

Assessment and Evaluation of Factors Leading to Rural Women Entrepreneurship

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Abstract

Research on rural women entrepreneurship has attracted the attention of several scholars as well as various governing bodies. In the literature, there have been several studies documenting the success and failure of rural women entrepreneurs. However, it is necessary to know the hierarchy of factors that impact the commencement of the businesses they manage. The purpose of this research is to identify the factors that influence rural women's decision in establishing a business venture. It is an attempt to compile a comprehensive list of criteria and rate them in terms of their impact on the advancement of rural women entrepreneurs. A literature review backed by expert opinion resulted in the identification of sixteen different variables and the authors used fuzzy AHP to come up with a comprehensive list of criteria and their degree of importance. An examination of the relative importance of these characteristics can assist policymakers by highlighting important aspects that affect the initiation of the business by rural women entrepreneurs. The findings have the potential to aid in effective decision making by policymakers through emphasizing critical elements relevant for entrepreneurial success.

Keywords

Women, Entrepreneurship, Advancement, Rural, Multi Criteria Decision Making.

1. Introduction

Economic thought on entrepreneurship philosophy can be traced back to 18th and 19th century with Richard Cantillon, Adam Smith, and Jean-Baptiste first expressing their opinions on the subject. After being overlooked for a long period of time, entrepreneurship research has gained momentum since the mid-20th century to become one of the most powerful, dynamic, and expanding topics in social sciences, extending its application in specialized journals and conferences encompassing a wide range of academic sub-disciplines (Braunerhjelm et al.2022). According to Agarwal and Lenka (2015), entrepreneurship is a process of establishing new businesses and entrepreneurs use several resources in developing these businesses. The field of entrepreneurship is not restricted to a specific gender. Female entrepreneurs are marking their presence both nationally as well as globally (Agarwal and Lenka2016). The number of working women, particularly female entrepreneurs, have increased (Rastogi et al. 2022) and their significant role in developing small and medium businesses is leading to the growth of emerging economies. Research evidence shows that rural women are involved in several entrepreneurial activities which includes handicraft, catering business, food and beverage business etc. (Ghouse et al. 2021). However, when compared to their male counterparts' they are unable

to achieve their full potential due to a variety of factors. As a result, it is critical to investigate the factors which influence their venture initiation and design measures to better their social standing.

Existing research identifies many factors like social recognition (Rathna et al.2016), level of education (Bharadwaj 2014), self-esteem (Oberhauser1997), need for achievement and personal growth (Idris et al.2014), risk taking ability (Arafat et al.2020) which plays an important role in women entrepreneurial adoption. While access to credit (Panda2018), government policies and assistance (Grant et al.2019), contact networks (Sullivan and Ford 2014) and support from family (Kungwansupaphan and Leihaothabam2016) significantly affect the success of enterprises run by rural women. The ability to use technology (Chatterjee et al.2020) and social media applicability (Osei and Zhuang2020) can act as an advantageous tool for the commencement of their enterprises. Several studies on different aspects of rural women entrepreneurs have been conducted, in which researchers have attempted to identify different variables that lead to rural women entrepreneurship, but to the best knowledge of authors, categorizing and ranking these factors in order of their importance is rarely evident in the extant literature. Thus, a multidimensional analysis of business creation by rural women entrepreneurs is required.

The purpose of this paper is to explore and evaluate the factors influencing the commencement of business by rural women entrepreneurs and categorize them to get meaningful insights on the challenges and opportunities they encounter in starting their new venture. For the study, the authors have used the Analytical Hierarchical Process (AHP), a Multi Criteria Decision Making (MCDM) technique, to analyze and rank the factors. A group of experts from industries and academia were chosen to investigate some important factors which lead to rural women entrepreneurship.

Following are the objectives for the study:

- 1) To identify different factors influencing rural women entrepreneurs' venture initiation.
- 2) To prioritize and rank the factors experienced by rural women entrepreneurs.

The study is organized as follows: Section 2 relates to review of literature along with identification of various factors that are associated with rural women entrepreneurs. Further the research methodology of the study has been described in Section 3 and Section 4. Results and discussions are elucidated in Section 5 followed by implications and future research directions in Section 6 and conclusion in Section 7.

2. Literature Review

The economic progress of a country would suffer without the participation of women in entrepreneurial actions (Cabrera and Mauricio2017). According to Agarwal and Lenka (2018) there cannot be gender biases in entrepreneurship as it calls for participation from all segments of society. In recent years, there is a growing amount of literature that highlights the increased proportion of rural enterprises founded by women (Idris et al.2014; Senapati and Ojha 2019; Grant et al.2019). Rural entrepreneurship refers to entrepreneurship that emerges in rural parts of the country (Ghouse et al.2021), however rural areas are frequently depicted as backward, marginalized, and lacking in entrepreneurial activities (Markantoni and Hoven2012). Nonetheless, there are regions where a plethora of small businesses, notably in the hospitality sector, handicraft businesses, welfare services, and the agribusinesses, which are predominantly started by women entrepreneurs (Oberhauser1997). Rural transformation in recent times has created prospects for women to launch small-scale startups (Markantoni and Hoven 2012) and they are making immense contributions to the economic growth of an economy through the initiation of small ventures (Smith and Jackson2004). Several variables impact rural women's decision to engage in entrepreneurial activity. Women choose to become entrepreneurs in order to fulfill their desire to have their own business, earn more money, work under their own rules and laws, and spend more time with their families (Agarwal and Lenka2016). According to (Markantoni and Hoven 2012 ; Idris et al.2014) rural women take up entrepreneurship for their personal growth. Existing literature identifies several other personal factors like self-esteem (Oberhauser1997; Agarwal and Lenka 2016) and need for achievement (Idris et al.2014; Agarwal and Lenka 2018) that encourage rural women to start new businesses. According to Agarwal and Lenka (2015) women launch their own enterprises in order to get more flexibility and autonomy over their career and personal responsibilities. Their entrepreneurial activities, help create jobs and contribute to the nation's economic progress. Rastogi et al. (2022) highlight the importance of family support, particularly from fathers or husbands for the growth of the businesses by women. Another important factor that influences the creation of a venture by rural women is their level of education, which is crucial when starting a business. Obtaining an excellent education aids them in identifying sources of unique ideas and turning these ideas into profitable businesses (Bharadwaj2014).

Existing research highlights social recognition (Rathna et al.2016) as a vital factor for women to take up entrepreneurship as a career. Also, Kagbu (2018) and Arafat et al. (2020) argue that risk-taking aptitude influences the development of female entrepreneurial ventures. Capital and credit availability is critical for the commencement of such ventures. Panda (2018) found that access to funding is one of the most significant challenges that women entrepreneurs encounter in developing nations. The absence of alternatives such as venture finance, private equity, and microcredit worsens their financial situation. Support and awareness about government initiatives can act as an enabler for rural women for establishing their businesses (Grant et al. 2019). According to Sullivan and Ford (2014) access to resources is a major issue during the early stages of a company’s development. Entrepreneurs' networks are crucial for locating and procuring necessary resources. Some studies (Loscocco and Smith-Hunter 2004 ; Kungwansupaphan and Leihaothabam 2016) highlight the importance of family background in providing support to women in starting their ventures and providing adequate resources. Entrepreneurship in the context of information technology is a new avenue for society to expand innovation and self-employment (Mivehchi 2019). In the same context there are several technological factors such as social networking skills (Ali et al. 2019; Sultan and Sharmin2020), technology adoption (Chatterjee et al.2020) which are relevant for the commencement and growth of women entrepreneurial ventures. According to (Genç and Öksüz2015; Osei and Zhuang2020) social media is an advantageous tool for the commencement of new ventures and alleviation of rural poverty. It can act as an enabler for rural women entrepreneurs if provided proper training and technical skills (Bharadwaj 2014; Rudhumbu et al.2020). Along with this discussion, there are several factors in the literature that influences the entrepreneurial venture initiation by rural women entrepreneurs, however, there is no sub-categorization of these factors. With the insights presented in the literature, the authors in this study have put in efforts to classify and evaluate the factors as Personal, Social, Resource, and Technological. The factors along with their categorization are presented in Table 1

Table 1. Factors influencing rural women entrepreneurship

S. No.	Factor code	Factors	Category	Description	Reference
1	PF1	Need for Achievement	Personal Factors	Need for achievement influences the success of women owned enterprises.	(Idris et al.2014), (Agarwal and Lenka 2018)
2	PF2	Personal Growth	Personal Factors	Women take up entrepreneurship for their personal growth.	(Markantoni and Hoven 2012), (Idris et al. 2014)
3	PF3	Self Esteem	Personal Factors	Women are drawn towards entrepreneurship in order to establish self-esteem.	(Oberhauser 1997) , (Agarwal and Lenka 2016),
4	PF4	Work and Income flexibility	Personal Factors	Women start their own business in order to gain work and income flexibility.	(Agarwal and Lenka 2015), (Senapati and Ojha 2019)
5	SF1	Support from Family	Social Factors	Family support is critical for the initiation of the business.	(Agarwal and Lenka 2016), (Rastogi et al. 2022)
6	SF2	Social Recognition	Social Factors	Women take up entrepreneurship for social recognition.	(Rathnaetal.2016), (Agarwal et al. 2020)
7	SF3	Risk Appetite	Social Factors	Risk bearing capacity influence the creation ofwomen entrepreneurial ventures.	(Kagbu2018), (Arafat et al. 2020)

S. No.	Factor code	Factors	Category	Description	Reference
8	SF4	Education Level	Social Factors	Education level is a critical factor in starting a business.	(Bharadwaj 2014), (Kungwansupaphanand Leihaothabam 2016)
9	RF1	Awareness of government initiatives, policies and assistance	Resource Factors	Assistance from government is a crucial factor for women entrepreneurs to establish their business.	(Naser et al. 2009, Grant et al. 2019)
10	RF2	Capital and Credit Availability	Resource Factors	Access to financial resources is a major factor in women entrepreneurial success.	(Almubarak 2016, Panda 2018)
11	RF3	Peer- Networks	Resource Factors	Contact networks are critical for the early venture development.	(Greve and Salaff 2003, Sullivan and Ford 2014)
12	RF4	Entrepreneurial Family Background	Resource Factors	Family background can provide support in starting a business and providing resources.	(Loscocco and Smith-Hunter 2004, Kungwansupaphan and Leihaothabam 2016)
13	TF1	Understanding Social Media Applicability	Technological Factors	Social media is an advantageous tool for the growth of new venture and alleviation of rural poverty.	(Genç and Öksüz 2015, Osei and Zhuang 2020)
14	TF2	Technical Skills	Technological Factors	Women entrepreneurs need to be trained in technical skills as they face challenges.	(Bharadwaj 2014, Rudhumbu et al. 2020)
15	TF3	Technology Adoption	Technological Factors	Adoption of technology leads to innovation amongst rural women entrepreneurs.	(Hashim et al. 2011, Chatterjee et al. 2020)
16	TF4	E-Networking	Technological Factors	Rural women entrepreneurs need strong social networking abilities to succeed.	(Ali et al. 2019, Sultan and Sharmin 2020)

3. Methodology

With the help of extensive literature review sixteen significant factors along with their categorization which influence the venture commencement by rural women entrepreneurs have been identified. A proper methodology is required to gain insights and implementation of these factors. ISM, DEMATEL, TISM, and Analytical Hierarchical Process (AHP) are some of the approaches available for this purpose. TISM and ISM, for example, highlight the structural link between the components but do not explain the strength of the association (Mittal et al. 2014). DEMATEL is a method for determining the strength and structure of various elements. It also aids in the discovery of causal relationships among factors, but it falls short of the establishment of a comprehensive collection of factors based on their nature (Kijewska et al. 2018). To overcome the constraints of all these methods and uncertainties amongst the crisp inputs, fuzziness is incorporated with the basic methodologies. To select the most influential factor and apply fuzzy AHP, responses from domain experts were used to prioritize factors. An expert panel was used to collect these responses for the factors and their criteria. The expert panel comprises of eight members, five of whom are academicians (two professors, one assistant professor and remaining two are research scholars with experience in the

same sector), and the rest three comprise of budding women entrepreneurs. All of the panel's professional specialists have significant experience in their working domain.

4. Fuzzy AHP and AHP

Saaty introduced the analytical hierarchical process (AHP) in the 1980s. He did so to ease the decision-making process because it is an excellent decision-making tool (Saaty and T.L. 2008). AHP is extensively used for its ability to simplify complicated problems. Zadeh and L.A. (1998) introduced widely used Fuzzy set theory for pairwise comparison which can be combined alongside AHP to improve precision and cope with expert judgement's ambiguities. TFN's are being used to depict fuzzy AHP and are expressed as triples representing l,m, and u. These triples are defined via the membership function $f(x)$, where they represent bottom, middle and higher values respectively. The values are equal when $l=m=u$, there are no ambiguous numbers to contend with (Kaganski et al. 2018 ; Jamwal et al. 2020). In this research, a rating scale by (Saaty 1996) is used for inputs, with 1 representing equal importance and 9 indicating extremely great importance, which is calculated utilizing expert feedback to the questionnaire provided. Fuzzy-AHP is used to prioritize employing weight calculations of factors and their associated criteria. Inputs from the expert panel were taken into account for pairwise comparisons. Consistency ratio and consistency index were calculated to check the consistency of the inputs provided by the expert panel. For future weight computations, consistency indexes less than 0.1 are taken into account. When the consistency index exceeds 0.1, it is preferable to revise the matrix. The drivers are further divided into four categories based on a literature assessment and feedback from the expert panel: personal, social, resource and technological. Finally expert inputs were used to develop a crisp input matrix and were further used to obtain criteria importance weights and local as well as global weights of the identified factors. Factor ranks were obtained using global weights obtained. The outcomes of the analysis are shown in Table 2.

Table 2. Outcomes of Analytical Hierarchical Process

S.No.	Factor Code	Factors	Category	Criteria Weight	Criteria Rank	Local weight	Global Weight	Global Rank
1	PF1	Need for Achievement	Personal Factors	0.4711	1	0.5021	0.2365	1
2	PF2	Personal Growth				0.2973	0.1401	2
3	PF3	Self Esteem				0.1432	0.0675	3
4	PF4	Work and Income flexibility				0.0581	0.0274	7
5	SF1	Support from Family	Social Factors	0.0781	2	0.4601	0.0359	5
6	SF2	Social Recognition				0.2912	0.0227	8
7	SF3	Risk Appetite				0.1943	0.0152	10
8	SF4	Education Level				0.5411	0.0423	4
9	RF1	Awareness of government initiatives, policies and assistance	Resource Factors	0.0582	3	0.5862	0.0341	6
10	RF2	Capital and Credit Availability				0.2631	0.0153	9
11	RF3	Peer Networks				0.1161	0.0068	12

S.No.	Factor Code	Factors	Category	Criteria Weight	Criteria Rank	Local weight	Global Weight	Global Rank
12	RF4	Entrepreneurial Family Background				0.0355	0.0021	15
13	TF1	Understanding Social Media Applicability	Technological Factors	0.0233	4	0.4382	0.0102	11
14	TF2	Technical Skills				0.2331	0.0054	14
15	TF3	Technology Adoption				0.2744	0.0064	13
16	TF4	E-Networking				0.0551	0.0013	16

5. Results and Discussion

The results of the data analyzed highlight need for achievement as an important factor for rural women entrepreneurs with a global weight and global rank of 0.2365 and 1 respectively. They are driven to start businesses in order to accomplish something in their lives. Personal development is the second most significant component in the analysis with global weight of 0.2973. Some rural women launch their own businesses for personal development. They are motivated to initiate their venture to enhance their self-esteem. They feel good about their abilities and a good self-esteem motivates them to start their own venture.

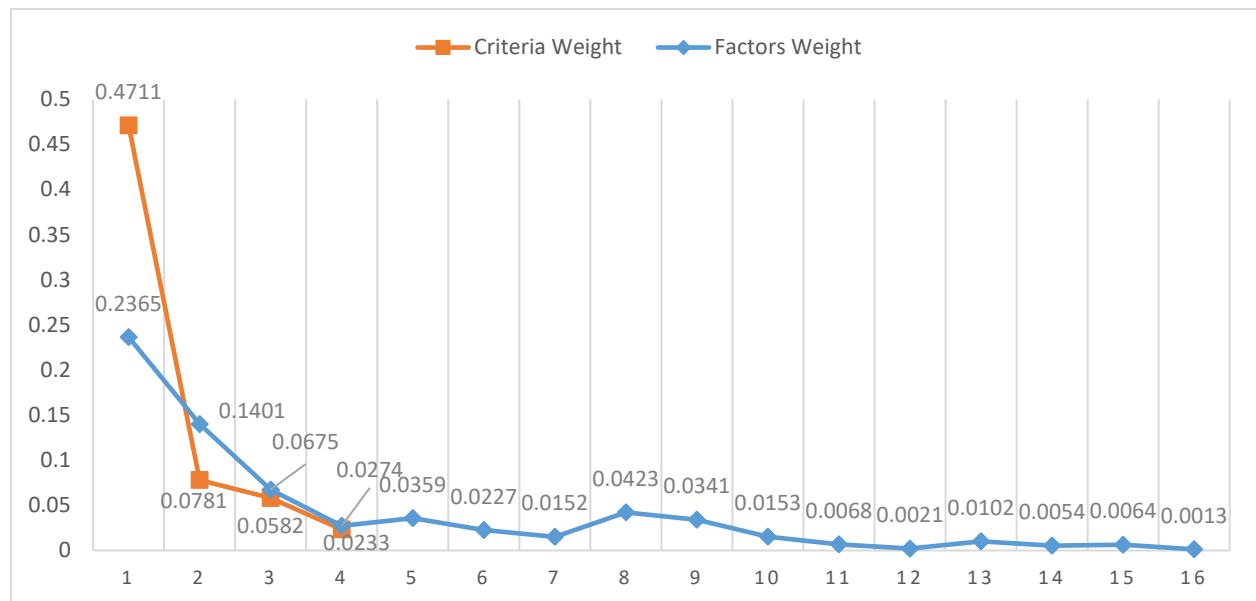


Figure 1. Representing criteria and factor weights

Apart from self-esteem, level of education also plays an important role in the commencement of enterprises by women entrepreneurs (Figure 1). Basic knowledge and education help women in initial planning and development of their businesses. Rural women require assistance from family and friends at the start of their business venture. Support from family gives an added advantage and motivate them for the commencement of their enterprises. Assistance from government and awareness of its initiatives are ranked after support from family as it has been found that rural women are much more reliant on personal factors for their entrepreneurial intentions rather on support from government organizations which have facilitated programs for their growth and development. Government initiatives and policies

provides financial and technical assistance to certain women entrepreneurs who are eager to learn and establish their own businesses, but women's lack of awareness of these measures has given this component less weight (0.0341). More awareness about these initiatives can act as an opportunity for them and better their social standing. Women also take up entrepreneurship to maintain their work and income flexibility. The flexible work allows them to efficiently manage business and family responsibilities. The research rated Social Recognition at number eight with global weight of 0.0227. Women are inspired and driven by social acknowledgment, and they feel empowered when their efforts are appreciated. Hence many rural women start their business for social recognition.



Figure 2. Representing Global Rank of Factors

Capital and credit availability are a barrier to their venture initiation since credit is not readily available to them. In order to emphasize the need of finance in starting a business, risk appetite is given less weight (0.0152) (Figure 2) in its comparison. It highlights the risk-taking ability of rural women which impacts the initiation as well as growth of their venture. Women are increasingly appreciating the value of digital and social skills. These abilities act as a catalyst for rural women entrepreneurs' long-term success. Peer networks help rural women in accomplishing their strategic goals. These networks help them not only in business creation but also its expansion. Factors such as technology adoption and technical skills are ranked lower since they are less significant for the success of rural women businesses at first. Rural women are engaged in informal enterprises and in the beginning technology adoption becomes a difficult task for them, also they lack technical skills to run an enterprise. Entrepreneurial family background is given less importance and E-networking is ranked sixteenth which is given the least importance in the study with global weight of only 0.0013 as rural women lack online networking skills and it does not encourage them enough to take up entrepreneurship. Overall the results clearly depict that personal factors are the leading factors with highest criteria weight of 0.4711 followed by social (0.0781), resource (0.0582) and technological (0.0233) factors which lead to the adoption of entrepreneurship as a career by rural women entrepreneurs. In the findings, technological factors are assigned the least weight which clearly depicts that rural women are still behind in technology adoption and there is a need to train them in various technical skills which can ease their process of venture creation. The findings also highlighted the lack of awareness by rural women on the initiatives and schemes provided by the government for their benefit. It emphasizes the significance of personal and social factors in entrepreneurial venture initiation and the need to strengthen resource and technological factors. The results highlight the necessity of policymaker's involvement in the field of rural women entrepreneurship, allowing them to identify issues of concern and implement necessary changes to raise knowledge about women entrepreneurship practices and initiatives.

6. Implications and Future Research Directions

The research findings are valuable to researchers, academicians, and policymakers. It gives a framework for reorienting programs and policies to boost rural women's entrepreneurial growth in the future. According to the study, the research findings will have an influence on government policies and will be an effective tool for implementing initiatives focused at empowering rural women entrepreneurs. The analysis brings out the significance of possible future research in the field of rural women entrepreneurship, resulting in creation of a long-term economic influence on the way of life of women entrepreneurs in the societal structure at large.

Future research directions and recommendations for the study are:

1. The study prioritizes the factors and ranks them; further research can be done on their strength and their inter-relationship.
2. The research specifically discusses the factors in general, they can further be validated with the help of a case.
3. Factors can also be determined and assessed in context of a specific industry in which rural women entrepreneurs are involved.

8. Conclusion

Entrepreneurship is an emerging concept and in the present era women are consistently trying to break the biases and creating their own ventures for their personal growth as well as income flexibility. In the same way rural women are no different. They are creating small and medium enterprises by starting something on their own and empowering themselves to lead better lives and become independent. However, there are many factors which affects the initiation of their enterprises and act as challenges and barriers in their way forward. For successful implementation of policies and programs these factors need to be identified and prioritized to get meaningful insights about the status of rural women entrepreneurs. As a result, this research attempts to identify several elements that impact the initiation of businesses by rural women entrepreneurs through a literature review. The authors achieved objective 1 by obtaining factors influencing rural women entrepreneurs' venture initiation and objective 2 by prioritizing and ranking these factors. Identifying factors available in the literature and grouping them along with the assistance of expert panel for offering their comments makes the process more meaningful. The study developed four groups of factors namely, personal, social, resource and technological. Fuzzy AHP is used as a technique to find both local and global weights for the factors with the guidance of expert opinion from the academia as well as budding women entrepreneurs. These factors are then ranked in order to identify which factors are most significant and which are least important in terms of their impact on rural women entrepreneurs. Analysis of the strength and inter-relationship between the factors along with the identification of variables from a specific industry have been recommended as prospective research areas.

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