

Entrepreneurial Competencies of Indian Women Entrepreneurs in Micro Service Enterprises

Ashish Mahajan^{*1}
Rupal Chowdhary²

Abstract

Research in entrepreneurship domain has proved positive association of entrepreneurial competencies with the performance of business enterprises. These competencies have been reported differently by men and women entrepreneurs. This study was an attempt to shift the focus from traditional challenges to the growth vision of women entrepreneurs which can be achieved through understanding and enhancing entrepreneurial competencies relevant to business enterprise. This study reflected the entrepreneurial competencies of women entrepreneurs from India through a well designed questionnaire listing the psychometric statements that indicate the competencies of respondents. Responses from 157 emerging women entrepreneurs running micro service business units from Indian urban areas revealed fresh insight in this domain. Results of the study indicated the emergence of new profiles of women entrepreneurs in the service sector. Factor analysis revealed three clusters of entrepreneurial competencies namely, personal and human relations competency, core entrepreneurial competency, business and management competency which showed that women as entrepreneurs are good at personal and behavior competencies. This differentiates them from their male counterparts when compared with past researches. This study aimed at providing agenda for training and development of evolving breed of women entrepreneurs through understanding the required entrepreneurial competencies. The study contributes to the next level in women entrepreneurship literature in developing countries like India.

Keywords : Entrepreneurial competencies, Indian women entrepreneurs, women entrepreneurs

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Previous researchers have found variation in the entrepreneurial competencies exhibited by women and men with respect to managerial and human relations, interpersonal skills, innovation and creativity (Kariv, 2010; Mitchelmore & Rowley, 2010). There has been some notable research work which has discussed about the competencies of women entrepreneurs in the business in specific domain such as finance and management (Carter & Shaw, 2006; Walker & Webster, 2006) but most of the studies are limited to developed countries. There is limited research and knowledge available with inadequacy in systematic views and regulation in developing countries (Welsh, Kaciak, & Shamah, 2018). This became the aspiration to conduct a similar study in the context of emerging entrepreneurial scenario in India.

In developing countries, most of the women entrepreneurs are involved in micro traditional or informal businesses, lacking in growth and expansion of business. Women entrepreneurs are lacking in certain crucial aspects but the reasons explained in the existing literature are constrained by family, society, cultural, business environment and likewise. There is scarcity in research on entrepreneurial competencies, which in turn has a positive impact on business performance.

Entrepreneurial competencies are one of the crucial constructs in entrepreneurial research which helps to understand attributes of entrepreneurs. Studies conducted by Umar, Omar, Hamzah, & Hashim (2018), Tehseen and

Assistant Professor^{*1}, Sushila Devi Bansal College of Technology, Umariya, A. B. Road, Near Rau, Indore - 453 331, Madhya Pradesh. Email : research2205@gmail.com ; ORCID iD : <https://orcid.org/0000-0003-0649-4841>

*Associate Professor*², Prestige Institute of Management & Research, Education & Health Sector, Scheme No, 54, Indore - 452 010, Madhya Pradesh. Email : rupal_chowdhary@pimrindore.ac.in ; ORCID iD : <https://orcid.org/0000-0003-3833-6557>

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Ramayah (2015) suggested that entrepreneurial competencies were the most crucial and intangible pivotal resources for the success of any business. These competencies are crucial for all kinds of micro, small and medium enterprises due to their relevance for business performance and growth (Bird, 1995; Capaldo, Iandoli, & Ponsiglione, 2004).

In recent years, considerable growth in the participation of women entrepreneurs has been observed in developing countries. Government and supporting agencies are promoting the development of women entrepreneurs (GEM, 2017; GEM, 2020; Kelley, Baumer, Brush, Greene, Mahdavi, Cole, & Heavlow, 2017). This calls for an equal growth in systematic research in this domain, one of the dimensions is entrepreneurial competencies as acquired and exhibited by women during their business operations.

This study looks at the attributes of women entrepreneurs in terms of entrepreneurial competencies in the Indian scenario. This study analyzed the demographic and business profiles of newly emerged women entrepreneurs in India with self-reported entrepreneurial competencies. These self-assessed entrepreneurial competencies were listed in a questionnaire in the form of managerial and entrepreneurial statements to be performed during day to day business operations. A sample of 157 was taken from the urban cities of India from women entrepreneurs running micro service business units. A micro business unit has been defined by MSME India as a business enterprise with investment not exceeding ₹ 1 million (₹ 1, 000,000). This was followed while selecting the sample.

This study covered sequential literature review of previous conceptual research on competency followed by review of entrepreneurial competencies. Findings of some of the prominent empirical studies on entrepreneurial competencies and women entrepreneurship have been discussed to match the overall understanding of the topic. Next, the adopted research methodology is described along with profiles of respondents with data analysis. Finding section presents the result of factor analysis and factors of entrepreneurial competencies. The discussion section compares the finding with previous research and its relevance. At the end, conclusion and suggestion highlights the importance and contribution of this research study with current and future scenario. Some recommendations for future research are also mentioned.

Literature Review

Vita, Mari, and Poggesi (2014) undertook a systematic literature review of women entrepreneurs from various developing countries and their study on India revealed that enterprises established by them were usually of micro or very small in size. It was also found that in many developing countries, women entrepreneurs intentionally did not opt for growth and expansion strategies under the perceived influence of family and social constraints (Chaganti, 1986; Mitra, 2002). The reasons for these were not uniform and less is discussed in terms of entrepreneurial competencies. Such studies are rare in developing economies.

Entrepreneurial competencies are relevant for exercising successful entrepreneurial venture. These competencies are often associated with the establishment and development of new and small business ventures, usually with innovative commercialization of product (Colombo & Grilli, 2005; Nuthall, 2006).

A simple attempt to understand entrepreneurial competencies is based on traits and personality, which states, Entrepreneurial competencies are composed of two components, one is rooted in the form of personality traits, attitude, self image, and the second those that can be acquired through education, training, and experience (Man & Lau; 2005). Since human beings possess these components in various combinations, we find that various clusters of traits depend upon the personality type. Limitations of trait approaches led entrepreneurship research to focus on competency based study. Weinert (2001) examined the degree of competencies possessed by an individual that were influenced by a range of dimensions composed of knowledge, ability, skills, self-motivation etc., so these competencies varied among entrepreneurs.

Taatila (2010) described entrepreneurial competencies as “psychological and social skills which constitute the flavors of leadership, creativity, innovation, analytical skills, problem solving, teamwork, and network building.” There are various views and findings about competencies, although many authors agree that competencies are not fixed or inherent traits but can be learned and developed through training and experiences (Mulder, Lans, Verstegen, Biemans, & Meijer, 2007; Volery, Mueller, & von Siemens, 2013; Wagener, Gorgievski, & Rijsdijk, 2010).

Table 1. Some of the Entrepreneurial Competency Variables Studied by Researchers

| Author | Entrepreneurial Competency Variable |
|--|--|
| Mill (1848), Brockhaus (1980) | Risk taking/bearing |
| Schumpeter (1934) | Innovation |
| Collins & Moore (1964) | Leadership/Management |
| McClelland (1965, 1987) | Need for achievement |
| Martin (1982) | Creativity |
| Mitton (1989) | Tolerance for ambiguity |
| Shane (2000) | Opportunity recognition |
| Smith and Morse (2005) | Functional Competencies (Marketing and Finance), Motivational, Personal skills |
| Green (2009) | Implementation ability |
| Gholipor, Aghajani, Karimi, and Ali (2009) | Information seeking |
| Kumara and Sahasranam (2009) | Networking & team building |
| Obschonka, Silbereisen, & Schmitt-Rodermund (2010) | Persistence, preservice |
| Sadler-Smith (2010) | Intuitive ability |
| Izquierdo and Deschoolmeester (2010) | Ability to motivate others, commercial understanding |
| Mitchellmore and Rowley (2010) | Idea generation |

Source : Author's compilation

Table 1 shows some of the entrepreneurial competency variables studied by researchers. Some of the major entrepreneurial competency variables are discussed from the women entrepreneurial perspectives. Literature from various researches conducted in different countries are mentioned next.

(1) Opportunity Recognition : Shane and Venkataraman (2000) stated that the unique competency belonging to entrepreneurs is the recognition of a business opportunity and exploiting it. Even this is considered a focal concept of entrepreneurship which differentiates it from managerial competencies (Lerner & Almor, 2002). Kothari (2017) analyzed 25 cases of women entrepreneurs from India and revealed that women tried to enter traditional businesses which are untapped by men and these can be converted into a niche market. Also, they used their innovative capability to recognize opportunity, but her study was limited to 25 cases of women entrepreneurs which cannot be generalized for a large country like India. This study included opportunity recognition variable in the questionnaire to assess this important variable. GEM (2020). reported that 8 out of 10 adults in India saw a good opportunity to start a business, while women were found to be more purpose driven than men in starting a new business.

(2) Commitment /need for achievement : Literature has evidence about the direct relation between achievement need and women's intention for entrepreneurship (Robinson, 2001; Shaver and Scott, 1992). It is valid for men equally. Successful entrepreneurs strive to accomplish the task even if they are tired of it or are facing obstacles and failures (Markman, Balkin, & Baron, 2002; Rauch & Frese, 2007; Valtonen, 2007). Grey & Finley-Harvey (2005) found that desire for independence and achievements acted as motivations for women in Morocco to opt for entrepreneurial career.

(3) Initiative : Roots of entrepreneurial competencies lie in the conceptual studies of competencies. The French author Zarifian (1999, 2001) relates competencies to the capacity of a person to take initiatives, to go beyond the prescribed activities, to understand, master new work situations, to be responsible, and be recognized for this. The author established that competency is the taking of initiatives and assumption of responsibility.

(4) Finance : In the past researches, women in business were found risk averse and low in self- confidence as compared

to men. Decision making related to finance and investment remained the cause of failure or cause for limited participation for women (Powell and Ansic, 1997). In similar studies, Carter (2000) and Fielden, Davidson, Dawe, and Makin (2003) pointed towards the lack of experience of women in financial matters. Walker and Webster (2006) limited their studies to specific areas of finance and management competencies in order to analyze the level of specific competencies among women entrepreneurs. A similar study was conducted by Carter and Shaw (2006) which revealed that women usually rated themselves as weak in competencies related to finances as compared to male business owners. Afrin, Islam, and Ahmed (2010) pointed to the support of microcredit schemes as alternatives to secure finance by women looking to start micro business. In a country like India, female entrepreneurship needs attention while dealing with financial competencies. This study has enquired and incorporated this variable as a part of questionnaire.

(5) Risk assessment : Literature reveals that women have low risk preference compared to men in various domains including management and business ownership (Hallahan, Faff, & McKenzie, 2004; Powell and Ansic, 1997). Men and women also differ in interpreting the meaning to risk (Schubert, 2006). On the contrary, claim of Javadian and Singh (2012) about Iranian women reveals different perspectives since women in the past had to face challenges in daily life on personal or family front. Fear of failure or lack of self-confidence was not found to be an impact factor for business activities. This suggests that perceived risk unlike other factors may be context and country specific. Market insight, anticipated future risks, and competition assessment are also at core among entrepreneurial competencies (Chwolka & Raith, 2012; Clercq, Sapienza, Yavuz, & Zhou, 2012).

(6) Innovation : Innovation is considered as a key entrepreneurial characteristic (Schumpeter, 1934; Martin, 1982). Innovative remarks in the entrepreneurial venture add value to the overall growth and goodwill of the firm (Ferraris, Santoro, & Papa, 2018; Saiz-Alvarez, & Martínez, 2019). This can be a strong differentiator on the basis of gender and an agenda for detailed research.

Innovation is found to be an important factor for the success of women led enterprises (Lai, Nathan, Tan, & Chan, 2010). Nahilinder, Tillmar, and Wigren (2015) did not find significant differences between male and female entrepreneurs in innovation, while the study of Chatterjee and Ramu (2018) referred to factors which inhibited innovations that could be found among women entrepreneurs. Some of the factors reported by them included inadequate access to market research, opportunity to networking, sharing knowledge, and funding. Besides this, women entrepreneurs were found to be 5% more innovative as compared to men entrepreneurs (Chatterjee & Ramu, 2018).

(7) Building Network : Literature suggests that women in business secure relevant and vital information through social and professional networking (Brush, Greene, Hart, & Hyller, 2001). Women entrepreneurs are able to manage and run business effectively through networking (Farr-Wharton & Brunetto, 2007). Women entrepreneurs usually have informal networking with family, friends, and neighbors which confines the business to micro level, their lack of networking with relevant business persons creates barriers in awareness and growth (Hossain, Naser, Zaman, & Nuseibeh, 2009; Manolova, Carter, Manev, & Gyoshev, 2007). Networking gives exposure to various sources essential for running business in adverse situations as well (Staber, 2001). Even the recent study conducted by Anggadwita, Luturlean, Ramadani, & Ratten (2017) assures that networking is one among the major factors which impacts the performance of women entrepreneurs.

(8) Human relations : Women usually follow a democratic form in operation of business activities and they achieve growth along with the growth of employees and other people. Women believe and practice shared decision and open communication methodology. Customers also get benefits from the relation based approach followed by businesses (Buttner, 2001).

(9) Entrepreneurial competency frameworks : Entrepreneurial competency is a multi-dimensional construct (Smith & Morse, 2005). Zainol and Al Mamun (2018) found that entrepreneurial competency is linked with competitive

advantages by investigating 384 women entrepreneurs running micro businesses in Malaysia. Findings of this study recognized four competencies, viz. commitment, conceptual, organizing, and opportunity recognition competency. These set of competencies have shown positive effect on the development of enterprises led by women.

Research in Indonesia conducted by Ismail (2014) concluded that major characteristics or competencies exhibited by micro-small and medium businesses owned by women were endurance, commitment to achieve, and awareness about the market, while risk management ability was found to be weaker.

Mitchelmore and Rowley (2013) filtered the list generated by previous researchers and summarized competency items in the form of a questionnaire. The factor analysis resulted in four groups of entrepreneurial competencies, namely, personal and relationship competencies, business and management competencies, entrepreneurial competencies, and human relation competencies. The study was conducted in Wales, England, and was self-assessed by female entrepreneurs pursuing business with growth vision. The study identified women to be more competent in personal and relation based competencies along with human relations to add similar characteristics. While less attention was reported by women in other two identified clusters, the present study adopted this categorization for use in further research work. Such a study lacks relevance in developing countries like India and needs to be analyzed in the present scenario.

Most of the studies discussed here were conducted in developed countries in different time periods. In the Indian context, even the recent research studies are limited to discussing the challenges faced by women entrepreneurs (Dewangan, Kothari, 2017; Panda, 2018; Vinayagam, & Shrivastava, 2019). Some of the studies talk about government schemes available for women entrepreneurs (Vijayaragavan, 2014). Review on work-life balance of women entrepreneurs (Agarwal and Lenka, 2015).

We found the gap in women entrepreneurship research specifically based on entrepreneurial competencies in the Indian context. The competencies discussed earlier as reported by Indian women entrepreneurs need to be checked. This study addressed it with an empirical approach. Also, knowledge about the demographic and business profiles of emerging women entrepreneurs call for an update in the present digital age and prevailing entrepreneurial ecosystem in the country. It will add to the literature about the entrepreneurial competencies of women entrepreneurs in the Indian context.

Research Methodology

The study is descriptive in nature and attempts to identify the factors related to entrepreneurial competencies of Indian women entrepreneurs.

Scale Development

The instrument for the study was developed on the basis of inferences from literature review, mainly from the study of Mitchelmore and Rowley (2013). The design of scale consists of a questionnaire and includes three sections described next.

The first section covered the demographic profile of respondents including age, education, marital status, and type of family. The second section consisted of business profile which asked for the nature of business, sector of service business, age of establishments, income from business venture, and number of employees.

The third section consisted of 20 statements enlisting various competencies relevant to entrepreneurial acts and these statements were used to measure entrepreneurial competencies. Respondents were requested to rate their ability. All the 20 items of competencies were measured using a five point Likert scale with 1 as strongly agree and 5 as strongly disagree. Many similar and prominent past studies about entrepreneurial competencies such as Chen, Green, & Crick (1998), and Lerner and Almor (2002) also used a five point Likert scale. The responses were given by entrepreneurs themselves.

Expert Opinions

The list of statements in the research instrument was reviewed by four academicians and one domain expert to confirm the content validity of the items. The reviewers examined the statements in the questionnaire for bias, appropriateness with the objective of study, and comprehensibility. Five items were improved in terms of language and sequence, one item was removed, and was replaced by the suggested one.

Pilot Testing

The questionnaire was tested by piloting it with researchers in similar domains followed by a selected number of well-educated and established women entrepreneurs, ten women entrepreneurs helped us with this. This exercise helped us improve our instrument with some minor changes in layouts and wording. It helped in refining the scale and a check for internal reliability (Churchill, 1979).

Sampling

First we created a database of Indian women entrepreneurs involved in the micro service sectors from various sources such as personal contacts, LinkedIn and Facebook profiles, social and professional websites dedicated to Indian women entrepreneurs such as “Sheroes” and “Your Story”. Besides this, the researcher contacted formal and professional women entrepreneur networks in India and supporting organizations to collect secondary data. Snowball method also helped in getting more valid data with contact information.

We authenticated the existence of business units in case required, many of the email ids were collected through the official websites of the enterprise, LinkedIn profiles, personal calls and requests, leading persons from network committees etc. Only authentic business units were considered in this round of creating the database.

From the created database of women entrepreneurs from Indian cities, we opted for purposive sampling technique to filter and select our sample based on the following criteria:

- ✎ The women entrepreneur should be the first owner or the founder of the business unit. Co-founders were not included in the sample. The business should be in operation for atleast two years.
- ✎ The business unit must be a micro business unit with investment and annual income less than ₹ 1 million (1,000,000). Trading business was also counted and accepted as a service enterprise. The business unit should be standalone for both formal and informal ones. Since the sample space was limited, no authentic secondary data was available. Both formal and informal units were considered.
- ✎ The business unit must have atleast two employees. Although we consider part time, seasonal, and outsource models were also considered in case women did not have any employee.

Data Collection

Survey method was opted to collect the data. The survey method was found suitable as it has been widely used in entrepreneurial competency research and it fulfills our objective of comparing it with the previously conducted studies. Further, it allowed us to cover a large number of respondents with different demographic profiles owning different size of business units.

Depending upon the available contact information of women, we follow different ways to approach them. Initially, the questionnaire was mailed to respondents along with an informative and well covering letter requesting them to fill it highlighting the need and importance of the study. In case, the contact numbers were available or we had references, we called them personally and requested them to fill the questionnaire. A Google link with questionnaire was also sent to them, in case email id was not available or we couldn't get response in a single attempt. All these techniques were found

to be quicker and cheaper to conduct, although it was not possible to identify non-respondents. In certain cases, the questionnaire was re-sent to them. From a total of 360 emails sent and around 50 calls and Whatsapp messages, we found 84 completely filled responses through this process.

As a second move to our data collection method, the researcher also visited many offices and workplaces of women entrepreneurs from Indore and Mumbai, most of whom were either familiar or had references. The researcher explained them the survey, the research work, its purpose, and the questionnaire. A hard copy of questionnaire was given to get the response. This along with previous 84 responses counted to a total of 131 responses from the desired respondents. We further attempted snowball techniques and asked the respondents about their network in order to increase the response rates, we followed-up with those who did not respond. We received 30 more valid responses in such attempts. In total, we had 157 completely filled questionnaires. The entire data collection took four months (November 2021 to February 2022).

The questionnaire was reported by female entrepreneurs from Indian urban cities, majority of data we found from the city of Mumbai and Indore as it was convenient through already established networking via social and professional media on internet. Responses were also received from Delhi, Gurgaon, Noida, Bangalore, and Hyderabad.

Period of study

The entire study was conducted from January 2021 to April 2022, while data were collected between November 2021 and February 2022.

Data Analysis and Findings

Respondents' demographic and business profile description

Respondents' demographic and business profile description is shown in Table 2.

↳ **Age** : Among all the respondents, the highest number (56%) was between the age group of 26 and 35 years followed by 36 and 45 years (35%) which matches with the other studies including the report published by Global Entrepreneurship Monitor (GEM, 2017 ; Hart and Levie, 2010).

↳ **Education** : 55% of the female entrepreneurs had Masters degree, 21% had Doctorate/M.Phil, and the rest 24% had only a graduate degree. This data is consistent with Carter and Shaw (2006) indicating that female entrepreneurs in urban areas reported higher level of educational attainment.

↳ **Marital status** : 54% married women with entrepreneurial career is a good indication of women pursuing such career even after marriage, followed by 34% of single women entrepreneurs.

↳ **Family status** : Family status data reveals that 59% women were living in a nuclear family and over 41% were living with joint family. This indicates that women had less family constraints compared to past Indian scenario.

↳ **Nature of business** : Matching with the results of previous studies of women entrepreneurs, preponderance in service sector was reported by 75% of women entrepreneurs which is larger than the percentage found in previous studies. Atkinson and Hurstfield (2003) reported that 48% of female entrepreneurs opted for service sectors to start a business venture. 25% service businesses were in the form of trading businesses.

70% of the respondents had self-developed or owned established business unit while remaining 30% reported that they had set up the venture in line with existing family business.

↳ **Work from home** : Following the odds, 24% of women were still reported to work from home. These were women with one to three employees. Some of these were running HR consultancy without a physical office setup or as a freelancer. There were few women working from home with six to twelve employees in the business of market research.

Table 2. Respondents' Demographic and Business Profile

| Variable | Options | Frequency | Percentage |
|-----------------------------------|--------------------------------------|-----------|------------|
| Age (Years) | 18 – 25 | 12 | 8 |
| | 26 – 35 | 88 | 56 |
| | 36 – 45 | 55 | 35 |
| | 46 – 55 | 02 | 1 |
| | 55 and above | 00 | 0 |
| Educational Qualification | Graduate | 38 | 24 |
| | Post – Graduate | 86 | 55 |
| | M.Phil/Doctoral | 33 | 21 |
| Marital Status | Single | 56 | 35.6 |
| | Married | 86 | 54.7 |
| | Separate | 13 | 8.28 |
| | Widow | 02 | 1.28 |
| Family Status | Joint Family | 65 | 41.5 |
| | Nuclear | 92 | 58.5 |
| Nature of Business | Services | 119 | 75.8 |
| | Trading as a service | 38 | 24.2 |
| Type of Business Establishment | Self – Developed | 110 | 70 |
| | Family run /based on family business | 47 | 30 |
| Office Layout | Work from Home | 37 | 23.57 |
| | Small Size office /Shop | 120 | 76.43 |
| Number of Employees | Only part time/seasoned employees | 06 | 3.8 |
| | 01 – 03 | 18 | 11.5 |
| | 03 – 06 | 43 | 27.4 |
| | 06 – 12 | 71 | 45.2 |
| | 12 and above | 19 | 12.1 |
| | Less than 01 | 06 | 3.82 |
| Annual Income (₹ Lakhs per annum) | 01 – 03 | 03 | 1.91 |
| | 03 – 05 | 26 | 16.56 |
| | 05 – 08 | 71 | 45.22 |
| | 08 – 10 | 51 | 32.48 |
| | | | |

↳ **Type of service business opted by women :** From the sample of 157, excluding trading enterprises, we had 119 (75%) enterprises with various service sectors. The summary is given in Table 3 reveals some interesting information about it.

Most of the women entrepreneurs (19 %) were running HR Consultancy, followed by 17% who were involved in education and training (Table 3).

17% of respondents were from IT and related services which was usually categorized for males (Walker & Webster, 2006). This indicates that more women are opting for IT services to start a venture these days. Our study is limited to the educational qualifications of graduate or post graduate without a specialized degree. A correlation could be a study between females with technical degree and choice of business ventures.

Fashion and beauty as a traditional choice of business is reported by 14% of women followed closely by the Healthcare sector. Some of the women reported their venture as Yoga and fitness training service providers. This sector

Table 3. Nature of Service Business

| S. No. | Service Sector/Nature | Number of Respondents |
|--------------|---|-----------------------|
| 1 | HR consultancy and HR training | 23 (19%) |
| 2 | Education and Training | 21 (17%) |
| 3 | IT Services/E-commerce/Digital marketing /Web-app Development | 21 (17%) |
| 4 | Fashion/Beauty and wellness related services | 16 (14%) |
| 5 | Healthcare and Yoga training as services | 12 (10%) |
| 6 | Financial services | 10 |
| 7 | Legal and medical consultancy (professional consultancy other than lawyer and Doctor) | 07 |
| 8 | Food catering | 05 |
| 9 | Market research /Freelance writer | 04 |
| Total | | 119 |

is taking shape as a professional business model in India as well as an organized sector. Financial services are the next choice in line with other services such as legal and medical consultancy, market research, and food catering.

Findings from Factor Analysis

Factor Analysis was conducted on the collected data along with KMO and Bartlett's test to verify the required test. Principal Component Analysis helped to filter some new variables.

Kaiser–Mayer–Olkin (KMO) test calculated value of KMO as 0.856 (Table 4), the obtained value is at par with the threshold value of 0.5 which confirms the adequacy of the sample for factor analysis (Hair, Black, Babin, & Anderson, 2010).

Bartlett test's (Sphericity) calculated significance value of 0.000 (Table 4) also confirmed the approximate Multivariate normality of data which is acceptable for factor analysis as a measure of correlation between variables.

After confirming the sample adequacy and Bartlett's test, next step was to consolidate the factors which reveal the entrepreneurial competencies of respondents, it was obtained by using PCA (Principal Component Analysis). This method grouped the variables showing strong correlation. The highest value of communalities extracted through this method was 0.806 which showed strong interrelatedness of factors with all the other items. This consolidation of factors resulted into 3 factors out of 20 variables.

Total variance explained by the three factors is close to 68%. Three factors emerged from the factor analysis are named and described next. Table 5 shows the total variance explained. Table 6 shows the extracted factors with their related variables.

🔗 **Factor 1 : Personal and human relation competencies** : Personal and human relationship emerged as one of the important factors with 30.269% variance with factor loadings of items ranging from 0.552 to 0.887. This crucial factor includes half of the variables of the study, that is, 10 out of 20 items of statements related to competencies. These items consist of essential personal skills such as communication, get along with people, to motivate the team, develop skills of employees, promote employee relations, leadership and ethical values.

Table 4. KMO Test & Bartlett's Test

| | | |
|---|--------------------|-------|
| Kaiser – Meyer – Olkin measure of sampling adequacy | | 0.856 |
| Bartlett's test of Sphericity | Approx. Chi-Square | 2647 |
| df | 190 | |
| | Sig. | 0.000 |

Table 5. Total Variance Explained

| Components | Initial Eigen values | | | Extracted Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|------------|----------------------|------------|------------|------------------------------------|------------|------------|-----------------------------------|------------|------------|
| | Total Variance | Percentage | Cumulative | Total Variance | Percentage | Cumulative | Total Variance | Percentage | Cumulative |
| 1 | 9.517 | 47.587 | 47.58 | 9.517 | 47.587 | 47.587 | 6.054 | 30.269 | 30.269 |
| 2 | 2.393 | 11.963 | 59.551 | 2.393 | 11.963 | 59.551 | 4.071 | 20.353 | 50.622 |
| 3 | 1.737 | 8.684 | 68.235 | 1.737 | 8.684 | 68.235 | 3.522 | 17.612 | 68.235 |

Table 6. The Extracted Factors with Their Related Variables

| No. | Factor Name | Variables | Factor Loading | Total Factor Loading | Percentage of Variance |
|-----|---|---|----------------|----------------------|------------------------|
| 1. | Personal and Human Relations Competencies | Follow principal and ethics | 0.887 | 7.186 | 30.269 |
| | | To motivate team to excel | 0.850 | | |
| | | To get along with people | 0.837 | | |
| | | To promote fruitful employee relations | 0.794 | | |
| | | Self confidence and self motivation | 0.732 | | |
| | | To communicate effectively | 0.672 | | |
| | | To develop skill set of employees | 0.650 | | |
| | | To be an effective leader | 0.645 | | |
| | | Determined to success | 0.597 | | |
| | | Manage employee performance | 0.552 | 2.024 | 20.353 |
| 2. | Core Entrepreneurial Competency | To be creative | 0.396 | | |
| | | To hunt for new opportunities | 0.527 | | |
| | | To have a unique business idea | 0.59 | | |
| | | Planning and business development | 0.157 | | |
| | | Risk taking | 0.252 | 1.491 | 17.612 |
| | | Innovate product and services offer | 0.102 | | |
| 3. | Businesses and Managerial Competency | Develop effective business strategies | 0.92 | | |
| | | Forecast market conditions accurately | 0.091 | | |
| | | To manage budgeting and operation effectively | 0.411 | 0.069 | |
| | | To prepare realistic business plan | 0.069 | | |

➤ **Factor 2 : Core entrepreneurial competencies :** This factor emerged out of the six crucial variables that are unique to entrepreneurship and are more relevant for starting a business. These six variables are:

➤ To have a unique business idea (Highest factor loading of 0.59 for this factor)

➤ To hunt for new opportunity with factor loading of 0.527 (creativity)

➤ Innovation in product offer

➤ Planning and risk taking with lower factor loading.

Overall, the factor accounts for 20.353% of variance next to Personal and Human Relation Competency factor. These two factors exhibit 50% of variance.

↳ **Factor 3 : Business and Management Competencies :** Four variables namely, develop effective business strategies, forecast market conditions, budgeting and operation, and preparing realistic business plan are combined to name as per the nature and relevance of variables as business and management competencies. Since all the four items discuss the practical aspects of business with insight into the market and managing business, especially for a large business with a vision of growth and expansion, factor loadings of 0.091 to 0.92 is observed in the items, and total variance explained by the factor is 17.162. This is the lowest among the three factors but satisfactory as an independent factor.

Discussion and Conclusion

There is a dire need of research in this domain in the present scenario while government, social, and educational institutions are trying their best to strengthen the entrepreneurial movement led by women in developing countries. The objective of this study is to identify the factors that reflect the entrepreneurial competencies of women entrepreneurs in the Indian scenario, this was accomplished by studying existing theoretical and conceptual frameworks and to validate some of the prominent studies conducted in developed nations. One of the important studies conducted by Mitchelmore & Rowley (2013) in England and Wales exhibited the four factors with dominance in inter-personal relationship followed by Business and Management and entrepreneurial competencies. The present study was adopted to frame the items using survey method and existing contemporary literature. The result of factor analysis extracted three meaningful factors of entrepreneurial competencies. These three factors were found distinct and uncorrelated.

Finding of this study is quite similar with that of Mitchelmore & Rowley (2013) for the first major factor, that is, personal and human relation competencies with highest factor loadings in both the studies. However, for the next two factors it shows interchangeable results. We can conclude that Indian women entrepreneurs are better in core entrepreneurial competencies which include having unique business ideas, hunting for new opportunity, creativity, and innovation. While the competencies related to business and management that are crucial for growth and expansion or to run a comparative larger business is somehow weaker compared to the competencies exhibited by women entrepreneurs of England and Wales. On a positive note, this finding implies that Indian women have a good sense of opportunity recognition and claims to possess unique ideas that are crucial motivation to start a business but are lacking business and management competencies which majorly include strategizing and budgeting skills.

This confirms the analysis of business profiles data that 36% of women are in the business of HR Consultancy, training and education followed by Yoga and fitness trainer. These are the sectors where interpersonal skills are the major factors to run the business. Despite the weak responses in business and management competencies, women start and run business relying mainly on their human relation competencies, but this keeps their venture to a limited geography or to a limited market share.

Discussing about the next factor of business and management competencies, attention should be given to the variables discussed under these factors related to strategy, budgeting, and making realistic plans as these could be the reason for the limited market share of business owned by women. Past research by many authors has proven it, specifically in the domain of finance and startup capital related issues with women entrepreneurs (Alsos, Isaksen, & Ljunggren, 2006). The competencies in these variables demand for training and practical exposure to improve it further with experience. This framework can help the existing and emerging women to understand their weaknesses and strengths while heading for entrepreneurial journey.

Jha and Bag (2019) conducted a survey in the Indian informal business scenario; the study tries to find out the reasons for lack of transition of informal service enterprises to formal one, the dominant reasons found were lack of awareness and perceived competition. It is confirmed by Farooq, Satt, and Ramid (2019) that informal competition is a major obstacle for Indian women business owners compared with their male counterparts. In a country where a major part of the business economy is informal, a movement to acquire business and management competency (to manage competitions) by women entrepreneurs will be a positive move towards growth vision and to convert informal enterprise to a formal one.

Implications

GEM (2020) report analyzed that in most of the developing economies, women started business not only to build a large wealth or income. 7 out of 10 women started business as they want to make a difference in the world. To make a living is a byproduct of this. This purpose driven act is the indicator of the fact that women have plenty of unique ideas and innovative products concepts and the drive to commercialize it. Further, the GEM (2020) report found women entrepreneurs to be more purpose driven to start and run business compared to their male counterparts. The result of the present study also supports it and reports that women consider themselves good at identifying opportunities in terms of innovation and creativity (core entrepreneurial competency factor), while what limits their growth is inadequate competencies in formulating strategies, budgeting and finance (Business and management competency factor). The government, educational and social institutes can divert their efforts in this direction which can motivate women entrepreneurs to expand their business from micro level to small or medium level.

↳ **Theoretical Implications :** This study also tries to contribute to the limited literature about women entrepreneurs in developed countries. The study also expects to increase research in the domain of entrepreneurial actions taken by existing women entrepreneurs.

↳ **Social Implications :** The study tries to embark on the discussion about the nascent women entrepreneurs with latent potential to transit from self-dependent business owners to successful entrepreneurs creating jobs for other women. This study can encourage aspiring women entrepreneurs to explore more of the existing and successful women entrepreneurs and find their role models which are otherwise unexplored or ignored. The practical implication of the study can be to prompt women entrepreneurs to take required action by self-assessing their competencies and areas of improvement.

The government may also take steps to convert a large part of informal businesses into formal one that can also be one of the important objectives of entrepreneurial competency training design for women entrepreneurs.

Limitations and Scope for Future Research

Three factors identified in this study are subject to demographics and business environment and the period of the study conducted. The finding of the study is constrained by these and may not give similar results in different demography and time.

As mentioned in the literature review, most of the women in developing economies do not opt for growth or expansion of business. A study can be conducted to understand the reasons for it. For those who are aiming for growth, the SWOT analysis of their entrepreneurial competencies can also be the course of further study. What needs to be checked is what will be the competencies or support to take their business to next level. In developing countries like India, we still face challenges in identifying formal and informal business owners. No authentic secondary data of women entrepreneurs exists. This study included both formal and informal women business owners which limits the authenticity of the result; this can further be classified by the researcher in the future by filtering the two categories. Government should also promote the registration of women owned businesses to obtain and use it as authentic secondary data for further analysis. A comparative study of entrepreneurial competencies of women entrepreneurs in developed and developing economy can also be the focus research area in future. Further, how these competencies cause lack of entrepreneurial awareness among women or how it inspires them for this journey can also be taken as a future research agenda.

Authors' Contribution

Ashish Mahajan and Dr. Rupal Chowdhary performed the entirety of the work described in this paper. They prepared the training and test datasets, ran the various models against the data, and analyzed the output.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in the manuscript.

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About the Authors

Ashish Mahajan is a Research Scholar pursuing Ph.D. from Devi Ahilya Vishwa Vidhyalay, Indore, India. His research is focused on women entrepreneurship in developing countries. He is Assistant Professor at Sushila Devi Bansal Institute of Technology, Indore. His interests are Quantitative Aptitude, Research Methodology, and Innovation in Education. He has teaching experience of 12 years. He has completed M.B.A. M.A., B.Sc., and is UGC NET Qualified.

Dr. Rupal Chowdhary is Associate Professor (Economics). She has been associated with the Prestige Institute of Management and Research, Indore since July, 2005. She has also served Indian Institute of Management, Indore as a trainee Academic Associate. Her areas of interest include Managerial Economics, Macroeconomics, International Economics, Econometrics, and Economic Indicators. She has developed a number of case studies and five of the case studies are published with the European Case Clearing House. She also conducts training sessions in the areas of Econometrics and Research tools and techniques.