

Aghdasi, Sahar; Najafabadi, Maryam Omid; Farajallah Hosseini, Seyed Jamal

Article

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Rural women and ecotourism: modeling entrepreneurial behavior in Iran

Sahar Aghdasi¹, Maryam Omid Najafabadi^{1*}  and Seyed Jamal Farajollah Hosseini¹

*Correspondence:
M.Omid@srbiau.ac.ir

¹ Department of Agricultural
Economics, Extension
and Education, Science
and Research Branch, Islamic
Azad University, Tehran, Iran

Abstract

Fars province, as one of the most susceptible ecotourism regions of Iran, has paid attention to the establishment of ecotourism residences with the priority of rural women through ecotourism entrepreneurial training in recent years. In this regard, the present study investigates the effective factors on entrepreneurial behavior with Fars rural women ecotourism approach in Iran. The participants of the study were 431 of rural women in Fars and 205 were decided by Cochran formula. It is inferred from the results that step-by-step procedure of changing norms towards the acceptance of rural women entrepreneurs as well as the acceptance of ecotourism culture through the establishment of local and regional institutions and organizations in a context of family support with strong bonds of commitment, solidarity, environmental and infrastructural foundations will lead to a strong desire to constitute ecotourism residence by rural women.

Keywords: Entrepreneurial attitude, Entrepreneurial intention, Entrepreneurial behavioral, Rural women, Tourism development

Introduction

Food security, growing population, and protection of the environment especially in developing countries that are based on traditional agricultural system; has caused great concern for political leaders, researchers, and the protectors of the environment (Yazdanpanah et al., 2021). On the other hand, during the recent decades, many of the rural economic activities and the income level have decreased enormously and the increase of unemployment rate and therefore the exit of young generation and highly educated people from villages has endangered the expansion of rural areas. In other words, the livelihood of a rural family has become very problematic and vulnerable than the natural challenges such as earth warming, widespread trend of drought, groundwater level drop, and climate changes and furthermore, unnatural challenges specifically low level of farm management knowledge, the exit of young manpower from villages and the aging of the village population (Pan et al., 2023; Zobeidi et al., 2020). Thus, putting rural families' livelihood in danger, has changed environmental sustainability to one of the most important problems of the current century.

Tourism industry has experienced an outstanding growth as an entrepreneurship in recent years. According to the available statistics, it accounts around 7 percent of the world exports and 10 percent of Gross National Product. Tourism is a combination of 400 industries that generates 1.5 trillion US dollars in revenue annually, and it is the only industry in the world that has grown proportionately in recent years (Saidmamatov et al., 2020; Bonye et al., 2020; Ataei et al., 2020; Mahfud et al., 2020; Nowiński et al., 2020; Ali & Yousef, 2019).

But on the other hand, unfortunately, the tourism industry has had a growing contribution to climate change and the destruction of natural resources, for example, it has many negative effects on water resources of the tourism area (Borden et al., 2017). Recently, ecotourism has been appreciated as an alternative form of tourism to support national and regional development (Yiridomoh et al., 2021). Ecotourism has positive effects on native and local resources, residents, and tourists, and is recognized as a regional development strategy in which residents play a leadership role (Yoon & Lee, 2023).

Although the relationship between gender discrimination and cultural beliefs is still a confusing issue (Rubio-Bánón & Esteban-Lloret, 2016), ecotourism has been known globally as an entrepreneurship opportunity for women and leads to their empowerment (Panta & Thapa, 2017). In developing countries, including Iran, due to the culture of less interactions between women and men, education level and sexual beliefs, women are usually less present in the field of tourism (Al-Kwafi et al., 2020). But since the handicrafts of rural women are considered as the main source of their economic empowerment (Alavion & Taghdisi, 2021), ecotourism is considered as a very suitable entrepreneurship platform for the presence of rural women, especially the marketing of their products (Savari & Gharechae, 2020).

There is a strong relationship between women and the tourism sector. Women's participation in entrepreneurial activities in the tourism sector is high compared to other industries. For example, Latin America has the highest proportion of female employers in tourism, more than double the rate in other sectors (Surangi, 2022). Regarding the high number of women working in tourism, there is a relationship between this type of work and feminine subjectivities (Bakas, 2017). This circumstance makes one wonder if women's presence within the tourism sector a "chicken and egg" situation is, whereby dominant gender structures push women into tourism, and whether, in turn, tourism encourages gendered labor (Surangi, 2022).

The role of women in income generating activities is of paramount importance to the economic development of their households. In developing countries, however, women are not economically free, especially in rural areas. It is a very rare case that women walk against their male's decision because they are dependent on their husband's income. Consequently, recognizing the challenges of women and supporting them is crucial and vital for the development or growth of women and the fulfillment of their economic potentials (Alemu et al., 2022).

A study on the state of the tourism industry in Iran indicates that in terms of the share of the tourism sector in the Gross Domestic Product, Iran ranks 86th among 174 countries in the world and ranks third among the Persian Gulf border countries after the United Arab Emirates (UAE) and Qatar and also in terms of investment in the tourism

industry, Iran ranks 172nd among 174 countries in the world and ranks last among the countries of the Middle East. Therefore, the growth and development of sustainable tourism in a region requires special attention to the residents and the local community and ignoring this issue can even create challenges for the development of tourism in the region in the long term.

Observations obtained from Iran, Uganda, India and the Middle East and other studies in different economies have shown that women's entrepreneurship is one of the main sources of economic growth (ParamaShivaiah, 2018).

Fars with more than 1347 nationally registered historical monuments, two world registered historical monuments (Takht Jamshid and Pasargad), 400 natural attractions, native texture, and various cultures as one of Iran's tourism hubs has supplied the right conditions to attract nature walkers and tourists. Besides, villagers' companionship to ease tourists' presence is one of the effective factors in attracting them and their sojourn and next visits. The culture of hospitality is widespread in the villages of these areas. Pictures of the ecotourism places of rural women of Fars are shown (Figs. 1, 2).

In the rural parts of Marvdasht, Darab and Firoozabad, 431 rural women have completed ecotourism training; furthermore, in these areas' handicrafts production and the context of creating new businesses such as ecotourism for income growth and stable markets in handicrafts can be seen, in recent years, existing ecotourism accommodations have been affected by the spread of Corona. Therefore, the main emphasis in ecotourism is on the participation of local communities especially rural women, based on local protection resources and increasing local benefits that creates a high connection between the environment and residents. In this article, by considering the importance of sustainable tourism and rural women as a hidden economic force, their behavioral potential has been investigated by finding factors affecting the entrepreneurial behavior of rural women in ecotourism. Challenges of rural women due to climate change and starting an ecotourism can be a solution to improve their livelihood (Fig. 3). Therefore,



Fig. 1 Ecotourism residence, owner and manager is Fatemeh Rahim Pari, IRAN Aghdasi, s. (photographer) (2021). Ecotourism residence. Marvdasht. Fars. IRAN



Fig. 2 Ecotourism residence, owner and manager is Hajar Haghsheh, IRAN Aghdasi, s. (photographer) (2021). Ecotourism residence. Firoozabad. Fars. IRAN

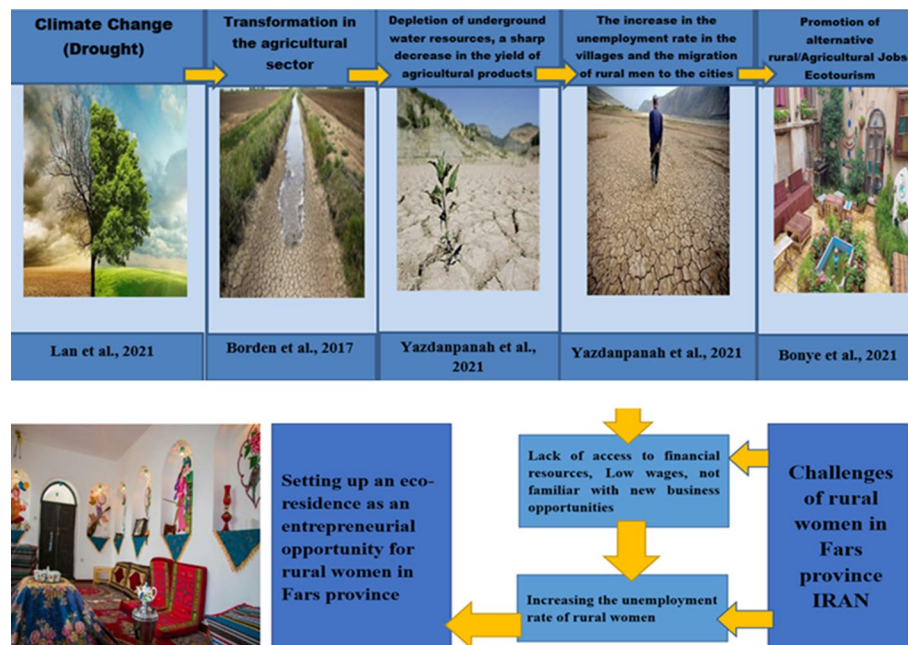


Fig. 3 Research problem. Source: authors (2021)

the main problem of the current research is that what factors have a positive and significant effect on the ecotourism entrepreneurial behavior of rural women in Iran?

Theoretical literature review

Ecotourism

Among the various entrepreneurial actions at the village, ecotourism is an emerging industry; in addition to diversifying the economy; it aims to stop the pressure that the tourism industry has imposed on natural resources and has severely reduced the resources of countries (Saidmamadov et al., 2020). Six fundamental principles in defining the ecotourism based on Donohoe and Needham (2006) theories include:

nature based, preservation/conservation, environmental education, sustainability, fair distribution of benefits to community, ethical responsible behavior (Swan & Morgan, 2016).

Ecotourism development in many countries has provided a solution for employment of the local population in the form of small and medium-scale entrepreneurship and has helped those people who have little investment power to participate in economic activities and thereby earn income (Sheldon & Daniele, 2017); on the contrary, it has a great contribution in preserving and conserving the environment (Swan & Morgan, 2016). Ecotourism tours as a form of tourism ease educational trips and visitors' experiences from the natural environment and the related culture (Swan & Morgan, 2016).

Since in Iranian culture, from the perspective of local residents tourism in a rural environment is supposed as a guest and the culture of hospitality and congeniality is necessary for ecotourism; therefore, ecotourism lodges provide a relatively high level of employment for women in the fields of management and providing services to tourists, tour guides, cooking, catering, selling food products and local handicrafts, etc., which leads to earning income, and the increased participation and presence in the society. In Fars and in the rural districts of the Marvdasht, Darab, and Firoozabad, rural women have completed business and ecotourism trainings; in addition, the production of handicrafts and the processing of agricultural products and animal husbandry provide the prerequisites for businesses such as ecotourism to increase income and create stable markets in handicrafts, for this reason, the present study seeks to identify the factors influencing the entrepreneurial behavior of ecotourism among rural women in Fars, in order to use ecotourism to create employment and generate income for rural women and protect the natural resources of water and soil in this province which is at the top of the country's tourism destinations.

Rural women's entrepreneurial behavior factors

Behavioral intention

Entrepreneurial intention as the starting point of the entrepreneurial journey shows the intensity of an individual's intention to perform the target behavior (Mahfud et al., 2020). The relationship between behavioral intention and behavior proves that people tend to engage in behaviors that they intend to do. Therefore, behavior is always after the behavioral intention and attached to it; in other words, the main predictor in entrepreneurial action is the entrepreneurial intention (Nowiński et al., 2020). Ajzen (2011) gave a general definition of intention as "a person's desire to perform a behavior" (Nowiński et al., 2020; Vamvaka et al., 2020).

Since entrepreneurship is considered as a planned behavior; so, entrepreneurs should be inspired. As a result, understanding entrepreneurship is a multi-stage process and intention is known as the first stage (Mahfud et al., 2020; Munir et al., 2019).

In the framework of the theory of planned behavior (TPB), intention is a construct of three predictors: (1) favorable or unfavorable evaluation of the behavior (attitude); (2) understanding the social pressure to perform or not perform a behavior (perceived norm) and understanding the ease or difficulty of performing the task (perceived behavioral control). A more positive evaluation of the person towards engaging in an

entrepreneurial behavior and how important the behavior is from others' perspective, and a person's understanding of the ability to carry out entrepreneurial activities leads to more support for performing the behavior and as a result, a stronger intention to engage in entrepreneurial behavior (Kautonen et al., 2013; Vamvaka et al., 2020). Based on this, the first hypothesis was developed.

H1: Entrepreneurial intention has a positive and significant effect on entrepreneurial behavior with an ecotourism approach among rural women in Fars.

Behavioral attitude

Based on Ajzen (1991) in the theory of planned behavior, people's attitude towards entrepreneurial actions and expected achievements should predict their intention about creating a business. Attitude towards entrepreneurship refers to the degree that a person evaluates the desirability of the target behavior (Nowiński et al., 2020). This is while this attitude reflects people's feelings respecting potential entrepreneurial experiences and as people's attitude about starting a business increase; their entrepreneurial intention will also increase (Nowiński et al., 2020).

People have positive and negative attitudes. Former studies have shown that attitude is the most effective factor in creating desirability and starting to become an entrepreneur. In the framework of Ajzen's theory, it has been said that there is a positive relationship between entrepreneurial attitude and entrepreneurial intention (Munir et al., 2019). The theory of rational behavior has been used in various fields. In this theory, desirable attitudes are expressed as determinants of behavioral intention that predicts people's behavior. The high correlation between attitudes, behavioral intentions and finally behavior is obvious in this theory and is also presented in tourism literature. Moreover, finding the participation intention mechanism has led to an increase in local people's participation behavior in ecotourism management (Zhang & Lei, 2012). Local people support ecotourism more when they have a positive attitude to its effects. Additionally, considering the residents' attitudes about ecotourism is supposed as a prerequisite for their participation. Understanding the attitudes of the residents respecting the principles of ecotourism management can help the planners to develop proper management strategies to reduce the conflict between the preservation of local resources and the economic development of the regions which lead to the fact that ecotourism flows smoothly (Zhang & Lei, 2012). According to the explanations presented, the second hypothesis was developed.

H2: Attitude towards entrepreneurship has a positive and significant effect on the entrepreneurial intention.

Subjective norms

Ajzen (1991) has described the subjective norm as the influence of society on people compared to an intention or a behavior. People should consider approved or unapproved relationships about starting a business (Munir et al., 2019).

Subjective norms refer to social pressure during performing or not performing a behavior. Social pressure usually refers to family members, prominent people, and close friends. The attitude of people towards subjective norms shows the perspectives

concerning the individual and others' viewpoints about positivity or negativity of a behavior (Lortie & Castogovianni, 2015).

Earlier studies revealed different results concerning the subjective norms: Schlaegel & Koenig (2014) showed that it is the most crucial factor in explaining entrepreneurial intention, although other studies such as Galvão et al., (2018) have proven that the subjective norms are not a significant predictor of entrepreneurial intention. While, according to Ajzen (2001), it is logical that there is a significant positive relationship between subjective norms and, in other words; we consider the influence of people on decision-making about becoming an entrepreneur (Esfandiari et al., 2019; Munir et al., 2019; Najafabadi et al., 2016). Based on this, the third hypothesis was formulated.

H3: The social norm towards entrepreneurship has a positive and significant effect on the entrepreneurial intention.

Perceived behavioral control

Perceived behavioral control refers to the perceived ease and difficulty in performing a behavior. In other words, past experiences as well as predicting obstacles and other factors are effective in the emergence of a behavior. To put it in another way, people who believe that they have an elevated level of behavioral control have a greater desire and behavioral intention in performing a behavior (Lortie & Castogovianni, 2015).

As said in the theory of planned behavior, perceived behavioral control refers to a person's belief about the performing a planned behavior and the attitude that the behavior is under the individual's control. Other researchers believe that perceived behavioral control refers to a person's ease or difficulty in implementing an entrepreneurial behavior (Munir et al., 2019). Moreover, the perceived behavioral control factor not only affects the entrepreneurial intention; rather, it directly affects a person's behavior (Lortie & Castogovanni, 2015).

Based on the explanations provided, the fourth and fifth hypotheses were developed.

H4: Perceived behavioral control towards entrepreneurship has a positive and significant effect on entrepreneurial intention.

H5: Perceived behavioral control towards entrepreneurship has a positive and significant effect on entrepreneurial behavior.

Risk-taking

In usual, studies consider risk-taking as one of the characteristics of entrepreneurial behavior, and as a result, one of the effective factors on TPB structures. In a general definition, the danger of something undesirable to happen is possible. In this case, different researchers explained that the ability to manage a dangerous situation, while choosing entrepreneurship is especially important, since uncertainty plays a key role in the entrepreneurial process. In the study of Anwar, & Thoudam (2021), risk-taking does not directly affect entrepreneurial intention, but rather, the feeling and understanding of the fact that an entrepreneur can manage risky situations is known as risk-taking and influences the entrepreneurial intention. In other words, entrepreneurship does not happen without personal and financial risk-taking, people with a tendency to take more risks feel more comfortable in uncertain situations (Esfandiari et al., 2019). Feeling of risk is another important personality trait that expresses an individual's willingness to get

involved in a risky event. Entrepreneurship is known as one of the risky events. Findings have proven that people with elevated risk tolerance have a stronger passion for entrepreneurship (Farrukh et al., 2018).

Thus, the following hypotheses were formulated:

H6: Risk-taking tendency has a positive and significant effect on entrepreneurial intention.

H7: Risk-taking tendency has a positive and significant effect on perceived behavioral control.

H8: Risk-taking tendency has a positive and significant effect on the attitude.

H9: Risk-taking tendency has a positive and significant effect on the perceived social norm.

Proactive personality

According to the studies (McClelland, 1987), proactive personality is considered as one of the personality traits of successful entrepreneurs in the field of entrepreneurship. Proactive behavior is mostly related to occupational studies. Bateman and Crant (1993) have proved the index of proactive personality (PP) based on the tendency of people to influence the surrounding environment and perform various actions. Crant (1995) refers to the extent that people are ready to "take actions and influence their environment". Proactive personality trait states that people have more autonomy in their work and are more willing to be self-reliant and discover new opportunities. Proactive personality trait refers to entrepreneurial awareness and the growth of new entrepreneurial opportunities. Those people who have proactive personality trait have a higher entrepreneurial intention (Munir et al., 2019). Based on this, the following hypotheses were formulated:

H10: Proactive personality has a positive and significant effect on entrepreneurial intention.

H11: Proactive personality has a positive and significant effect on entrepreneurial attitude.

H12: Proactive personality has a positive and significant effect on the perceived social norm.

H13: Proactive personality has a positive and significant effect on perceived behavioral control.

Self-belief

Self-belief is defined as our attitude, feeling and knowledge concerning our own abilities, performance, and capabilities. It refers to the positive feeling of our abilities. Self-belief is a person's attitude about himself, through which a person realizes his capabilities, and positive thinking in this case increases productivity and achievement of goals.

The concept of self-belief is a framework of individual insight towards oneself and the ability to perform behaviors to meet needs (Adigun, 2020). Self-belief increases productivity and achievement in people.

Therefore, the following hypotheses were formulated:

H14: Self-belief has a positive and significant effect on the entrepreneurial intention.

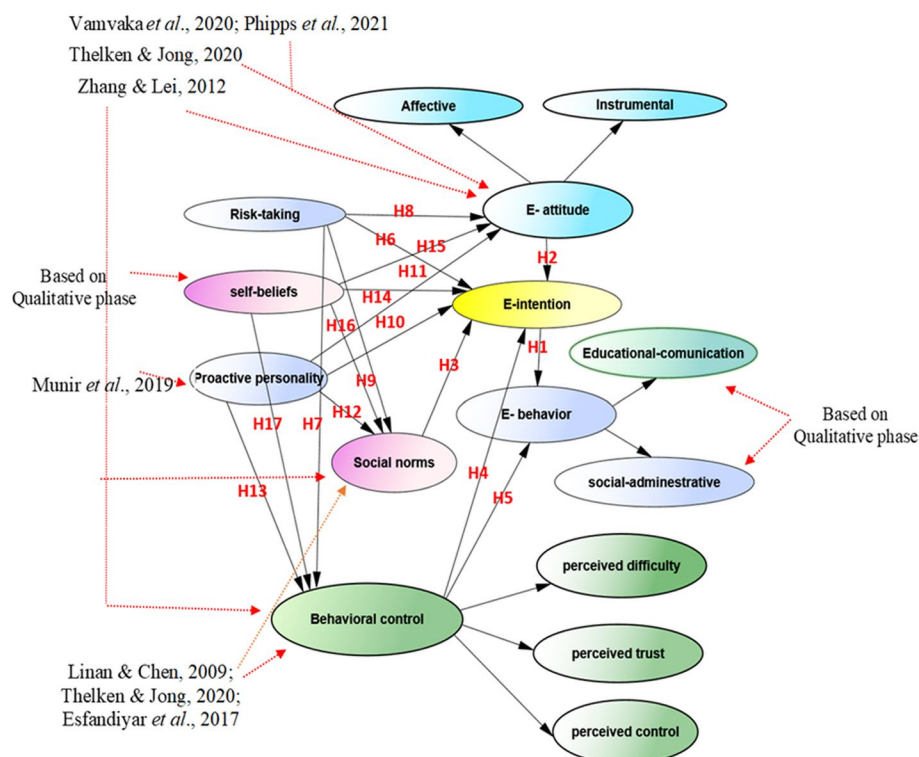


Fig. 4 References of conceptual model. Source: Fieldwork (2021)

H15: Self-belief has a positive and significant effect on entrepreneurial attitude.

H16: Self-belief has a positive and significant effect on the perceived social norm.

H17: Self-belief has a positive and significant effect on perceived behavioral control.

Methodology

Study area

Fars, the fourth largest province of the country suitable for tourism, based on the population and housing census of 2016, its population is around 4.850 million; 70% live in urban areas and 29% live in rural areas and about one percent is non-residents (Fig. 4). Since the business in Fars is based on agriculture and other businesses are somehow affected by it, the income status of agriculture has decreased due to drought in recent years. For this reason, agriculture has been severely threatened. Dehydration and the factors destructing the pastures and lands, especially because of human activities and restricted support policies of the government, have affected the productivity of agricultural and natural ecosystems, including agricultural lands, pastures, and forests, from a national point of view. These destructions have increased the vulnerability of rural and nomadic households, which in turn enlarges the pressure on natural resources.

Material and methods

The present research method is based on a qualitative–quantitative Sequential exploratory mixed methods research, so that in order to formulate and design a pattern of

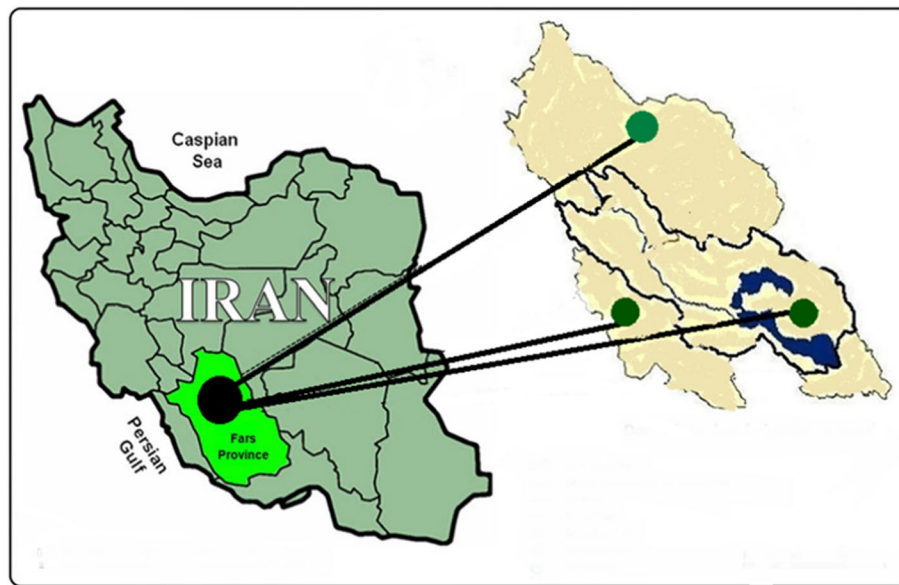


Fig. 5 Location of the study. Source: Map of Iran, showing the location of Fars province

entrepreneurial behavior with the ecotourism approach of rural women in Fars province, grounded theory method was used from the beginning, and then in order to investigate the effect of each of the obtained factors on the entrepreneurial behavior with the ecotourism approach of the studied society, a survey was used. A mixed method was used for more reliable judgments of the hypotheses. A qualitative method was used to find important influencing factors and quantitative method was used to improve the results and to check the details of the model (Fig. 5). In qualitative research using grounded theory, a procedure of structured approach has been implemented. The main steps of this method including sampling up to the theoretical saturation stage, comparative data analysis, specifying the focal category and completing and developing the model or paradigm. The results of the qualitative phase have been designed as a complementary research tool in the quantitative phase. The findings of the research can help to improve the entrepreneurship status of rural women in Fars and develop programs by policymakers and planners in the field of rural women's activities in the Ministry of Agricultural Jihad.

Qualitative phase

In the first phase, the required data were collected using grounded theory that includes a series of systematic procedures, sampling up to the stage of theoretical saturation, comparative analysis of data, defining the focal category and completing and formulating the theory, to develop a theory about a phenomenon inductively. To analyze the data, the systematic grounded theory approach and the Strauss and Corbin paradigm model were used. According to the Strauss and Corbin (1998) paradigm model, coding was performed in three stages with open, selective, and axial coding methods (Fig. 6).

Based on the principle of theoretical saturation, the statistical population of the qualitative phase was 27 experts of rural women entrepreneurs. Experts are people who have

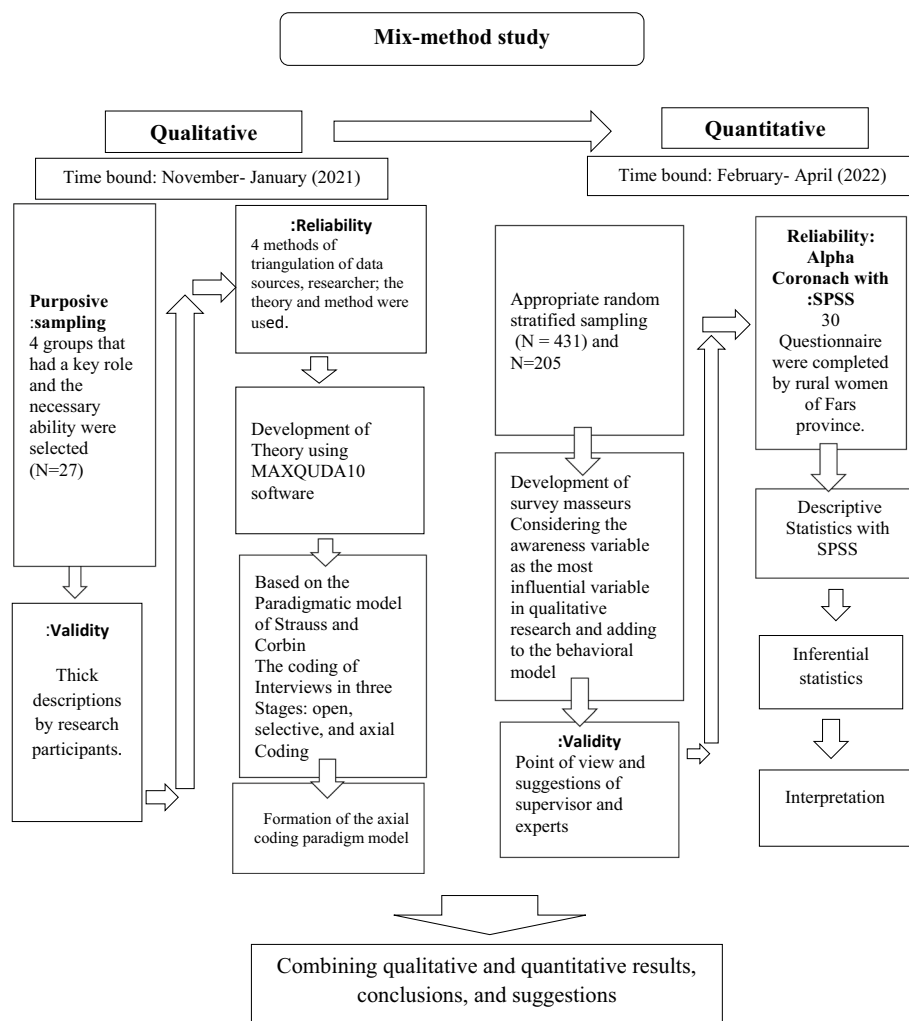


Fig. 6 Research method. Source: Fieldwork (2022)

more than 10 years of experience in the field of rural women and have educational background and ability as well as an expert opinion. As a qualitative sample population, four diverse groups of experts were selected by the purposive sampling to collect data. First group were managers and experts of rural women's agricultural development office, the second group were managers and experts of Fars, the third group were experts of other related organizations, and the fourth one was rural women entrepreneurs who had eco-tourism in Fars. The data collection tool was semi-structured interviews, viewing photos and videos of the eco-resort in Fars and telephone conversations with the interviewees. The duration of each interview was about 15–20 min. In total, it took 27 days to conduct all the interviews.

Incorporating a systematic approach into the grounded theory, we analyzed data in three steps of open, axial, and selective coding. The first step of the triple coding data analysis was open coding. It is an analytical process through which primarily concepts are found, and their properties and aspects are explored. The next step was axial coding which is usually done according to the paradigm pattern. This pattern includes the main

categories (phenomenon), conditions (causal, contextual, and intervening) and consequences. The third and last step was selective coding based on the results of the two earlier steps. This step allows researchers to connect the core categories in the framework of a narrative. Considering that rural women ecotourism entrepreneurship is a new topic in Iran's tourism industry, it is received much more attention in recent years. The data processing was performed with MAXQDA22. Finally, the effective components of rural women entrepreneurial ecotourism behavior in Fars were decided.

Quantitative phase

The total population size in the quantitative phase was 431 rural women from 12 villages of Marvdasht, Firoozabad and Darab who took part in ecotourism training program. The samples were selected by the stratified random sampling. Using Cochran's formula, the sample size was calculated as 203 individuals. Since the result is approximate, the researcher selected 205 people for the statistical sample. The main tool of data collection was a researcher-made questionnaire prepared based on the model developed in the qualitative phase and based on behavioral theories such as Ajzen's theory of planned behavior. The validity of questionnaire was confirmed by experts' opinions, and its reliability was confirmed by the range of the reliability coefficients (0.79–0.91). According to this model, the dependent variable was entrepreneurial behavior with ecotourism approach of Fars rural women. The independent variables include attitude towards entrepreneurship in two dimensions: instrumental and affective, perceived social norm, perceived behavioral control in three dimensions of perceived difficulty, perceived trust, and perceived control. Entrepreneurial intention, entrepreneurial behavior, and personality characteristics of entrepreneurs which include risk-taking, proactive personality, and self-belief that each factor consists of several items. The items of the questionnaire were designed based on a five-point Likert scale (very low = 1, low = 2, medium = 3, high = 4, very high = 5). Structural equation modeling (SEM) technique was used to test the developed model and examine the relationships between its variables to finalize the model. Data processing and all statistical analyses in this phase were performed using SPSSV22 and AMOSV22 software.

Results

Information processing and all statistical analyzes of this research were done using SPSS22 and Amosv22 software. The fit indices of the model were evaluated as best and finally, out of 17 research hypotheses, 12 hypotheses were confirmed, and 5 hypotheses were rejected. Based on the obtained results, the most crucial factors affecting ecotourism entrepreneurial behavior were entrepreneurial intention and behavioral control, with path coefficients of 0.57 and 0.207, respectively. The factors of attitude to entrepreneurship, social norms, and behavioral control influenced ecotourism entrepreneurship intention with path coefficients of 0.366, 0.503, and 0.292, respectively. The results of this research showed that external and internal factors at the macro-level can affect the behavior of a rural female entrepreneur who had an ecotourism business; and on the other hand, the social norm variable had the greatest effect on the intention, and the ecotourism intention variable had the greatest effect on the ecotourism entrepreneurial behavior. The results declared that the step-by-step process of changing the norms

towards the acceptance of rural women entrepreneurs as well as the acceptance of ecotourism culture through the creation of local and regional institutions and organizations in a context of family support with strong bonds of commitment, solidarity and environmental contexts and infrastructure will have a strong desire to create ecotourism residences by rural women.

The findings are categorized in two parts: exploratory findings in the qualitative phase and inferential descriptive findings in the quantitative phase as follows.

Qualitative phase

Texts and data were analyzed line by line and 493 primary codes and 72 concepts were generated based on the interviews conducted. The results of axial coding and formation of main categories are given in Table 1.

The ecotourism entrepreneurial behavior of rural women was divided into three subcategories: individual components with frequency (19), social components with frequency (32) and economic components with frequency (6). Rural women's ecotourism entrepreneurship strategies were classified in three subcategories of empowerment in the field of rural tourism and agriculture with abundance (27), setting up exhibitions and festivals with abundance (22), and support for women ecotourism entrepreneurs with abundance (35). Also, the intervening conditions of rural women's ecotourism entrepreneurship were grouped into three subsections of cultural acceptance with frequency (55), social capital with frequency (15) and multi-functional approach of having ecotourism with frequency (21). Existence of acceptable security for tourists with abundance (11), and macro-policies to support ecotourism businesses with abundance (25) were two subsections of rural women's ecotourism entrepreneurship platform. Based on the concepts extracted from research documents, the causal conditions of rural women's ecotourism entrepreneurship were divided into two parts: internal factors with frequency (81) and external factors with frequency (71). The consequences of rural women's ecotourism entrepreneurship were presented into two areas: negative consequences with frequency (10) and positive consequences with frequency (27).

Quantitative results

According to the results, the average age of the participants was 35 years; the youngest was 17 and the oldest was 54.69.8% of the research sample were married and 30.2% were single. 51.7% had diploma, 46.37% post-diploma; 0.2% were bachelors. 41.0% of the statistical sample were non-facilitators and 59.0% were facilitators. 16.6% of them were non-members and 83.4% were members of rural women's microcredit funds. The average number of training courses completed by the studied sample was 5, the lowest number of courses was 1 and the highest number was 20 of entrepreneurship training. Moreover, in ecotourism entrepreneurship training the average number of training courses completed by the studied sample is 2, while the lowest number of courses was 1 and the highest number was 5. Based on the results, the most crucial factors affecting ecotourism entrepreneurial behavior were entrepreneurial intention and behavioral control, with path coefficients of 0.57 and 0.207, respectively. Also, entrepreneurial attitude, social norms, and behavioral control influenced ecotourism entrepreneurial intention with path coefficients of 0.366, 0.503, and 0.292, respectively (Table 2).

Table 1 Main category, subcategory and concepts extracted from the interviews

Main category	Subcategory	Concepts
Obstacles to ecotourism entrepreneurship	Challenges in government agencies Multiple responsibilities	The existing bureaucracy, giving priority to the projects presented by men Mother, wife, work force
Ecotourism entrepreneurial behavior	Individual components	Emergence of creativity and innovation, acquisition of knowledge and entrepreneurial insight, leadership in business, being up-to-date, seeking independence, gaining wealth, adventure, interest and motivation
	Social components	Empowerment of women, rural social property, preservation of native culture, belonging to rural culture, group entrepreneurship, offering culture to others, paying attention to local community cohesion, sustainable development, customer-orientation, respecting customs, multi-functional approach, service and hospitality
	Economic components	Identification of existing opportunities, identification of existing needs
Ecotourism entrepreneurial strategies	Empowerment in rural tourism and agriculture	Increasing self-confidence of rural and tribal women, creating value for ecotourism in the rural community, education and promotion of ecotourism
	Setting up exhibitions and festivals	Informing people of other regions, developing tourism social networks, facilitating the attraction of foreign tourists, identifying the relative advantage of the region
	Supporting ecotourism entrepreneur women	Legal support for impaired businesses, business planning, spatial support, providing low-cost facilities and low-interest loans, ease of access to financial and credit resources, providing subsidies and eliminating taxes, creating women's organizations with the aim of ecotourism entrepreneurship
Intervening conditions of ecotourism entrepreneurship	Cultural acceptance	Literacy level, possessing entrepreneurial knowledge, rural culture, family, village attractions, cultural life of the region, ecotourism culture, the interactions and exchange between the village and outside, people's acceptance of ecotourism places, the relative freedom of women in Fars
	Social capital	The availability of qualified personnel, participation of the rural community, companionship of the rural community with women
	The multi-functional approach of ecotourism	Successful experiences of rural women's empowerment, the existence of necessary infrastructure
Ecotourism entrepreneurship platform	The existence of acceptable security for tourists	Mental security, family security, social security, control of the Covid-19

Table 1 (continued)

Main category	Subcategory	Concepts
Causal conditions	Macro-policies to support ecotourism businesses	Political factors, the priority of financial support for ecotourism, the prosperity of the rural agriculture, the openness of borders and the attraction of foreign tourists, rules and regulations to facilitate the issuance of permits, the priority of ecotourism in the development strategies of the province, the stability of economic policies related to tourism
	Internal factors External factors	Family support, personal empowerment, individual psychological characteristics Environmental conditions, institutional support
Consequences	Negative consequences Positive consequences	Social problems, environmental problems Individual consequences, cultural consequences, economic consequences, social consequences

Source: Fieldwork (2022)

Table 2 Model paths results and significance level

Hypothesis		Estimate	P	R	Results
EE attitude →	EE intention	0.336	–	0.330	Accepted
EE social norms →	EE intention	0.496	***	0.503	Accepted
EE behavioral control →	EE intention	0.340	***	0.292	Accepted
EE behavioral control →	EE behavior	0.163	***	0.207	Accepted
EE intention	EE behavior	0.139	***	0.578	Accepted
Risk-taking →	EE intention	– 0.145	0.404	0.302	Accepted
Risk-taking →	Behavioral control	0.479	***	0.141	Accepted
Risk-taking →	EE attitude	0.710	***	0.329	Rejected
Risk-taking →	EE social norms	0.780	***	0.239	Accepted
Self-beliefs →	EE attitude	0.350	–	0.141	Rejected
Self-beliefs →	EE social norm	0.787	***	0.441	Accepted
Self-beliefs →	Behavioral control	0.460	–	0.775	Accepted
Self-beliefs →	EE intention	0.673	0.835	0.576	Accepted
Proactive personality →	EE intention	– 0.067	0.715	– 0.157	Rejected
Proactive personality →	EE attitude	0.210	–	0.141	Accepted
Proactive personality →	EE social norm	0.432	0.265	– 0.151	Rejected
Proactive personality →	EE Behavioral control	0.088	0.338	0.082	Rejected

*** $P < 0/001$; ** $P < 0/01$; * $P < 0/05$. Source: Fieldwork (2022)

Discussion

Entrepreneurial intention is a conscious process that precedes action and directs one's attention and behavior towards entrepreneurial behavior. It also supplies the basis for understanding the value of new opportunities, exploiting them, and starting a business (Lortie & Castogovanni, 2015). The theory of planned behavior later specified that intention decides the relationship between three predictors and behavior (Hauslbaue et al., 2022). Based on the results obtained from the present research, rural women who have a

desire for ecotourism entrepreneurship are more likely to create ecotourism. Therefore, it is suggested that with a systematic and comprehensive look at ecotourism entrepreneurship, in the macro, regional, provincial and local dimensions, the factors affecting the intention of ecotourism as the most effective variable on the creation of ecotourism accommodation by rural women should be taken into consideration and gender policies taking into account the potential of rural women in the administration of ecotourism lodges, provide the basis for the actualization of this capability. This result is consistent with the findings of Boguszewicz-Kreft et al., (2020). Training courses with the aim of cultivating women entrepreneurs and continuous education of ecotourism business can increase the entrepreneurial intention of rural women at the local level.

The results showed that the residents' attitude towards ecotourism is considered as a prerequisite for their participation. Comprehending the residents' attitudes towards the principles of ecotourism management can help the planners to formulate proper management strategies to reduce the conflict between the protection of local resources and the economic development of the regions which leads to ecotourism circulation (Zhang & Lei, 2012). Thus, rural women entrepreneurs will enter the field of ecotourism if they have a positive attitude towards the construction of ecotourism accommodation. Due to the tourism potential of the province and high traffic of domestic and foreign tourists, and due to the favorable climate, as well as the rich culture and beautiful traditions of rural and nomadic groups, the attitude of rural women as the main founders of the ecotourism business has a positive effect on the creation of ecotourism accommodations. To create a positive attitude towards ecotourism entrepreneurship, it is suggested to hold training courses, informative workshops, and promotional visits to successful ecotourism residences. These conditions will cause to create a positive attitude and the learning process will take place while interacting with people who are engaged in a similar work. These results are consistent with research.

Also, the results showed that the perceived social norm has a positive and significant effect on the willingness of rural women to engage in ecotourism entrepreneurship. Like individual attitude, perceived social norms influence the perceived desirability of individuals who decide to start an ecotourism business (Munir et al., 2019). In other words, since Fars is one of the most important destinations for domestic and foreign tourists, and due to its beautiful nature and long history, the moral characteristics of people in the urban and rural communities of the province, it brings full acceptance of tourists. Obtained from the society, and therefore women who want to create ecotourism residences are fully approved, and the social norms of the province have a positive effect on rural women's ecotourism entrepreneurship. Based on the findings, it is suggested that successful ecotourism residences be introduced and encouraged so that the personal and family values of ecotourism owners can be widely seen. This finding is consistent with the research results (Esfandiari et al., 2019) and (Najafabadi et al., 2016). The results showed that there is a positive and significant effect of perceived behavioral control on their desire and intention towards ecotourism entrepreneurship and on their behavior. It can be said that perceived behavioral control refers to the perceived ease and difficulty of behavior. Not only the attitude of people towards a behavior refers to past experiences, but it also refers to the prediction of obstacles and other factors in the implementation of a behavior.

Due to the multiple roles of rural women in providing their family needs, they have always considered empowerment and self-efficacy as an integral part of their identity and take the necessary actions that help their family in monetary issues; this feature, along with the culture of hospitality, as well as the ability in the basic principles of this culture, such as mastering the cooking of local food, speaking the local dialect, wearing local clothes, and living in their homeland has caused rural women to create an ecotourism residence which is easy to manage; in other words, people who believe that they have a high level of behavioral control have a greater willingness and behavioral intention to perform a behavior. Based on this, it is suggested that along with specialized ecotourism entrepreneurship training, workshops on personal development and psychological dimensions of entrepreneurship should be held, because in most cases, the multiplicity of rural women's roles have created the duty-oriented mentality in them and instead of being a potential for their more prominent presence in the society, it has led to their isolation. This finding is consistent with the (Hauslbaue et al., 2022) and (Ali & Yousi, 2019) research results.

The results specified that the risk-taking variable has no significant effect on the intention of rural women towards ecotourism entrepreneurship. It can be concluded that ecotourism is a socio-cultural field and creating an accommodation is a collaborative activity that often accompanied by the financial and spiritual support of the family and therefore, factors other than risk-taking are influential in the desire to create ecotourism, the present study showed that rural women consider ecotourism entrepreneurship as a type of social and group entrepreneurship. It is suggested that, in general and specialized ecotourism entrepreneurship training, the rural family is considered as the target group, and by grouping the family members, their role and field of activity in an ecotourism residence is specified to set up a family entrepreneurship. This result is consistent with the findings of Farrukh et al., (2018), Ghouse et al., (2017) are not compatible with this study.

The results explained that risk-taking has a positive and significant effect on their perceived behavioral control towards ecotourism entrepreneurship. Since entrepreneurship is known as one of the risky events; people with elevated risk tolerance have more behavioral control than entrepreneurship (Farrukh et al., 2018). The present study showed that rural women can manage the hardships and challenges of ecotourism when they are risk-takers. It is suggested that the risks of setting up an ecotourism accommodation should be investigated with methodical and consequential trainings, and risk management in building an ecotourism accommodation be taught. This result is consistent with the findings of Ghouse et al., (2017).

The results declared that risk-taking has a positive and significant effect on their attitude towards ecotourism entrepreneurship. In other words, when a rural woman has the necessary motivation and ability to manage risks and can take risks accurately, she can have an attitude to create an entrepreneurial business and perform better. Therefore, it can be said that the attitude towards ecotourism entrepreneurship leads to the desire to create ecotourism. In other words, there is a high possibility that the choice of entrepreneurship in the field of ecotourism and founding ecotourism accommodation is extremely high among people who make decisions with risks and know how to manage it. It is suggested to hold periodic weekly or monthly meetings so that rural women who have established ecotourism residences can discuss with each other and brainstorm

the risks involved, and each of them can express the process of risk acceptance and in their own language so that they can have a positive impact on the attitude of other rural women entrepreneurs. This finding is in line with the research results (Rosique-Blasco et al., 2018; Ghouse et al., 2017 and Ataei et al., 2020).

The obtained results show a positive and significant effect of risk-taking on their social norm towards ecotourism entrepreneurship. Since ecotourism is a collective process, ecotourism residences do not only have a residential aspect; thus, various activities such as supplying food and traditional music, selling local handicrafts, and performing local shows are offered. If in a village, local people consider the residence as a threat to themselves, social norms are considered undesirable, and therefore the process of ecotourism entrepreneurship will not be achieved. Therefore, it is suggested that through educational visits and promotional workshops, the various risks faced by the rural community in various parts of the country are investigated and its institutionalization among the rural community is discussed. This finding is consistent with the research results of Ghouse et al., (2017).

Based on the results, the variable of self-belief has a positive and significant effect on their attitude towards ecotourism entrepreneurship. Since ecotourism entrepreneurship is a multidimensional process and a rural woman must be able to pay attention to all economic, social, political, and environmental aspects of creating ecotourism to gain success, and in contrary; despite all challenges, to accept the guests with openness to attract tourists, this balance between internal and external issues requires a thorough awareness of one's capabilities and belief in herself. In consequence, it is suggested that the inspiring life story of successful rural women and the way they deal with the living conditions are discussed and investigated during educational workshops. The finding corresponds with the result of Najafabadi et al. and and's (2016) research.

The results revealed that the variable of self-belief had a significant and positive effect on the perceived social norm of rural women about ecotourism entrepreneurship. Rural women believe that they can solve the social norms in the construction of ecotourism by relying on their abilities. This finding shows that what has been institutionalized in the rural society and the dos and don'ts of the rural society about the culture of ecotourism entrepreneurship, rural women have a clear understanding of themselves and their capabilities, if they believe to be efficient and capable, can have a positive and meaningful impact on the norms that exist in the rural community. Therefore, it is suggested that by distributing educational programs in the context of virtual space as well as educational media, and holding regional and national festivals and exhibitions, the role of rural women and their capabilities in the economic sector of the household should be found. This finding is consistent with the research results (Thelken & Jong, 2020; Vamvaka et al., 2020).

The self-belief variable proved a significant and positive effect on the perceived behavioral control of rural women towards ecotourism entrepreneurship. According to the definition, behavior is a reaction of a person to an external action. In the field of ecotourism entrepreneurship of rural women who believe in their self-efficacy and know how to manage the issues of creating an ecotourism residence, often respond appropriately to create an ecotourism residence. This finding is consistent with the research results of Neneh (2019) and Esfandiari et al. (2019).

Based on the results, the self-belief variable does not have a significant effect on rural women's entrepreneurship intention towards ecotourism entrepreneurship, since according to the results, most of them have passed 1 to 3 courses on entrepreneurship and ecotourism. In fact, this finding can be said that ecotourism entrepreneurship is a multidimensional process and the intention to do it is influenced by other variables more than the individual variable of self-belief and self-efficacy. This finding does not agree with the research result of Najafabadi and et al., (2016).

According to McClelland (1987), hyperactive personality is considered as one of the characteristics of successful entrepreneurs. Based on the results, the researchers found that hyperactive personality has no significant effect on the entrepreneurial intention of rural women in Fars in relation to ecotourism entrepreneurship. It can be concluded that, cultural and environmental issues, especially patriarchy and the priority of the roles of wife, mother, and agricultural workforce among rural women cause the hyperactive personality trait not to affect the intention of founding ecotourism residence. This result does not agree with the research findings (Munir et al., 2019).

The hyperactive personality variable was significant and positive on the entrepreneurial attitude of rural women of Fars towards creating an ecotourism residence. In other words, having proactive personality among rural women has a significant and positive effect on causing desirability towards becoming an entrepreneur in the field of ecotourism. So, it is suggested that basic entrepreneurship training and focusing on the mentality and skills of an entrepreneur among rural women should be considered and to build entrepreneurial skills among rural women, this educational program should be implemented for teenage girls to inculcate entrepreneurship characteristics in them. This finding is consistent with the research results (Shir et al., 2019).

Also, the hyperactive personality variable does not have a significant effect on the perceived social norm of rural women towards ecotourism entrepreneurship. In other words, rural women should consider the approval or disapproval of others about starting a business. This finding does not agree with the research results (Shir, et al., 2019). Consequently, proactive personality did not have a significant effect on controlling the perceived behavior of rural women towards ecotourism entrepreneurship. Proactive personality trait states that people have more autonomy in their work and are more inclined to be independent. Proactive personality trait refers to entrepreneurial awareness and increasing new entrepreneurial opportunities. This result is not consistent with the findings of Neneh (2019).

Conclusion

Conclusions of exploratory findings

Entrepreneurial behavior refers to the initiation of a business process that starts at the individual level and encourages to take entrepreneurial action with the aim of earning income and achieving acceptable profit (Thelken & Jong, 2020). On the other hand, ecotourism entrepreneurship is considered as part of social entrepreneurship in a category (Swan & Morgan, 2016). Therefore, there is a lot of interaction between individual, social and economic dimensions to develop ecotourism entrepreneurial behavior. Empowerment in the field of tourism, setting up exhibitions and festivals and supporting rural women entrepreneurs, attendance in regional, national, and international arenas

are considered as ecotourism entrepreneurial behavior strategies among rural women. Legal, financial, and educational support for rural women in the form of executive instructions is very necessary in the emergence of ecotourism entrepreneurial behavior as a strategy. Rural women engage in entrepreneurial behavior in the field of ecotourism and dependence between them and other rural women in the direction of support and companionship. Family support, personal empowerment, individual psychological characteristics as internal causal conditions and environmental conditions and institutional support as external causal conditions have an effective role in the occurrence of ecotourism entrepreneurial behavior among the programs that have been considered to improve the entrepreneurial behavior of rural women.

Conclusions of inferential findings

Attitude is the most effective structure in creating desirability and starting to become an entrepreneur. In the framework of Eisen's theory, it has been said that there is a positive relationship between entrepreneurial attitude and entrepreneurial intention (Munir et al., 2019). Rural women entrepreneurs enter the field of ecotourism if they have a positive attitude towards the construction of ecotourism residences. Among rural women, social norms reflect the influence of society's cultural values and expectations for starting entrepreneurial activities in the field of ecotourism. The social norm of women's entrepreneurship can increase their intention to create an ecotourism residence. Providing business training, recognizing the obstacles and challenges before starting ecotourism residences, recognizing the opportunities to develop side jobs for rural women can provide them with the necessary knowledge to create successful ecotourism. The variable of social norm has the most influence on the intention and the ecotourism intention has the most influence on the ecotourism entrepreneurial behavior. On the other hand, step-by-step process of changing norms towards the acceptance of rural women entrepreneurs as well as the acceptance of ecotourism culture through the creation of institutions and organizations, local and regional, in a context of family support with strong bonds of commitment, solidarity, environmental and infrastructural contexts will have a strong desire to create ecotourism residences by rural women.

Further suggestions

One of the tourism activities is the establishment of ecotourism residences, and one of its main principles is the participation of the host family members. These residences, which are managed by many women entrepreneurs in rural and natural areas with historical contexts, on the one hand can provide the possibility of natural resource protection and sustainable exploitation of the attractions of the village and on the other hand, provide income and employment for women and other members of the local community and prevent migration to the cities. Ecotourism can be defined as an action that political leaders, tourism industry and local people supply an opportunity for tourists to travel to untouched areas; thus, the requirements to study and enjoy the nature and the native culture without destroying the existing resources are met (Thai & Turkina, 2020).

In Iran, for solving the challenges of rural development and providing the villagers with favorable living conditions, the use of entrepreneurship in ecotourism and rural tourism in a complementary role and even replacing agricultural activities in

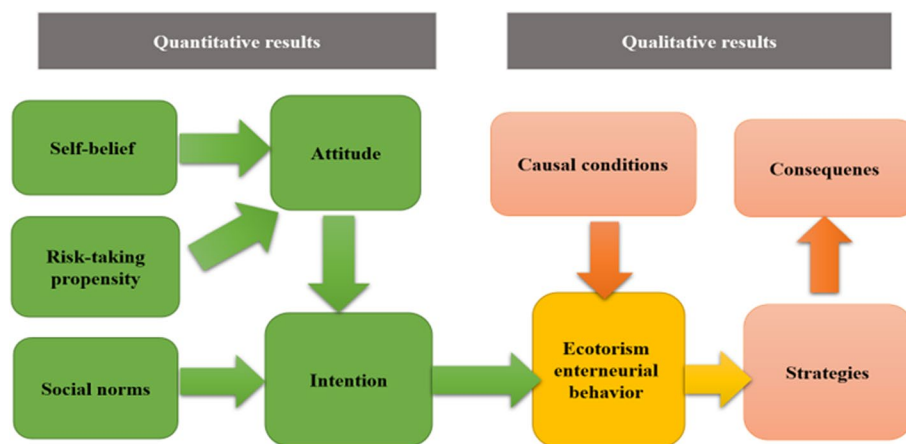


Fig. 7 Hybrid model. Source: Fieldwork (2022)

the target villages of tourism has been considered. Researchers drew a hybrid model (Fig. 7) based on the qualitative and quantitative data and the factors affecting the entrepreneurial behavior of rural women in Fars. This model shows that external and internal factors such as family support, personal capabilities, and institutional support as well as the effective environment for the ecotourism such as climatic, cultural, social, and economic conditions lead to the emergence of entrepreneurial behaviors with an ecotourism approach among the rural women of Fars. In addition, methods and strategies make it possible for the entrepreneurial activity of rural women in ecotourism. In the findings of the quantitative phase, the variables of attitude, intention, behavioral control, risk-taking, self-belief, and proactive personality have a significant impact on the entrepreneurial behavior of rural women.

Practical suggestions for improving the ecotourism situation of Fars:

- 1) Setting up organizations of female ecotourism entrepreneurs in the province.
- 2) Supplementary ecotourism trainings for rural women facilitators and microcredit fund members.
- 3) The possibility of participation of rural women in planning and taking part in festivals and exhibitions.
- 4) Creating motivation and encouraging rural women for the development of ecotourism in Fars.
- 5) Supplying low-interest facilities for rural women to create ecotourism residences.

Abbreviations

TPB	Theory of planned behavior
PP	Proactive personality
EE attitude	Entrepreneurial ecotourism attitude
EE intention	Entrepreneurial ecotourism intention
EE social norm	Entrepreneurial ecotourism social norm
EE behavioral control	Entrepreneurial ecotourism behavioral control
E-attitude	Entrepreneurial-attitude
E-intention	Entrepreneurial-intention
E-behavioral	Entrepreneurial behavioral
UAE	United Arab Emirates

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Author contributions

First author: literature sections; data analysis; report writing, manuscript preparation. Second author: proposal and instrument development and supervised the project. Third author: critical feedback and helped shape the research. All authors read and approved the final manuscript.

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Availability of data and materials

The data and material used in this study are available upon request.

Declarations

Competing interests

The authors declare that they have no competing interests.

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