

From Aspiration to Action: Understanding How Need for Achievement Drives Women's Entrepreneurial Intentions using machine learning approach

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Abstract. Women entrepreneurs are critical contributors to the economy growth yet they face unique challenges that hinder their entrepreneurial journey particularly in the regions like Uttarakhand. Indian government has been constantly fostering the entrepreneurial environment for women entrepreneurs through government policies and programs. Women entrepreneurs act as a catalyst for growth and development of any nation. Despite the continuous support women entrepreneurs struggle with various challenges that poses threat of failure in the early years of their operations. This study explores how the need for achievement influences the entrepreneurial intention among women using machine learning approach to uncover the nuanced patterns and relationship. This analysis reveals significant positive impact of achievement motivation on the fostering entrepreneurial intention among women entrepreneurs that demonstrates higher level of aspiration or more resilient in navigating the challenges to cease the business opportunities in the competitive landscape. The study provides robust insights into the dynamics of Roman entrepreneurial behavior that offers evidence based recommendations for policymakers to create tailored interventions. The findings indicate that women are energized by the need of achievement motivation in striving to overcome challenges and remain competitive with other races in the business environment.

Keywords: Entrepreneurial intention, need for achievement motivation, Women.

1 INTRODUCTION

The significance of entrepreneurship in contributing to economic growth, generating employment opportunities, as well as improving social status cannot be ignored [1] [2] [3]. Uttarakhand has implemented various entrepreneurship development schemes and programmes that are intended to reduce poverty and improve entrepreneurship skills of the Women [4] [5] [6]. This in turn succeeded the efforts of government in minimizing poverty to levels from 52.4 % in the year 1970, 12.4 % in the year 1992 and 1.7 % in the year 2012. However, Uttarakhand was still at a high rate of poverty at 4 % [7]. Equally, the development of entrepreneurship in Uttarakhand has not showcased remarkable achievement [8]. Similarly, women entrepreneurs in Uttarakhand face lot of challenges from hostile business environment like stiff competition, incompetency in business dealings and lack of motivation, lack of mobility, to mention a few. The support of various government measures also cannot help in achievement of the desired impact because of their weakness in transforming the entrepreneurial personality required for good business performance [9] [10] and failure of business is quite alarming situation [11] [12]. Accordingly, the 10th five year plan (2002–2007) laid emphasis on venture growth to develop competitiveness and resilience among women entrepreneurs through improved

participation in the highly dynamic and challenging business environmental conditions [13]. This could be achieved if women would be persistent in their pursuit of entrepreneurship. Scholars conditioned that the behaviour of entrepreneurial can be interpreted more significantly by examining the personality and motivation of women entrepreneur [14]. Evidence from literature review showed that more researches in women entrepreneurship were based in Western countries; these findings may not apply to the Uttarakhand setting and perspective [15]. Therefore, there is less empirical evidence to support women entrepreneurship in Uttarakhand [16]. Meanwhile, several studies exploring the roots of women entrepreneurship in Uttarakhand focused on other issues than on intention [17]. The issue of women entrepreneurial Intention is pertinent, though less-researched, and has significant impact on venture performance [18]. Therefore, there is a strong motive to research on women entrepreneurs in Uttarakhand so as to examine the impact of motivation on their entrepreneurial intention.

2. LITERATURE REVIEW

2.1 Women entrepreneurs in Uttarakhand

Past Indian history showcase that women don't have any identity of their own. Sometimes they are identified with their father, sometime with their husband, brother, son and so on. Woman has not been granted any status of her own. Past records and facts highlight that most of the Women were victims of various social abuses like Child Marriage, lack of educational opportunities etc. The modern status of women in India is quite contradictory. On one hand she is very successful business women but on the other hand she silently suffers from intense distress by the members of her family. Fact is that though present women have achieved comparatively high goals and status then traditional women, but in real practice, they have to still travel a long distance. But in India they are yet to get their dues. Indian women have to undergo various challenges like health and nutrition, maternal mortality, ill treatment, lack of power in decision making, less exposure to educational opportunities and so on. Modern Indian women have held eminent positions like that of president, prime minister, Lok Sabha speaker and various other high held positions. Now days, Women are supporting their families in socio economic ways. The contribution of women helps a lot in improving the nutritional as well as financial status of family. Women are working as receptionists, beauticians, dieticians, nutritionists, designers, counsellors, educationists and so on. Such participation of women in various dimensions showcases their changing role towards sex equality. Entrepreneurship plays a crucial role in creation of employment opportunities not only for men but for woman too. Entrepreneurship is the act of initiating a business venture by combining various efforts and resources. Moreover, women entrepreneurs can be understood as those women who initiate, innovate as well as adopt a business practice. According to Government of India,- An enterprise owned and controlled by women having a minimum financial interest of 51 percent of the capital and giving at least 51 percent of the employment generated in the enterprise to women" is known as "women entrepreneurship".

The percentage of women working in business has significantly increased during the last ten years. There has been a rise in the number of women who are either beginning new businesses or are in the process of joining established ones. Exposure to more educational opportunities, equal rights, participation in decision making, freedom of thought, speech, family support, reduced child bearing, support in terms of carrier settlement and late marriage have made woman financially as well as morally independent and has led to the growth of more and more women owned businesses.

Globalization, industrialization as well as digitalization have provided immense opportunities to the women where they can use their skills to generate benefit not only for society but for themselves as well. Woman entrepreneurs in different sectors of the economy can directly link their interest areas with the businesses in which they want to excel. This will help in more wealth creation and employment generation at local, regional, national and international levels.

2.2 Entrepreneurial Intention

Entrepreneurial intentions are the mindsets that direct a person to make career in entrepreneurship [19]. Entrepreneurial intentions have a positive connection with are positively connected with family background, entrepreneurship education, attitude and fearlessness [10]. Societal beliefs about gender roles are the specific obstacles that influence women entrepreneurs and their decision to start their own business [21].

Social circle like family, friends and relatives has a direct impact on creating positive entrepreneurial intention [12]. Conducive social environment have favourable impact on women's entrepreneurial inclination. People with high ambition, start their businesses. Communal inclination is the factor that helps in creating entrepreneurial intention [13].

People's inclinations towards initiating their business are affected by their extrovert personality and openness to new experiences [14]. Furthermore, there is a positive relation observed between emotional intelligence and entrepreneurial orientation [15]. Carrying an entrepreneurial intention is very beneficial since it helps entrepreneurs to access start-up subsidies and to promote their innovative skills directed towards growth [16]. Furthermore, self-introspection is beneficial in encouraging people to pursue entrepreneurship [17].

2.3 Factors Affecting entrepreneurial Intention

2.3.1 Intrinsic goals and entrepreneurial intentions

Aspirations for a sense of community are a significant intrinsic component that has the power to change people's attitudes and behavioral intentions. "Individuals' concern to make the world a better place through one's action" is referred to as community feeling ambition [18]. Because entrepreneurship is a process for developing new goods and services and offering answers to society, those who are concerned about their contribution to the community may develop positive attitudes about it [19]. Intrinsic interest in entrepreneurship is defined as "the degree to which an individual feels that entrepreneurship itself is interesting and important to himself/herself." [10]. Behaviour endures throughout life due to intrinsic desire [11]. People who prioritize their intrinsic interests also prioritize developing their talents, which increases the likelihood that they will enjoy the entrepreneurial process itself [12].

2.3.2 Extrinsic goals and entrepreneurial intentions

Because the practices have greater financial incentives, people want to participate in them [13]. Here, we put out the theory that people who are more motivated by financial gain will likely pursue entrepreneurship [14]. Entrepreneurship has traditionally been thought to be driven primarily by financial benefits [15]. The quest of profit is a significant motivating element impacting people's attitudes toward entrepreneurship [16]. An optimistic outlook on entrepreneurship fosters the development of entrepreneurial intentions [17]. Perceived occupational prestige is used to describe the esteem that a profession enjoys in society [19]. According to Walker and Tracey [19] prestige plays a significant role when choosing a career. Businesses owned by individuals are viewed as more prestigious in society [12]. People have an inclination for entrepreneurship since it gives them a feeling of achievement, and they are also sensitive to the status of their profession [16]. An attitude shaped by one's professional status may inspire ambitious plans for business. Sociological study has continued to focus heavily on women's employment status. Women are more perceptive than men in social cues, according to a number of researches [17]. Women are increasingly interested in assuming leadership roles and seeking status and respect [12]. In comparison to men, female entrepreneurs place a greater importance on prestige [7].

2.4 Need for Achievement and Women Entrepreneurship

Need for achievement is the desire of an entrepreneur for self success. David McClelland in the year 1988, proposed the achievement model of motivation consisting of three types of needs i.e. "achievement", "power", and "affiliation". Need for achievement positively influences the inclination of women towards entrepreneurs [4]. When entrepreneurs are strongly driven by need achievement drive then it motivates them to work hard, even, to cut corners or to disregard various stakeholders as well). Need for achievement has a significant role in developing entrepreneurial zeal among women. The vibrant entrepreneurial Endeavour's and supportive attitude of the society has motivated women to prove themselves in entrepreneurship [6]. Likewise, achievement factor include features like ready to perform difficult tasks, ready to take responsibility, and clear focus on attaining success [14]. Entrepreneurs with high need for achievement reported low turnover in their venture and are directly connected to labour mobility [11]. Women entrepreneurs with carry high achievement drive, tend to start service firms. However, various problems faced in arranging finance often demotivate women entrepreneurs to excel in entrepreneurship [7]. Entrepreneurs with high need for achievement are open

to new experiences, have optimistic attitude, and are innovative in different ways so as to excel in entrepreneurship [2].

3. RESEARCH METHODOLOGY

Convenience sampling was used for collecting data from women entrepreneurs in Uttarakhand. A total of 300 questionnaires were sent and 150 were returned. The instrument used in the research was adopted from existing literature. Respondents answered the questions on a 7 point likert scale. Reliability test was conducted for checking the cronbach's alpha for finding out the internal consistency measuring instrument. Correlation analysis was used to find out and analyze the relationship between need achievement and entrepreneurial inclination using machine learning testing model.

4. DATA ANALYSIS

4.1 Descriptive Statistics

Descriptive analysis is used for providing summary of quantitative data through statistics. For the present research, descriptive analysis was conducted in order to analyze the various parameters of the variables investigated the mean value for NACH 1 to 9 ranged between 5.20 to 5.49 indicating a relatively consistent level of need for achievement across different variables the skewness values indicate a slightly left skewed distribution in responses arranging between -1.0444 to -1.2047. The negative kurtosis value indicates relatively flat distributions. The Shapiro-Walk Test for normality suggests that the data departs from normality; however the sample size is large enough to rely on the central limit theorem for inferential statistics. The mean value for EI ranges between 4.07 to 4.93 which suggest a moderate level of entrepreneurial intention among women entrepreneurs considering different variables. The median scores for EI are consistently ranging around five which indicates slightly negatively skewed distribution. The skewness value ranges from -0.2468 to -0.9312 which indicates a slightly negatively skewed distribution of responses across the data. All the P values are less than 0.01 which indicates a significant deviation from normality therefore in order to investigate the correlation between the variables nonparametric test will be adopted. The reliability analysis results to evaluate the internal consistency of the data was obtained as 0.908 ranging much above threshold limit.

Table 1: Descriptive Statistics

				Skewness		Kurtosis		Shapiro-Wilk	
N= 150	Mean	Median	SD	Skewness	SE	Kurtosis	SE	W	p
NACH 1	5.4	6	1.75	-1.0879	0.199	0.19908	0.395	0.825	< .001
NACH 2	5.22	6	1.72	-1.0742	0.198	0.26614	0.394	0.842	< .001
NACH 3	5.2	6	1.64	-1.0444	0.198	0.24797	0.394	0.85	< .001
NACH 4	5.49	6	1.54	-1.2047	0.198	0.71005	0.394	0.823	< .001
NACH 5	4.25	5	1.84	-0.3733	0.198	-1.0531	0.394	0.911	< .001
NACH 6	4.52	5	1.73	-0.6027	0.198	-0.6527	0.394	0.902	< .001

NACH 7	3.59	4	1.71	0.094	0.198	-1.0211	0.394	0.934	< .001
NACH 8	4.44	5	1.74	-0.444	0.198	-0.8174	0.394	0.92	< .001
NACH 9	4.3	4.5	1.68	-0.3551	0.198	-0.8108	0.394	0.931	< .001
EI1	4.07	4	1.61	-0.2951	0.198	-0.7164	0.394	0.939	< .001
EI2	4.59	5	1.57	-0.71	0.198	-0.1956	0.394	0.906	< .001
EI3	4.8	5	1.76	-0.7734	0.198	-0.3475	0.394	0.885	< .001
EI4	4.71	5	1.48	-0.6993	0.198	-0.0954	0.394	0.909	< .001
EI5	4.23	4	1.57	-0.2468	0.199	-0.6771	0.395	0.945	< .001
EI6	4.8	5	1.74	-0.7539	0.198	-0.2909	0.394	0.893	< .001
EI7	4.57	5	1.57	-0.5211	0.198	-0.3322	0.394	0.927	< .001
EI8	4.75	5	1.55	-0.8141	0.198	-0.0035	0.394	0.894	< .001
EI9	4.87	5	1.57	-0.9312	0.198	0.15115	0.394	0.874	< .001
EI10	4.93	5	1.7	-0.7907	0.198	-0.3273	0.394	0.883	< .001

4.2 Correlation Analysis

Correlation analysis is a significant statistical method that helps in evaluating a significant relationship as well as direction between two or more variables. In the present research, Spearman's rank correlation is used for analysis. Spearman's rank correlation coefficient of 0.66 was obtained which indicate a strong positive correlation between NACH and EI it suggests that women entrepreneurs report a high level of need for achievement also tend to report higher level of entrepreneurial intention. The significant positive correlation suggests that women entrepreneurs are driven by strong need for achievement also harbor strong entrepreneurial intentions the findings of this paper highlights the importance of the intrinsic motivating factor in shaping women's aspirations towards entrepreneurship the women entrepreneurs with high level of NACH possess characteristics such as goal orientation resilience ability to take calculated risk which are essential in facing the challenges of entrepreneurial ecosystem further the positive association between NACH and EI highlights the potential role of entrepreneurial awareness education programs and policies in supporting and nurturing women entrepreneurialism spirit by fostering a sense of achievement and self-efficacy among women entrepreneurs

Table 1: Spearman Coefficient of correlation.

Construct	NACH	EI
NACH	1.00	0.662
EI	0.662	1.000

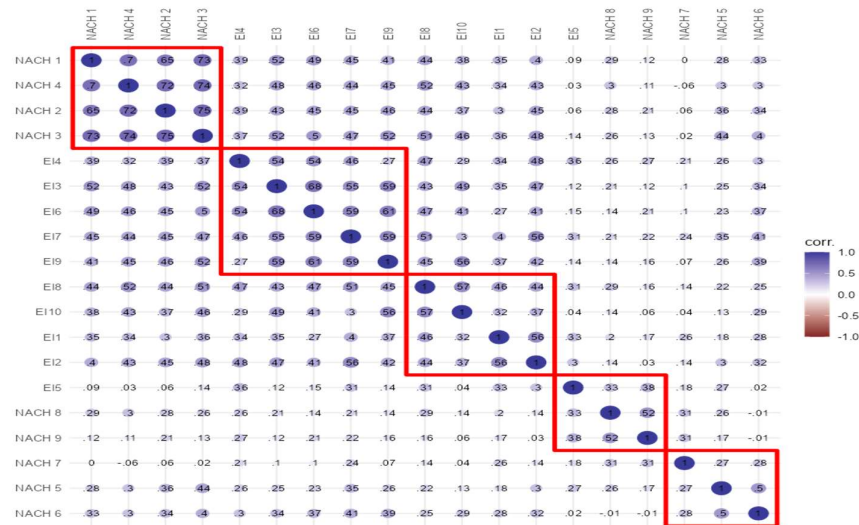


Figure 1: Heat Map for NACH and EI

The heat map was generated to investigate the Correlation between the nine variables of NACH and 10 variables of EI. In order to generate heat map spearman correlation method was used due to the non-normality of data. The number of clusters selected is five in number as depicted in figure 1. A heat map is a representation of values for a main variable of interest across two axis variables in a form of grid of colored squares where blue colour represents positive correlation and red colour depicts negative correlation between variables. The axis variables are divided into ranges. Each cell colour indicates the value of the main variable in the corresponding cell range. As depicted in figure, the representation of correlation between NACH and EI is given. The results show that there is a positive correlation between variable depicted in 5 clusters. As shown in cluster 1, nach 3 i.e. “I strive to achieve my goals” and nach 2 i.e. “I make an effort now for future gains”, have high degree of correlation. Similarly, EI 6 i.e. “I prefer to try my own unique way when learning new things rather than doing it like everyone else does” and EI 3 i.e. “I am willing to invest a lot of time and/or money on something that might yield a high return” have high degree of correlation and there is a positive correlation between nach1 and EI 3 with correlation value 0.52.

5. CONCLUSION

This research theoretically contributed by providing an essential relationship of need achievement with entrepreneurial intention using machine learning approach. Empirically this study, added to the missing literature in the field of women entrepreneurs and their intention towards entrepreneurship in Uttarakhand

India, thus facilitating entrepreneurial research in developing nations. This study provides empirical evidence of a strong association between need for achievement and tension among women entrepreneurs in the state of Uttarakhand. This study and discourse the relevance of intrinsic motivation among women aspirations and also highlights the implications of promoting women participation in the entrepreneurial activities. Future research work can further explore the various mechanisms that underlie this relationship and also examine how the contextual factors moderates this association of need for achievement and entrepreneurial intention among women entrepreneurs. Uttarakhand being a hilly region is not much developed in terms of women entrepreneurship, so this research will help in finding various factors that will help in promoting entrepreneurial orientation among women in Uttarakhand. Government can also make such policies and provide benefits to create a need for achievement among women in Uttarakhand, because in some cases, no doubt, policies are there but people are not having inclination towards entrepreneurship.

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