ILMA Journal of Social Sciences & Economics (IJSSE)
E-ISSN: 2790-5896 P-ISSN: 2709-2232
Volume 6 Issue 2 (2025) 219-248

Theoretical Predictors of Female Entrepreneurial Activity Start-up: Assessing Individual Entrepreneurial Orientation as a Mediating Variable in Thatta, Tharparkar and Umerkot

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Abstract

The paper analyzed the impact of theretical predictors on Individual Entrepreneurial orientation (IEO) and indirect impact of theoretical predictors through mediating IEO in determining female entrepreneurial activities. Using a convenience sampling technique, we collected data from 387 female respondents in Thatta, tharparker and merkot . To assess the model's fitness, reliability, and validity, we used confirmatory factor analysis while we tested the hypothesis using Smart-Pls. The finding affirms that theoretical predictors such as personality traits except for risk-taking, push Motivation, and perceived access to finance significantly affect the IEO and also have a significant positive relationship with female entrepreneurial activities. Principally, theoretical predictors of female entrepreneurship significantly mediate the relationship between personality traits except for risk-taking, push Motivation, and perceived access to finance and also have a positive association with female entrepreneurial activities. The results support planning new policies for a better institutional environment, Percieved access to professional networks, and Govt and NGO assistance. This paper imparts to present the literature by acknowledging the mediating effect of IEO on theoretical predictors and Female entrepreneurship Activity (FEA). This paper also augments the scarce IEO literature.

Keywords: *Personality traits, push, and pull Motivation, Institutional Environment, Perceived access to finance, access to professional networks, Government & NGOs Assistance.*

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1. INTRODUCTION

Today entrepreneurship development is the main source of economic development, because it generate employment through introducing new/ innovative products and services (Rasmussen & Sorheim, 2006; Kljucnikov & Belas, 2016). On the other hand, male entrepreneurs participate six times greater than women in entrepreneurial activities (Federal Bureau of Statistics, 2001). Women entrepreneurship has seen transformations in 1990 due to globalization and other facilitating factors (Saakshi Chhabra et al., 2020). The focus towards women entrepreneurship has been increased since the three past decades (Brush et al., 1992, 2009, 2013, 2007; Marlow et al., 2012; Henry et al., 2016) due to its impact on economic growth and job creation (Kelley et al., 2010; Orhan & Scott, 2001). There is even less early stage entrepreneurial activity in Pakistan, only 4% of females are involved as according to GEM report 2019. At the same time, World Bank reported unemployment among women as one of the serious issue with 5.077% rate of women in 2019. Enhancing female businesses activities and start-ups is fundamental pillar for tackling unemployment and poverty, specifically in the rural areas of Pakistan (Budget Strategy Paper, 2019-2022).Globally, Pakistan got the poor rank in women entrepreneurship index. According to the Global Entrepreneurship and Development Institute (GEDI), Pakistan got one of the last rank among South Asian countries, with limited female entrepreneurship participation of only 22% percent (Gitanjli Jain, 2018; Female Labor Force Participation, 2020). Most of the females operate in traditional or informal sector, where majority of females businesses are not registered and are not officially reported (Williams, 2018). According to Global Entrepreneurship Index 2017-2018, with female business ownership at 15.6%, lower than other countries such as Ghana (16.4%), Gambia (16.1%), and Mali (15.9%) (Lindvert, Patel & Wincent, 2017).This limited participation reflects entrenched socio-cultural barriers, weak institutional support, and structural gender inequalities.

Pakistan's socio-cultural landscape is shaped by different patriarchal norms and diverse ethnic and cultural groups of Sindh, Punjab, Balochistan, and Khyber Pakhtunkhwa across its four provinces (Jehan, 2015; Sazzad, 2017). These differences in patriarchal norms and diverse ethnic and cultural groups influence norms, values, and practices regarding women's participation in economic activities. This study only focuses "Sindh Province" specifically on rural areas of Sindh i.e.Thatta, Tharparker and Umerkot districts of Sindh, where female mobility in rural areas is often restricted by cultural and religious norms (Agha et al., 2018; Parmer, 2018). Sindh province derives its name from the Indus River ("Sindhu"), and it is the Pakistan's second-largest province, comprising 23% of the population and 18% of the country's land area (Husain, 2014). Karachi, as Sindh's capital and is considered as the Pakistan's financial hub, hosts a diversified economy encompassing agriculture, manufacturing, and services.

These opportunities of female entrepreneurship lies mostly in urban and semi-urban areas of Sindh , but rural women in Sindh is facing significant socio-economic challenges. They are often concentrated in low-income households businesses or home based businesses , where financial resources are controlled by head of families or male head of families. Consequently, female entrepreneurs are mostly limited to traditional/ informal occupations, with minimal regulatory support, and it failed to break the vicious vicious circle of poverty from one generation to next (Sahay, 1998; Sultana, 2011).

The problem is poverty specifically in these three selected districts i.e. Thatta, Tharparker and Umerkot , is characterized by extreme poverty , large nuclear families, economic high dependency ration on males and poor access to basic facilities of life . Women disproportionately bear the brunt of poverty, as reflected in multidimensional poverty index scores across districts: Karachi (0.019), Hyderabad (0.129), Tharparkar (0.194), Umerkot (0.197), and Thatta (0.247) (Budget Strategy Paper, 2019-2022). Approximately 2.98–5.69% of the population lives below the poverty line, with rural women of these districts are particularly disadvantaged because of low education level and limited access to employment opportunities. In 2019–2020, the labor force participation of male's was 11.84 million males and females are only 2.15 million, highlighting persistent gender gap in economic participation need urgent attention for participation of women in these districts i.e. Thatta, Tharparker and Umerkot (Budget Strategy Paper, 2019-2022).

While prior studies have provided valuable insights into female entrepreneurship, they often neglect the theoretical predictors of Individual Entrepreneurial Orientation (IEO) that influence women's intentions and engagement in entrepreneurial activities. Without understanding these predictors " i.e. Need for Achievement, Internal locus of control , Push and Pull motivations, Perceived access to finance , Perceived access to professional network , Government and NGOs Assistance" mediated by individual entrepreneurial orientation (IEO) (Sahoo & Panda, 2019).The Sindh government is not be able to provide jobs to every female, for this reason; emphasizing the importance of equipping female entrepreneurs with knowledge and resources to enable them to start businesses rather than seeking government or other job (Tommy & Pardede, 2020).

By keeping in above view, the present study investigates the mediating role of IEO between theoretical predictors and female entrepreneurial activity (FEA) in the selected rural districts of Thatta, Tharparkar, and Umerkot. .The main objective of this study is exmine how theoretical predictors shape female propensity to engage in entrepreneurial activities and how IEO mediates the transformation of entrepreneurial intentions into actual behavior. There are limited studies especially in rural areas of Sindh i.e. Thatta, Tharparkar and Umerkot in order to reduce the severe poverty and unemployment, where females

have limited participation in entrepreneurial activities , this study tries to fill the gap of previous literature where active entrepreneurs mostly discussed and emerging entrepreneurs are ignored. So, this study focus the emerging entrepreneurs .Prior literature highlights that theoretical predictors drive firm growth and firms performance perspective (Dai, Roudy, Chok, Ding, & Byun, 2016; Eshima & Anderson, 2017; Green, Covin, & Slevin, 2008; Rauch, Wiklund, Lumpkin, & Frese, 2009; Wiklund & Shepherd, 2005). However, empirical study examining the theoretical predictors of IEO remain limited, particularly in the context of female entrepreneurship in Sindh context. This study addresses the following research questions:

RQ1: What is the impact of theoretical predictors on Individual Entrepreneurial Orientation?

RQ2: What is the mediating role of Individual Entrepreneurial Orientation between theoretical predictors and female entrepreneurial activity?

2. LITERATURE REVIEW

Personality traits represent enduring behavioral characteristics that define how individuals respond in similar situations (NGA, Hwee, & Shamuganathan, 2010; Leonelli, Ceci, & Masciarelli, 2016). These traits evolve over time and influence human behavior (Vitelli, 2014). Research has shown that internal locus of control, need for achievement, and propensity to take risks are fundamental predictors of entrepreneurial engagement (Baum & Locke, 2004; Cooper, Gimeno-Gescon, & Woo, 1994; Kee & Hian Chye, 1993; Kickul & Zaper, 2000). Individual entrepreneurial orientation (IEO), commonly conceptualized at the firm level (Covin & Lumpkin, 2011; Venkatraman, 1989), is characterized by innovation, risk-taking, and proactiveness. Scholars have suggested extending this firm-level construct to the individual level to capture entrepreneurial tendencies more precisely (Aloulou & Fayolle, 2005; Covin & Lumpkin, 2011; Covin & Slevin, 1988; Davis, Bell, Payne, & Kreiser, 2010; Frese & Gielnik, 2014; Kollmann, Stockmann, Meves, & Kensbock, 2016; Krueger, 2006; Kuratko & Goldsby, 2004).

Personality traits are known to influence the likelihood of engaging in entrepreneurial activities and their effectiveness (Domke-Damonte et al., 2008; Raposo et al., 2008; Harris & Gibson, 2008). Nevertheless, research on traits has produced mixed results, indicating that no definitive set of traits guarantees entrepreneurial enagagement (Bolton & Lane, 2011). Traits such as NACH, ILOC, RTP have been specifically examined in relation to IEO among entrepreneurial actors (Okhomina, 2010). Additionally, knowledge, skills and personality tendencies collectively shape the entrepreneurial engagement behavior, with the psychological and cultural variables influencing these patterns

(Haffcutt, Conway, Roth, & Stone, 2001). Knowledge, in particular, enhances innovation and proactiveness, thereby affecting entrepreneurial decision-making (Hitt et al., 2007; Vij & Bedi, 2012).

Business start-up motivations are often categorized into "push" and "pull" motivations. Push motivations typically arise from financial difficulties, family burdens, the death of a breadwinner, or health problems within the family (Prachita Patil, Vinit Nagpur, & Yogeshdeshpande, 2017). Conversely, pull theory reflect the desire to pursue entrepreneurial opportunities and personal aspirations (Fairlie & Fossen, 2018; Kautonen & Palmroos, 2010). Entrepreneurs driven by push factors may consider exiting or closing their businesses, whereas opportunity-driven entrepreneurs tend to achieve higher profitability (Block & Wagner, 2006, as cited by Zali et al., 2013). Individual entrepreneurial orientation thus serves as a critical determinant of one's intention to engage in entrepreneurial activities (Tseng & Tseng, 2019).

The institutional environment encompasses both formal and informal frameworks that significantly influence individual entrepreneurial orientation (Urban, 2016). Strategic decisions reflect the opportunities and constraints posed by this environment (Achabou & Tozanli, 2009). According to the institutional theory (Hambrick & Mason), entrepreneurial behavior and engagement are shaped by individual choices and tendencies, encapsulated in the construct of IEO (Bolton & Lane, 2012). A supportive institutional environment fosters entrepreneurial activities by facilitating access to resources and providing regulatory guidance (Hadjimanolis, 2016). Institutions play a pivotal role in promoting female entrepreneurship to ensure effiecient resources allocation (Acs et al., 2018). Moreover, a fair regulatory framework minimizes excessive government interference while curbing rent-seeking behavior, thereby stimulating IEO (Roper, 1998). Normative factors, including culture, social beliefs, and prevailing norms, further shape female entrepreneurs' innovative behavior (Novikov, 2014), while cognitive aspects enhance opportunity recognition and translation into entrepreneurial engagement(Black, Burton, Wood, & Zimbelman, 2010).

Financial resources are recognized as significant stimuli at the individual level, facilitating the development of IEO. Access to timely and affordable financing enhances entrepreneurial confidence and enables effective planning and execution (Cetindamar et al., 2012). Passionate female entrepreneurs tend to invest greater time and effort, proactively pursuing innovation and opportunity exploitation (Santos et al., 2020; Fatoki, 2012). In sum, female entrepreneurs often face problems of financial inadequacy (Duarte Alonso et al., 2021).

Formal networks, such as professional associations, banks, chambers of commerce, and development authorities, are instrumental in fostering entrepreneurial enagagement (Abu-Rehman et al., 2021; Zeb & Kakakhel, 2018). High-density networks generate trust and facilitate knowledge sharing, enabling

female entrepreneurs to scan the environment and exploit business opportunities effectively (Martinez-Perez & Beauchesne, 2018; Li, Liu, & Liu, 2011). In developing economies like Sindh, government interventions are crucial in providing business support to enhance female entrepreneurs' capabilities (Shams U Din et al., 2020; Charoensukmongkol, 2016). Governmental assistance, particularly in terms of start-up capital, is vital for converting opportunities into entrepreneurial activities engagement (Charoensukmongkol, 2016; Pholphirul & Bhatiasevi, 2012; Wonglimpiyarat, 2011). Due to structural limitations, NGOs also play a supportive role by offering microloans and other programs, albeit sometimes at higher costs (Carroll, 2015; Sandberg, 2012). Access to financial resources is thus a critical enabler of IEO (Chengli Shu et al., 2018; Ibn Boamah & Alam, 2016).

Individual entrepreneurial orientation refers to the processes influencing behavior that leads to innovation, proactiveness, and risk-taking (Covin et al., 2019). This construct clarifies how individuals initiate and sustain entrepreneurial activities, particularly among female entrepreneurs (Abu-Rehman et al., 2021). Innovation entails the development of new products or firms, proactiveness involves anticipating and acting on future opportunities, and risk-taking reflects the willingness to engage in uncertain and challenging situations (Luu & Ngo, 2019). Collectively, these dimensions of IEO drive entrepreneurial engagement and facilitate the transformation of opportunities into successful business ventures.

2.1 Conceptual Framework

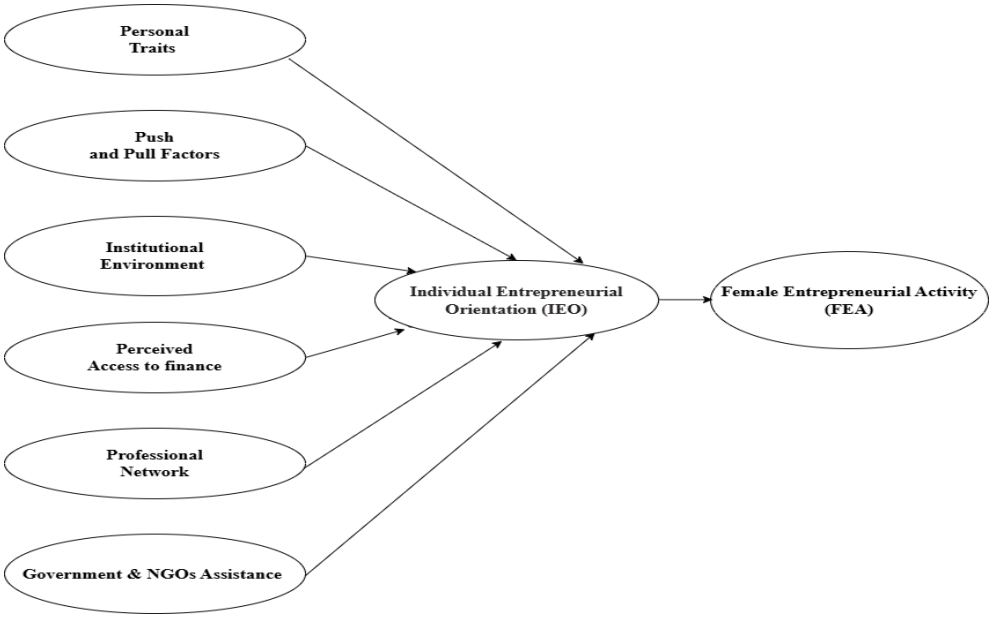

Figure 1: Conceptual Framework of the Study

3. METHODOLOGY

3.1 Research Design and Approach

This study adopts a quantitative research approach and employs primary data collection through a structured survey to examine the theoretical predictors of female entrepreneurial activity engagement (FEA), with Individual Entrepreneurial Orientation (IEO) as a mediating variable, in the districts of Thatta, Tharparkar, and Umerkot. The study focuses on female entrepreneurs and prospective female entrepreneurs who either intend to start a business or demonstrate a strong inclination toward entrepreneurial engagement. 13 responses were 70% missing, for that reason, Auhtors have included only 387 responses for analysis and interpretation.

The selected districts are among the most socioeconomically underdeveloped regions of Sindh, where a substantial proportion of women live below the poverty line. In this context, entrepreneurial activity is considered a critical economic mechanism that can support women in breaking the cycle of poverty and achieving economic empowerment.

3.2 Sample Size and Sampling Technique

The study employed a multistage stratified purposive sampling technique, suitable for accessing a geographically dispersed and partially informal population of female entrepreneurs. The target population comprised emerging female entrepreneurs operating or intending to operate businesses in the districts of Thatta, Tharparkar, and Umerkot.

According to the Pakistan Census (2023), the female population in the selected districts is as follows:

Umerkot: 552,994

Tharparkar: 850,041

Thatta: 527,895

The total female population across the three districts is 1,930,930**.** The sample size was determined using the Yamane (1967) formula**:**

$$n = \frac{N}{1 + Ne^2}$$

Whereas,

n = sample size

N = total population

e = margin of error (5%)

$$n = \frac{1930{,}930}{1 + 1930{,}930\ (0.05)^2}$$

$$n = 400$$

3.3 Development of the Questionnaire

Data were collected using an adopted and validated questionnaire drawn from prior empirical studies. To ensure clarity and comprehension, the questionnaire was translated into Sindhi and Urdu, considering the linguistic context of the respondents. The same instrument was consistently used across all districts to maintain measurement reliability and validity.

3.4 Survey Instruments

The questionnaire consisted of multiple constructs measured using established scales from prior literature:

- *Personality Traits:* 20 items adopted from Koh, (1996).
- *Motivation:* 15 items adapted from Birley, (1989); Birley and Westhead, (1994) and Gatewood et al. (1995).
- *Perceived Access to Finance:* 5 items adopted from Phan, (2018).
- *Access to Professional Networks:* 5 items adapted from Zeb and Kakakhel, (2018).
- *Government Assistance:* 6 items adapted from Indarti and Langenberg; Yusuf (1995); Hansen, Rand, and Tarp (2009); and Rashid (2012).
- *NGO Assistance:* 5 items, including four from Hosseini, Bakhtiari, and Lashgarara (2012) and one from Rahman et al. (2019).
- *Institutional Environment:* 13 items measuring regulatory (5 items), cognitive (4 items), and normative (4 items) environments.
- *Entrepreneurial Activity Engagement:* 6 items adapted from Mom et al. (2009).
- *Individual Entrepreneurial Orientation (IEO):* 10 items adopted from Bolton and Lane, (2012).

Note: All items were measured using a 5 point Likert-type scale from Strongly disagree (01) to Strongly Agree (05).

3.5 Data Collection Procedure and Ethical Considerations

Participants were approached through vocational training centers, community references, and local networks. Prior to data collection, the purpose of the study was clearly explained, and informed consent was obtained from all participants. Given the cultural sensitivity and trust concerns in rural settings, surveys were conducted at respondents' homes and vocational centers.

The data collection process took approximately 8–10 minutes per respondent. Participation was voluntary, anonymity was ensured, and respondents were informed of their right to withdraw at any stage. Ethical considerations were maintained in accordance with established research guidelines (Spyros & Langkos, 2014).

4. RESULTS

The collected data were analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM). This technique was selected due to its suitability for complex models, mediation analysis, and studies involving latent constructs and non-normal data distributions.

4.1 Descriptive Statistics

Table 1: Demographic Data of female Respondents of Thatta, Umerkot & Tharparker

Demographic Data	Category	Frequency
Age	18-25	200
	26-30	179
	31-36	08
Education	Intermediate	152
	Matriculation	200
	Masters	35
	MPhil	00
Fathers Occupation	Own Business	136
	Government Job	100
	Farmers	32
	Private Job	119
Marital status	Single	180
	Married	150
	Divorced	57
Ethnicity	Sindhi	190
	Urdu	100
	Balouchi	50
	Saraiki	40
	Punjabi	07

Total		387

The above given table 1, revealed that all were females, and the majority were young, with 200 females between the ages of 18 and 25, 179 girls between the ages of 26 and 30, and 08 females between the ages of 31 and 36. In terms of education, most females had intermediate education, with 152 having completed it, 200 matriculated from various schools, and 35 with a Master's education. Regarding the father's occupation, 136 percent of female respondents' fathers ran their businesses, 100 percent had fathers who worked for the government, and 32 percent of female respondents' fathers worked in fields as farmers. The rest, 119 percent of the female father, has worked for a private business. 180 females were single, with the majority married, 150 married, and 57 divorced in terms of marital status. Regarding ethnicity, the bulk of the females (190) were Sindhi, while 50 were Balochi, 100 were Urdu speaking, 40 were Saraiki, and the remaining 07 were Punjabi speaking, as shown in table 1 above. The remaining 13 responses were incomplete.

4.2 Measurement Model

The conceptual framework comprised six independent variables, including personality traits "(Need for achievement (NACH), Internal Locus of control (ILOC), Propensity to take the risk (RTP), push and pull factors, Institutional Environment (IE), perceived access to finance (PAF) , perceived access to a professional network (PAFN), Government and Non-government organization assistance, as mediating variable and female entrepreneurial activity (FEA) as the dependent variable".

Table 2: Confirmatory Factor Analysis

Constructs	Short-form	OL	Cronbach Alpha	AVE	Composite Reliability	No of Items
Need for Achievement			**0.807**	**0.623**	**0.868**	**04**
I do not like a well-paid job if I cannot derive a sense of achievement and satisfaction from it	NACH2	0.732				
I want to earn as much as possible to attain a comfortable standard of living	NACH3	0.739				
I do not mind routine, unchallenging work if pay the is good	NACH4	0.844				
When I do something, I see to it, it does not only get done, but also it does excellence	NACH5	0.835				
Internal Locus Of			**0.861**	**0.545**	**0.892**	**07**

Control						
""Peoples Misfortunes result from the mistakes they make""	ILOC1	0.812				
"Many unhappy things in life are partly to bad luck"	ILOC2	0.746				
"I do not enjoy outcomes, No matter how favourable, If they do not stem from my efforts"	ILOC3	0.794				
"I am willing to accept the negative and positive consequences of my decision and action"	ILOC4	0.801				
"I cannot wait and watch things happen,I prefer to make things happen"	ILOC5	0.761				
"Its I, not luck or fate which influence the outcomes or events in my life"	ILOC6	0.528				
"I believe success and failure is a product of fate rather than personal efforts"	ILCO7	0.688				
Propensity to take risk			**0.708**	**0.400**	**0.792**	**06**
I do not care if the profit is small, so long as it is assured and constant	RTP1	0.658				
" I do not mind working under uncertain conditions as long as there is a probability of gains from it"	RTP3	0.488				
I do not fear investing my money new venture	RTP4	0.723				
"I will consider the risk worth taking if the probability of success is 60%"	RTP5	0.811				
I fear moving into new entrepreneurial activity	RTP6	0.608				
"I fear moving into a new entrepreneurial activity undertaking, I know nothing about"	RTP7	0.417				
Push Factors			**0.702**	**0.525**	**0.814**	**04**
I have an inadequate	PUSH3	0.778				

family income						
I am not satisfied with my current job	PUSH4	0.784				
I am no longer in the employment	PUSH5	0.609				
I need to accommodate work and home role	PUSH6	0.713				
Pull Factors			**0.682**	**0.506**	**0.803**	**04**
It's my desire to become my own boss	PULL5	0.741				
I want flexibility in work and family	PULL6	0.765				
I want a some hobby in my life	PULL7	0.675				
I want to become a role model for other females	PULL9	0.661				
Perceived Access to finance			**0.654**	**0.591**	**0.813**	**03**
If I start any entrepreneurial activity, finding funds will be the biggest obstacle	PAF2	0.760				
Finding funds for entrepreneurial activity will be more difficult than entrepreneurship	PAF3	0.765				
You get a lot of information of how to find funds for entrepreneurial activity through social media	PAF4	0.781				
Access to Network			**0.882**	**0.729**	**0.915**	**04**
Professional relationship with girls helps me to generate new ideas	ATNET2	0.864				
I use professional contacts i-e FWBL,BDC,WDD	ATNET3	0.807				
I am interested to establish network with professional networks to scan opportunities	ATNET4	0.909				
My professional network help me in giving moral support financial aid ,material aid,advice and other help	ATNET5	0.832				
Government Assistance			**0.836**	**0.752**	**0.901**	**03**
Sindh government policy is favorable to run girls	GASST4	0.790				

business						
Sindh government policy helps to maintain law and order situation for girls business	GASST5	0.911				
Overall, Sindh government support for girls business	GASST6	0.895				
Non –Government organization Assistance			**0.775**	**0.598**	**0.856**	**04**
NGOs loans are easily available for this business	NGOASST1	0.724				
Sindh government is helpful with license and registration process	NGOASST2	0.746				
NGOS facilitate in the process of attaining loans	NGOASST3	0.801				
NGOS provides loans with comparative low interest rate	NGOASST4	0.820				
Institutional Environment			**0.778**	**0.411**	**0.829**	**11**
Sindh Government organizations in this province assist individuals with starting their own business	INSTENV1	0.441				
Sindh government set aside government contracts for new and small business	INSTENV2	0.542				
The local and national The local government have special support available for individual who wants to start a new business	INSTEN3	0.536				
Sindh government sponsors organizations that help the new business develop	INSTEN4	0.675				
Even the Pakstan's government assist them in starting a business after someone fails in an earlier business again	INSTENV5	0.667				
Individuals know how to legally protect new business	INSTENV6	0.656				

Those who start new business know how to deal with much risks	INSTENV7	0.573				
where to find information about markets for their products	INSTENV8	0.441				
Turning new ideas to business is an admired career path in Sindh.	INSTENV10	0.455				
In this province, girls with innovative and creative thinking are viewed as a routareto success	INSTENV11	0.542				
Entrepreneurs are admired in this Sindh	INSTENV12	0.539				
Individual Entrepreneurial Orientation (IEO)			**0.752**	**0.406**	**0.823**	**07**
"I tend to act boldly in situations where risk is involved"	IEO3	0.696				
"In general, I prefer strong emphasis on projects ,that is unique ,one of a kind approach rather than revisiting tried and true approaches used before"	IEO4	0.693				
"I prefer to try my own unique way when learning new things rather than doing it like everyone else does"	IEO5	0.630				
"I favor experimentation and original approaches to problem solving rather than using methods others generally use for solving problems"	IEO6	0.554				
"I tend to do things the same and try not different unproven approaches"	IEO7	0.666				
I act in a way to anticipate future problems or needs	IEO8	0.403				
"I tend to plane a head on projects"	IEO9	0.754				

Female Entrepreneurial Activity			**0.623**	**0.556**	**0.790**	**03**
Activities in which you carries out as if it were routine	FEA1	0.754				
How you conduct the activities which is clear to you	FEA 3	0.708				
Activities which clearly fit in to new business	FEA6	0.774				

In above given table 2, reliability refers to the assessment tool that produces stable and consistent results, and validity refers to the extent to which the constructs measure what it is supposed to measure. Internal consistency, reliability; Cronbach Alpha (α>0.7 or 0.60) is considered is suitable. Composite reliability of 0.60 to 0.70 was considered acceptable in exploratory research. In the second generation of Smart-Pls, values between 0.70 and 0.90 can be regarded as satisfactory (Nunally & Bernstein, 1994). Our test of composite reliability indicates satisfactory results, as shown in the table 02 above.

The indicator's outer loadings should be above 0.708 since that number equals 0.50. It is essential to consider that 0.70 is considered acceptable. At the same time, weak loadings are retained for indicators between 0.40 and 0.70 due to their contribution to content validity (Hulland, 1999). However, the indicators with very low outer loadings below 0.40 should permanently be eliminated (Hair, Ringle & Sarstedt, 2011). All our loadings are between 0.50 and 0.70, as shown in table 02.

Our AVE Average Variance extracted value of 0.50 or higher explains half of the indicators' variance. Similarly, AVEs of less than 0.50 indicates more errors in the items. Our AVEs in the above table is greater than 0.50, showing no errors in the items.

Table 3: Fornell Larcker Criterion test

	ATN	**FEA**	**GA**	**IEO**	**ILOC**	**INST**	**NA**	**NGOS**	**PAF**	**PULL**	**PUSH**	**RTP**
ATN	0.834											
FEA	0.501	0.746										
GASST	0.700	0.031	0.827									
IEO	0.401	0.501	0.333	0.627								
ILOC	0.601	0.540	0.801	0.301	0.734							
INSTENV	0.511	0.561	0.442	0.501	0.560	0.554						
NACH	0.566	0.401	0.631	0.261	0.607	0.341	0.77					
NGOAST	0.401	0.406	0.701	0.453	0.610	0.321	0.390	0.773				
PAF	0.591	0.471	0.303	0.471	0.533	0.450	0.290	0.454	0.768			
PULL	0.440	0.461	0.267	0.481	0.523	0.390	0.350	0.560	0.490	0.761		
PUSH	0.501	0.501	0.267	0.602	0.541	0.460	0.551	0.432	0.589	0.440	0.722	
RTP	0.351	0.288	0.591	0.301	0.521	0.380	0.391	0.400	0.380	0.541	0.660	0.631

The square root of each AVE of each construct should be higher than the construct's highest correlation with below other constructs, as shown in table 03 above, according to the Fornell Larcker criterion test (Joseph F. Hair, Jr, G Tomas M. Hult, Christian Ringle & Marko Sarstedt, 2014).

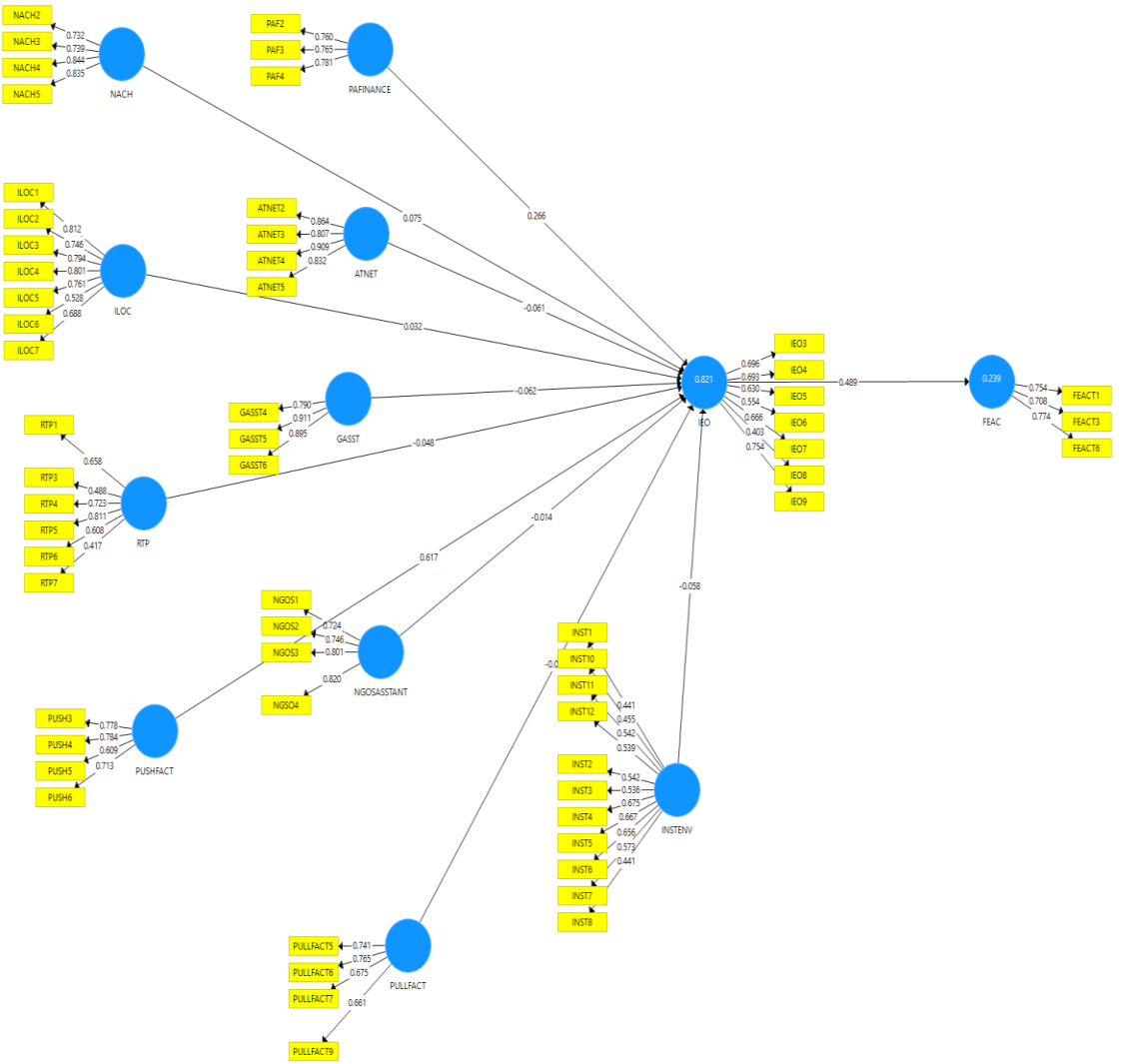

Figure 1: Confirmatory Factor Analysis (Source : Self –Created)

Table 4: HTMT Test

	ATN	FEA	GA	IEO	ILOC	INST	NA	NGOS	PAF	PULL	PUSH	RTP
ATN	-											
FEA	0.720	-										
GASS	0.510	0.660	-									
IEO	0.550	0.601	0.761	-								
ILOC	0.621	0.551	0.587	0.621	-							
INST	0.601	0.542	0.513	0.571	0.580	-						
NACH	0.701	0.530	0.730	0.542	0.620	0.568	-					
NGOA	0.721	0.550	0.581	0.551	0.681	0.552	0.610	-				
PAF	0.450	0.521	0.561	0.621	0.672	0.581	0.631	0.606	-			
PULL	0.660	0.512	0.577	0.561	0.638	0.544	0.522	0.621	0.636	-		
PUSH	0.551	0.630	0.531	0.678	0.664	0.431	0.522	0.531	0.781	0.504	-	
RTP	0.521	0.550	0.552	0.701	0.511	0.561	0.534	0.502	0.457	0.571	0.735	-

Heterotrait and Monotrait tests are the third and final methods for determining discriminant validity. According to this test, no value should exceed 0.90. Our test has no value above 0.90, as shown in Table 04.

Table 5: Path- coefficients

	Original Sample	Standard deviation	T-statistics	P values
ATN → IEO	-0.061	0.034	1.779	0.067
GASST → IEO	-0.062	0.071	0.877	0.381
IEO → FEA	0.489	0.055	8.841	0.000
ILOC → IEO	-0.032	0.071	0.447	0.655
INST → IEO	-0.058	0.032	1.883	0.067
NACH → IEO	0.075	0.037	3.046	0.000
NGOS → IEO	-0.014	0.040	0.359	0.720
PAF → IEO	0.266	0.059		0.000
PULL → IEO	-0.075	0.034	0.193	0.029
PUSH → IEO	0.617	0.070	8.806	0.000

RTP → IEO	-0.048	0.027	1.798	0.073

Table 6: Specific Indirect effect

	Original Sample	Standard Deviation	T statistics	P values
GAS → IEO → FEA	-0.030	0.035	0.871	0.384
PUSH → IEO → FEA	0.302	0.051	5.943	0.000
RTP → IEO → FEA	-0.024	0.014	1.719	0.086
NACH → IEO → FEA	0.037	0.020	3.880	0.000
PULL → IEO → FEA	-0.037	0.018	2.039	0.042
INST → IEO → FEA	-0.029	0.016	1.761	0.079
NGO → IEO → FEA	-0.007	0.020	0.349	0.727
ATN → IEO → FEA	-0.030	0.017	1.765	0.078
ILOC → IEO → FEA	0.016	0.035	3.442	0.000
PAF → IEO → FEA	0.130	0.031	4.148	0.000

Table 7: Total Effect

	Original Sample	Standard Deviation	T statistics	P values
ATN → FEA	-0.030	0.017	1.765	0.078
ATN → IEO	-0.061	0.034	1.779	
GASST → FEA	-0.030	0.035	0.871	0.384
GASST → IEO	-0.062	0.071	0.877	0.381
IEO → FEA	0.489	0.055	8.841	0.000
ILOC → FEA	0.016	0.035	3.442	0.000
ILOC → IEO	-0.032	0.071	0.447	0.655
INST → FEA	-0.029	0.016	1.761	0.079

INST → IEO	-0.058	0.032	1.883	0.067
NACH → FEA	0.037	0.020	3.880	0.000
NACH → IEO	0.075	0.037	3.046	0.000
NGO → FEA	-0.007	-0.020	0.349	0.727
NGOS → IEO	-0.014	0.040	0.359	0.720
PAF → FEA	0.130	0.031	4.418	0.000
PAF → IEO	0.266	0.059	4.487	0.000
PULL → FEA	-0.037	-0.037	2.039	0.042
PULL → IEO	-0.075	0.034	2.193	0.029
PUSH → FEA	0.302	0.051	5.943	0.000
PUSH → IEO	0.617	0.070	8.806	0.000
RTP → FEA	-0.024	0.014	1.719	0.086
RTP → IEO	-0.048	0.027	1.798	0.073

The relationship between personality traits and IEO is essential for explaining the mixed findings concerning the relationship between Personality traits and IEO. Several studies have reported a significant linear relationship between personality traits and female entrepreneurial activity (Mert et al., 2017; Okhomina, 2010). They considered the small informal firms of females in Thatta, Tharparkar and Umerkot , where female entrepreneurs are a significant component of home-based business. We argue that the personality traits of informal business entrepreneurs will be close to IEO (Eijaz Ahmed Khan, Lynne Harris & Mohammad Quaddus, 2021). We examined the need for achievement and risk propensity in correlation with IEO (Okhomina, 2010).

All these traits may influence individual entrepreneurial orientation. For example, internal locus of control did not influence one's IEO. Proactiveness stems from a need for achievement (Lumpkin & Dess, 2001; Claes et al., 2005). The risk propensity had weaker or no correlation with IEO (Zhao et al., 2010).

Hypothesis 1: The Need for achievement significantly impacts the Individual entrepreneurial orientation

Hypothesis 2: Internal locus of control does not significantly impact the Individual entrepreneurial orientation

Hypothesis 3: The Propensity to take risk negatively impact the Individual entrepreneurial orientation

Push and Pull Motivations

Various studies look at the role of motivation and its influence on individual entrepreneurial orientation (S.ADAMS et al., 2017). The motivation of female entrepreneurs is the push and pull motivation (Benny Hutahayan, 2019). Push motive is the element of necessity in which we force female entrepreneurs to overcome negative factors of poverty, such as family financial burden, and pull elements are attractive reasons to involve in business activities (Sriyani Gtw, M.Silva & J.Kumasaru, 2020). In developing economies like Sindh, Push motivation is more on self-employment to start a new business because of financial issues and have more growth aspirations. They intend to expand their business with a profit motive (Tseng & Tseng, 2019). While pull motivation to grab opportunities is rare in Thatta, Tharparkar and Umerkot . There is a substantial distinction between innovation, risk-taking, and proactiveness in perspectives motives (Kozubikova et al., 2017). The effect of pull motivation on IEO in India and findings verified that there is a significant impact of pull motivation on IEO than push motivation (Jeewan et al., 2010). However, our study shows that Push motivation has a significant impact because of survival motivation.

Hypothesis 4: Push motivations significantly impact the IEO

Hypothesis 5: pull motivations do not significantly impact the IEO

Institutional Environment and individual entrepreneurial orientation

The institutional environment generates shapes that lead individuals to adopt strategies and processes (Davidsson, 1991). The weak regulatory and institutional environment may affect conformity negatively and hinder outcomes at the individual level (T.Li, 2020). Consequently, females with weak perceptions of IEO failed to access the available. They failed to access the institutional resources, which in turn, failed to match personal context and institutional environment, further lessening the individual commitment (T.Li, 2020). Finally, the Normative environment may need to be improved to regulate IEO (T.Li, 2020). If IEO and the normative environment are less valued in Thatta, Tharparkar and Umerkot, females are less likely to think positively, less involved, and less committed. The cognitive environment of female entrepreneurs in Thatta, Tharparkar and Umerkot reflects poor knowledge, skills, and competence (De Clercq et al., 2013; T. Li, 2020). Such an environment fails to develop one's IEO (Wang et al., 2021).

Perceived Access to finance and individual entrepreneurial orientation

In Thatta, Tharparkar and Umerkot , perceived access to finance means the ability of female entrepreneurs to obtain finance for starting a new business. Through formal or informal sources (Yoshino & Taghizadeh; Hesar, 2018). Accessing financial capital boosts the confidence of female entrepreneurs and captures their Propensity. However, access to finance or availability of capital can undoubtedly foster one's inclination for entrepreneurship (Farooq et al., 2018; Indarti et al., 2010; Pruett et al., 2009; Sandhu et al., 2011). In turn, female entrepreneurs proactively make plans and arrangements for financial resources. She takes the initiative for innovative businesses by sorting opportunities (Fatoki, 2012). Finally, she is likely to the capital on the business opportunities (Galbraith et al., 2014; Newman et al., 2021) to keep the business objectives even in adverse circumstances (Gerchewski et al., 2016). In Thatta, Tharparkar and Umerkot , most female entrepreneurs avoid risk-taking.

Hypothesis 6: Perceived access to finance significantly impact one's IEO.

Perceived access to professional networks and individual entrepreneurial orientation

The entrepreneurial network refers to the formal relationship between the informal female entrepreneurs with formal associations such as First women Bank Limited (FWBL), Women Chamber of Commerce & Industry (WCCI), Women business development centers (WBDC), and Small Medium Enterprises Development Authority (SMEDA) to access resources (Centeno, 2014). Female entrepreneurs in these three districts Thatta, Tharparkar and Umerkot mostly rely on informal networks. However, professional networks provide hidden knowledge which is not readily available. Thus, these networks provide the latest information that assists in identifying the challenges to develop the ability to adapt to changes accordingly (Wu et al., 2016). They further maintained that interrelationships support females in acquiring knowledge that may help reduce cost and risk (Das & Goswami, 2019).

From a professional network perspective, several females in these districts i.e. Thatta, Tharparkar and Umerkot failed to access the professional network due to cultural constraints. In turn, it failed to stimulate proactiveness, innovativeness, and risk-taking ability to engage in environmental scanning and resources /opportunities (Li, Liu & Liu, 2011). Females with poor IEO failed to attract and leverage outside resources to capitalize on opportunities (X. Jiang et al., 2018). Females prefer to use personal or informal networks for resources.

Hypothesis 7: Perceived access to the professional network does not significantly impact IEO

Government Assistance and Individual entrepreneurial orientation

In the developing economy of Sindh, the government is the primary sector that plays a crucial role in the provision of different categories of support to assist female SMEs in building their competencies effectively and efficiently (Shamsuddin et al., 2020; Charoensukmongkol, 2016). The significant barrier for SMEs is the need for more resources to support the business start-up. They typically depend on family support to relieve them of their weaknesses and other problems (Charoensukmongkol, 2016).Sindh government business support does not provide external resources for improving female SMEs in these districts Thatta, Tharparkar and Umerkot (Ishtiaq et al., 2020; Wei & Liu, 2015). Government assistance does not significantly affect female SMEs, which implies poor government intervention (Persada et al., 2020; Idris & Saad, 2019; Charoensukmongkol, 2016; Berry et al., 2006; boter and Lundstrom, 2005). Poor government assistance failed to stimulate IEO (Li & Atuahene-Gima, 2001; Sheng et al., 2011; Yiu & Lau, 2008).

First, government policies have increased the perceived risk and environmental uncertainty faced by female entrepreneurs, thus leading to lower business entries. Second, such policies do not allow female entrepreneurs to secure critical resources via the market system and thus do not support their entrepreneurial activity. Third, such policies do not provide entrepreneurs with entrepreneurial opportunities (Dai & Lao, 2018; Minniti, 2008). These above three characteristics failed to spur IEO.

Hypothesis 8: Government Assistance does not significantly affect the IEO.

Non-government organization Assistance and individual entrepreneurial orientation

Females being a disadvantaged group in these districts, it is difficult for them to access financial information, especially in home-based businesses. As NGOs provide a wide range of resources to poor females in these districts i.e. Thatta, Tharparkar and Umerkot , females may seek financial resources for their small businesses from NGOs (Wiklund & Shepherd, 2003). A study in India listed NGOs as the provider of financial support for informal home-based businesses (Jyoti, Sharma & Kumari, 2011). Sindh rural support programs provide an affordable arrangement to SMEs, which subsequently impacts the start–up (Genc, Dayan, & Genc, 2019; Vinichenko, Melnichuk, & Karacsony, 2020; Sabir & Hussin, 2020). Individual orientation at the individual level captures one's behavior that is majorly entrepreneurial (Roxas, Ashill, & Chadee, 2017; Wichitsathian, & Nakruang, 2019, Iqbal, A. et al., 2020; Omer & Aljaaidi, 2020; Betakova, Haviernikova, Okreglicka, Mynarzova, & Magda, 2020).

During the last few years, NGOs have been the dominating factor in the IEO mainly because we have shown NGOs to be an essential predictor of IEO (Kantur,

2016). In short, inefficient and unsustainable NGO support in Thatta, Tharparkar and Umerkot represents lessor no inclination to involvement in entrepreneurial activities in Sindh (Hussain et al., 2020). Therefore, NGOs do not significantly impact the IEO.

Hypothesis 9: Non Government organization assistance does not significantly impact IEO.

Individual entrepreneurial orientation and female entrepreneurial activity

The factual information appeared lower rates of early organized entrepreneurial movement with 4% in Pakistan (Global Entrepreneurship Monitor Report, 2019). The 2015 report was not different since Pakistan's female entrepreneurial activity continues to be lower relative to other subcontinent countries (Herrington & Kew, 2016). In Sum, This reflects male advancement in entrepreneurial activities. With sufficient support, more females can be entrepreneurs (Habofanwe Koloba, 2017). Thatta, Tharparkar and Umerkot is the districts that needs to improve its female entrepreneurial activity (Herrington & Kew, 2016). This paper seeks to investigate the Individual entrepreneurial impact on entrepreneurial activity. Individual entrepreneurial orientation is best described by innovation, risk-taking, and proactivity.

To a great extent, innovative individuals tend to show a positive mindset toward new businesses (Krauss et al., 2005). Similarly, risk-taking Propensity distinguishes entrepreneurs from non-entrepreneurs. Therefore, IEO is a significant predictor of entrepreneurial activity (Habofanwe Koloba, 2017).

Hypothesis 10: Individual entrepreneurial orientation significantly impacts the female entrepreneurial activity

Mediating Role of IEO between theoretical predictors and female entrepreneurial activity

The mediating role of IEO between personality traits and female entrepreneurial activity

The mediating relationship between individuals' psychological traits plays a critical role in successfully developing entrepreneurial activities (Gieure et al., 2019; Linan et al., 2011). To the extent individuals have different traits, it is expected that individual entrepreneurial orientation is favorably or unfavorably impacted by psychological traits (Engle et al., 2010; Linan et al., 2011; Santos et al., 2016). Because females with the need for achievement are better able to handle uncertain situations; in this way, they can easily face threats and develop more strategies for a successful business. While individuals with an internal locus of control can control the outcomes of their lives by linking their actions; thus, they strive to be more attentive, and their risk-taking Propensity is weaker due to fewer resources(Sulaiman Sajilan, Noor ul Hadi & Shahnaz Tehseen, 2015).

Entrepreneurial-oriented individuals exhibit different personality traits influencing their decision-making (Gupta et al., 2016; Krauss et al., 2005). Psychological traits influence the motivation toward behavior (Marques et al., 2013). In turn, orientation towards entrepreneurial behavior provides the basis for entrepreneurial activities.

Hypothesis 1a: IEO significantly mediates the relationship between the need for achievement and entrepreneurial activity

Hypothesis 2b: IEO significantly mediates the relationship between internal locus of control and entrepreneurial activity

Hypothesis 3c: IEO does not significantly mediate the relationship between the Propensity to take a risk and entrepreneurial activity.

Mediating role of IEO between push and pull motivations and female entrepreneurial activity

Push and pull motivation, and female entrepreneurial activity are associated positively and significantly with each other (Bolton & Lane, 2012). IEO as a mediator, influences one's motivation toward entrepreneurial behavior, such as innovation, risk-taking, and proactiveness, making females more prone to entrepreneurial activities (Marques et al., 2013). Although, the Direct effect of motivation on IEO needed to be stronger due to weak risk-taking Propensity, and it failed to develop IE for involvement in entrepreneurial activities (Koe, 2016). Generally, Motivation and IEO have a significant association with each other (Malik et al., 2016; Marques et al., 2018); much more substantial IEO is a significant predictor of entrepreneurial activity (Alam et al., 2020; Barba-S anchez and Atienzasahuquillo, 2017; Lang & Liu, 2019; Marques et al., 2013).

This study suggests that IEO acts as a mediator between push and pull motivations: Previous literature has shown a strong correlation between pull motivation and pushes motivation (Marques et al., 2018; Sajilan et al., 2015). However, our study shows a solid mediating correlation between push motivation. Motivation is highly correlated with FEA (Alam et al., 2020).

Hypothesis 4d: IEO as a mediator significantly mediates the relationship between push motivation and FEA.

Hypothesis 5e: IEO as a mediator does not significantly mediate the relationship between pull motivation and FEA.

The mediating role of IEO between the Institutional environment and female entrepreneurial activity

The interaction between individuals and their institutional environment is critical in developing successful entrepreneurial activities (Gieure et al., 2019; Linan et al., 2011). To the extent the institutional environment of the individual has a positive or negative perception of the institutional environment, we expect that the EI for

involvement in entrepreneurial activities will be impacted favorably or unfavorably (Engle et al., 2010; Linan et al., 2011; Santos et al., 2016). Because the institutional environment influences the beliefs of that organization's context leading to sustainable behavior (Wang et al., 2021), this influence of innovation, risk-taking, and proactiveness can be reflected in the intention to carry out new business activities. However, Sindh weak regulatory and institutional environment may affect the congruence and hinder outcomes. Individuals with a weak perception of EO access resources poorly. Because of insufficient resources, she failed to match personal and organizational contexts. The normative environment is less valued. Females are less likely to think positively, less involved, and less committed (T. Li, 2020). Finally, a poor cognitive environment failed to initiate entrepreneurial activity (De Clercq et al., 2013; T.Li, 2020). Thus, the mediating effect of IEO between IE and FEA is insignificant.

Hypothesis 6f: IEO as a mediator does not significantly mediate the relationship between IE and FEA.

Mediating role of IEO between Perceived access to finance and female entrepreneurial activity

It linked the theory of action regulation states that IEO and perceived access to finance through FEA (Zacher & Frese, 2018). Individual orientation is associated with innovation, risk-taking, and proactivity (Goktan & Gupta, 2015), making individuals high in IEO (Krauss et al., 2005). All these factors enable easy access to finance for informal female entrepreneurs (Fatoki, 2012; Frese & Gielnik, 2014). We propose that IEO is linked as a mediator with access to finance (Fatoki, 2012), and the start-up capital acts as a strong stimulus (Covin & Lumpkin, 2011; Indarti et al., 2010; Sandhu et al., 2011). Therefore, the perceived linkage between IEO and financial capital has convinced many researchers to accept it as the most critical antecedent of FEA (Farooq, 2018; Kristiansen & Indarti, 2004).

Hypothesis 7g: IEO as a mediator significantly mediates the relationship between PAF and FEA

The mediating role of IEO between Perceived access to a professional network and female entrepreneurial activity

IEO is a behavior in which they practice innovation and risk-taking to guide resource use (Chirico, Sirmon, Sciascia, and Mazzola, 2011). IEO is a resource-consuming and individual capacity to undertake entrepreneurial activities (Covin & Slevin, 1991). Hence, the formal network is a unique resource orchestrated into actions (Brush, Greene, and Hart, 2001). Formal networks provide needed resources as well as enhance competencies (Bantham et al., 2003; Jhonson & Sohi, 2003; Rothaermel & Deeda, 2006; Shan et al., 1994 and Wernerfelt, 1995) that are external to them by maintaining the interrelationship with them (Jarillo, 1989; Zhao & Aram, 1995).

However, in Thatta, Tharparkar and Umerkot, female entrepreneurs use informal networks. Females with lower resources have the lower innovative capability, risk-taking, and poor proactiveness, resulting in lower business activities (Covin & Slevin, 1991).

Hypothesis 8h: IEO as a mediator does not significantly mediate the relationship between access to a professional network and female entrepreneurial activity.

The mediating role of IEO between government assistance and female entrepreneurial activity

Individual entrepreneurial orientation could have had a far-reaching influence on encouraging innovation and reducing perceived risk and environmental uncertainties, thus leading to new entries. Finally, entrepreneurial-oriented female entrepreneurs proactively secure critical resources (Dai & Liao, 2018; Minniti, 2008). Therefore, previous studies have shown that government support affects the successful development of female entrepreneurial activities (Atalay et al., 2017; Nesheim et al., 2017; Sheng et al., 2013; Zhang et al., 2017). Government assistance takes the following forms in Sindh for informal entrepreneurs: poor grants, training, poor support for policies, and poor supporting access to the market, and tax simplification (Cravo & Piza, 2016). Such support makes female entrepreneurs less innovative and less proactive. Poor government support negatively affects the successful development of entrepreneurial activities (Persada et al., 2020; Idris & Saad, 2019; Charoensukmongkol, 2016; Berry et al., 2006; Boter & Lundstrom, 2005).

Hypothesis 9i: IEO as a mediator does not significantly mediate the relationship between government assistance and female entrepreneurial activity.

The mediating role of IEO between Non-government organization assistance and female entrepreneurial activity

IEO is a behavior in which they practice innovation and risk-taking to guide resource use (Chirico, Sirmon, Sciascia, and Mazzola, 2011). IEO is a resource-consuming and individual capacity to undertake entrepreneurial activities (Covin & Slevin, 1991). Hence, NGO support is one of the unique resources orchestrated into actions (Brush, Greene, and Hart, 2001). Inefficient and unsustainable NGO support in Thatta, Tharparkar and Umerkot represents less or no inclination to involvement in entrepreneurial activities (Hussain et al., 2020). Therefore, NGOs do not significantly affect the IEO. NGOs' poor financial support results in lower female business activities (Bauchet & Morduch, 2013).

Hypothesis 10 j: IEO as a mediator does not significantly mediate the relationship between Non-government organization assistance and female entrepreneurial activity.

5. CONCUSION

This paper explores theoretical predictors of individual entrepreneurial orientation and further suggests exploring female entrepreneurial activity. The findings suggest that personality traits, except risk-taking, push motivations, and perceived access to finance, significantly affect the IEO directly or indirectly. These theoretical predictors also affect the EI for involvement in FEA. While Pull motivations Access to the network, Govt. and NGOs assistance do not significantly affect IEO, directly or indirectly, in developing EI for involvement in entrepreneurial activities.

5.1 Theoretical & Practical Implications

This paper explores the IEO at the individual level and suggests further exploration of construct in the context of Thatta, Tharparkar and Umerkot to assess the entrepreneurial orientation of female entrepreneurs (Koe, 2016; Ferreira & Trusko, 2018; Sahoo & Panda, 2019). This study examines the impact of predictors on the female of Thatta, Tharparkar and Umerkot ,on their IEO for involvement in entrepreneurial activities. This paper also contributes theoretically to the literature on mediating role of IEO between theorectical predictors and FEA. These theoretical predictors help understand the role of psychological traits, push and pull motivations, perceived access to finance, institutional environment, access to professional networks, and IEO towards the successful development of female entrepreneurial activity. The findings suggest that personality traits, except risk-taking, push motivations, and Perceived access to finance, not only have a more substantial impact on IEO but are equally essential in mediating the impact of IEO between theoretical predictors and FEA. In sum, this paper augments the literature on theoretical predictors and IEO from Thatta, Tharparkar and Umerkot perspective and mediates the impact of IEO between theretical predictors and FEA.

This study is also relevant to the context of other south Asian countries that deliver female entrepreneurial activities. The researchers suggest that the IEO of females can be developed through psychological traits, push motivations, better-perceived access to finance, a better institutional environment, with better access to professional networks. Hence, the findings suggest that the government of Sindh should focus on developing a better institutional environment and better access to professional networks. The government should improve assistance and NGO assistance for enhancing female entrepreneurial orientation in thatta, Tharparkar and Umerkot, eventually leading to the development of successful entrepreneurial activities, which can be achieved by exposing the real entrepreneurial problems of female entrepreneurs, thus bringing out innovativeness in idea generation to enhance their entrepreneurial orientation by increasing the interaction with them for more involvement in the entrepreneurial

activities.

5.2 Limitations and Future Scope of Research

This paper undoubtedly contributes to the literature, but it contains certain limitations. The first limitation is that it comprises only female entrepreneurs and excludes males. Future research might consider males. Future research might consider the comparative analysis of rural and urban female entrepreneurs to provide a better understanding of rural and urban theoretical predictors of IEO and FEA. Future research might increase the sample size from different countries, which will help cross-country comparisons. Thus, this paper highlights deficiencies in thatta, Tharparkar and Umerkot institutional system.

Conflict of Interest

The authors declare no conflict of interest.

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