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ORIGINAL SCIENTIFIC PAPER

The Effect of Science & Technology Park, Market Segregation and Commercialization Support on Female Entrepreneurship in Pakistan: A Moderating Role of Economic Climate

Muhammad Murad [1]
Shahrina Binti Othman [2]
Muhamad Ali Imran Bin Kamarudin [3]
Universiti Utara Malaysia, College of Business, School of Business Management, Sintok, Malaysia

A B S T R A C T

Female students have few opportunities and training to develop their entrepreneurial careers in developing economies. The existing literature also provides little discussion of linking women's entrepreneurial intention with their entrepreneurial careers. The researchers addressed the gaps in the literature by empirically confirming the impact of science and technology parks, market segregation, and commercialization support on female students' entrepreneurship in Pakistan. The study also tested the moderating role of the economic climate on the relationship between science and technology parks, market segregation, commercialization support, and female students' entrepreneurship. We used a survey-based data collection approach, and a Likert scale questionnaire was administered. The study used data collected from 247 female students registered in business incubators. The research findings are new in the literature and confirm

[1] Corresponding author, e-mail: murad_m@cob.uum.edu.my
[2] E-mail: shahrina.othman@uum.edu.my
[3] E-mail: aliimran@uum.edu.my

the science & technology park, market segregation and commercialization support are significant antecedents that influence the entrepreneurial intention of female students in Pakistan. The impact of female students' entrepreneurial intention is positive on their entrepreneurship careers. Meanwhile, the economic climate is established as a negative moderator between female students' entrepreneurial intention and their entrepreneurial careers in Pakistan. We recommend that policymakers develop the science & technology park, market segregation and commercialization support for female students to grow their entrepreneurial careers.

KEYWORDS: *science & technology park, market segregation, commercialization support, entrepreneurship, economic climate*

Introduction

The females in Pakistan are not financially strong compared to the females in Western and developed countries (Waqas & Awan, 2019). Apart from their social deprivation, women have fewer opportunities to start a business in Pakistan (Ukwueze, 2022). Undoubtedly, females in Pakistan have opportunities to study (Rafiq et al., 2020) and work in the corporate sector (Salahuddin et al., 2022). Still, they are less trained for their business development. Females in Pakistan compose half of the population, according to the recent census in June 2023. On the other hand, it is proved by developed economies like Malaysia (Lim et al., 2019), America (García-Holgado et al., 2019), Canada (Lieu et al., 2020) and Australia (Churchill & Craig, 2019) that women's role is necessary for economic development. The so-called religious barriers for women-owned businesses have been thrown away from Pakistani society for the last decade (Hatoum et al., 2023). The women in Pakistan are fighting for their rights to education and financial independence (Safdar & Yasmin, 2020). However, practically, it is a problem to advance women's role in Pakistan's economic growth.

The overall situation of entrepreneurial businesses in Pakistan is challenging (Ahmad et al., 2022). According to the Global Entrepreneurship Index (GEI) (2019), Pakistan ranks 109th among 137 countries. Furthermore, the Global Entrepreneurship Monitor (GEM) (2019) also reported Pakistan as the last among 50 countries. These assessments collectively affirm that the state of entrepreneurship in Pakistan is suboptimal. Furthermore, there is a notable gender disparity, with females in Pakistan showing lower participation rates in entrepreneurship (Gul et al.,

2021). There is a severe need for women's entrepreneurship culture in Pakistan to support its struggling economic condition, as Pakistan signed its 23rd financial support program with the International Monetary Fund (IMF). The equal participation of women in entrepreneurship could support Pakistan's economy (Tara et al., 2020).

Different researchers presented multiple factors for women's entrepreneurship. Kapoor (2019) asserted that it was important to support women financially to improve their entrepreneurial businesses. Rudhumbu et al. (2020) pointed out women should have entrepreneurial education, and Welsh et al. (2021) reported that family support is necessary for women's entrepreneurial businesses. Meanwhile, Nasir et al. (2019) highlighted that women's entrepreneurship can be improved in Pakistan by entrepreneurial education and entrepreneurial networking support. Indeed, these researchers highlighted the critical aspects of women's entrepreneurial intention. However, there are gaps in the body of knowledge regarding the role of women in entrepreneurship. Therefore, Afshan et al. (2021) highlighted that future studies on women's entrepreneurship must determine further facts that could influence their entrepreneurial intention. Solesvik et al. (2019) stressed that women's entrepreneurship needs to be investigated more in developing economies.

The above-discussed practical and literature gaps are the motivation for this research. The researchers aimed to contribute to the entrepreneurial careers of women. The existing literature is reviewed extensively, and it is identified that no study before this research has tested the direct effect of science & technology parks, market segregation opportunities and commercialization support on women's entrepreneurial intention (Drakpa et al., 2022). Furthermore, the studies in the literature reported inconsistency in the relationship between entrepreneurial intention and entrepreneurial career. Therefore, the researchers also aimed to test this relationship in the economic climate of Pakistan. From its novelty perspective, the research confirmed that the role of science & technology parks, market segregation, and commercialization support is significant in influencing female students' entrepreneurship intention and careers in Pakistan. However, the research also confirmed that the struggling economy negatively affects the relationship between female students' entrepreneurial intentions and careers. This research paper will serve to close a loop in the literature. The scope of this study is limited to women entrepreneurship, and the female students in

business incubators of Pakistani universities are surveyed for empirical findings.

Theoretical Underpinning and Hypotheses Development

The model of this research is underpinned by stimulus-organism-response (SOR) theory. According to this theory, external stimulus is a factor that influences the individual's internal state. Similarly, the internal state significantly affects the response or leads to consequences (Zhang et al., 2021). According to Anwar et al. (2023), this theory highlights that the reaction of individuals is influenced by their interaction between external stimuli and their internal state. To begin with, science and technology parks, market segregation and commercialization support are external factors that are considered as stimulus. Furthermore, entrepreneurial intention is an internal variable that is regarded as an organism. Accordingly, the entrepreneurial career is the final stage, which is considered a response in this research. The economic climate as a moderator is supported by a relational theory of risk presented by Boholm and Corvellec (2011). This theory conceptualized economic climate as a risk object for the relationship between female' entrepreneurial intention and behavior, which is considered as an object at risk. Therefore, this theory is considered to test the relationship of risk. The developed research model is graphically shown in Figure 1.

Youssef et al. (2021) reported that innovation is critical to entrepreneurial development. In this way, entrepreneurs must bring innovation to the market in the development of products and services. Tomy and Pardede (2020) pointed out that rich countries have innovation in product development based on their technological advancement. However, the students with innovative approaches are also good at performing with innovation. Ahmed et al. (2019) emphasized that the role of scientific innovation is necessary for entrepreneurial development as it serves to improve the quality of products and services. Meanwhile, Tajpour and Hosseini (2021) concluded that without innovation, there is no success in entrepreneurial business in the market. Fresh entrepreneurs' role is to first develop a unique product and service for targeting a market; otherwise, their business will not thrive (Kaya, 2021). Sansone et al. (2021) demonstrated that the role of science & technology is critical in developing products and services that are necessary to serve the market's needs. Basically, the

innovation of products is critically important for the target market, and it is possible with new product development. Hence, Yi (2021) rightly reported on the necessity of a science & technology park for bringing innovation. From the perspective of technology parks, McAdam and McAdam (2008) concluded that university science park incubators are critical for students' approaches towards entrepreneurship. The research by Barbero et al. (2014) emphasized that integrating technology parks in business incubators is helpful for students to develop their entrepreneurial mindset. Additionally, Guerrero et al. (2018) reported that establishment of technology parks is necessary for the start-up of graduates. The above discussion leads to the following hypothesis.

> ***Hypothesis (H1):*** *In Pakistan, university science & technology parks have a positive influence on the entrepreneurial intention of female students.*

Olanrewaju et al. (2020) demonstrated that the appropriate market selection for product and delivery is necessary for market capturing. Market segregation is essential for any business before launching a product or service. It is required to find the right market to deliver the right product and service (Hameed & Irfan, 2019). The marketing department's responsibility in any business is critical for finding the opportunity in the market and designing a product according to the market's requirements. Quinn and Woodruff (2019) pointed out that entrepreneurship is based on marketing strategies, and selecting the right call for product delivery makes business successful. However, the segregation of the market is a complicated process, requiring effort to have opportunity for it. Anwar et al. (2022) asserted that market requirements for service delivery are achieved when successful business plans are established. Therefore, market segmentation is a critical process, as reported by Roundy and Fayard (2019), and businesses should be developed according to the market's requirements (Méndez-Picazo et al., 2021). The students with entrepreneurial ideas have little understanding of the complex dynamics of the market (Biancone et al., 2022). However, the proper market selection tools can help them to define the market and design the product and service accordingly. The above discussion leads to the following hypothesis.

> ***Hypothesis (H2):*** *In Pakistan, university support for market segregation opportunities positively influences female students' entrepreneurial intention.*

Support for the commercialization of products and services is critical for the development of any business (Audretsch & Belitski, 2021). The commercialization of business is a process of sustainable working in the market. Indeed, without the commercialization of products and services, the business's sales declined (Fasi, 2022). Hassan (2020) pointed out that the modern market is based on intense competition, and reliable working opportunities are necessary to develop business planning. However, Leitner et al. (2021) reported that creative advertisement is required for the newly formed business to capture the market. However, different researchers focused on promotions (Hsieh & Wu, 2019), free products (Duval-Couetil et al., 2021) and testing the product physically for commercialization (Hayter et al., 2021). Students with entrepreneurial ideas have less information about product commercialization in the market (Daneshjoovash et al., 2021). The failure to commercialize the product in the right way can lead the businesses in a negative direction (Yulianto et al., 2023). Hence, business plans and commercialization of business could serve to advance business ventures (Rukmana et al., 2023). However, Lyken-Segosebe et al. (2020) pointed out that most entrepreneurs lack efficiency in commercialization, limiting the reach of their products in the market. Entrepreneurs are required to commercialize their products to reach the customers (Rahman et al., 2022). The above discussion leads to the following hypothesis:

Hypothesis (H3): *In Pakistan, university commercialization support positively influences female students' entrepreneurial intention.*

There is a debate among scholars regarding the role of entrepreneurial intention in starting a business. Some scholars pointed out that entrepreneurial intention is appropriate for starting a business (Neneh, 2022). However, some scholars claim that intention alone is not the final factor in starting a business, rather, multiple factors can influence it (Meoli et al., 2020). A few scholars reported that entrepreneurs' intentions have changed over time based on their personality traits (Liu et al., 2019). It is reported that males have a stronger intention to work for business startups than females (Nowiński et al., 2019), but different factors also influence this intention. Therefore, this open discussion in other scholarly works opens a loop in the literature. Meanwhile, Lestari et al. (2022) pointed out that the entrepreneurial intention should be long-term to achieve the entrepreneurial goals. Li et al. (2023) demonstrated that entrepreneurial intention is a significant factor for entrepreneurs. The research by Manjaly et al. (2022) confirmed that entrepreneurs without intention are less productive in

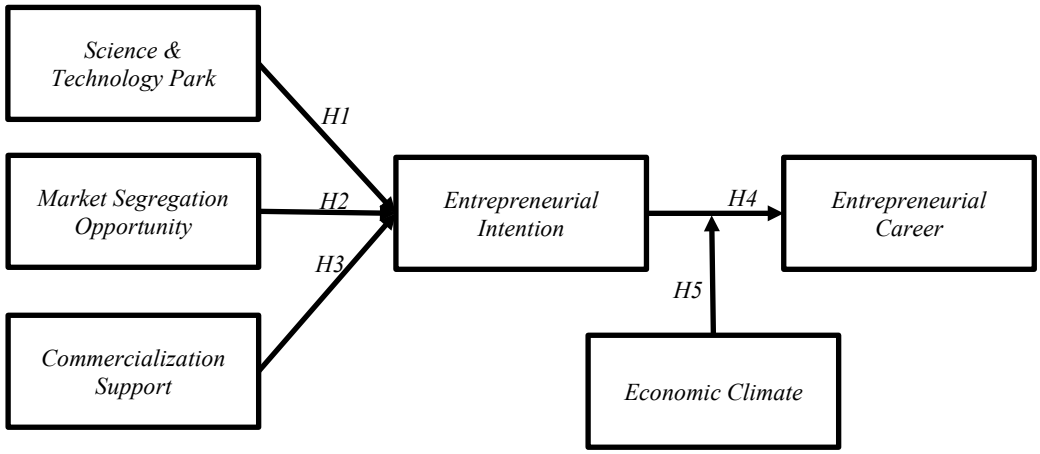
working for their businesses. The above discussion leads to the following hypothesis.

> ***Hypothesis (H4):*** *In Pakistan, students' entrepreneurial intention positively influences female students' entrepreneurial careers.*

The economic situation of any country serves as a ground for business startups (Galindo-Martín et al., 2021). Developed countries with solid economic environments are reliable for business startups because the students can obtain loans from financial institutions (Ratten, 2020). However, the dire economic condition is disturbing for the new businesses as the purchasing power of the customers is also disturbed (Gu et al., 2021). Many students fail to get financial support from their families during times of economic issues (Stoica et al., 2020). Therefore, the importance of the economic situation can't be ignored. Alameeri et al. (2021) pointed out that bad economic conditions affect any country's foreign direct investment (FDI). Meanwhile, Guerrero et al. (2021) highlighted that low economic conditions lead to business failure when the market crashes. While countries with high economic indicators, such as America, lead in entrepreneurial growth (Salvato et al., 2020), Pakistan, a poor country, has little entrepreneurial growth due to its bad economic condition (Ali et al., 2020). Therefore, the economic condition of a country plays a crucial role in shaping its entrepreneurial development. The financial situation of the country also influences the newly developed entrepreneurial businesses. The above discussion leads to the following hypothesis.

> ***Hypothesis (H5)****: In Pakistan, the economic climate moderates the relationship between female students' entrepreneurial intentions and careers.*

Figure 1: Proposed Research Model



Source: Authors

Methodology

The relationships developed in the proposed research model are tested with empirical findings. The researchers developed a questionnaire to collect primary data. The Likert scale questionnaire is designed based on 7-point items. The measurements for each variable are adopted from the existing studies. The variable science & technology part is operationalized to investigate the role of the science & technology parks in advancing female students' entrepreneurial intention. Similarly, the variable commercialization support is operationalized to determine if the commercialization support is appropriate to improve female students' entrepreneurial intention. Meanwhile, the variable market segregation opportunity is operationalized to determine if the market segregation support effectively influences female students' entrepreneurial intention. The variable student entrepreneurial intention is operationalized to examine if the entrepreneurial intention of female students is a strong predictor for their entrepreneurial careers. The variable entrepreneurial career is operationalized to determine the relationship between the entrepreneurial career of female students and their entrepreneurial intention. Finally, the construct economic climate is operationalized to test if the moderating role of economic climate threatens the relationship between female students' entrepreneurial intention and careers in Pakistan. The scale items are reported in Table 1.

Table 1: Measurement Scale

Variables	Measurement Scale
Science and Technology Park	My university provides technological support for my entrepreneurial ideas. My university has a relationship with other institutes to integrate technology in education. Scientific invention and the support of technology influence entrepreneurial ideas.
Market Segregation	My university helps me to target the appropriate market for my business. Professionals in business incubators support finding potential customers. I like the practical support of my institute for the segregation of the market. Entrepreneurial networking in business incubators is reliable for searching for a target market.
Commercialization Support	Business incubators help the commercialization of business ideas. I am confident about the commercialization strategy of my mentors. The product commercialization of my institute is useful to grow entrepreneurial business. I get alternative strategies for the commercialization of my business. Other students got product commercialization from business incubators.
Entrepreneurial Intention	I am ready to do anything to be an entrepreneur. My professional goal is to become an entrepreneur. I will make every effort to start and run my own firm. I am determined to create a firm in the future. I have very seriously thought of starting a firm. I have a firm intention to start a business someday.
Entrepreneurial Career	Product/service development is completed and ready for sale or delivery. Marketing or promotional efforts for the new venture have started. Major equipment, facilities, or property for the new venture are being purchased, leased, or rented.

Variables	Measurement Scale
	Raw materials, inventory, supplies, or components for the new venture are being purchased. I have begun investing my own money in the new venture. Other people or financial institutions are being asked for funds. Credit with a supplier has been established. I have begun devoting full-time (35 + hours per week) to the new venture. Employees have been hired for pay. A bank account exclusively for the new venture has been opened. The new venture has received income from the sale of a product/service. The new venture has been listed in the phone book (internet directory).
Economic Climate	I am happy to start a new business in the current economic climate. For me, starting up a business in the current recession is a serious barrier. Starting a business in the current economic climate would pose serious financial difficulties for me. I see the current economic climate as unfavorable for me to start a business.

Source: Authors

The scale for science and technology parks, market segregation opportunities and commercialization support are adapted from Salamzadeh et al. (2022). Meanwhile, the scale for entrepreneurial intention is adapted from Liñán and Chen (2009). The scale for an entrepreneurial career is adopted from Chen et al. (2018), and the economic climate is adopted from Nabi and Liñán (2013). The adopted scale items were considered reliable as the findings of existing studies already tested the reliability of these items. Therefore, Cronbach alpha for the scale of all variables was above 0.70, which reported the significance of available constructs. However, a panel of four reviewers from Pakistani universities considered a face validity test of the scale. The reviewers panel approved no modification in the content and scale for this research. Hence, the face validity of the adopted items in the Pakistani research context was also approved.

This probability sampling method is used for data collection, and female students enrolled in business incubators of 12 entrepreneurial universities in Punjab, Pakistan, were approached for the survey. The sampling frame was based on the registry of these business incubators, and 577 female students were enrolled in these business incubators out of 1639 students. According to Krejcie and Morgan (1970), when the total population is between 550 and 600 elements, a sample between 226 and 234 respondents is appropriate. The simple random sampling method is used to collect data as the population is known and shares similar traits for data collection. The students available in business incubators are asked randomly to fill out the questionnaire as per their volunteer participation. The questionnaires were printed and placed on respondents' desks in business incubators to get their responses. Only 300 questionnaires were distributed to collect the data, and subjects were given 20-30 minutes to complete the questionnaires. 247 responses were collected without any missing values and biased responses. Therefore, the study has used a sample of 247 subjects for empirical results. The data is incorporated into Microsoft Excel for further processing. The average of collected data for each variable's scale is determined in an Excel sheet to prepare the data for the statistical process. The study has used JASP 0.17.3.0 for data analysis. The findings of correlations between the variables and regression tests are performed to determine the empirical justifications for research objectives.

Data Analysis and Findings

All respondents of this study were females, but 170 were bachelor's degree students, and 77 were master`s students. They were registered in the business incubators to work on their business ideas. 81 respondents were in the age group of 18-20 years, 95 were in the age group of 20-25 years, and 71 were in the age group of 25-30 years. The statistical tool JASP 0.17.3.0 – the latest version was applied for data analysis. The normality of research data was tested in the first stage. The findings were checked to identify the missing values in the data. However, the results show no missing value in the research data. Furthermore, the findings of skewness and kurtosis were determined to check the normality of the distribution. It is highly recommended that the findings of skewness and kurtosis should be between -2 and +2 for significant results of normality of distribution (Royston, 1992). The findings confirmed that normality of distribution was achieved

as skewness and kurtosis were reached significantly. The findings of descriptive statistics are reported in Table 2.

Table 2: Descriptive Statistics

Variables	Missing	Mean	Std. Deviation	Skewness	Kurtosis
STP	0	3.383	1.624	0.490	-1.159
MSO	0	3.552	1.724	0.426	-1.064
CS	0	3.533	1.682	0.468	-1.137
EI	0	3.03	1.337	1.133	0.493
EC	0	2.983	1.263	0.900	-0.343
ECC	0	2.996	1.319	0.936	0.086

STP = Science & Technology Park, MSO = Market Segregation Opportunities, CS = Commercialization Support, EI = Entrepreneurial Intention, EC = Entrepreneurial Career, and ECC = Economic Climate

Source: Authors' calculation

Secondly, the findings of Cronbach alpha (α) are used to confirm the validity of the empirical model. The findings of α above 0.70 are considered appropriate for the reliability of the model and data. The findings of α for science and technology park were 0.88, for market segregation opportunities were 0.91, for commercialization support were 0.77, for entrepreneurial intention were 0.89, for an entrepreneurial career were 0.90, and for economic climate were 0.86. Hence, the reliability of the model is confirmed. Furthermore, Pearson's correlation coefficient is the test statistic that measures the statistical relationship, or association, between two continuous variables. The Pearson correlation measures the strength of the linear relationship between two variables. It has a value between -1 and 1, with a value of -1 meaning a total negative linear correlation, 0 being no correlation, and + 1 representing a total positive correlation (Cohen et al., 2009). Furthermore, the upper and lower confidence intervals were also used to test the probability of population parameters. The confidence interval is helpful in determining the way our sample mean is related to the mean of the population. The findings of Pearson's correlations described in Table 3 confirmed correlations between research variables.

Table 3: Pearson's Correlations

Variable		STP	MSO	CS	EI	EC	ECC
1. STP	Pearson's r	—					
	p-value	—					
	Upper 95% CI	—					
	Lower 95% CI	—					
2. MSO	Pearson's r	0.930	—				
	p-value	< .001	—				
	Upper 95% CI	0.952	—				
	Lower 95% CI	0.900	—				
3. CS	Pearson's r	0.929	0.955	—			
	p-value	< .001	< .001	—			
	Upper 95% CI	0.951	0.969	—			
	Lower 95% CI	0.898	0.935	—			
4. EI	Pearson's r	0.638	0.572	0.549	—		
	p-value	< .001	< .001	< .001	—		
	Upper 95% CI	0.737	0.685	0.668	—		
	Lower 95% CI	0.513	0.432	0.405	—		
5. EC	Pearson's r	0.551	0.505	0.486	0.918	—	
	p-value	< .001	< .001	< .001	< .001	—	
	Upper 95% CI	0.669	0.632	0.617	0.943	—	
	Lower 95% CI	0.407	0.352	0.330	0.882	—	
6. ECC	Pearson's r	0.622	0.545	0.530	0.924	0.904	—
	p-value	< .001	< .001	< .001	< .001	< .001	—
	Upper 95% CI	0.724	0.664	0.652	0.948	0.933	—
	Lower 95% CI	0.492	0.399	0.382	0.892	0.863	—

STP = Science & Technology Park, MSO = Market Segregation Opportunities, CS = Commercialization Support, EI = Entrepreneurial Intention, EC = Entrepreneurial Career, and ECC = Economic Climate

Source: Authors' calculation

Regression analysis is a powerful statistical method that allows you to examine the relationship between two or more variables of interest. For regression analysis, $p < 0.05$ is considered an appropriate threshold (Draper & Smith, 1998). The regression analysis of the first hypothesis (H1) confirmed that the science & technology park is a significant predictor for female students' entrepreneurial intention ($t = 8.659$ & $p < 0.001$). The findings of the second hypothesis (H2) confirmed that market segregation opportunity is a significant predictor for female students' entrepreneurial intention ($t = 7.280$ & $p < 0.001$). Meanwhile, the findings of the third

hypothesis (H3) confirmed that commercialization support is a significant predictor for 'female students' entrepreneurial intention ($t = 6.866$ & $p < 0.001$). Accordingly, the findings of the fourth hypothesis (H4) confirmed that entrepreneurial intention is a significant predictor for female students' entrepreneurial careers ($t = 24.122$ & $p < 0.001$). Finally, the findings of the fifth hypothesis (H5) confirmed that economic climate significantly and negatively moderates the relationship between female students' entrepreneurial intention and their entrepreneurial careers ($t = 22.174$ & $p < 0.001$). The results of regression analysis are reported in Table 4.

Table 4: Regression Analysis

Model	Variables	Unstandar-dized	Standard Error	Standardized	T	p
H1	STP	0.526	0.061	0.638	8.659	< .001
H2	MSO	0.444	0.061	0.572	7.280	< .001
H3	CS	0.437	0.064	0.549	6.866	< .001
H4	EI	0.867	0.036	0.918	24.122	< .001
H5	EI*EC	0.116	0.005	0.905	22.174	< .001

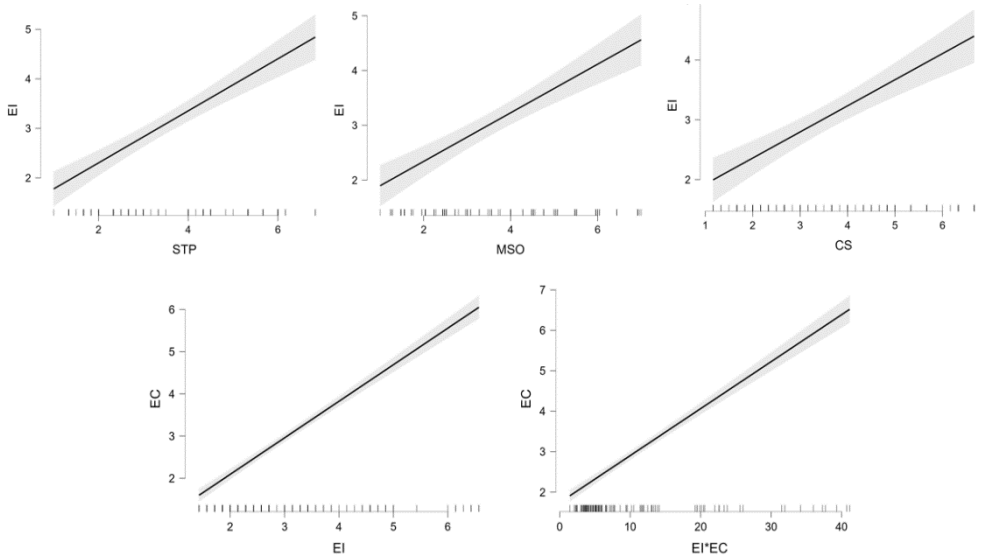
STP = Science & Technology Park, MSO = Market Segregation Opportunities, CS = Commercialization Support, EI = Entrepreneurial Intention, EC = Entrepreneurial Career, and ECC = Economic Climate

Source: Authors' calculation

The linear regression analysis was also used to determine the marginal effects of relationships, as reported in Figure 2. The marginal effect reports a change in the dependent variable based on a change in the independent variable, keeping other variables constant. The unstandardized coefficients are considered to interpret this effect. The shaded region around the line represents a 95% confidence interval. The unit of analysis for these effects was one. The marginal plot for the first relationship showed that a one-unit increase in science & technology park level is expected to increase female students' entrepreneurial intention by 0.526 units. Similarly, the plot for the second relationship showed that a one-unit increase in market segregation opportunity level is expected to increase female students' entrepreneurial intention by 0.444 units. The plot for the third relationship showed that a one-unit increase in commercialization support level is expected to increase female students' entrepreneurial intention by 0.437 units. Furthermore, the plot for the fourth relationship showed that a one-unit increase in female

students' entrepreneurial intention level is expected to increase their entrepreneurial career level by 0.867 units. Finally, the plot for the fifth relationship showed that a one-unit increase in moderation of economic climate affects the relationship between female students' entrepreneurial intention and careers by 0.116 units.

Figure 2: Marginal Effects Plots



STP = Science & Technology Park, MSO = Market Segregation Opportunities, CS = Commercialization Support, EI = Entrepreneurial Intention, EC = Entrepreneurial Career, and ECC = Economic Climate

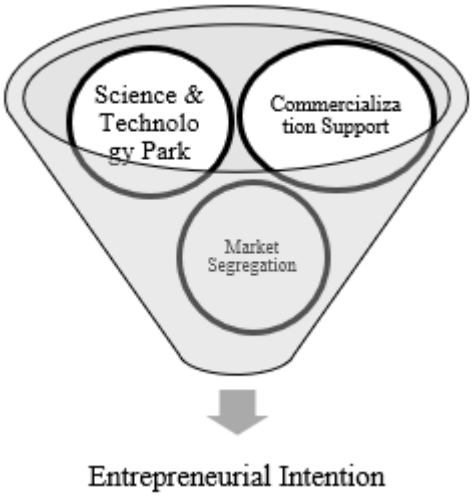
Source: Authors' calculation

Discussion and Conclusion

This study has empirical justification for its results. The relationships are accepted, and new contributions to the knowledge. The loops in the literature are closely related to women's entrepreneurial intentions and careers. The research has confirmed that science & technology parks, market segregation, and commercialization support are reliable for female students to improve their entrepreneurial intention for their entrepreneurship careers. The findings of H1, H2 and H3 significantly accept these results. The results of this research contrast with the findings of existing studies in the literature. The research by Cardella et al. (2020) highlighted that

women's entrepreneurship can be developed by entrepreneurial education. The studies reported that the entrepreneurial intention of women is improved with teaching support (Elnadi & Gheith, 2021), entrepreneurial courses (Hassan et al., 2020) and entrepreneurial self-efficacy (Xiaoping & Hua, 2019). Meanwhile, the research by Shil et al. (2020) in the context of Bangladesh reported that a university-based entrepreneurial ecosystem is a way forward to improve the entrepreneurial intention of the students. In accordance, the research by El Boury and Qafas (2022) conducted in the context of Morocco highlighted that an entrepreneurial ecosystem is required for the development of students' entrepreneurial intentions. In contrast to the findings of these studies, the researchers investigated that the science & technology park, market segregation and commercialization support are significant factors that influence the entrepreneurial intention of women. The outcomes are shown in the funnel depicted in Figure 3 as science & technology parks, market segregation, and commercialization support are necessary for entrepreneurial intention.

Figure 3: Funnel of Entrepreneurial Intention



Source: Authors

Furthermore, the researchers investigated that their entrepreneurial intention significantly predicts female entrepreneurial careers. The empirical findings of H4 support this result. This relationship is also in contrast with the findings of prior research. The existing studies report that the entrepreneurial career of women is possible with entrepreneurial learning,

entrepreneurial activities (Ge et al., 2022), and a self-independence approach (Al & Mostafa, 2019). Meanwhile, the studies in the literature also reported that women's entrepreneurial careers are supported by financial support from the microfinance sector (Abebe & Kegne, 2023) and family support (Welsh & Kaciak, 2019). However, the researchers investigated that the entrepreneurial intention of women is a significant predictor of their entrepreneurial career. Although this relationship was earlier tested in developed countries, the researchers have tested it for the first time in the developing country Pakistan.

The moderating analysis confirmed the economic climate is a significant moderator, influencing the relationship between women's entrepreneurial intentions and careers. The statistical findings of H5 supported this relationship. The researchers have introduced the moderating effect of the economic climate in the Pakistani context. The studies before this research haven't considered the moderating role of economic climate. The economic climate in this research reports the overall economic environment for business startups in Pakistan. Since the economy of Pakistan is struggling, the study found that women`s entrepreneurial intention and its connection with their behavior are influenced by it. Therefore, the inconsistency in the findings of existing studies is evaluated, and this research confirmed that the economic climate of Pakistan has a negative role in the entrepreneurial startups of women. The result of H5 is groundbreaking, and the study introduced economic climate as a negative moderator between female entrepreneurial intention and career.

In a nutshell, three strong predictors of female entrepreneurial intention are confirmed by this research. The study reported science & technology parks, market segregation and commercialization support as significant factors influencing women's entrepreneurial intention. Furthermore, this research also confirmed that women with entrepreneurial intentions based on science & technology parks, market segregation and commercialization support are inclined towards entrepreneurship careers. However, the study confirmed that Pakistan's economic climate is unsuitable for women to start their entrepreneurial careers. Therefore, it is necessary to improve Pakistan's overall financial condition to advance entrepreneurship careers. This research brings novelty through both its theoretical insights and practical implications.

Implications and Future Directions

The findings of this research lead it toward theoretical and practical importance. Theoretically, this study has confirmed new significant predictors for female' entrepreneurial intention. The study has introduced science & technology parks as a significant predictor for females' entrepreneurial intention. Secondly, it confirmed that market segregation is an antecedent for improving female' entrepreneurial intention. Thirdly, the research confirmed that the entrepreneurial intentions of females are significantly influenced by commercialization support. These relationships are new in females' entrepreneurial intentions, as the prior research only focused on entrepreneurial education, entrepreneurial self-efficacy, entrepreneurial networking, and teaching support for female entrepreneurial careers. The research further confirmed that the entrepreneurial intention of females developed by science & technology parks, market segregation and commercialization support led them towards entrepreneurship careers. This relationship is also new in knowledge. The research finally confirmed the negative moderating effect of the economic climate on the relationship between females' entrepreneurial intentions and careers. These moderation findings are new in the literature and contribute to the inconsistency between the relationship between entrepreneurial intention and careers.

The researchers provide practical findings based on the tested relationships of this research. It is recommended that the universities be required to work on developing a science & technology park with the help of the government. This development would help to bring innovation to the market through products and services. This will serve as a foundation for women to develop their entrepreneurial careers. Furthermore, market segregation is also required for women working in business incubators for their entrepreneurial ideas. It is necessary to target the appropriate market for the delivery of products and services. It is essential to provide products and services to the right market to succeed. Accordingly, it is recommended that the universities develop a mechanism for commercialization support for the women who registered their ideas in business incubators. The Commercialization support is appropriate to increase the number of clients for products and services. Therefore, the women working in business incubators will have clients for their products and services. Support for science & technology parks, market segregation and commercialization support are necessary to lead women toward entrepreneurial careers. No doubt, the study tested the negative role of economic climate in women's

entrepreneurship intention and career development. The government must provide better financial support to the women for their entrepreneurial startups.

Although the research introduced three new predictors for female entrepreneurial intention, it has some limitations to be addressed by scholars. The population of this research is considered only from the registry of business incubators of 12 universities in Pakistan. However, this is a limitation in the generalization of practical findings. Therefore, the researchers are recommended to collect data from other developing countries to determine the effect of science & technology parks, market segregation and commercialization support on female entrepreneurial intention. Secondly, the study has tested the entrepreneurial intention of the women only, and entrepreneurial self-efficacy is not discussed. Therefore, the scholars are motivated to test the entrepreneurial self-efficacy of women in future studies. Finally, the researchers tested the negative role of economic climate as a moderator. However, the inconsistency in the discussion of entrepreneurial intention and behavior should be tested from the perspective of any positive moderator. Hence, the scholars are recommended to test the positive moderating role of financial support by the microfinance sector on the relationship between female entrepreneurial intention and career.

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