



Examining the factors linking the intention of female entrepreneurial mindset: A study in Pakistan's small and medium-sized enterprises

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ABSTRACT

Background: In contemporary times, women have gained recognition as accomplished entrepreneurs who make substantial contributions to economic development by virtue of their perseverance, excellence, and expertise. The concept of women's entrepreneurship encompasses the undertaking of creating novel enterprises, with the individual's intention to assume the role of an entrepreneur serving as a pivotal factor in this developmental trajectory. The underperformance of female entrepreneurs is alarming for developing nations. Purposefully, exploring the factors correlating female entrepreneurship intention is highly regarded, and a timely research is needed, thus this study explores the context of Pakistan considered a developing country. Hence, we collected data from listed small and medium enterprises (SMEs) operating in the country by means of structured questionnaires. Using SPSS and Smart-PLS software, we developed a conceptual model and performed analysis. The Theory of Planned Behavior (TPB) constitutes a robust psychological framework applicable to understanding and anticipating various human behaviors, first and foremost, entrepreneurial intention. When applying the TPB to the area of women's entrepreneurial intentions, several crucial factors come into play, including motivation, self-confidence, personality traits, and adaptability. The results indicate that factors such as the will to start a business, willingness, personality traits, adaptability, and background factors, including education and experience, impact entrepreneurial intention. Also, their professional careers make them able to launch a business. Based on our findings, we recommend that the Small and Medium Enterprise Development Authority (SMEDA), policymakers, and practitioners may provide various incentives and support systems related to these factors to encourage their own company launches. Prior research has examined various factors that impact the entrepreneurial mindsets of women. However, our study focuses specifically on closely associated aspects that have received limited attention, particularly in the context of Pakistan. This study makes a valuable contribution to the extant body of literature by providing empirical evidence in the aforementioned domains.

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1. Introduction

For the past 20 decades, entrepreneurship has been a subject of intense academic study [1]. According to Wennekers and Thurik [2], entrepreneurship is now being taken more seriously on a global scale. But in many countries, the value of entrepreneurship, its motivators, and the essential financial support have been overlooked. Women's entrepreneurship entails the process of launching creative businesses, and the desire to launch a business is a key factor in this development [3].

Starting a business is challenging for women, as they encounter more obstacles than men [4]. These obstacles encompass religious, political and cultural barriers, a lack of mentorship, and limitations in accessing capital. However, despite these challenges, there has been a global rise of 13 % in the number of women entrepreneurs in 2017 [5]. This upward trend has persisted, indicating a broader push for greater female representation in both the public and private sectors worldwide [6].

Emerging nations like Pakistan mainly requires entrepreneurship due to high unemployment rates [5]. It serves as a means to address unemployment issues within the country. Pakistan is grappling with unemployment, and the number of unemployed graduates is increasing, with a higher proportion of educated individuals facing unemployment compared to those without education [7]. Following the global financial crisis, Pakistan's unemployment rate is 5.90%. Furthermore, Group [8] reported that the unemployment rate among young females in Pakistan was 11.90%. The significance of entrepreneurship was also highlighted by Anwar ul Haq, Usman [9], who also found that Pakistan had a lower percentage of entrepreneurial endeavors than other countries. Additionally, providing entrepreneurship education to individuals, particularly through institutions, is vital in raising awareness about entrepreneurship [10].

Previous research has shown a lack of studies specifically focused on female employees and entrepreneurship. A sort of challenges confronted by women in turning entrepreneurs in Pakistan include difficulties in securing financial capitals to start a novel venture [11,12]. Additionally, uncertain environmental conditions in Pakistan have negatively impacted the country's socio-economic growth and affected women entrepreneurs [13]. As highlighted by Batool and Ullah [14], the restraints confronted by Pakistani females include an absence of family backing, financial resources, and lacking in education. While knowledge edification plays a crucial role in entrepreneurial actions, academia support is essential for development business ventures. Mehtap, Caputo [15] argue that allowing for real-life education and essential skills in entrepreneurship to females can benefit their impending entrepreneurial endeavors.

In the specific setting of Pakistan, where a male-controlled society exists and female entrepreneurship is limited [16], Roomi and Harrison [17] suggest that women-oriented education and training programs can reduce barriers women entrepreneurs perceive and help them develop skills and capabilities. Female entrepreneurship is seen as a significant factor in improving the quality of women's lives [18], particularly for marginalized women in developing countries, as viewed from a feminist perspective in management sciences. In order to considering the factors for female entrepreneurial mindset, the research objectives explore the female motivation, self-confidence, personality traits and adaptability whether familiarize entrepreneurial intention.

Recognizing the significant contributions of female entrepreneurial mindset to the society and economy in order to respond to the research purpose to analyze the variables that affect their intention to become entrepreneurs. Both developed and developing countries are concerned about the poor performance displayed by female entrepreneurs. Women entrepreneurs' success is dependent on a number of factors, each of which plays a unique role in determining how successful they are given the socioeconomic environment in which they operate. The following shortcomings in the research studies that are now available have been identified by a thorough examination of the literature:

- (1) Comprehensive studies do not do a good job of examining the variables that affect female entrepreneurs' intentions and success. There is a dearth of high-quality research that integrates all the important components. Moreover, many existing studies on this topic focus solely on developed economies and have limitations in their scope. These studies have only looked at specific aspects that affect the act of women without considering all the potential factors simultaneously.
- (2) Existing studies often concentrate on analyzing the correlation between predictor variables and outcome variables at a limited-to-item level [19]. However, operating a business as an entrepreneur involves a complex and multifaceted process, necessitating a comprehensive examination to evaluate its performance. In view of this, the present study seeks to explore the proposed relationships at a broader level of abstraction, specifically at the construct level, instead of solely focusing on individual items or single variables. By analyzing constructs encompassing multiple manifest variables, a more comprehensive comprehension of the entrepreneurial phenomenon can be attained, enabling the capture of its diverse aspects.
- (3) Previous research primarily focused on a single city [20], which limited its ability to represent the entire population and make broad conclusions accurately. In contrast, the current study seeks to involve female employees (participants) regardless of professional positions from various locations in Pakistan, specifically emphasizing urban areas where entrepreneurship is more prevalent. By doing so, this research aims to gather a sample that better reflects the population and generates findings that can be more widely applied.
- (4) For data analysis, previous studies have mostly used the ordinary least squares (OLS) regression approach. However, the current study used a different strategy known as structural equation modeling (SEM), specifically the PLS (partial least squares) SEM regression method. When assessing the predictability of the elements under consideration, the PLS-based regression method is more accurate and rigorous [20].
- (5) Numerous studies have concentrated on entrepreneurs associated with formal sectors [21]. In contrast, the current research aims to encompass participants from SMEs sectors. The incorporation of a wider range of variables will enhance the depth of knowledge regarding the various determinants that may impact individuals' intentions.

By enhancing our knowledge of the numerous elements that affect women's intention to work in emerging economies like Pakistan,

this study fills the gaps previously highlighted while also advancing theoretical knowledge. Previous research in entrepreneurship has widely used the Theory of Planned Behavior (TPB) proposed by Ajzen [22] to predict and clarify the emergence of new businesses. This model postulates that intentions play a fundamental role as antecedents to actual behavior. Consequently, several entrepreneurship researchers have adopted these theoretical underpinnings to explore entrepreneurial intentions as a determinant of whether individuals take steps to start their businesses [23].

Building on the fundamentals of TPB, Van Gelderen, Kautonen [23] argued that the creation of a new activity is a deliberate and intentional behavior rather than a spontaneous event. Generally, people with strong intentions toward a specific behavior are more likely to invest significant effort into engaging in that behavior [24]. Regarding theoretical contribution, female employees working in small-medium scaled firms showed keen interest in starting businesses and willingness to participate. These findings and novel points add to research knowledge and expand the literature.

In addition, it provides useful knowledge that can help policymakers create laws that support women entrepreneurs. The research study makes a substantial contribution to the existing theoretical knowledge base as a result, and it also offers suggestions for how to advance women's entrepreneurship.

2. Literature review

2.1. Entrepreneurial intention

According to Al-Mamary, Abdulrab [25], entrepreneurial intention refers to a person's propensity to start a brand-new business endeavor and take on the duties of an owner or founder. It signifies an individual's aspiration to embark on a professional trajectory in entrepreneurship [26,27]. Additionally, entrepreneurs typically exhibit traits such as a willingness to take risks, determination, effective communication, and a focus on achieving goals [28]. According to Rehman [29], the inception of entrepreneurial intention signifies the primary stage in the progression of commencing an entrepreneurial vocation.

According to Jena [30] theoretical framework, earlier research has used the theory of planned behavior as a framework to examine the numerous variables that affect entrepreneurial intention. According to Türk, Zapkau [31], self-efficacy, subjective norms, and attitude are acknowledged as key predictors of entrepreneurial intention. In a similar vein, Che Nawi, Mamun [32] discovered that, in line with the idea of planned behavior, individual attitudes and motivation played a part in determining entrepreneurial intention [33]. Personality factors or attitudes can affect entrepreneurial intention, according to Yoopetch [34], among other researchers. Hueso, Jaén [35] found personality and self-efficacy to be associated factors in entrepreneurial intention. Regarding gender, Biswas and Verma [36] suggested that men show a greater propensity for entrepreneurship than women. Therefore, the study of women entrepreneurs becomes crucial for policymakers, as it offers valuable insights to develop support systems aimed at encouraging more women to become entrepreneurs. Consequently, this phenomenon can effectively contribute to the sustained progress of society and the economy through the facilitation of gender parity in entrepreneurial endeavors.

There exist fundamental disparities between Asian and Western contexts in terms of economic, cultural, institutional, and social settings that are frequently ignored [37]. These elements inexorably affect the resources accessible to business owners, particularly women, and dictate what they can and cannot do, how they ought to act, and other facets of their entrepreneurial spirit. It makes understandable that some scholars may easily attribute the significant increase in female entrepreneurship in Asia to economic causes [38], particularly in developing regions, given the region's rapid economic expansion. Economically developed Asian nations have rashly attempted to raise the status of women in society and business, aiming for equality rather than the traditional caring responsibilities [39]. Many Asian women still face these obstacles when attempting to launch a business, even though they are specific to the social and cultural environment and are still being fully investigated [37,40].

With continued economic and social progress, especially in developing countries, brought about by the efforts of entrepreneurs, there has been an increasing emphasis on promoting entrepreneurship. This is a priority shared by businesses, government agencies and legislative bodies. Clearly, these initiatives' success depends on the culture of entrepreneurial intention (EI) among females [41]. Moreover, In Asian entrepreneurship research, there is growing interest in examining entrepreneurial intention (EI). Human capital theory suggests that EI can be enhanced through entrepreneurship education (EE). However, studies have also shown gender differences in the intention to become an entrepreneur [42]. The number of female entrepreneurs has increased significantly, and their entrepreneurial activities have profoundly impacted the competitive landscape [43]. Salamzadeh, Rezaei [44] stated, however, various studies have explored the topic of women's entrepreneurship, delving into its key factors and impact, none have explored the potential impact of strategic foresight on promoting women's entrepreneurship in different countries.

2.2. Need for achievement

The entrepreneurial intention of an individual can be inclined by their desire for achievement and accomplishment, which is a fundamental psychological characteristic [45]. Entrepreneurial intention refers to the inclination and motivation of an individual to engage in entrepreneurial activity [46]. In McClelland's theory of learned needs [47], fulfillment represents the desire for personal satisfaction, challenging goals, and a sense of accomplishment.

Entrepreneurial intention and the need for success have been strongly linked in research studies [48,49]. According to Ndofirepe [28], individuals who possess a strong desire for achievement tend to exhibit greater intentions towards engaging in entrepreneurial activities. A study of Zhao [50] found that those who need for achievement were more likely to want to start their own enterprises.

Another study by Rauch and Frese [51] investigated the correlation between entrepreneurial intentions and the need for

achievement among individuals in a university setting. According to the discoveries, entrepreneurs' intention to succeed is positively correlated with their need for success [52]. The desire to become an entrepreneur and start a business was more prevalent among individuals with a higher need for achievement [53].

Entrepreneurial intention is promoted by the need for success, as highlighted by these studies [34], especially for women. Those with a strong need for achievement strive for excellence, set challenging goals, and take responsibility for their accomplishments [54]. Taking entrepreneurial actions, seeking opportunities, and striving for success are characteristics that fit well with the entrepreneurial mindset [55]. The scholar postulates the link between need for achievement and entrepreneurial intention as;

H1. Need for Achievement is directly linked to the female entrepreneurship intention.

2.3. Self-confidence and entrepreneurial intention

An individual's self-confidence refers to their belief in their ability to accomplish specific goals [56]. Self-confidence is correlated with behavior, actions, and perseverance, according to socio-cognitive theory [57]. Self-confident people prefer more challenging tasks and are more resilient to obstacles [58]. According to Krueger Jr and Dickson [59], perceived self-confidence refers to an individual's perception of personal competence and control. An individual's self-confidence affects their tenacity and resilience in pursuing their goals [60], and higher levels of self-confidence lead to greater energy and optimism when tackling more challenging tasks [61]. It is commonly believed that self-confidence, defined as a person's perception that he or she possesses certain skills, has a greater influence on behavior than actual abilities [62]. According to Szymanska, Sesti [63], self-confidence is a critical component of entrepreneurship research because it measures an individual's belief in his or her ability to launch a new business successfully. Creating a new business requires success in innovation, marketing, management, and finance activities [64,65]. There has been an increase in confidence in the intention to start new businesses, especially in the early stages [66]. A sense of feasibility influences entrepreneurial intention, and higher levels of confidence lead to a greater desire to pursue an entrepreneurial career [59,67]. Creating a new business requires repeated effort to exert control over the process so that desired results are achieved [68]. The intention to become an entrepreneur is largely predicted by self-confidence, among other personality constructs [69]. A person's beliefs about self-confidence strongly relates to his or her behavior, achievement of goals, entrepreneurial intention, and likelihood of translating that intention into entrepreneurial action [70]. Since Ajzen [22] proposed the idea of planned behavior, numerous academic studies have been carried out to investigate the relationship between self-confidence and entrepreneurial intention [71,72]. Tantawy, Herbert [73] conducted a thorough evaluation of the body of knowledge on entrepreneurial self-confidence. They discovered that self-confidence and entrepreneurial inclinations are significantly correlated among female employees and managers;

H2. Self-confidence is linked to the female entrepreneurship intention.

2.4. Personality traits and entrepreneurial intention

An individual's personality qualities, which have a big impact on how they engage in entrepreneurial activities, have an impact on their entrepreneurial intention [74,75]. Numerous academic studies have looked at the relationship between personality qualities and an aptitude for entrepreneurship, and they have found attributes that are more likely to be pursued by entrepreneurs. Entrepreneurial intention is accompanied by some important personality traits,

Entrepreneurial intention has been linked to a number of Big Five personality traits in numerous studies [76]. The propensity to engage in novel experiences: individuals who possess an open-minded disposition typically exhibit curiosity, imagination, and receptiveness towards novel concepts. In research, openness is associated with entrepreneurial intention, promoting creativity and innovation [77,78]. Conscience: This trait reflects self-discipline, responsibility, and reliability. Conscientious individuals are more likely to set and pursue long-term goals, it has been linked to entrepreneurial intent in a good way [75,79,80].

Individuals with extraversion typically display assertiveness, sociability, and a need for stimulation. It has been found that they are more prone to taking risks and networking, which can reinforce their entrepreneurial intentions [81]. An individual's willingness to cooperate, be empathetic, and respect others is described by their agreeableness. Even though agreeableness does not directly affect entrepreneurial intention, it can affect social interactions and group dynamics, which are crucial to entrepreneurial success [82].

Stress and anxiety are common negative emotions experienced by neurotic individuals [83]. However, certain aspects of neuroticism, such as emotional instability, may motivate people to seek alternative paths, such as entrepreneurship [84].

A person's locus of control is defined as their conviction that they have some control over the circumstances and results of their existence [85]. In general, there are two categories: internal (believing in one's own power) and external (belief in outside forces). The idea of the internal locus of control refers to the conviction that a person's activities have a significant impact on the final result. Research has revealed a positive correlation between possessing a sense of personal agency and self-efficacy and the inclination towards entrepreneurship [86].

Individuals who believe that their outcomes are mostly determined by outside forces, such as chance events or predestined fate, on the other hand, continue to hold this belief. As a result of this perspective, individuals may perceive less control over their entrepreneurial success, which can hamper their entrepreneurial intentions [87]. Thus, the generated relationships lead to the hypothesis as;

H3. Personality Traits are directly linked to the female entrepreneurship intention.

2.5. Adaptability and entrepreneurial intention

Adaptability is recognized as a significant determinant of entrepreneurial intention within the realm of entrepreneurship [88,89]. Entrepreneurial intention has previously been examined in relation to adaptability, Rauch, Wiklund [90] examine entrepreneurship orientation and its impact on firm performance. Accentuates the significance of adaptability as a crucial component of entrepreneurial orientation and its effect on entrepreneurial intention.

Zhang [91] also looked at the variables affecting students' intentions to become entrepreneurs. Given that adaptability is a strong predictor of entrepreneurial ambitions, it implies that those with better adaptability have more entrepreneurial intentions. The relationship between improvisational behavior, entrepreneurial self-efficacy, and wanting to launch a new enterprise and performance is examined by Hmieleski and Corbett [92] research. The author argues that adaptability and improvisational behavior positively influence entrepreneurial intentions.

In-depth analysis of the literature on entrepreneurial ambitions is provided in a recent research by Geng, Sun [93]. The essay examines how flexibility is one of several elements that affect entrepreneurial aim. According to the writers, adaptability is essential in developing entrepreneurial objectives. Liñán and Chen [94] created and tested a technique for measuring entrepreneurial intention. Adaptability is one of the key dimensions of entrepreneurial intentions, and its importance is highlighted.

Human capital resources such as professional adaptability are highly valued [95]. Entrepreneurial goals and human capital resources have a favorable link [96]. According to NOE, Tews [97], people with excellent occupational adaptability participate in both formal and informal education to quickly pick up the information, abilities, and expertise required to flourish in foreign environments. Given the inherent instability of the entrepreneurial market, people with high professional adaptation are better equipped to deal with market swings, acquire the information and skills required to start a business, and promote entrepreneurial intent [98]. Empirical studies have provided evidence of a correlation between adaptability and entrepreneurial intention [99,100].

Hence, the scholar proposes the relationship as;

H4. adaptability is directly linked to the entrepreneurial intention of females.

The Theory of Planned Behavior (TPB) constitutes a robust psychological framework applicable to understanding and anticipating various human behaviors, first and foremost, entrepreneurial intention. When applying the TPB to the area of women's entrepreneurial intentions, several crucial factors come into play, including motivation, self-confidence, personality traits, and adaptability. Here is how these elements can be seamlessly integrated into the TPB framework:

Attitude toward entrepreneurship: This measurement reflects women's overall positive or negative evaluation of entrepreneurship. It is shaped by factors such as motivation and self-confidence [101].

Motivation: High levels of motivation can favorably influence attitudes toward entrepreneurship. Women with a strong desire to embark on their entrepreneurial adventure are likelier to have a positive attitude towards entrepreneurship [102]. Motivation can manifest itself in intrinsic forms (intrinsic passion for entrepreneurship) or extrinsic forms (financial incentives, search for independence).

Self-Confidence: Self-confidence is the cornerstone of entrepreneurial triumph. Women with higher levels of self-confidence are

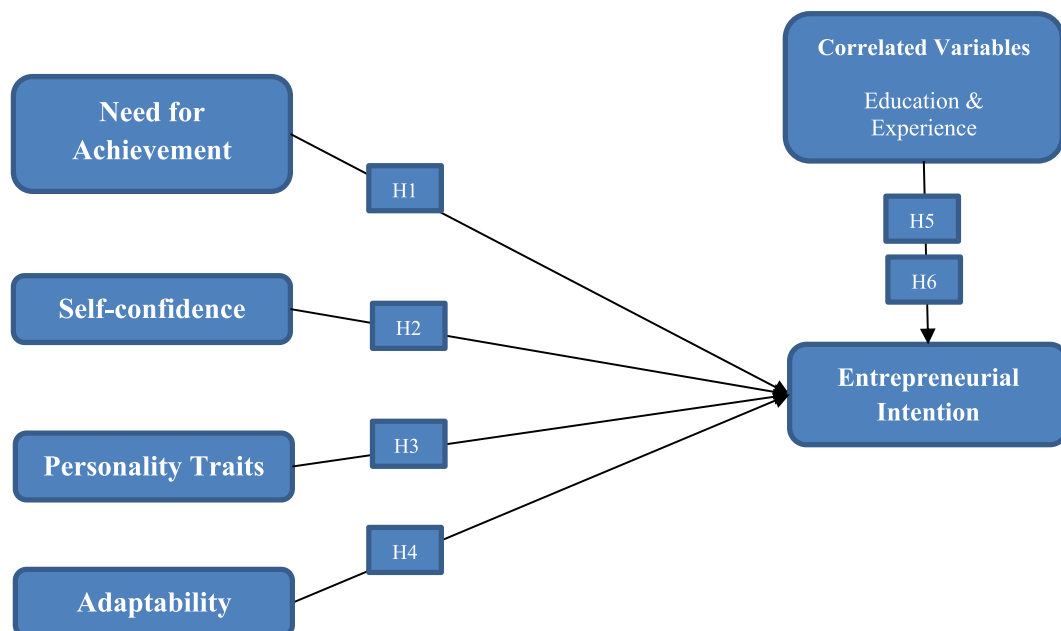


Fig. 1. Theoretical model (source: Self-author).

likely to have a more positive attitude toward entrepreneurship because they display deep confidence in their ability to succeed [103].

Personality Traits: Specific personality traits, such as extroversion and openness to new experiences, can shape subjective norms. Women with favorable personality traits are more likely to receive encouragement and approval from their social circles to start a business [104].

Adaptability: Entrepreneurship often requires navigating uncertain and ever-changing terrain. Women who demonstrate adaptability and a willingness to embrace change are likelier to perceive more significant control over their businesses [105]. They tend to be more willing to take risks and adapt to unexpected challenges.

Motivation and Self-Confidence: Greater motivation and self-confidence often translate into stronger intentions to start a business. Women who appreciate the value of entrepreneurship and have high confidence in their ability to succeed are more likely to intend to start a business [106].

Personality Traits and Adaptability: Personality traits related to entrepreneurial activities, such as risk-taking and adaptability, can also enhance the intention to start a business. Individuals with these characteristics are more likely to view entrepreneurship as a viable and manageable path [107].

The foundational theory of planned behavior for women's entrepreneurial intention capably integrates motivation, self-confidence, personality traits, and adaptability into the traditional TPB framework. This holistic approach allows researchers and related bodies to delve deeper into the factors that influence women's entrepreneurial intentions, thereby facilitating the development of targeted interventions to support and cultivate female entrepreneurship.

McClelland [46] stated the show behavior and activity in order to achievement goals, and likewise, Ambad and Damit [108] discovered that, in line with the notion of planned behavior, individual attitudes and self-confidence have an impact on entrepreneurial intention. Fig. 1; theoretical model is based on two underpinning theories. Moreover, the rise of women's entrepreneurship in developing cultures has attracted considerable attention because of its potential to drive economic growth, promote sustainable development and promote gender equality. This research aims to investigate the theoretical contributions and factors shaping women's entrepreneurial intentions in these regions. A comprehensive review of the existing literature sheds light on the need for achievement, self-confidence, personality, and adaptability factors that shape women's aspirations to start businesses or take ownership. Understanding these determinants can guide policymakers, educators, and practitioners in creating targeted interventions to empower aspiring female entrepreneurs and foster gender-neutral business ecosystems.

This study highlighted the theoretical contributions and factors appealing women's entrepreneurial intentions in developing contexts. By merging current research in the inner capabilities, motivation, adoption, education, and experience domains, we have developed a comprehensive understanding of the challenges faced by women entrepreneurs in these contexts. Policymakers, educators, and stakeholders can capitalize on this knowledge to design effective interventions that promote gender-neutral entrepreneurship and cultivate an enabling environment for women to pursue their entrepreneurial aspirations.

3. Research methodology

This study aims to look into various predictors relating to the entrepreneurial intention of female employees in Pakistani SMEs. The purpose of this quantitative research study is to gather primary data through the utilization of a pragmatic non-random sampling technique to ensure the practicality and convenience of data collection. The methodology outlined below offers a stepwise procedure for carrying out the investigation.

For the purpose of this study, data on female employees of SMEs was gathered and analyzed using a quantitative research methodology. In order to find trends, patterns, and links, quantitative research relies on numerical data, statistical analysis, and objective measurements [109]. The research methodology chosen for this study was survey research. Through online surveys, data can be efficiently gathered from a large sample size over a predetermined time period [110].

3.1. Sample and data survey

Pakistani enterprises contribute to the GDP and are estimated to number around 448,000. These enterprises can be categorized into two types: for-profit and non-profit. Legal forms available to for-profit social enterprises include sole proprietorship, partnership/partnership, and limited liability company [111,112].

For this study, female participants were chosen by convenient non-random sampling. This method involves picking people who are readily available and accessible [113]. The study's participants were chosen from among female employees of SMEs in Pakistan based on availability and researcher availability.

The use of (PLS-SEM) can offer a workable way to successfully address concerns related to sample size when faced with the existence of several variables and a significant number of items [114]. PLS-SEM can, however, also be utilized with smaller samples. The relevance of smaller samples depends on the characteristics of the population studied Rigdon [115] introduced the formula to determine the sample size as a smaller and more diversified population requires a certain number of samples in order to reach a suitable amount of sampling error;

$$s = \frac{x^2 NP(1 - P)}{d^2(N-1) + x^2 P(1 - P)} \quad (1)$$

s = substantial sample required

$\chi^2 =$ chi-square (1 degree of freedom [1.96*1.96])
 N = Observed population.
 P = Population ratio (e.g., 50 %)
 d = degree accuracy proportion (5 %)

Hence, n = 205 is required for the study, to make this research a valuable contribution and fill research gap. Moreover, Practical factors, such as time constraints and participant availability, were used to establish this study’s sample size. Two hundred female employees from various SMEs in Pakistan were selected as a sample. This quantity permits data gathering and analysis while ensuring a suitable representation of the target population [116].

A sample comprising 205 employees from businesses operating in Pakistan was chosen in order to meet the research objectives. Data was gathered from Peshawar, Lahore, and Karachi, three major cities. The process of data collection was conducted utilizing an online survey methodology, specifically targeting female employees of these enterprises. The survey started from January 4, 2023 and ended on April 12, 2023, it took around 14 weeks. Total 260 female employees were contacted to fill the online form, only 205 online forms were filled by respondents, the author observed 78.84 % response rate. The aforementioned employees were deemed as pivotal informants owing to their expertise and proficiency in furnishing precise responses [117,118].

The study sample comprised 205 female participants, all of whom had complete data and were included in the analysis. Of the participants, 150 were married, and 55 were unmarried, or 72.8 % and 27.2 %, respectively. In terms of age distribution, key informants belonged to the following categories: 20-30-year-old (74), 31-40-year-old (92), 41-50-year-old (25), and 51-year-old and over (14), i.e., 36 %, 44.9 %, 12.0 % and 7.1 % respectively. Female participants’ career stages were categorized as start-level (61, 29.6 %), mid-level (115, 56.3 %), and senior-level (29, 14.1 %). Participants had intermediate degrees in 70 cases, bachelor’s degrees in 96 cases, and master’s or higher degrees in 39 cases, making up 34.2 %, 46.8 %, and 19 % of the total participants’ educational backgrounds. In terms of professional experience, informants ranged from those with less than a year’s worth (57), one to five years’ worth (97), six to ten years’ worth (28), and eleven years or more (23), which explained 27.7 %, 47.2 %, 13.9 %, and 11.3 % of the total accordingly. The aforementioned information has been succinctly presented in Table 1.

3.2. Measures

3.2.1. Need for achievement

In this study, the need for achievement questionnaire developed by Zeffane [119] was employed. The need for achievement describes as motivation in female employees to remain active in business and entrepreneurial activities. The questionnaire items were administered through an online platform, utilizing a five-point Likert scale. The scale ranged from “one” representing “strongly disagree,” to “five” representing “strongly agree.” The mean value for this construct was found to be 3.248, with a standard deviation of 1.049. Skewness = -0.461, as presented in Table 2.

Table 1
 Demographics statistics (source: Self-author).

| Respondents characteristics | Frequency | Percent |
|-----------------------------|-----------|---------|
| Marital Status | | |
| Married | 150 | 73 |
| Unmarried | 55 | 27 |
| Total | 205 | 100 |
| Age | | |
| 20 to 30 years | 74 | 36 |
| 31 to 40 years | 92 | 44.9 |
| 41 to 50 years | 25 | 12 |
| 51 or higher | 14 | 7.1 |
| Total | 205 | 100 |
| Career level | | |
| Entry | 61 | 29.6 |
| Intermediate | 115 | 56.2 |
| Advanced | 29 | 14.2 |
| Total | 205 | 100 |
| Education | | |
| Intermediate | 70 | 34.3 |
| Bachelor | 96 | 46.7 |
| Master or higher | 39 | 19 |
| Total | 205 | 100 |
| Experience | | |
| Less than 1 year | 57 | 27.8 |
| 1 to 5 years | 97 | 47.1 |
| 6 to 10 years | 28 | 13.8 |
| Greater than 11 years | 23 | 11.4 |
| Total | 205 | 100 |

Table 2
Basic statistics (source: Self-author).

| Constructs | Mean | Std. Deviation | Skewness | CA | CR | AVE |
|---------------------------|-------|----------------|----------|-------|-------|-------|
| Need for Achievement | 3.248 | 1.049 | −0.461 | 0.896 | 0.922 | 0.702 |
| Self-confidence | 3.059 | 0.982 | −0.281 | 0.839 | 0.878 | 0.548 |
| Personality Traits | 2.715 | 1.031 | 0.312 | 0.956 | 0.960 | 0.572 |
| Adaptability | 2.760 | 1.057 | 0.304 | 0.920 | 0.932 | 0.581 |
| Entrepreneurial Intention | 2.905 | 1.174 | 0.101 | 0.922 | 0.939 | 0.720 |

Note. CA = Cronbach Alpha; CR = Composite Reliability; AVE = Average Variance Extracted.

3.2.2. Self-confidence

A scale with three items initially created by Jones, Swain [120] was used to assess self-confidence, a crucial aspect of personality traits. On a five-point Likert scale, where “one” denoted “strongly disagree” and “five” denoted “strongly agree,” participants were asked to react. The mean value for this construct was detected 3.059, with a standard deviation of 0.98, skewness is −0.281, as presented in Table 2.

3.2.3. Personality traits

Personality traits construct is a distinct aspect of the individual understanding for responsive behavior. The personality traits scale consists of twenty questions originally created by John and Srivastava [121]. On a five-point Likert scale, from “one” (strongly disagree) to “five” (strongly agree), participants gave their answers. The mean value of this measurement was determined 2.715, a standard error 1.031, and skewness 0.312, as shown in Table 2.

3.2.4. Adaptability

Adaptability is one of the natures of the individual towards adoption. The adaptability scale includes nine items originally developed by Van Dam and Meulders [122]. A five-point Likert scale, with the numbers “one” (strongly disagree) to “five” (strongly agree), was used by participants to rate their responses to these questions. Table 2 shows that this variable’s mean value was 2.760, with a standard deviation of 1.057 and skewness of 0.304.

3.2.5. Entrepreneurial intention

The entrepreneurial intention Scale comprises six questions, which have been mainly developed and validated by Liñán and Chen [123]. On a five-point Likert scale, where “1” stood for strongly disagreeing and “5” for strongly agreeing, participants were asked to score these questions. As indicated in Table 2, the average value of this measure was found to be 2.905, with a standard deviation of 1.174 and skewness given as 0.101.

3.2.6. Correlated variables

The study also included the academic background and professional experience being earned by women, and their academic and professional capabilities help, Chandler and Jansen [124] explained that background education and experience are counted well in business recognition and founding the business.

4. Data analysis and results

The descriptive analysis results presented in Table 2 indicate that the average values of the research variables were at a median level, with values ranging from 2.715 to 3.248. Additionally, the standard deviations of these values were relatively low, indicating minimal dispersion from 0.982 to 1.174. In order to deal with the common method bias (CMB), a Harman single factor test is helpful while analyzing CMB, the study achieved total variance explained 35.52 %, that is, lower than the 50 % indicated no common method bias issue in the data [125].

Statistical Package for Social Science (SPSS) version 26 was used by the researcher to assess the data collected from the respondents. In the beginning, SPSS was used to perform Harman single factor, descriptive statistics, correlation, and ANOVA. The most recent version of SMART-PLS (3.3.9) was used for the subsequent data analysis. Because PLS-SEM has greater statistical power for parameter estimation and maximizes explained variance than Covariance-Based Structural Equation Modeling (CB-SEM), it was chosen as the preferred method [126]. According to Sarstedt, Ringle [127] and Zaman, Jabbar [128], PLS-SEM and CB-SEM are less compatible with one another. Despite the fact that there are sizable approximation discrepancies between the two methodologies [129], PLS-SEM was first acknowledged for having better prediction powers than CB-SEM.

With reference to scholars such as Astrachan, Patel [130] and Dash and Paul [131], Partial least squares structural equation modeling (PLS-SEM) outperforms covariance-based SEM (CB-SEM) in several key dimensions, making it the preferred option for handling specific data scenarios. PLS-SEM excels in the following circumstances:

PLS-SEM demonstrates resilience in the face of limited data, making it suitable for research where accumulating large data sets is challenging. Unlike CB-SEM, PLS-SEM works without needing data to conform to a multivariate normal distribution, thus giving PLS-SEM greater adaptability. PLS-SEM skillfully handles complex models with a multitude of latent variables, indicators, and paths while maintaining computational efficiency and avoiding computational constrictions. It excels at predictive modeling and exploration,

prioritizing the prediction of endogenous constructs over evaluating model fit. PLS-SEM is particularly useful during the early stages of theory development, allowing researchers to explore relationships further before formal confirmation. Overall, the adaptability and robustness of PLS-SEM make it a compelling choice for researchers dealing with unconventional data and complex models, providing valuable insights even in resource-limited settings.

PLS-SEM operates in a manner akin to multiple regression analysis, making it particularly advantageous for the concurrent estimation of relationships between one or more independent variables and dependent variables. The aforementioned attribute renders PLS-SEM exceptionally valuable for the objectives of exploratory research [132].

A research method from the second generation of multivariate analysis methodologies is PLS-SEM. It incorporates a number of statistical techniques, such as confirmatory factor analysis (CFA), multi-linear regression, and path coefficients. To explain the differences in dependent variables, structural template analysis is used [133]. PLS-SEM is especially well suited for complex models with moderation and small sample sizes, and it is less susceptible to usual multivariate data issues [129,134].

According to Diamantopoulos and Winklhofer [135], the current research investigation made use of a reflected measurement model, in which measures serve as indicators of latent variables and the causal connection leads from a latent variable to the measurement. The two primary parts of the statistical analysis performed for this study are as follows: (1) A validity and reliability assessment of the measurement model is performed, and (2) The path coefficients between the variables that were observed in the structural model are examined.

Table 3
Factor loadings (source: Self-author).

| Items | Adaptability | Entrepreneurial Intention | Need for Achievement | Personality Traits | Self-confidence |
|-------|--------------|---------------------------|----------------------|--------------------|-----------------|
| ADP1 | 0.666 | | | | |
| ADP2 | 0.653 | | | | |
| ADP3 | 0.586 | | | | |
| ADP4 | 0.858 | | | | |
| ADP5 | 0.820 | | | | |
| ADP6 | 0.780 | | | | |
| ADP7 | 0.851 | | | | |
| ADP8 | 0.831 | | | | |
| ADP9 | 0.791 | | | | |
| ADP10 | 0.735 | | | | |
| EI1 | | 0.859 | | | |
| EI2 | | 0.895 | | | |
| EI3 | | 0.807 | | | |
| EI4 | | 0.868 | | | |
| EI5 | | 0.819 | | | |
| EI6 | | 0.841 | | | |
| ■NM1 | | | 0.859 | | |
| NM2 | | | 0.831 | | |
| NM3 | | | 0.802 | | |
| NM4 | | | 0.885 | | |
| NM5 | | | 0.810 | | |
| PT1 | | | | – | |
| PT2 | | | | – | |
| PT3 | | | | 0.633 | |
| PT4 | | | | 0.630 | |
| PT5 | | | | 0.775 | |
| PT6 | | | | 0.761 | |
| PT7 | | | | 0.767 | |
| PT8 | | | | 0.756 | |
| PT9 | | | | 0.700 | |
| PT10 | | | | 0.770 | |
| PT11 | | | | 0.785 | |
| PT12 | | | | 0.802 | |
| PT13 | | | | 0.811 | |
| PT14 | | | | 0.814 | |
| PT15 | | | | 0.812 | |
| PT16 | | | | 0.780 | |
| PT17 | | | | 0.823 | |
| PT18 | | | | 0.802 | |
| PT19 | | | | 0.692 | |
| PT20 | | | | 0.662 | |
| SC1 | | | | | 0.824 |
| SC2 | | | | | 0.833 |
| SC3 | | | | | 0.762 |
| SC4 | | | | | 0.699 |
| SC5 | | | | | 0.644 |
| SC6 | | | | | 0.660 |

Note. – designated removed items by reason of poor factor loading.

Cronbach’s alpha was used to assess the accuracy of the measurements of the research variables. As all alpha coefficients surpassed 0.701, the validity analysis results showed that the measures showed internal consistency [136].

The results in Table 2 Hair Jr et al. [126] show that all composite reliability (CR) values are above the predetermined cutoff of 0.70. More specifically, the CR values for the variables “need for adaptability,” “accomplishment,” “personality traits,” “self-confidence,” and “entrepreneurial purpose” are 0.922, 0.878, 0.960, 0.932, and 0.939, respectively. Additionally, the average variance extracted (AVE) values for these variables are higher than the 0.50 limit, according to Bagozzi and Yi [137]. Intention to become an entrepreneur, personality traits, self-confidence, adaptability, and need for achievement all have AVE values of 0.720, 0.702, 0.548, 0.572, 0.581, and 0.720, respectively. Furthermore, every factor loading value for the items in the research model exceeds the presumptive cutoff point of 0.50 [126,138], As a result, the convergent validity conditions have been satisfied (see Table 3).

The research model’s indices are shown in Table 5. The study model has sufficient prediction capacity because the predictive relevance value ($Q^2 = 0.354$) is more than zero [139]. Additionally, the model’s goodness of fit ($GoF = 0.558$) is greater than 0.36, indicating that the GoF is sufficient for the model to be regarded as universally valid for the PLS model [138,140].

$$GoF = \sqrt{Mean\ of\ AVEs\ Values * R^2\ Mean} \tag{2}$$

$$GoF = \sqrt{0.6246 * 0.499}$$

$$GoF = 0.558$$

Statistical tests like Variance Inflation Factors (VIF) and Tolerance analyses were run in order to assess whether there was common method bias or multicollinearity in the data. As can be seen from the results shown in Table 5, the Variance Inflation Factor (VIF) values were discovered lower than the predefined threshold of 5 [141,142]. The tolerance values also went over 0.2. Variance inflation factor (VIF) values were kept in this analysis because, in accordance with Akinwande, Dikko [143], they should be less than the 3.3 cut-off Fornell and Larcker’s criteria were satisfied by the study. Henseler [132] also argues that it is crucial that the square root of the average variance extracted (AVE) for each latent variable outweighs the correlations between that latent variable and all other variables. Furthermore, Table 4 demonstrates that each column’s correlation values were obtained lower than the 0.9 heterotrait-monotrait (HTMT) ratio criterion set by Franke and Sarstedt [144]. These findings confirm that sufficient discriminant validity verification was achieved. The research variables all meet the requirements for significance, as shown by Table 4 as well.

For the purpose of identifying the nonexistence of non-response bias, the one-factor test created by Harman single-factor is frequently used. In this study, 45 different items were examined and reduced to just one factor. 34.201 % of the total variance was explained by this one component, which is less than the 50 % threshold [145]. Consequently, no indication of non-response bias was observed in the data gathered for this study.

Table 5 lists the magnitudes of each independent variable’s effects on the research model’s dependent variables. The findings imply that the traits of personality, self-confidence, and need for achievement have a small connection to the intention to start a business. The instructions provided by Sawilowsky [146], however, highlight the fact that adaptability has a greater link to the entrepreneurial intention. Additionally, Table 5’s determination coefficient ($R^2 = 0.499$) shows that the independent variables, which reflect various sorts of personal traits, account for 49.9 % of the variation in the dependent variable (Entrepreneurial intention). Following Chin [147] norms, this medium interpretative ability.

The Smart-PLS program was used to assess the research hypotheses using structural equation modeling (SEM). Table 6 shows the direct effects of different characteristics, including the need for achievement, self-confidence, personality traits, and adaptability, on the intention to pursue an entrepreneurial career.

The present study employed a bootstrapping technique, specifically utilizing 5000 bootstrap samples, in alignment with a sample size of 205. This method was used to look at the path coefficients and determine the statistical importance of them. The approach used was based on earlier investigation carried out by Hair Jr, Sarstedt [133]. Table 6 and Fig. 2 show the comprehensive estimations that the structural model generated. The original hypothesis (H1) showed a favorable relationship between the desire for success and an entrepreneurial mindset. This hypothesis is supported by the results, which are shown in Table 6 and Fig. 2, which show a statistically significant positive connection between the need for achievement and the intention to engage in social entrepreneurship at a 5 % level of significance ($\beta = 0.184, t = 2.121, p = 0.05$). H1 is therefore verified.

Self-confidence and business aim are very closely related. Regarding hypothesis 2, there was a weak and significant correlation between entrepreneurial intention and self-confidence ($\beta = -0.188, t = 2.269, p = 0.05$). This inverse relationship shows that the intention to start a business increases as self-confidence decreases. Similar to hypothesis 2, hypothesis 3 indicated that Personality Traits negatively and insignificantly associated with the entrepreneurial intention ($\beta = -0.067, t = 1.012, p > 0.05$). Though the

Table 4
Discriminant validity (HTMT) (source: Self-author).

| Constructs | 1 | 2 | 3 | 4 | 5 |
|---------------------------|-------|-------|-------|-------|---|
| Adaptability | – | | | | |
| Entrepreneurial Intention | 0.703 | | | | |
| Need for Achievement | 0.335 | 0.251 | | | |
| Personality Traits | 0.667 | 0.351 | 0.241 | | |
| Self-confidence | 0.396 | 0.187 | 0.888 | 0.437 | – |

Table 5
Good of fit and predictive relevance (source: Self-author).

| Constructs | R ² | f ² | Q ² | Inner VIF | GoF |
|---------------------------|----------------|----------------|----------------|-----------|-------|
| Need for Achievement | | 0.022 | | 3.074 | 0.558 |
| Self-confidence | | 0.022 | | 3.248 | |
| Personality Traits | | 0.005 | | 1.665 | |
| Adaptability | | 0.668 | | 1.619 | |
| Entrepreneurial intention | 0.499 | | 0.354 | | |

Note. VIF = Variance Inflated Factor; GoF = Goodness of Fit.

Table 6
Hypotheses results (source: Self-author).

| Hypothesis | Relationship | β | Std. Dev. | t-stats | p-value | Decision |
|---------------------|--|---------------------|-----------|---------|---------|---------------|
| H1 | Need for Achievement → Entrepreneurial Intention | 0.184 | 0.087 | 2.121 | 0.034 | Supported |
| H2 | Self-confidence → Entrepreneurial Intention | -0.188 | 0.083 | 2.269 | 0.023 | Supported |
| H3 | Personality Traits → Entrepreneurial Intention | -0.067 | 0.066 | 1.012 | 0.312 | Not Supported |
| H4 | Adaptability → Entrepreneurial Intention | 0.736 | 0.053 | 13.852 | 0.000 | Supported |
| Pearson Correlation | | | | | | |
| Hypothesis | Correlations | Pearson Coefficient | Lower | Upper | p-value | Decision |
| H5 | Education → Entrepreneurial Intention | 0.263*** | 0.138 | 0.381 | 0.000 | Supported |
| H6 | Experience → Entrepreneurial Intention | 0.295*** | 0.175 | 0.409 | 0.000 | Supported |

Note. ***P < 0.01; **P < 0.05; *P < 0.1.

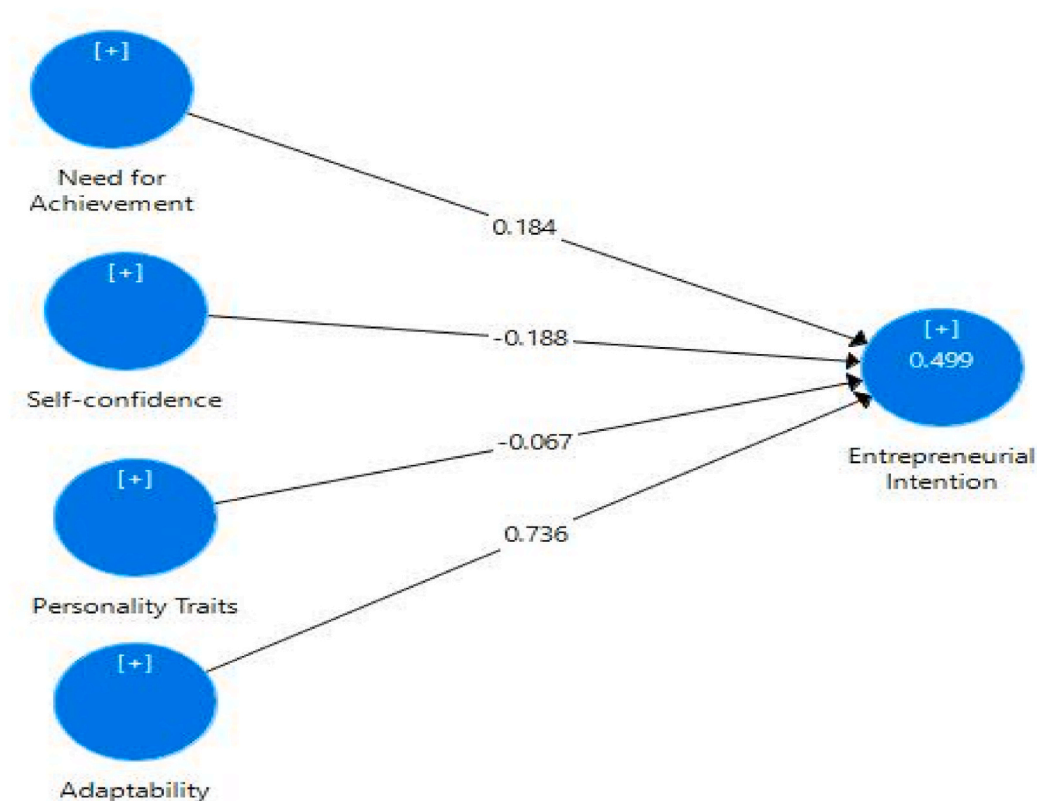


Fig. 2. Hypotheses Results [generated in Smart-PLS v.3.3.9] (Source: Self-author).

association of personality factors on entrepreneurial intention is relatively small for hypothesis 3, this connection was statistically proven to be inconsequential.

Additionally, the statistical analysis of hypothesis H4 ($\beta = 0.736$, $t = 13.852$, $p = 0.000$) supports the role of flexibility on entrepreneurial intention. The relationship is favorably significant, indicating an increase in relation as well as enhancing the

inclination to pursue an entrepreneurial career.

Furthermore, Education is directly correlated to entrepreneurial intention. Concerning hypothesis 5, the association of education with entrepreneurial intention generated a constructive and significant connection (pearson coefficient = 0.263, p = 0.000). This equal relationship demonstrates how a higher level of education increases entrepreneurial intent. Similarly, hypothesis 6 claimed that Experience is strongly and positively related to the intention to start a business (pearson coefficient = 0.295, p = 0.000). The hypothesis states that an increase in women’s work experience directly increases their desire to start their own business, as shown in Table 6.

Another hypothesis expresses as entrepreneurial intention differs in career growth/level, in Table 5, Cardinal and Aitken [148] described the analysis of variance (ANOVA) is widely acknowledgeable in research studies, the technique presents the differences in career levels, it defines that classified career levels entry, intermediary and advanced hold different degrees of entrepreneurial intention and proved statistically (Mean square = 23.79, F = 20.590, sig. = 0.000). Looking at the individual categories (entry level mean = 2.78, Intermediary level mean = 2.674, and Advanced level mean = 4.086), the mean value for each category defines higher the career advancement desires higher the purpose to jump their private business among females, demonstrate in Table 7.

5. Discussion and conclusion

The findings of the current study suggest that a number of elements, many of which are directly related to female strengths, have a significant role in female employees’ intentions to work in Pakistani SMEs. Employees’ intentions are significantly related to elements including the urge for achievement, self-confidence, personality qualities, and flexibility as well as background factors like professional training and experience. These results are consistent with earlier research done in both developed and developing economies, such as that by Abd Rani and Hashim [149], which also suggested that internal practices of women, such as confidence in oneself and motivation, play an essential role in enhancing their edge over others and supporting their success in life. But as Muhammad, McElwee [150] have emphasized, there are additional factors that affect women’s propensity to start their own business. Because, Bastian, Sidani [151] found that these elements do not significantly drive women with entrepreneurial mindsets in those situations, it is critical to emphasize that our study’s findings diverge from those in developed economies.

The “need for achievement” element strongly and favorably connects women’s intention to start their own businesses, according to the current study. These results are consistent with those of a prior study by Mehtap, Caputo [15], which found that females who are highly motivated are more likely to succeed. Therefore, our findings provide evidence that women employees who possess strong motivation and a drive to work or establish new ventures are more likely to achieve success in their endeavors. Furthermore, Bastian, Sidani [152], in their study conducted in the Middle East, also supported the idea that motivation to achieve one’s objectives plays a crucial role in business start-up. By aligning our results with previous studies, we can conclude that hypotheses were supported.

In addition, self-confidence assumes a pivotal significance for employees and managers in the process of making both immediate and enduring decisions. Therefore, our research findings suggest that self-confidence plays a crucial and favorable role in shaping the entrepreneurial intentions of women in developing economies.

Isaga [4] and other earlier studies from developing nations imply that individuals in higher positions who are more confident are more likely to succeed in the marketplace. Oney and Oksuzoglu-Guven [153] also discovered that brave and confident managers are better at making choices regarding investments compared to individuals with low confidence. However, our study differs in the sense that females work in small and medium-sized companies where women face different rules and regulations in their pursuit of business success. According to this study, self-confidence and entrepreneurial intent have a negative association. According to our research, female employees who make self-assured judgments while working in an Islamic environment have a negative effect on the attitude of entrepreneurship.

Furthermore, our data suggest that personality factors affect women’s inclination to start their own business. This aligns with previous research conducted by Hussain and Imran Malik [5], who demonstrated that being hesitant or cautious in personality behavior can nurture entrepreneurial accomplishment. Additionally, according to Panno, Donati [154], women are less likely than men to engage in risk-taking behaviors; as a result, there was a negative correlation between personality characteristics and entrepreneurial ambition. Our results therefore support earlier research [154,155], that suggests risk-averse women may have a negative impact on the entrepreneurial performance of female employees in small and medium firms (SMEs).

Table 7
ANOVA (source: Self-author).

| Entrepreneurial Intention | Sum of Squares | df | Mean Square | F | Sig. | |
|---|---------------------|----------|-------------|-----------------------|--------------------|--------------------|
| Between Career Levels | 47.577 | 2 | 23.788 | 20.590 | 0.000 | |
| Within Career Levels | 233.374 | 202 | 1.155 | | | |
| Total | 280.951 | 204 | | | | |
| H7: Entrepreneurial Intention differences in career levels | Career Level | N | Mean | Std. Deviation | Lower Bound | Upper Bound |
| | Entry | 61 | 2.779 | 1.047 | 2.510 | 3.047 |
| | Intermediary | 115 | 2.674 | 1.174 | 2.457 | 2.891 |
| | Advanced | 29 | 4.086 | 0.613 | 3.853 | 4.320 |
| | Total | 205 | 2.905 | 1.174 | 2.743 | 3.066 |

Note. df = degree of freedom; Sig. = significance value.

In our study, we contend that the inner adaptation element has a favorable and significant impact on women's intention to become entrepreneurs. Given that entrepreneurship requires a high degree of self-regulation, job flexibility plays a crucial role in the formation of entrepreneurial goals [156]. Our findings are in line with those of earlier research from developing nations, such as that of Zhang, Duysters [91], who contend that adaptability is a key component of the entrepreneurial mindset. Additionally, McKenna, Zacher [99] suggest that information, knowledge and practicality interference are entrepreneurs. In light of this prior work, we conclude that women entrepreneurs' performance in emerging economies is greatly influenced by their ability to adapt. Additionally, our results show that adopting change has a beneficial and significant effect on the mindset of women entrepreneurs, proving the validity of this study.

In Pakistan, a patriarchal nation, there aren't many women who run their own businesses. According to Yousafzai, Fayolle [3], women-only educational and training initiatives could help Pakistani women entrepreneurs overcome some of their challenges. These programs would enable them to develop skills and capabilities. Afza, Osman [13] argue that promoting female entrepreneurship is seen as a significant factor in enhancing the quality of women's lives. The importance of female entrepreneurship, particularly among business students, is also seen within a feminist perspective in the area of managerial sciences, especially for women who are marginalized in poor countries. Zisser, Johnson [157] stated gaining a deeper comprehension of women's professional experiences brings a self-employment has the potential to enhance the inclusion of a wide range of entrepreneurial approaches, thereby promoting diversity in entrepreneurship and starting new ventures. Besides, females' employees were found for entrepreneurial intentions in different career levels.

5.1. Study implications

The present study makes a valuable contribution to the existing literature on women's entrepreneurial intention, specifically focusing on the relational factors (motivation, self-confidence, personality traits and adaptability) and other factors (education and experience) in this regard examining how these characteristics affect women's intentions to start businesses is the main goal of this study. A recent study by Khan, Salamzadeh [158] conducted and assessed the interactive internal and external factors on women-owned small and medium-sized enterprises (SMEs) in developing economies, given that more than 70 % of SMEs operate in such contexts. Developing economies' cultural, religious, and regulatory aspects differ significantly from developed countries [159].

Furthermore, Khan, Salamzadeh [158] focused on internal entrepreneurial behaviors, i.e., motivation, risk-taking, confidence, and other behaviors, and examined how these factors synergistically contribute to improving the business performance of Pakistan-based small and medium enterprises run by females. The "theory of planned behavior" put forward by Ajzen [22], which holds that people's behaviors and other things have a connection with achieving anything, is thus built upon in the current study. In our approach, entrepreneurial motivation and self-confidence are internal behavior and adaptability, are considered as factors that set the mind of women employees at SMEs in Pakistan.

In addition to consequences for small- and medium-sized business (SME) managers and owners, the current study offers helpful recommendations for policymakers, placing particular emphasis on the support of organizations like the (SMEDA). Our results unequivocally show that women entrepreneurs need drive and self-assurance to launch their ventures. Therefore, we recommend organizing seminars, workshops, providing women-specific incentives, or establishing women entrepreneurial institutions to foster motivation and confidence. Our results show that if women entrepreneurs are adequately motivated and confident, it can significantly enhance their entrepreneurial mindset. Hence, we suggest that the government and policymakers take initiatives to arrange such seminars or establish dedicated women entrepreneurial programs, which will help aspiring women entrepreneurs gain the necessary courage to start their own businesses.

Furthermore, as highlighted by Hussain, Mahmood [160], only 5 % of small businesses in Pakistan are owned by women out of a total of 97. As medium- and small-sized enterprises account for 40 % of Pakistan's GDP, we therefore strongly advise that policymakers and government officials concentrate on providing business instruction and incentives that are explicitly targeted towards women. Supporting and promoting female entrepreneurs can significantly improve the nation's overall economic development and progress.

5.2. Limitation and prospect direction

Like any studies, ours has some restrictions that must be understood. The main drawback is that we only sampled in three significant cities. It is suggested for future researchers to broaden the scale of their investigation to a national level in order to acquire more inclusive findings, taking into account variations in geography and culture. Additionally, we recommend that future researchers consider conducting a comparative study across different Islamic countries, which can provide valuable insights.

Furthermore, our current findings suggest that future researchers should adopt a mixed-method approach when studying women employees, managers, and entrepreneurs in developing countries. A more nuanced understanding of the topic can be achieved by combining qualitative and quantitative methods. It is also advisable for future research to incorporate a broader range of variables to obtain a more comprehensive understanding of the research topic.

Finally, future studies must investigate the possible interfering factors that might affect how the factors described and the attitude of women entrepreneurs interact. For example, integrating variables like intelligence or understanding of finances could provide insight into how these aspects may either strengthen or weaken the relationship being studied.

Ethical statement

This research followed the ethical Principles for Psychologists and the conduct of the APA. All participants provided formal consent under the Helsinki Declaration. The employee councils and the Xi'an University of Technology, PR China's ethics committee, agreed on the organization's protocol.

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Data availability statement

Data will be made available on request.

CRedit authorship contribution statement

Shahina Qurban Jan: Writing – review & editing, Writing – original draft, Validation, Software, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Jiang Junfeng:** Supervision, Project administration. **Muhammad Babar Iqbal:** Writing – review & editing, Methodology.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.heliyon.2023.e21820>.

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