International Journal of Bio-resource and Stress Management https://ojs.pphouse.org/index.php/IJBSM

Crossref

IJBSM August 2025, 16(8): 01-12 **Article** AR6139

Research Article *Social Science*

DOI: HTTPS://DOI.ORG/10.23910/1.2025.6139

Women Entrepreneurship in Bihar: Analysing Behavioural Patterns and Growth Determinants

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0009-0008-9791-1324

ABSTRACT

The current study examined the entrepreneurial behaviour of female entrepreneurs in Bhagalpur, Bihar, India, from January to May, 2019. Eighty female entrepreneurs from four different business types-goat rearing, dairy farming, stitching, and mushroom cultivation-were polled using an ex-post facto research approach in two randomly chosen blocks. Entrepreneurial behaviour was assessed through seven components: innovativeness, achievement motivation, decision-making ability, risk-taking ability, planning ability, information-seeking behaviour, and self-confidence. Data were collected using an interview schedule and analysed using step-wise multiple regression. The findings revealed that mushroom entrepreneurs exhibited the highest levels of innovativeness, risk-taking ability, and planning ability, whereas dairy farmers scored the lowest in these aspects. Achievement motivation and self-confidence were consistently high across all enterprises. However, information-seeking behaviour was generally low, with heavy reliance on informal sources. Limited access to financial resources, gender norms, and inadequate information-seeking behaviour further constrained their growth. Regression analysis identified economic motivation, family size, age, and use of personal information sources as significant determinants of entrepreneurial behaviour, explaining 66% of its variation. The regression coefficient (0.213) of economic motivation was positively significant, and variables such as age, size of family and use of personal localite information source had a negatively significant relationship with entrepreneurial behaviour. The study concluded that younger entrepreneurs with higher economic motivation and greater exposure to cosmopolite information sources exhibited stronger entrepreneurial behaviour. The findings underscored the need for targeted policies and support mechanisms to foster a more enabling entrepreneurial ecosystem for women in Bihar.

KEYWORDS: Decision making, entrepreneurial behaviour, innovativeness, women entrepreneurship

***Citation* (VANCOUVER):** Kumari et al., Women Entrepreneurship in Bihar: Analysing Behavioural Patterns and Growth Determinants. *International Journal of Bio-resource and Stress Management,* 2025; 16(8), 01-12. HTTPS://DOI.ORG/10.23910/1.2025.6139.

Data Availability Statement: Legal restrictions are imposed on the public sharing of raw data. However, authors have full right to transfer or share the data in raw form upon request subject to either meeting the conditions of the original consents and the original research study. Further, access of data needs to meet whether the user complies with the ethical and legal obligations as data controllers to allow for secondary use of the data outside of the original study.

Conflict of interests: The authors have declared that no conflict of interest exists.

RECEIVED on 10th February 2025 RECEIVED in revised form on 17th July 2025 ACCEPTED in final form on 04th August 2025 PUBLISHED on 16th August 2025

1. INTRODUCTION

Women entrepreneurship has emerged as a significant global force, contributing to economic development and social progress (Sachan and Sethi, 2019; Kundu and Rani, 2016; Ojongo et al., 2021). By actively participating in financial activities, income generation and decision-making, women entrepreneurs play a crucial role in shaping economies (Patel et al., 2023). Moreover, women's entrepreneurship gained importance in the 1980s, when little was known about women's entrepreneurial pursuits (Abebe and Kegne, 2023).

The prosperity and growth of a nation depend on the status and development of its women, as they not only constitute nearly half of the population but also positively influence the growth of the remaining half of the population (Kumar et al., 2023). However, women continued to have lower scores on perceived capabilities, perceived opportunities and positive attitudes towards entrepreneurship in society (Shukla et al., 2017). Recognising this, the World Bank has estimated that if we close the gender gap in entrepreneurship and employment, then the global economy may increase by 20% (Anonymous, 2024). The World Bank also identified empowerment as one of the key constituents of poverty reduction and as a primary development assistance goal (Sinha and Kumar, 2015). Women's development in recent years has placed a strong emphasis on granting equal opportunities by eliminating gender bias, empowering women, and fostering self-reliance (Meetei et al., 2016). As a result, women have increasingly ventured into entrepreneurship and have taken impactful and inspirational roles (Matharu and Juneja, 2024) that drive economic advancement and social transformation.

Despite these advancements, women entrepreneurs in Bihar continue to face significant challenges in establishing and sustaining their businesses (Chintu, 2019). Bihar, despite its agricultural wealth, remains one of the poorest states in India, with substantial barriers to women's economic participation due to gender policies, lack of education, gender stereotypes, patriarchal norms, child marriages, lack of training, marketing problems and lack of support from family (Mishra, 2024; Kumari, 2022).

Women entrepreneurs often engage in micro and small enterprises, particularly in agriculture, traditional manufacturing, and service sectors such as tailoring, handicrafts, education, and personal care services (Shuvam and Mohanty, 2020; Dhanamalar et al., 2020). Government policies and self-help groups (SHGs) have played a crucial role in promoting women's entrepreneurship in Bihar (Sandhu, 2015; Dutta, 2016). Additionally, the government of Bihar introduced a state policy for women's empowerment in 2015 to ensure women's participation in mainstream development (Mishra, 2024). However, despite these efforts, the implementation and awareness of such programs remain key challenges (Anonymous, 2020).

Empirical studies indicate that women perceive themselves as having lower entrepreneurial abilities than men, which affects their participation in high-growth businesses (Elam et al., 2021). Additionally, gender discrimination, educational gaps, financial constraints, and limited access to resources stand out as significant challenges faced by rural women entrepreneurs (Chunera, 2020; Dhekale, 2016). Women are also seen as less risk-tolerant and less likely to engage in large-scale enterprises (Jennings et al., 2023). As a result, women-led businesses often remain small-scale, primarily self-employed ventures with limited access to infrastructure and formal markets (Agarwal and Lenka, 2018; Chaudhuri et al., 2020). The lack of managerial support and financial constraints further limit women's ability to scale their businesses (Kundu and Rani, 2016).

This study hypothesised that socio-economic, psychological, and institutional factors significantly influence the growth and sustainability of women entrepreneurs in Bihar. The study examined the behavioural patterns of women entrepreneurs, identifying key determinants that influence their growth.

2. MATERIALS AND METHODS

The study was conducted during 2019 for a period of five months (January to May) at Bhagalpur, Bihar, using an ex-post facto research design. Bhagalpur district, Bihar, India, was purposively selected out of 38 districts of Bihar, having the State Government's initiative (Jeevika) to promote rural entrepreneurship and Bihar Agricultural University at Sabour participating in capacity building programs for rural entrepreneurship. Out of 16 blocks of Bhagalpur, two blocks, i.e. Sabour and Goradih were randomly selected. Four types of women's enterprises were randomly selected, and from each enterprise, a random sample of 20 entrepreneurs was selected as respondents. Thus, a total of 80 women entrepreneurs were chosen as respondents in the present study.

Seven components, namely innovativeness, achievement motivation, decision-making ability, risk-taking ability, planning ability, information-seeking behaviour and self-confidence, were used.

2.1. Innovativeness

Innovation is the specific instrument of entrepreneurship, the act that endows resources with a new capacity to create wealth and was measured with a rating scale. The scale consisted of nine items. The responses for each of the nine statements were obtained on a two-point continuum. Positive statements carried 2 and 1 score, while negative

statements carried 1 and 2 score for responses 'most like' and 'least like', respectively. Thus, the maximum score a respondent could get was 18, and the minimum score was 9.

2.2. Achievement motivation

Achievement Motivation was defined as an individual's need to meet realistic goals, receive feedback and experience a sense of accomplishment. This scale consisted of five statements. Each statement had two options indicating the high and relatively lower level of achievement motivation with scores 2 and 1, respectively. The total score for each woman entrepreneur on her achievement motivation ranged from 5 to 10.

2.3. Decision-making ability

Decision-making was regarded as the cognitive process resulting in the selection of a belief or a course of action among several alternative possibilities and was measured with a rating scale. The scale consisted of eight items. The responses for each item were recorded on a three-point continuum viz., 'not considered', 'considered after consultation with others', and 'decision taken independently', with scores 0, 1 and 2, respectively. Thus, the possible score for each woman entrepreneur on her decision-making ability ranged from 0 to 16.

2.4. Risk-taking ability

This variable was operationalised as the degree to which an individual was oriented towards risk and uncertainty and dared to face the problems in her enterprise. The scale consisted of eight items. The responses were measured on a three-point continuum, namely strongly agree, agree and disagree, with the scores 2, 1 and 0 for positive statements and 0, 1 and 2 in the case of negative statements. For the variable, the maximum score was 16, and the minimum was 0.

2.5. Planning ability

The variable was operationalised as the degree to which an individual could set clear goals, develop systematic strategies, and effectively allocate resources to achieve desired outcomes in her enterprise and was measured with a rating scale. The scale consisted of five statements. It was measured on a two-point continuum, i.e. followed (1) and not followed (0). The total score ranged from 0 to 5.

2.6. Information-seeking behaviour

*I*t was operationally defined as the degree of frequency of contacts by a woman entrepreneur with various information sources. In the present study, the degree of frequency of contacts with information sources of women entrepreneurs was measured on a three-point continuum, which was regularly, occasionally and never by assigning the scores of 2, 1, and 0, respectively. The total score was calculated by summing the scores for each item to determine information-seeking behaviour.

2.7. Self-confidence

Self-confidence was operationalised as the feeling of women entrepreneurs about their ability, imitativeness and determination to achieve their goal or aim. It consisted of six questions. The response was measured as yes or no. Positive statements carried a 1 and 0 score while negative statements carried a 0 and 1 score. The range of the total score was 0 to 6.

Data were collected from the sampled respondents with the help of an interview schedule. Step-wise multiple regression analysis was carried out considering entrepreneurial behaviour as the dependent variable and socio-personal, socio-economic, communicational, and psychological attributes of women entrepreneurs as independent variables.

3. RESULTS AND DISCUSSION

3.1. Innovativeness

As indicated in Table 1, the overall innovativeness of women entrepreneurs of all four enterprises was between 12.75 (Dairy farming enterprise) to 14.75 (mushroom enterprise), which might be interpreted as very good with a maximum possible score of 16. Women entrepreneurs of the mushroom enterprise had a higher level of innovativeness as compared to the entrepreneurs of another enterprise. The overall mean perception score of mushroom entrepreneurs was 14.75. Dairy entrepreneurs were less innovative among all of the entrepreneurs, with a mean perception score of 12.75. The mean score of stitching and goat rearing entrepreneurs was 13.80 and 13.65, respectively.

3.2. Achievement motivation

significant (p>0.05) effect on hematological parameters of broilers fed lemongrass leaves powder-supplemented diets as compared to the control group.

The effect of Lemongrass leaves powder on haematological parameters in broiler chicks is shown in Table 2.

3.2. Biochemical parameters

As indicated in Table 2, the achievement motivation of women entrepreneurs of all enterprises was very high (achievement motivation index >90%). The overall range of mean perception score of achievement motivation of women entrepreneurs was from 9.25 (dairy farming entrepreneurs) to 9.85 (mushroom entrepreneurs). Overall mean score for goat rearing and stitching entrepreneurs was 9.65 and 9.30, respectively. Among all entrepreneurs, dairy farming had the highest standard deviation (1.37), which showed more diverse responses of entrepreneurs.

Table 1: Innovativeness of women entrepreneurs

Sl. No.	Statements	Mean perception score (SD)			
		Mushroom enterprise (n=20)	Stitching enterprise (n=20)	Goat rearing enterprise (n=20)	Dairy farming enterprise (n=20)
1.	I tried to keep myself up to date with information on new practices, but that does not mean that I try out all the new method on my enterprise	1.20 (0.41)	1.25 (0.04)	1.15 (0.37)	1.05 (0.22)
2.	They talk of many new practices these days but who knows if they are better than the old	1.70 (0.47)	1.65 (0.49)	1.75 (0.44)	1.55 (0.51)
3.	I felt restless till I try out new practices those I heard about	1.35 (0.49)	1.30 (0.47)	1.20 (0.41)	1.05 (0.22)
4.	From time to time I have heard of several new practices and I have tried out most of them in the last few years	1.85 (0.37)	1.55 (0.51)	1.50 (0.51)	1.50 (0.51)
5.	I usually wait to see what results my neighbours obtain before I try out new practices	1.80 (0.41)	1.50 (0.51)	1.50 (0.51)	
	1.45 (0.51)				
6.	Somehow, I believe that the traditional practices are the best ones	1.90 (0.31)	1.60 (0.50)	1.70 (0.47)	1.55 (0.51)
7.	I am cautious about trying new practices	1.15 (0.37)	1.45 (0.51)	1.50 (0.51)	
	1.40 (0.50)				
8.	After all, our forefathers were wise in the traditional practices and I don't see any reason for changing these old methods	1.90 (0.31)	1.70 (0.47)	1.65 (0.49)	1.55 (0.51)
9.	Often new practices are not successful, however, if they are promising I would surely like to about them	1.90 (0.31)	1.80 (0.41)	1.70 (0.47)	1.65 (0.49)
	Overall score	14.75 (1.94)	13.80 (2.19)	13.65 (2.37)	12.75 (2.55)
	Innovativeness index (%)	81.94	76.67	75.83	70.83

Table 2: Achievement motivation of women entrepreneurs

Sl. No.	Parameters	Mean perception score (SD)			
		Mushroom enterprise (n=20)	Stitching enterprise (n=20)	Goat rearing enterprise (n=20)	Dairy farming enterprise (n=20)
1.	Accomplishment of tasks	1.95 (0.22)	1.50 (0.51)	1.90 (0.31)	1.80 (0.41)
2.	Desire as an entrepreneur	2.00 (0.00)	2.00 (0.00)	2.00 (0.00)	1.90 (0.31)
3.	Determinants of success	2.00 (0.00)	1.95 (0.22)	1.85 (0.37)	1.80 (0.41)
4.	Profit motive	1.90 (0.31)	1.85 (0.37)	1.90 (0.31)	1.85 (0.37)
5.	Status as an entrepreneur	2.00 (0.00)	2.00 (0.00)	2.00 (0.00)	1.90 (0.31)
	Overall score	9.85 (0.49)	9.30 (0.86)	9.65 (0.59)	9.25 (1.37)
	Achievement motivation index (%)	98.50	93.00	96.50	92.50

3.3. Decision-making ability

Evidently from Table 3, decision making ability of women entrepreneurs of all the four enterprises were found at average level. The overall decision-making ability of all the entrepreneurs of four enterprises varied from 7.55 (goat rearing entrepreneur) to 10.95 (mushroom entrepreneur), which might be interpreted as below average and above average, respectively. Women entrepreneurs of mushroom enterprise were good in taking decision about their enterprise as compared to the entrepreneurs of other enterprises. Goat

Table 3: Decision making ability of women entrepreneurs

Sl. No.	Decision criteria	Mean perception score (SD)			
		Mushroom enterprise (n=20)	Stitching enterprise (n=20)	Goat rearing enterprise (n=20)	Dairy farming enterprise (n=20)
1.	Borrowing money for enterprise	1.45 (0.51)	1.55 (0.51)	1.60 (0.50)	1.25 (0.44)
2.	Buying of equipment	2.00 (0.00)	1.70 (0.47)	0.65 (0.93)	0.65 (0.88)
3.	Choosing types of input	2.00 (0.00)	1.05 (0.89)	0.85 (0.88)	1.35 (0.88)
4.	Hiring workers	0.00 (0.00)	0.05 (0.22)	0.00 (0.00)	0.20 (0.52)
5.	Subscribing enterprise related publications	0.00 (0.00)	0.05 (0.22)	0.00 (0.00)	0.00 (0.00)
6.	Trying new practice in enterprise	2.05 (0.22)	1.65 (0.49)	1.70 (0.47)	0.75 (0.44)
7.	Trying new methods	2.05 (0.22)	1.65 (0.49)	1.50 (0.51)	1.70 (0.47)
8.	Switching over to new enterprise	1.40 (0.50)	1.20 (0.41)	1.25 (0.44)	1.10 (0.31)
	Overall score	10.95 (0.94)	8.90 (2.40)	7.55 (2.26)	8.00 (2.38)
	Achievement motivation index (%)	68.43	55.94	47.18	50.00

rearing entrepreneurs were relatively poor in taking decision of their own enterprise with mean score of 7.55. The mean score of stitching and dairy farming entrepreneurs was 8.90 and 8.00, respectively. Majority of women entrepreneurs were neither hiring workers nor subscribed any publication for their enterprises. Most of the entrepreneurs tried new methods and tried new practices in enterprises except dairy farming entrepreneurs (mean score 0.75).

3.4. Risk taking ability

Risk taking ability of women entrepreneurs of different enterprise in Bhagalpur district of Bihar is shown in Table 4. The overall risk-taking ability score of all the four enterprises varied from 9.15 to 11.15, which might be interpreted as medium risk taker with maximum possible score of 16. Mushroom entrepreneurs had relatively higher ability to take risk with mean score of 11.15 as compared to all other entrepreneurs. Dairy farming entrepreneurs and goat rearing entrepreneurs were medium in taking risk ability (overall mean score 9.15). Overall mean score of risk-taking ability of entrepreneurs engaged in stitching enterprises was 10.15. Most of the entrepreneurs take risk when they know that their chance of success was fairly high. They worked mostly for assured and constant gaining not for more profit for their financial stability and security over high-risk ventures. Women entrepreneurs of all enterprises took risk in starting of new practice in their enterprise while it was very low in stitching entrepreneurs (mean score 0.85). Trying an entirely new method in enterprise by an entrepreneur involves risk and it was perceived not worth taking by the most of the entrepreneurs except those in mushroom entrepreneurs. Most of the entrepreneurs in all four selected enterprises did not care if profit is small so long as it assured and constant. Majority of the entrepreneurs in all four enterprises agreed to the fact that an entrepreneur who was willing to take greater risks than the average entrepreneur, usually does better financially.

3.5. Planning ability

From Table 5, it was found that the planning ability of all entrepreneurs of different enterprises was not up to the mark, except for mushroom entrepreneurs. Mushroom entrepreneurs' planning ability was quite good (mean score 3.35) as compared to the other three categories of entrepreneurs. The majority of women entrepreneurs did not prepare a calendar of their operational activity. Only 65% of mushroom entrepreneurs and 5% each of goat rearing and dairy farming entrepreneurs prepared a calendar of operational activity. All the entrepreneurs of the mushroom enterprise used to estimate input requirements for the whole enterprise, while the majority of the stitching (75%), goat rearing and dairy farming (70% each) entrepreneurs did not estimate any input requirement for the whole enterprise. Interestingly, the estimation of the capital requirement for the enterprise was done by the majority of entrepreneurs. Only 30% of dairy farming entrepreneurs and 15% each of stitching and goat rearing entrepreneurs did not estimate the capital in advance. Expert advice was only taken by 45% of mushroom entrepreneurs and 5% of stitching entrepreneurs, while the majority of entrepreneurs were not taking any advice from an expert about their enterprise. Most of the entrepreneurs did not anticipate in advance accessing the marketing scope of the product. Only 25% of mushroom entrepreneurs had anticipated in advance to access the marketing scope of the product.

3.6. Information seeking behaviour

Information-seeking behaviour of women entrepreneurs

Table 4: Risk taking ability of women entrepreneurs

Sl. No.	Statements	Mean perception score (SD)			
		Mushroom enterprise (n=20)	Stitching enterprise (n=20)	Goat rearing enterprise (n=20)	Dairy farming enterprise (n=20)
1.	An entrepreneur does not fear investing her money on a venture whose dividends she has calculated	1.00 (0.00)	1.45 (0.60)	0.85 (0.37)	0.75 (0.44)
2.	An entrepreneur should have a greater number of enterprises to avoid greater risk involved in having one or two	0.95 (0.94)	2.00 (0.00)	1.85 (0.37)	1.70 (0.47)
3.	An entrepreneur does not care if profit is small so long as it assured and constant	1.85 (0.37)	1.40 (0.50)	1.35 (0.49)	1.55 (0.51)
4.	No matter how good the competitors are, an effective entrepreneur always will be able to sell her product	1.35 (0.49)	1.15 (0.37)	0.85 (0.37)	0.90 (0.55)
5.	An entrepreneur who is willing to take greater risks than the average entrepreneur, usually does better financially	1.35 (0.49)	1.10 (0.55)	1.00 (0.46)	1.00 (0.32)
6.	It is good for an entrepreneur to take risks when she knows her chance of success is fairly high	1.80 (0.41)	1.40 (0.50)	1.65 (0.67)	1.50 (0.61)
7.	Trying an entirely new method in enterprise by an entrepreneur involves risk but it is worth taking	1.35 (0.49)	0.80 (0.70)	0.55 (0.60)	0.65 (0.49)
8.	An entrepreneur should try new practices only after successfully used by other entrepreneurs	1.50 (0.89)	0.85 (0.99)	1.05 (1.00)	1.10 (0.91)
	Overall score	11.15 (2.41)	10.15 (1.98)	9.15 (2.85)	9.15 (2.54)
	Risk taking ability index (%)	69.69	63.43	57.18	57.18

Minimum and maximum possible scores of each statement are 0 and 2, respectively

of different enterprises in Bhagalpur district of Bihar is shown in Table 6. The information-seeking behaviour of women entrepreneurs was not so good. Especially formal sources and mass media sources were found to be very low. Frequency of use of each source was assessed on a 3-point continuum (never-0, occasionally-1 and regular-2). In mass media sources, the mean use score of almost all entrepreneurs was very low. The sum of mean scores of five mass media sources studied as a part of information seeking behaviour was 3.25, 2.00, 1.90 and 2.05 for mushroom, stitching, goat rearing and dairy farming entrepreneurs, respectively. Similarly, the sum of mean scores of five formal sources of mushroom, stitching, goat rearing and dairy farming entrepreneurs was 2.00, 1.80, 2.20 and 2.00, respectively. As compared to mass media and formal sources, entrepreneurs frequently use informal sources. They mainly depend on their family, friends, neighbours and progressive entrepreneurs for information. So, the sum of the mean score of informal sources was quite higher than other sources. The sum of mean scores was 6.95, 7.05, 6.85 and 6.90 for mushroom, stitching, goat rearing and dairy farming entrepreneurs, respectively.

3.7. Self-confidence

Table 7 presents the self-confidence of women entrepreneurs of the selected four enterprises in the Bhagalpur district of Bihar. The confidence level of all the women entrepreneurs was very high. The overall mean score of all entrepreneurs varied from 5.30 to 5.85. Goat rearing entrepreneurs had highest confidence level with 5.85 mean score. For dairy, mushroom and goat rearing entrepreneurs the overall score was 5.55, 5.50 and 5.30, respectively.

The majority of entrepreneurs had no problem saying the right option at the right time. Only 25% of dairy farming entrepreneurs and 5% each of mushroom and stitching entrepreneurs had a problem in saying the right option at the right time. Most of the entrepreneurs easily adjusted to the new situation, while 20% of stitching entrepreneurs did not find it easy to adjust to the new situation. The majority of the entrepreneurs easily kept their minds on task. 45% of mushroom, 35% of stitching, 20% of dairy farming and 15% of goat rearing found it hard to keep their mind on a task. All of the entrepreneurs had faith in themselves that they could make a profit in their enterprise. Most of the

Table 5: Planning ability of women entrepreneurs

Sl. No.	Statements	Response	Frequency (%) of the entrepreneurs			
			Mushroom enterprise (n=20)	Stitching enterprise (n=20)	Goat rearing enterprise (n=20)	Dairy farming enterprise (n=20)
1.	Preparation of calendar of operation of entrepreneurial activities	Followed	13 (65)	-	1 (5)	1 (5)
		Not followed	7 (35)	20 (100)	19 (95)	19 (95)
		Mean (SD)	0.65 (0.49)	0.00 (0.00)	0.05 (0.22)	0.05 (0.22)
2.	Estimating in advance input requirement for whole enterprise	Followed	20 (100)	5 (25)	6 (30)	6 (30)
		Not followed	-	15 (75)	14 (70)	14 (70)
		Mean (SD)	1.00 (0.00)	0.25 (0.44)	0.30 (0.47)	0.30 (0.47)
3.	Estimating in advance the capital requirement for enterprise	Followed	20 (100)	17 (85)	17 (85)	14 (70)
		Not followed	-	3 (15)	3 (15)	6 (30)
		Mean (SD)	1.00 (0.00)	0.85 (0.37)	0.85 (0.37)	0.70 (0.47)
4.	Consulting in advance with experts in respective field	Followed	9 (45)	1 (5)	-	-
		Not followed	11 (55)	19 (95)	20 (100)	20 (100)
		Mean (SD)	0.45 (0.51)	0.05 (0.22)	0.00 (0.00)	0.00 (0.00)
5.	Anticipating in advance to access the marketing scope of the product	Followed	5 (25)	-	-	-
		Not followed	15 (75)	20 (100)	20 (100)	20 (100)
		Mean (SD)	0.25 (0.44)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
	Overall score (SD)		3.35 (0.99)	1.15 (0.75)	1.20 (0.77)	1.05 (0.89)
	Planning ability index (%)		67.00	23.00	24.00	21.00

entrepreneurs used to do their work on their own; only 10% of stitching entrepreneurs have relied on others to carry out entrepreneurial activities. All of the entrepreneurs opined that they can work for a long time in entrepreneurial activities.

3.8. Overall entrepreneurial behaviour of various entrepreneurs

From Table 8, it was evident that seven elements of entrepreneurial behaviour varied across the selected four enterprises. Among the seven elements, achievement motivation was perceived by all the entrepreneurs at a level of more than 90%. Self-confidence was also perceived highly by most of the entrepreneurs (>90% in the case of each mushroom, goat rearing and dairy farming enterprise and about 88% in the stitching enterprise). Innovativeness was highest in the case of mushroom entrepreneurs (82%), followed by stitching entrepreneurs (77%), goat rearing entrepreneurs (76%) and dairy farming entrepreneurs (71%). The level of risk-taking ability varied from 70% (mushroom entrepreneurs) to 57% (in both goat rearing and dairy farming entrepreneurs). Similarly, decision-making ability also varied from 68% (mushroom entrepreneurs) to 47% (goat rearing entrepreneurs). Planning ability was found to contrast as mushroom entrepreneurs had it at a level of 67%, but other entrepreneurs at a very low level (21–24%). Among all the elements, information-seeking behaviour was found at a below-average level (ranging from 42 to 46 %) in the case of all entrepreneurs.

The present study revealed a relatively higher level of entrepreneurial behaviour through mushroom enterprises, followed by stitching, goat rearing and dairy farming enterprises. Patel et al. (2014) reported that the majority of (73.75%) dairy farmers had medium information seeking behaviour that was quite similar to findings of the present study. Kumar et al. (2023) revealed that the majority of the dairy cooperative members were found to belong to medium category of their innovativeness, decision making, achievement motivation, knowledge level, information seeking, risk taking ability and leadership ability which is also in conformity with the findings of Patel et al. (2014). Reddy and Reddy (2001) mentioned ten entrepreneurial characteristics like decision making on farm activities, information seeking, leadership ability, cosmopoliteness, innovativeness, ability to coordinate farm activities, risk-taking ability, and achievement motivation. Christine and Kandoliver (2009) defined an entrepreneur as a person with eight main characteristics, i.e. willing to take risks, ethical, socially minded, innovative, farsighted, environmentally aware, self-critical, energetic. According to Nachimuthu and Gunatharan (2012), the entrepreneurship of women has enhanced their economic status and decision-making power. Subramanyeswari and Reddy (2007) mentioned that

Table 6: Information seeking behaviour of women entrepreneurs

Sl. No.	Sources	Mean perception score (SD)			
		Mushroom enterprise (n=20)	Stitching enterprise (n=20)	Goat rearing enterprise (n=20)	Dairy farming enterprise (n=20)
1. Mass media sources					
a)	Television	0.70 (0.47)	0.00 (0.00)	0.00 (0.00)	0.10 (0.45)
b)	Radio	0.60 (0.50)	0.00 (0.00)	0.00 (0.00)	0.05 (0.22)
c)	News paper	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.05 (0.22)
d)	Magazine	0.00 (0.00)	0.10 (0.45)	0.00 (0.00)	0.00 (0.00)
e)	Mobile	1.95 (0.22)	1.90 (0.45)	1.90 (0.45)	1.85 (0.49)
	Overall score	3.25 (0.97)	2.00 (0.00)	1.90 (0.45)	2.05 (1.05)
	Mass media source index (%)	32.50	20.00	19.00	20.90
2. Formal sources					
a)	Gram Pradhan	0.00 (0.00)	0.70 (0.47)	0.95 (0.22)	0.65 (0.49)
b)	Village panchayat members	0.00 (0.00)	0.05 (0.22)	0.15 (0.37)	0.30 (0.47)
c)	Block level official	1.10 (0.31)	1.00 (0.00)	0.50 (0.51)	0.95 (0.22)
d)	Extension officer/Agricultural officer	0.90 (0.45)	0.05 (0.22)	0.60 (0.50)	0.10 (0.31)
e)	Co-operatives	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
	Overall score	2.00 (0.56)	1.80 (0.62)	2.20 (0.41)	2.00 (0.73)
	Formal Source Index (%)	20.00	18.00	22.00	20.00
3. Informal sources					
a)	Family members	2.00 (0.00)	1.95 (0.22)	2.00 (0.00)	2.00 (0.00)
b)	Friends/relatives	1.95 (0.22)	2.00 (0.00)	1.95 (0.22)	1.95 (0.22)
c)	Neighbours	1.95 (0.22)	2.00 (0.00)	2.00 (0.00)	2.00 (0.00)
d)	Progressive entrepreneurs	1.05 (0.22)	1.10 (0.31)	0.90 (0.45)	0.95 (0.51)
	Overall score	6.95 (0.22)	7.05 (0.39)	6.85 (0.49)	6.90 (0.55)
	Informal source index (%)	86.88	88.13	85.63	86.25
	Information seeking behaviour index (%)	46.46	42.04	42.21	42.38

Minimum and maximum possible scores of each statement are 0 to 2, respectively

more than half (50 to 60%) of rural dairy women farmers had a medium level of entrepreneurial behaviour, which conformed with the findings of the present study. Aparna and Patel (2012), Thakur and Barman (2014), and Boruah et al. (2015) observed that more than half of the rural women entrepreneurs had a medium level of entrepreneurial behaviour. Women entrepreneurs could play a powerful role in confidence-building and creating awareness in other women to promote self-reliance. Huang et al. (2022) mentioned that a woman entrepreneur's innovativeness was an important factor affecting the performance of enterprises, which was significantly and positively related to entrepreneurial performance. Kong and Choo (2022) revealed that the conditional direct effect of achievement motivation on entrepreneurial behaviour was not significant for women, but it was significant for men, while the indirect effect of achievement motivation on entrepreneurial behaviour via entrepreneurship was stronger for women than for men. Fernando et al. (2022) found that majority of the mushroom producers were females (57.4%) which showed that mushroom cultivation was popular among the younger women generation but contrastingly majority of the respondents (73.3%) demonstrated a low level of entrepreneurial behaviour which was not in conformity with the findings of the present study. Khan et al. (2024) revealed that the need for achievement had a positive and significant impact on women entrepreneurs' success. Balogun et al. (2017) suggested that entrepreneurs with high confidence can easily compete in the market and achieve success.

It is evident from Table 9 that economic motivation, size

Table 7: Self-confidence of women entrepreneurs

Sl. No.	Statements	Response	Frequency (%) of the entrepreneurs			
			Mushroom enterprise (n=20)	Stitching enterprise (n=20)	Goat rearing enterprise (n=20)	Dairy farming enterprise (n=20)
1.	Do you have difficulty in saying the right option at the right time?	Yes	19 (95)	19 (95)	20 (100)	15 (75)
		No	1 (5)	1 (5)	-	5 (25)
		Mean (SD)	0.95 (0.22)	0.95 (0.22)	1.00 (0.00)	0.75 (0.44)
2.	Can you adjust readily to new situation?	Yes	20 (100)	16 (80)	20 (100)	20 (100)
		No	-	4 (20)	-	-
		Mean (SD)	1.00 (0.00)	0.80 (0.41)	1.00 (0.00)	1.00 (0.00)
3.	Do you feel it hard to keep your mind on a task/job?	Yes	9 (45)	7 (35)	3 (15)	4 (20)
		No	11 (55)	13 (65)	17 (85)	16 (80)
		Mean (SD)	0.55 (0.51)	0.65 (0.49)	0.85 (0.37)	0.80 (0.41)
4.	Do you have enough faith in yourself to make profit in your enterprise?	Yes	20 (100)	20 (100)	20 (100)	20 (100)
		No	0	0	0	0
		Mean (SD)	1.00 (0.00)	1.00 (0.00)	1.00 (0.00)	1.00 (0.00)
5.	Do you rely on others to carry out all your entrepreneurial activities?	Yes	0	2 (10)	0	0
		No	20 (100)	18 (90)	20 (100)	20 (100)
		Mean (SD)	1.00 (0.00)	0.90 (0.31)	1.00 (0.00)	1.00 (0.00)
6.	Can you work long for entrepreneurial activities?	Yes	20 (100)	20 (100)	20 (100)	20 (100)
		No	0	0	0	0
		Mean (SD)	1.00 (0.00)	1.00 (0.00)	1.00 (0.00)	1.00 (0.00)
	Overall score		5.50 (0.61)	5.30 (1.17)	5.85 (0.37)	5.55 (0.69)
	Self-confidence index (%)		91.66	88.33	97.5	92.5

Minimum and maximum possible scores of each statement are 0 and 1, respectively

Table 8: Entrepreneurial behaviour of women entrepreneurs

Sl. No.	Elements	Index value			
		Mushroom enterprise (n=20)	Stitching enterprise (n=20)	Goat rearing enterprise (n=20)	Dairy farming enterprise (n=20)
1.	Innovativeness	81.94	76.67	75.83	70.83
2.	Achievement motivation	98.50	93.00	96.50	92.50
3.	Decision making ability	68.43	55.94	47.18	50.00
4.	Risk taking ability	69.69	63.43	57.18	57.18
5.	Planning ability	67.00	23.00	24.00	21.00
6.	Information Seeking Behaviour	46.46	42.04	42.21	42.38
7.	Self-confidence	91.66	88.33	97.5	92.5
Overall entrepreneurial behaviour		74.81	63.20	62.91	60.91

of family, use of personal localite information sources, use of personal cosmopolite sources and age contributed significantly to the entrepreneurial behaviour of women entrepreneurs. The R^2 value of 0.664 indicated that all five variables determined about 66% of the variation in the entrepreneurial behaviour of women entrepreneurs. The regression coefficient (0.213) of economic motivation was positively significant, which showed that the higher the economic motivation higher will be entrepreneurial behaviour. Regression coefficients of variables like age, size of family and use of personal localite information source were having negatively significant relationship

Table 9: Step-wise multiple regression between entrepreneurial behaviour (dependent variable) and socio-personal, socio-economic, communicational and psychological attributes of women entrepreneurs (independent variables)

Model Summary									
Model	R	R Square	Adjusted R Square	Std. error of the estimate	Change statistics				
					R Square change	F Change	df1	df2	Sig. F Change
1.	.671	.450	.443	.11080	.450	63.845	1	78	.000
2.	.715	.511	.498	.10521	.060	9.509	1	77	.003
3.	.769	.591	.575	.09679	.081	14.969	1	76	.000
4.	.798	.636	.617	.09191	.045	9.288	1	75	.003
5.	.815	.664	.642	.08888	.028	6.202	1	74	.015

Coefficients				
Model	B	Std. Error	Beta	t	Sig.
(Constant)	.663	.060		11.125	.000
Economic motivation	.378	.047	.671	7.990	.000
(Constant)	.811	.074		10.936	.000
Economic motivation	.346	.046	.614	7.505	.000
Size of family	-.051	.017	-.252	-3.084	.003
(Constant)	1.150	.111		10.353	.000
Economic motivation	.220	.054	.389	4.094	.000
Size of family	-.063	.016	-.311	-4.055	.000
Use of personal localite information sources	-.033	.008	-.359	-3.869	.000
(Constant)	1.211	.107		11.281	.000
Economic motivation	.152	.056	.269	2.733	.008
Size of family	-.065	.015	-.322	-4.413	.000
Use of personal localite information sources	-.037	.008	-.402	-4.512	.000
Use of personal cosmopolite sources	.026	.008	.234	3.048	.003
(Constant)	1.337	.116		11.577	.000
Economic motivation	.120	.055	.213	2.171	.033
Size of family	-.063	.014	-.311	-4.392	.000
Use of personal localite information sources	-.039	.008	-.426	-4.911	.000
Use of personal cosmopolite sources	.030	.008	.273	3.600	.001
Age	-.003	.001	-.175	-2.490	.015

with the entrepreneurial behaviour which conforms with the findings of Jaisawal and Patel (2012); Sudhakar and Temilselvi (2007), which revealed that education, family income, risks willingness of the respondents and training received by them had positive relationship with their entrepreneurial behaviour and age, family occupation, owing responsibility for failure, family type, family size, birth status in parental home, present status in in-law's home and length of experience had negative relationship with entrepreneurial behaviour. It showed that relatively younger entrepreneurs had higher entrepreneurial behaviour, and it reiterates the importance of the Attracting and Retaining Youth in Agriculture (ARYA) programme of the Indian Council of Agricultural Research (ICAR) to promote rural entrepreneurship through the involvement of rural youth. Also, having a small family size and less use of personal localite information sources led to higher entrepreneurial behaviour. Positive and significant value of the regression coefficient of use of personal cosmopolite source (0.273) suggested that using more cosmopolite information sources instead of personal localite sources increases entrepreneurial behaviour of women entrepreneurs. Ghouse et al. (2023)

revealed that external motivations such as financial needs and dissatisfaction with current employment had a positive impact on the entrepreneurial behaviour of rural women. Additionally, the study revealed that attitudes, such as self-efficacy and the perception of social support, significantly influence women entrepreneurs' adoption of self-employment. Khan et al. (2024) revealed that internal factors, including self-confidence, risk-taking, and need for achievement, and external factors, including economic and sociocultural factors, have a positive and significant impact on the entrepreneurial behaviour of women.

4. CONCLUSION

Women entrepreneurs in Bihar faced significant socio-economic, psychological, and institutional challenges that affected their entrepreneurial behaviour. While achievement motivation and self-confidence were high, decision-making, risk-taking, and planning abilities varied across enterprises. Limited access to financial resources, gender norms, and inadequate information-seeking behaviour further constrained their growth. Strengthening government policies, enhancing training programs, and improving financial access were essential for fostering women's entrepreneurship. A supportive ecosystem can empower women, driving economic growth and social transformation in Bihar.

5. ACKNOWLEDGEMENT

Gratitude is expressed to the Department of Agricultural Extension Education, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati (A Central University), and all the people who have directly or indirectly provided the needful guidance to the success of this study.

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