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Assessment of entrepreneurial networking activities and perceived self-efficacy towards entrepreneurial success

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Abstract

In the present days, entrepreneurship has served as an appliance for socio-economic development and prosperity through entrepreneurial networking activities (ENAs) and perceived self-efficacy (PSE). The purpose of the present study is to examine ENA and PSE's role in the entrepreneurial success (ES) among Pakistan's entrepreneurs. Based on vigorous literature, the hypotheses are developed to confirm through the cross-sectional data. The data are collected from the entrepreneurs who are doing business in the different provinces of Pakistan. A simple random technique is applied to gather the facts through a survey questionnaire. At the initial stage, 330 samples are collected in a raw shape. This yields a 66 percent response rate. After data cleaning and screening, 318 valid samples are employed for final estimation. Analysis of Moment Structures (AMOS) version 26.0 is applied to test the hypotheses. By utilizing the Structural Equation Modeling (SEM), the results emphasize a significant and positive impact of the inter-organizational network activities (INAs), entrepreneurs' social networking (ESN) and PSE on the ES amongst the entrepreneurs of Pakistan. The study's findings would be supportive for policymakers and practitioners to bring a thriving entrepreneurial environment in the Asian context, predominantly in Pakistan. The outcomes would also enrich the depth of entrepreneurship literature.

Keywords: Entrepreneurial networking activities, Perceived self-efficacy, Entrepreneurial success, Entrepreneurs' social networking, Entrepreneurial environment



Introduction

In the present era, entrepreneurship serves as a dynamic and multifaceted phenomenon (Gartner, Shaver, Carter, and Reynolds, 2004). It brings a healthy and sustainable economic development (Welter and Smallbone, 2011). The concept is also observed with an angle of the diverse beliefs regarding the modes of entrepreneurial activities (Gartner, 1990). Consequently, numerous scholars create the boundaries and urgings upon which they ground their studies (Shane and Venkataraman, 2000). Entrepreneurial success has become a challenge for every economy. To achieve such the entrepreneurship success, the factors such as self-efficacy, ESN, and INAs have a substantial role in the entrepreneurial success (Bandura, 1997; Baron and Markman, 2000; Welter and Smallbone, 2011). Besides, inter-organizational networks serve as resource-saving strategies in innovation (Kofler and Marcher, 2018) due to a connection with entrepreneurial mechanisms (Audretsch and Thurik, 2004). Networking is a healthy factor for growth, knowledge sharing contacts and experiences (Santos *et al.*, 2019). Likewise, individual social networking activities have a positive and protagonist role in making a successful startup and making it capable of opportunities and resource gaining (Beckert, 2010). The paradigm of individual social networking implies that entrepreneurs' contributions to networking help to uplift their entrepreneurial undertakings (Aldrich and Zimmer, 1986). An essential and significant objective of networking activities is to increase motivation and sustenance amongst the entrepreneurs through counseling in the experts' shape of opinions and share experiences of friends and relatives (Manning *et al.*, 1989). Keeping in view the importance of such an aspect; the current study is planned to explore ENAs and PSE's role towards ES amongst Pakistan entrepreneurs. The study outcomes would provide guidelines for the healthier consistent entrepreneurial ecosystem and more operative individuals' social networking. This would be beneficial for both policymakers and practitioners in developing a productive entrepreneurial environment; there potential entrepreneurial would be successful through establishing the firms, particularly in the context of Pakistan.

Literature review and hypotheses development

In the present times, ENAs and PSE are the best ingredients of the success of potential entrepreneurs. The networking is useful to a factor that contributes to the growth and knowledge sharing contacts and experiences (Santos *et al.*, 2019). Besides, inter-organizational networks are famous for resource-saving and a risk-sharing strategy (Kofler and Marcher, 2018). The collaborative network activities are regarded as alliances to recover entrepreneurial mechanisms (Audretsch and Thurik, 2004). The inter-organizational networking comprises informal and formal cooperative networking actions amongst entrepreneurial believers at the different civic levels that may smooth the entrepreneurial progress from a vision spawning phase to a development phase and a premeditated placing one (Dubini and Aldrich, 1991; and Uzzi, 1996). According to the quantitative evidence of De



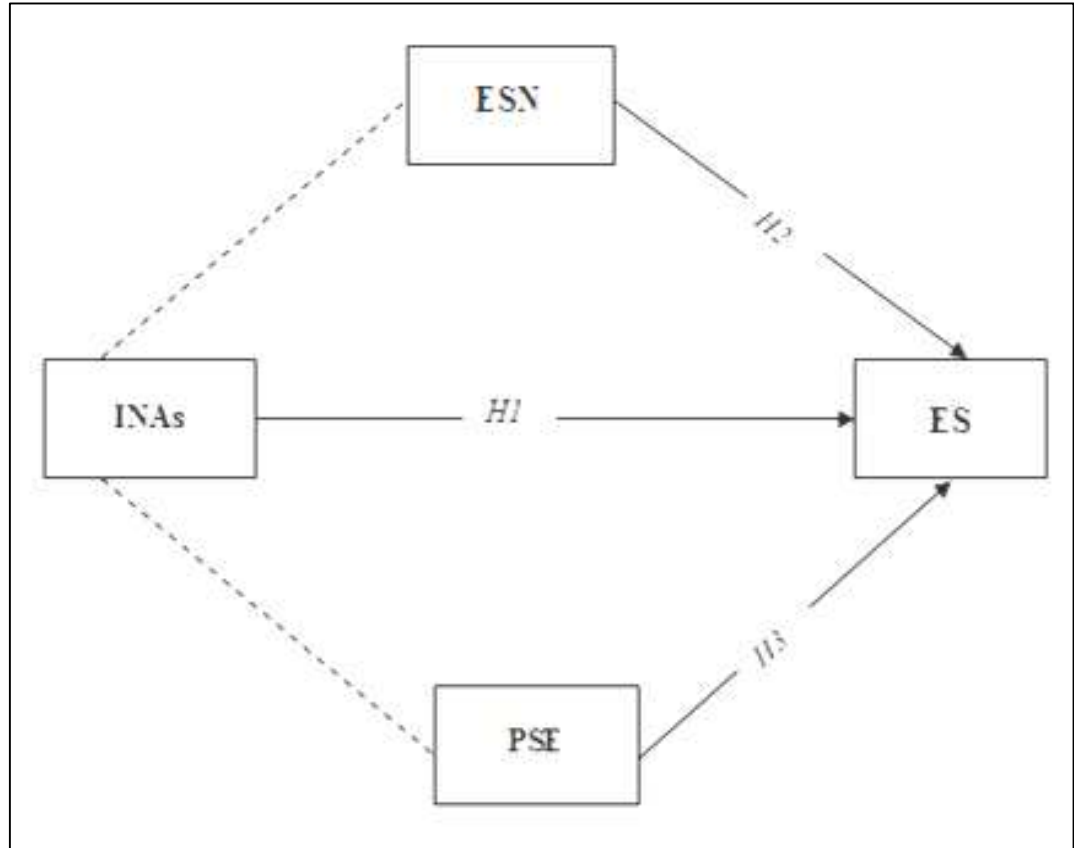
Hoyos-Ruperto *et al.* (2012), individual-level constructs, such as entrepreneurial social competence and self-efficacy, along with systemic factors, including opportunities, entrepreneurial education, and national mindset, act as protagonist mechanisms for predicting ES. The scholars further claimed that such success is mediated by individual social network activities and inter-organizational networks.

On the other hand, systemic predictors like opportunities (Shane and Venkataraman, 2000), entrepreneurial education (Levie and Autio, 2007), and national mindset towards entrepreneurship (Casson, 2003) have negative relationships with entrepreneurial success. Supporting such arguments, Bandura (1997) and Baron and Markman (2000) proposed that individual factors (PSE and social competence) have both positive as well as negative effects on the nation's overall ES. Significant and positive associations between research and development, innovation, and marketing sales performance were investigated by Rezaei and Ortt (2018). Besides, a significant and negative correlation exists between production performance and risk-taking. Thus, it was decided that the production and marketing, research and development (R&D), and sales functions strengthen each other in a rationality order and balance their influence on overall firm performance. In the view of Fernandez-Perez *et al.* (2014), there are positive contributions performed by business (financial and industrial) networks, both unswervingly in encouraging academic entrepreneurial intentions and, indirectly, entrepreneurial attitudes as well as self-efficacy to opportunity recognition. Furthermore, female and male academics vary in their insights of financial and business networks provisions and their use of such resources in business initialization.

In Pakistan, the external business environment, entrepreneur's characteristics and supportive, supportive factors are significantly associated with women-owned business performance (Shakeel *et al.*, 2020). In the same domain, Moghaddam *et al.* (2018) strongly recommended a positive and significant effect of social ties on firm performance by the mediatory role of organizational processes (opportunity seizing and opportunity sensing) and institutional distance. Soomro, Ghumro and Shah (2020) found a non-significant influence of self-efficacy on green entrepreneurial inclination. Strategic entrepreneurship is a potent mediator between entrepreneurship orientation and performance (Soomro and Shah, 2020). As a result, the relevant literature underlines the importance of identifying and developing opportunities and the readiness to agree to take them to attain entrepreneurial success and opportunities (Shane and Venkataraman, 2000; Shane, 2003). Henceforth, a positive insight into entrepreneurial opportunities is the dire need of ES. Keeping in views; we designed the conceptual model (Figure 1) to examine among Pakistan's entrepreneurs.



Figure 1. Conceptual model of the study



Note: INAs= Inter-organizational network activities; ESN= Entrepreneurs' social networking; PSE=Perceived self-efficacy; ES= Entrepreneurial success

The supportive networks are the best factors for a thriving entrepreneurial environment that provides linkages to individual entrepreneurs to organize learning and resources (Saxenian, 1994; Audretsch and Thurik, 2004). Therefore, personal social networking activities are significant to an efficacious initialization and a continuing modest benefit, as they might make or enable resource gaining and the proof of identity regarding prospects (Beckert, 2010). To this extent, in the present study, the ESN paradigm signifies entrepreneurs' involvements in networking associated activities to boost their enterprises/ventures (Aldrich and Zimmer, 1986). Such ENAs may happen with other entrepreneurs; associates like friends, kins and associates, and business promoters (Birley, 1985). The robust objective of such ENAs is to offer support to entrepreneurs in the shape of counselling and professional thoughts, collective experiences and role models, evidence and resources, and sustenance and motivation (Manning, Birley, and Norburn, 1989). Tie strength and network size are dire for assembling resources needed to initiate a new business enterprise (Sullivan and Ford, 2014; Farooq *et al.*, 2017). The study of Muldoon *et al.* (2019) highlights that among female



entrepreneurs; social dominance orientation is a factor that reduces ESE. In turn, this reduction, making low conventional entrepreneurial intentions.

On the other hand, it enhances the social intention among few women. Likewise, Gibbs *et al.* (2018) found a relative significance of contextual variables. The study did not find any longer significant effect of owner and business on ESE. Among the white entrepreneurs, a significant and positive influence of network ethnic diversity on ESE rather than black entrepreneurs were observed (Javadian *et al.*, 2018). In the same perspective, Semrau and Werner (2014) strongly recommended that the size of social networks can improve budding entrepreneurs' performances. In the relevant literature, numerous scholars believed that ES depended on the numbers and the bond of social ties (Langford *et al.*, 1997; Heaney and Israel, 2008; Sullivan and Ford, 2014; and Farooq, 2016). Quan (2012) defined social networking as a dominant compound for the achievement of blossoming entrepreneurs. It has a unique contribution to mobilizing resources, opportunity recognition, and inferred technical knowledge compulsory for opening a new venture (Farooq, 2016). According to Indrupati and Henari (2012), SN is an inexpensive and secure mode of publicity. It provides all entrepreneurs the excellent opportunity to at within their marketplace goals and, thus, lead to their scheme's success. In the same point of view, more recently, Moghaddam *et al.* (2018) suggested that the social ties of transnational entrepreneurs (TEs) influence firm performance. Individuals' ESE can severely impact the firm's venture choices and performance (Krueger and Brazeal, 1994). From the entrepreneurship point of view, it has a fundamental reputation to convert entrepreneurial intention to action (Boyd and Vozikis, 1994). The concept of PSE mentions an individual's valuation through capacity and skills to perform an assignment.

Nevertheless, it could be unlike that in reality (Bandura, 1997). Contrary, Simon, Houghton, and Aquino (1999) found a negative impact of PSE on entrepreneurial inclination on individual's overconfidence of his/her skills. As an outcome, entrepreneurs may supervise inconsistent signs and evidence and harbour higher hopes of success. At the initial stage of opportunity, strong ties with entrepreneurs may enhance the likelihood of a charming one; nevertheless, they are related to low innovation levels. Miscellaneous connections enhance the self-efficacy. However, at the organizational creation and technology stage, best entrepreneurial teams are similar, while team assortment is correlated with better corporate products. Generally, consistency through strong ties delivers entrepreneurs with hard to discover resources very early on in the enlargement of new ventures; then, those resources are inadequate in scope due to a high cost. There is a lack of data on entrepreneurship and SMEs in Pakistan (Fayyaz, Mian and Khan, 2009). A recent study on Business University students identify the factors and found subjective norm, opportunity, attitude, and PBC as the robust predictors of the motivation. These factors can motivate students to become entrepreneurs, but lack of financial resource restrained them (Raza, Qazi and Shah, 2018).



Consequently, the above literature mentions positive and significant roles of ESN, PSE and INAs to make successful entrepreneurs in society. However, these relationships were not focused on by the authors in the Pakistani context. Based on the insufficiency of investigation, we expect:

H1. *Inter-organizational network activities have a significant and positive impact on entrepreneurial success.*

H2. *Entrepreneurs' social networking has a significant and positive impact on entrepreneurial success.*

H3. *Perceived self-efficacy has a significant and positive impact on entrepreneurial success.*

Research design and data collection

The authors proposed a descriptive, observational, and cross-sectional study for investigating the proposed hypotheses. Regarding the data collection, the authors targeted the entrepreneurs who were doing business in the different industries and provinces of Pakistan. A survey questionnaire was used to get responses. A simple random technique was applied to the targeted respondents. The responses of the participants were voluntary. The questionnaires were randomly distributed to five hundred (500) participants. The authors received three hundred and thirty (330) surveys in a rough shape with a response rate of 66 percent in return. A research randomizer tool was applied to eliminate the study's bias (Urbaniak *et al.*, 2013).

Missing data and outliers' examination

Missing data are the frequent and universal occurrence in quantitative research studies (Baraldi and Enders, 2010). It is also an inescapable problem of missing data in data analysis which affects the research study results. In this study, the missing data we detected in two steps. In the first step; the missing data were observed based on item level, in which some items were found with some missing values. In the second step; we detected on the construct level. Consequently, no serious issue was found due to the overall percentage of the missing pattern (cases with missing values) was found below 5 percent. So, this is regarded as less problematic (Tabachnick and Fidell, 2007, p.63).

Similarly, we detected the cases which are discrete from one another are identified as outliers. These differences were judged by high or low value on a unique arrangement of scores (Hair *et al.*, 2010). The univariate outliers were identified by standardized scores (z scores) that is significant to recognize the case of an extreme value on a single factor with standardized z scores is $\pm \geq 2.5$ (Hair *et al.*, 2010). Further, multivariate outliers (MOs) were verified by the Mahalanobis D2 measure in which degree of freedom (D2 /df). MOs are known as the cases of a strange combination of extreme values in two or more than two factors (Hair *et al.*, 2010). As a result, we detected twelve cases as univariate and multivariate outliers. Thus, these cases were excluded from further analysis.



Measures and scale assurance

We measured *inter-organizational network activities* on five-items. *Entrepreneurs' social networking* was assessed on seven items. Similarly, *perceived self-efficacy* and *entrepreneurial success factors* were measured on four and six factors, respectively. All the items were evaluated on a five-point Likert scale where *strongly disagree=1* and *strongly agree=5*. All the factors were adapted from Johansson (1998); Hoang and Antoncic (2003); and Hoyos-Ruperto *et al.* (2013). However, to further validate the questionnaire in Pakistan's context, a pilot study was conducted to confirm the validity and reliability assumptions. In this respect, the items' internal consistency was confirmed through Cronbach's alpha (α) and satisfactory. Besides, the validity was confirmed from two independent university professors who were experts in the entrepreneurship field according to the face validity method given by Oladimeji Akeem Bolarinwa (Bolarinwa, 2015). The experts assured the authors about the design and clarity of the concepts. As a result, a valid and reliable questionnaire was distributed for the main study.

Statistical analysis and results

Demography

The authors observed three primary demographic constructs: age, gender, and location of the entrepreneurs, mainly where they were doing business. The figure showed that 91.20 percent (n=290) were male participants, while only 8.80 percent were female entrepreneurs; they participated willingly. Similarly, the majority of the participants (39 percent) (n=124) were between 31-40 years of age, and 6.92 percent (n=22) were 51 years and above. With regards to the last indicator, a good number of participants (33.96 percent) (n=108) were from the Sindh province, and only 3.14 percent (n=10) of the respondents were from other regions such as FANA, FATA, Gilgit Baltistan, and Azad Kashmir (Table 1).



Table 1. Respondents' demography

	Category	Frequency	Percent
Gender	Male	290	91.20
	Female	28	8.80
	Total	318	100.0
Age	10-20	10	3.14
	21-30	114	35.84
	31-40	124	39.00
	41-50	48	15.10
	51 and above	22	6.92
	Total	318	100.0
Province/location	Sindh	108	33.96
	Punjab	88	27.68
	Balochistan	50	15.72
	KPK	62	19.50
	Others	10	3.14
	Total	318	100.0

Descriptive statistics, reliability and Pearson's correlation

To observe the demographic trend, we conducted a mean and standard deviation. The scores of mean and standard deviation have appeared as M=3.212-3.682 and SD=1.008-1.171(Table 2). Finally, Pearson's correlation among the constructs was also noted within the acceptable ranges (Table 2).

Table 2. Descriptive statistics and Pearson's correlation

	Constructs	M	SD	1	2	3	4
1	Entrepreneurial success	3.212	1.113	---			
2	Inter-organizational network activities	3.34 1	1.171	0.411**	---		
3	Entrepreneurs' social networking	3.68 2	1.087	0.388**	0.477**	---	
4	Perceived self-efficacy	3.56 1	1.008	0.445**	0.323**	0.380**	---

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Note: M=mean; SD=standard deviation



Measurement model

In the measurement model; the factor loadings and composite reliability (CR) observed within the range of acceptable scores > 0.70 (loadings=0.798-0.890; composite reliability=0.820-0.898) (Table 3) (Hair *et al.*, 2017). Further, the scores of average variance extracted values (AVE) noticed in-between 0.790-0.849 (Table 3) that is > 0.50 for the rest of the factors and acceptable (Hair *et al.*, 2010). Finally, Cronbach's alpha has remained reasonable for all of the constructs (> 0.70) (Nunnally and Bernstein, 1994) (Table 3).

Table 3. Measurement model

Construct	Item code	Factor loadings	CR	AVE	α
Inter-organizational network activities	<i>INAs1</i>	0.876	0.898	0.849	0.839
	<i>INAs2</i>	0.837			
	<i>INAs4</i>	0.820			
	<i>INAs3</i>	0.813			
	<i>INAs5</i>	0.811			
Entrepreneurs' social networking	<i>ESN1</i>	0.890	0.820	0.844	0.880
	<i>ESN2</i>	0.881			
	<i>ESN3</i>	0.867			
	<i>ESN5</i>	0.853			
	<i>ESN4</i>	0.846			
	<i>ESN6</i>	0.832			
	<i>ESN7</i>	0.823			
Perceived self-efficacy	<i>PSE1</i>	0.889	0.854	0.790	0.832
	<i>PSE2</i>	0.878			
	<i>PSE3</i>	0.842			
	<i>PSE4</i>	0.820			
Entrepreneurial success	<i>ES1</i>	0.878	0.878	0.813	0.867
	<i>ES6</i>	0.867			
	<i>ES2</i>	0.840			
	<i>ES3</i>	0.821			
	<i>ES5</i>	0.803			
	<i>ES4</i>	0.798			

Notes: AVE = summation of the square of the factor loadings

CR = square of the summation of the factor loadings

α = Cronbach's alpha

Structural model

We also estimated the model fit indices to ensure the data's fitness with the model (Susetyo and Lestari, 2014). The model fit (χ^2 /CMIN (2.439; $p > 0.005$)) appeared to be non-significant. Nevertheless, other model fit constructs such as GFI



(0.933); AGFI (0.962); NFI (0.920); CFI (0.959); and RMSEA (0.038) (Table 4 and figure 2) observed as an absolute fit/good fit (Kline, 2005; Hair *et al.*, 2018). Further, the structural equation model (SEM) was applied for predicting the suggested paths (Dhanaraj and Beamish, 2003). With regard to H1, SEM weights (SE=0.039; CR=5.394; p< 0.01) (Table 5 and Figure 2) suggest a significant and positive impact of *inter-organizational network activities on entrepreneurial success*. Henceforth, H1 was supported. Likewise, we found a significant and positive impact of *entrepreneurs' social networking on entrepreneurial success* (SE=0.079; CR=4.809; p<0.01) (Table 5 and figure 2). Thus, H2 was supported. Finally, we also found a significant and positive impact of *perceived self-efficacy on entrepreneurial success* (SE=0.048; CR=6.884; p<0.01) (Table 5 and figure 2). Consequently, H3 was also supported.

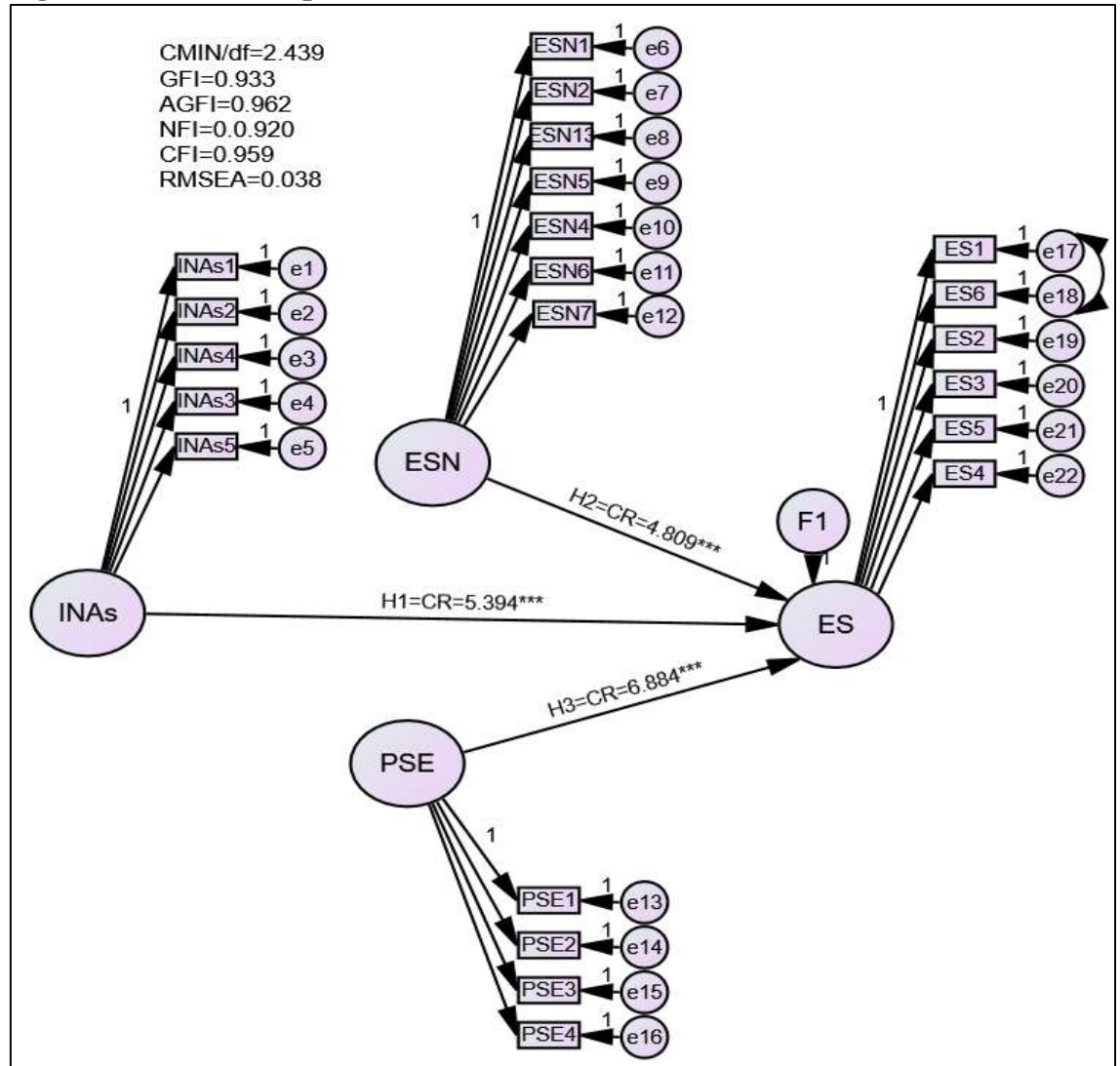
Table 4. Model fit indices

Model fit Indicators	CMIN/df	GFI	AGFI	NFI	CFI	RMSEA
Observed	2.439	0.933	0.962	0.920	0.959	0.038
Suggested values	< 3	> 0.90	> 0.90	> 0.90	> 0.90	< 0.05

CMIN= χ^2 /Chi-square/df; df= degree of freedom; GFI=goodness of fit index; AGFI=adjusted goodness of fit index; NFI= normed fit index; CFI= comparative fit index; RMSEA=root mean square error of approximation.



Figure 2. Structural equation model



Note: INAs= Inter-organizational network activities; ESN= Entrepreneurs' social networking; PSE=Perceived self-efficacy;ES= Entrepreneurial success



Table 5. SEM estimations

H.No	Independent variables	Path	Dependent variable	Estimate	SE	CR	P	Decision
H1	Inter-organizational network activities	→	Entrepreneurial success	0.333	0.039	5.394	***	Accepted
H2	Entrepreneurs' social networking	→	Entrepreneurial success	0.249	0.079	4.809	***	Accepted
H3	Perceived self-efficacy	→	Entrepreneurial success	0.230	0.048	6.884	***	Accepted

Note: SE=standard error; CR=critical ratio; p=significance level ***p<0.05

Discussion and conclusion

The present study proposed to explore the constructs, such as ENAs, ESN, and PSE that impact the ES amongst the entrepreneurs of Pakistan. To assess such factors; the authors developed hypotheses based on the known associations by reviewing prevailing literature and then selected a deductive approach. The questionnaire was adapted from the domain literature. Along with the dependent variable, independent variables were applied to three primary demographic constructs, such as age, gender, and respondents' locations, to observe the participants' trends. The authors traced the required respondents through a simple randomized technique. Before getting their responses, we appropriately followed the codes of ethical consideration. The respondents were obliged with the conformity of their privacy and accuracy. They were also assured about the utilization of the data. Initially, the authors conducted a pilot study for the validity and reliability of the questionnaire. At the early phase, we distributed 500 survey in the different provinces of Pakistan personally and courier services. In return, we received 330 invalid samples containing missing data and outliers. After cleaning and screening the data, we proceeded with 318 valid cases for final consideration.

The Statistical Package for Social Sciences (SPSS) version 26.0 was applied for windows to clean the data. SEM's overall weights pointed out a significant and positive impact of INAs, ESN, and self-efficacy on ES. Such positive outcomes of the association are accorded with various scholars like Krueger and Brazeal (1994); Indrupati and Henari (2012); Farooq (2016); and Moghaddam, *et al.* (2018) who strongly confirmed such associations earlier.

The results confirm in Pakistan that the entrepreneurs' success is only possible the INAs, ESN, and self-efficacy on ES. The respondents want to be successful in their business by developing social connections and network. These networks would enhance their business performance and activities. The social network connection will help their promotion of business by advertising their friend/business owner's ventures performances. Similarly, the inter-organizational set-up



would also be fruitful for the up-gradation of the business opportunities. To make business success, the entrepreneurs develop their capabilities to deal with the firms' existing and coming challenges. They are more efficacious to confront the significant uncertainties of the business.

On the other hand, H3 was not in line with Bandura (1997) and Baron and Markman (2000), who claimed positive and negative self-efficacy values with entrepreneurial success/performance. These researchers argued that there is no significant role of networking and self-efficacy in promoting business performance/success. These findings may exist in developed countries where people have limited social connections. Their social networks are little and weak inter-organizational networking activities. These networks make them unproductive and inefficient to deal with business activities.

In conclusion, inter-organizational network activities, ESN, and self-efficacy were found to be the significant analysts of ES amongst the entrepreneurs of Pakistan. These associations may reflect the strong beliefs and self-confidence of the entrepreneurs to initiate and run their businesses. Possibly, these may happen with the support of social and inter-organizational networking. The consequences of the study may help policymakers and practitioners bring a thriving entrepreneurial environment not only to Pakistan but also in the Asian context.

In future, there is a dire need of conducting more longitudinal investigations to assess the entrepreneurial networking activities and perceived self-efficacy towards entrepreneurial success. Besides, entrepreneurs' personality traits; motivational, and environmental factors may be added into this model for an assessment. In the future, the investigation of the present model should be done by applying mixed methods (quantitative and qualitative) to authenticate the outcomes further.

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