learning orientation causes the SME owners to

actively look for new information related to accessing financial resources (Fang He et al., 2018), and those SME owners that have high achievement orientation take more responsibility for the challenging growth goals they have set which makes them more rigorous in accessing financial resources (Staniewski & Awruk, 2019). Overall, the results depict having IEO improves the capabilities of SME owners to attract and obtain financial resources with ease (Fatoki, 2012; Motta, 2018). Moreover, it is emphasized in past studies that financial resources play a vital role in the survival of SME (Cowling, Liu, & Zhang, 2018; Fatoki, 2012; Lee et al., 2015; Yoshino & Taghizadeh-Hesary, 2018).

As per the third research objective, the results also proved the role of entrepreneurial alertness in catalyzing the link of IEO with access to finance. The reason underlying this notion is that when entrepreneurs are aware of recognizing market opportunities and scanning information regarding the availability of various financing options (Tang et al., 2012) the relationship of IEO and access to finance is amplified. Our findings help to clarify why do some people recognize opportunities to be profitably exploited whereas others do not (Adomako et al., 2018). It shows that IEO of alert SME owners drive them to constantly look for different market opportunities and information (Tang et al., 2012) to seek finance and exploit these options (Motta, 2018), and thus, are better with accessing finance, while those with low alertness levels lag behind.

### **Conclusion**

Based on the Theory of Action Regulation, our study demonstrated that IEO is an imperative psychological trait of SME that augments their capability of accessing business finance and translates into superior business performance. Moreover, by being alert SME owners can strengthen IEO and access to finance association.

### **Limitations and Future Research Direction**

This study used a consolidated construct of IEO that can be examined through a multidimensional perspective in the future (Chahal, Gupta, Lonial, & Raina, 2019) to capture the unique impact of each IEO dimension. This study was limited to a single mediator and moderator, further variables may also be explored which could possibly mediate the IEO and business outcomes association, like knowledge management orientation (Farooq & Vij, 2018). Additionally, it would also be helpful to analyze moderating impacts that factors have, i.e. dispositions of decision heuristics and self-regulation (Fischer et al., 2018) and culture (Markin, Gupta, Pierce, & Covin, 2018). Though this study used a time-lagged approach, in the future, IEO's impact on business success can be investigated over a longer time using actual longitudinal designs or a greater lag period (McGee & Peterson, 2019). The study was only carried out in manufacturing sector SME in Pakistan that could be extended to the trading and services sector and also in other national contexts. These routes would aid future IEO research in reaching its full potential.

### **Theoretical Contributions**

The first theoretical contribution of this study is showing that the psychological construct of IEO has a significant impact on SME performance (Frese & Gielnik, 2014) beyond much examined external factors (Bilal et al., 2016). Secondly, it extends beyond the firm-level strategic mediators (Boohene, 2018; Sok et al., 2017) and direct IEO and SME performance relationship (Blauku et al., 2018; Gindling & Newhous, 2012) and showed the mediating role of action characteristic i.e. access to finance (Fatoki, 2012) based on Theory of Action Regulation (Zacher & Frese, 2018) and orientation-action-outcome framework (Johnson et al. 2008). Furthermore, this study has outspread the direct IEO and access to finance relationship (Fatoki, 2012), and highlighted the role of individual disposition of entrepreneurial alertness as a moderator (Adomako et al., 2018). It has shown that entrepreneurial alertness strengthens the IEO and access to finance association in a positive manner.

### **Practical Contributions**

The SME owners should work on sharpening their entrepreneurial mindset with IEO's aid, make efforts with accessing finance, seek information relative to market opportunities and find ways to access resources in order to survive since "action" is the central component to entrepreneurial psychology. Policy-making authorities, such as SMEDA in Pakistan, must put their focus on developing an entrepreneur's psychological mindset, which in turn is a precursor of their effective

decisions and successes. The trainers should base their training on concepts that are psychological like IEO, in contrast to generic business training which is not as effective (Campos et al., 2017). With this contribution, entrepreneurship of the SME sector will see a rise in the state in a developing country like Pakistan, which is otherwise known for a sheer failure rate (Ali, 2018).

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