

Risk Orientation, Innovative Proneness, Scientific Orientation and Motivation for Status Change Among Rural Women in Haryana

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Abstract

Women's orientation towards risk, innovation, scientific thinking, and motivation plays a crucial role in determining their adoption of farm and household technologies and their overall socio-economic empowerment. The present study examines the levels of risk orientation, innovative proneness, scientific orientation, and motivation for changing status among rural women in two districts of Haryana, namely Kurukshetra and Mahendragarh. Data were collected from 360 rural women using a structured interview schedule. Weighted Mean Scores (WMS) and frequency distributions were employed for analysis. The findings revealed that a majority of respondents exhibited high levels of risk orientation (42.78%), innovative proneness (40.56%), scientific orientation (36.95%), and motivation for changing status (55.00%). Positive perceptions towards new technologies, selective adoption of innovations, belief in scientific methods, and recognition of women's contributions within households emerged as dominant factors. The study highlights the growing readiness of rural women to embrace technological change and underscores the need for gender-responsive extension strategies to further enhance women's empowerment.

Keywords: Rural women, Risk orientation, Innovative proneness, Scientific orientation, Motivation, Women empowerment, Haryana

1. INTRODUCTION

Rural women constitute a significant segment of India's agricultural and household workforce, yet their contributions often remain undervalued and underrecognized. In recent decades, technological advancements in agriculture and household management have opened new avenues for improving productivity, reducing drudgery, and enhancing the socio-economic status of rural women. However, the extent to which women adopt and benefit from these technologies depends largely on their psychological and socio-cognitive orientations such as risk orientation, innovative proneness, scientific orientation, and motivation for status change.

Risk orientation reflects an individual's perception of uncertainty as an opportunity or a threat, influencing decision-making related to technology adoption. Innovative proneness indicates openness towards new ideas and willingness to experiment, while scientific orientation denotes reliance on rational and evidence-based thinking rather than fatalistic beliefs. Motivation for changing status relates to women's aspirations for recognition, decision-making power, and equal opportunities within family and society.

Understanding these orientations among rural women is essential for designing effective development interventions. The present study, therefore, attempts to analyze these dimensions among rural women in Kurukshetra and Mahendragarh districts of Haryana.

2. RESEARCH METHODOLOGY

For the present study, two districts representing the two identified stages were selected using random sampling. Accordingly, Kurukshetra and Mahendragarh districts of Haryana were chosen for conducting the research. From each selected district, two blocks were selected randomly. In Kurukshetra district, Thanesar and Ladwa blocks were selected, while in Mahendragarh district, Mahendragarh and Satnali blocks were chosen for the study. From each selected block, four villages were randomly selected. In Kurukshetra district, Amin, Bahari, Ghararsi, and Barwa villages were selected from Thanesar block, whereas Umri, Lohara, Geeta Colony, and Chhapra villages were selected from Ladwa block. Similarly, in Mahendragarh district, Bass Khudana, Mahendragarh, Sigra, and Chajiyawas villages were selected from Mahendragarh block, while Jarwa, Digrota, Bass, and Dhana villages were selected from Satnali block. Thus, a total of sixteen villages were selected for the study. From each selected block, 180 respondents were selected purposively based on the objectives of the study. Consequently, a total sample of 360 respondents was drawn for the present investigation.

2.1. Statistical Analysis of Data

The collected data was coded, tabulated, analyzed and interpreted according to the objectives of the present study with the help of appropriate statistical techniques. The descriptive statistical tools such as frequency, percentage, chi-square, weighted mean score, coefficient of correlation (r) and two sample t-test were adopted to draw the inferences.

Data collection: The data were collected personally by the researcher through the combination of interview schedule and questionnaire.

a) Categorization: While collecting data different categories of background information were made to make coding simpler.

b) Coding: After categorization, coding was done as determined by coding numbers of every expected answer of each respondents on coding sheets in excel.

c) Tabulation: To get a clear picture of findings, the coded data were decoded transferring from coding sheets to tables.

d) Statistical analysis: For interpretation of results, different statistical tools and techniques employed are given below.

(i) Frequency and percentage

The number of times an individual item is repeated in a series is called its frequency. The way in which the observations are classified and distributed in the proper class interval are known as frequency distribution. Frequency and percentage were calculated for preparing socio and economic profile.

(ii) Weighted Mean Score (Mean)

The weighted arithmetic mean is similar to an ordinary arithmetic mean (the most common type of average), except that instead of each of the data points contributing equally to the final average, some data points contribute more than others. The notion of weighted mean plays a role in descriptive statistics and also occurs in a more general form in several other areas of mathematics. Let x_1, x_2, \dots, x_n be n values with weights w_1, w_2, \dots, w_k , respectively. The mean value was worked out by dividing the total by corresponding observation as shown in formula.

$$\bar{x} = \frac{\sum_{i=1}^n x_i \cdot w_i}{\sum_{i=1}^n w_i}$$

$$\bar{x} = \frac{(x_1 \cdot w_1) + (x_2 \cdot w_2) + \dots + (x_n \cdot w_n)}{w_1 + w_2 + \dots + w_n}$$

3. RESULT

3.1. Risk Orientation of rural women

Risk Orientation addresses the extent to which we see events and situations in our current situation and in the future as a source of opportunity and growth or do we see these as carrying threat and the scope for harm, setback or failure. The result Table 1. showed that risk orientation on various aspects of rural women. New technology brings benefits had the highest weighted mean score with 2.50 and got 1st rank followed by women gain confident from taking risks (2nd) and taking risks in adopting technology boosts production (3rd), respectively.

Table 1. Risk Orientation of rural women

Risk orientation	Kurukshetra			Mahendragarh			W MS	RA NK
	Agree	Undecided	Disagree	Agree	Undecided	Disagree		
New technology brings benefits	126(70.00)	20(11.11)	34(18.89)	120(66.67)	31(17.22)	29(16.11)	2.50	I
Taking risks in adopting technology boosts production	110(61.11)	48(26.67)	22(12.22)	75(41.66)	66(36.67)	39(21.67)	2.34	III
Avoid experimenting new technology	42(23.33)	50(27.77)	88(48.88)	49(27.22)	76(42.22)	55(30.56)	2.14	V
Avoid adoption of farm and household technology reduce	37(20.55)	45(25.00)	98(54.44)	58(32.22)	49(27.22)	73(40.55)	2.21	IV
Women gain confidence from taking risks.	115(63.88)	49(27.22)	16(8.88)	102(56.66)	38(21.11)	40(22.22)	2.44	II

Figure in the parentheses denote percentage

3.1.1. Overall risk orientation of rural women

The table 2 presented the overall risk orientation of respondents from the districts Kurukshetra and Mahendragarh. The result revealed that maximum number of the respondents (42.78%) has high level of risk orientation followed by nearly two-fifth of the

respondents (36.39%) has medium level and one-fifth of the respondents (20.83%) has low level, respectively (fig.1.).

Table 2. Overall risk orientation of rural women: -

Sr. No	Overall risk orientation level	Kurukshetra	Mahendragarh	Total
1.	Low (5-8)	28(15.56)	47(26.11)	75(20.83)
2.	Medium (9-12)	61(33.89)	70(38.89)	131(36.39)
3.	High (13-15)	91(50.56)	63(35.00)	154(42.78)

Figure in the parentheses denote percentage

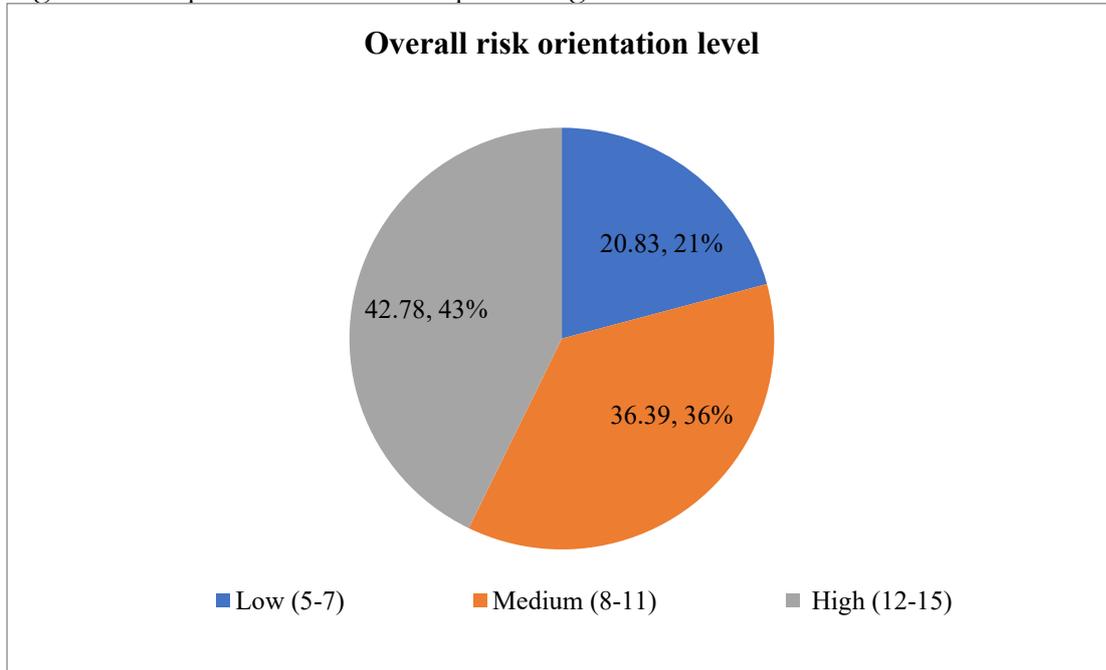


Fig. 1: Overall risk orientation level of respondents

3.2 Innovative proneness of rural women

Innovative proneness" refers to an individual or group's tendency to be open to and embrace new ideas, methods, or products, often characterized by a willingness to experiment and take risks. It implies a predisposition towards creativity, originality, and a desire to find novel solutions or approaches. The result showed Table 3 that innovative proneness on various aspects of rural women. Stay updated on technology but adopt selectively had the highest weighted mean score with 2.37 and got 1st rank followed by stay informed about improved technologies and not tried all (2nd) and watch to see how many neighbours respond to cutting-edge home and agricultural technologies (3rd), respectively.

Table 3. Innovative proneness of rural women

Innovative proneness	Kurukshetra			Mahendragarh			WM S	RANK
	Agree	Undecided	Disagree	Agree	Undecided	Disagree		
Wait for others response to cutting-edge	35(19.44)	48(26.66)	97(53.88)	40(22.22)	66(36.66)	74(41.11)	2.26	III

home and agricultural technologies.								
Stay updated on technology but adopt selectively.	117(65.00)	39(21.66)	24(13.33)	84(46.66)	54(30.00)	42(23.33)	2.37	I
Traditional technologies are the best.	41(22.78)	54(30.00)	85(47.22)	59(32.78)	47(26.11)	74(41.11)	2.16	V
Have knowledge about improved technologies but not try all.	98(54.44)	66(36.66)	16(8.88)	73(40.56)	67(37.22)	40(22.22)	2.31	II
Heard about new techniques and tried most of them.	90(50.00)	59(32.77)	31(17.22)	80(44.44)	52(28.88)	48(26.66)	2.25	IV
No need to change traditional Indian knowledge because of ancestors knowledge & intelligence.	38(21.11)	61(33.88)	81(45.00)	45(25.00)	82(45.56)	53(29.44)	2.14	VI

Figure in the parentheses denote percentage

3.2.1. Overall level of Innovative Proneness:

The table 4 showed the overall innovative proneness of respondents from the districts Kurukshetra and Mahendragarh. The result revealed that two-fifth of the respondents (40.56%) has high level of innovative proneness followed by more than two-fifth of the

respondents (38.33%) has medium level and more than one-fifth of the respondents (21.11%) has low level, respectively (fig. 2.).

Table 4. Overall level of Innovative Proneness:

Sr. No	Overall level of innovative proneness	Kurukshetra	Mahendragarh	Total
1.	Low (6-10)	27(15.00)	49(27.22)	76(21.11)
2.	Medium (11-14)	66(37.00)	72(40.00)	138(38.33)
3.	High (15-18)	87(48.00)	59(32.78)	146(40.56)

Figure in the parentheses denote percentage

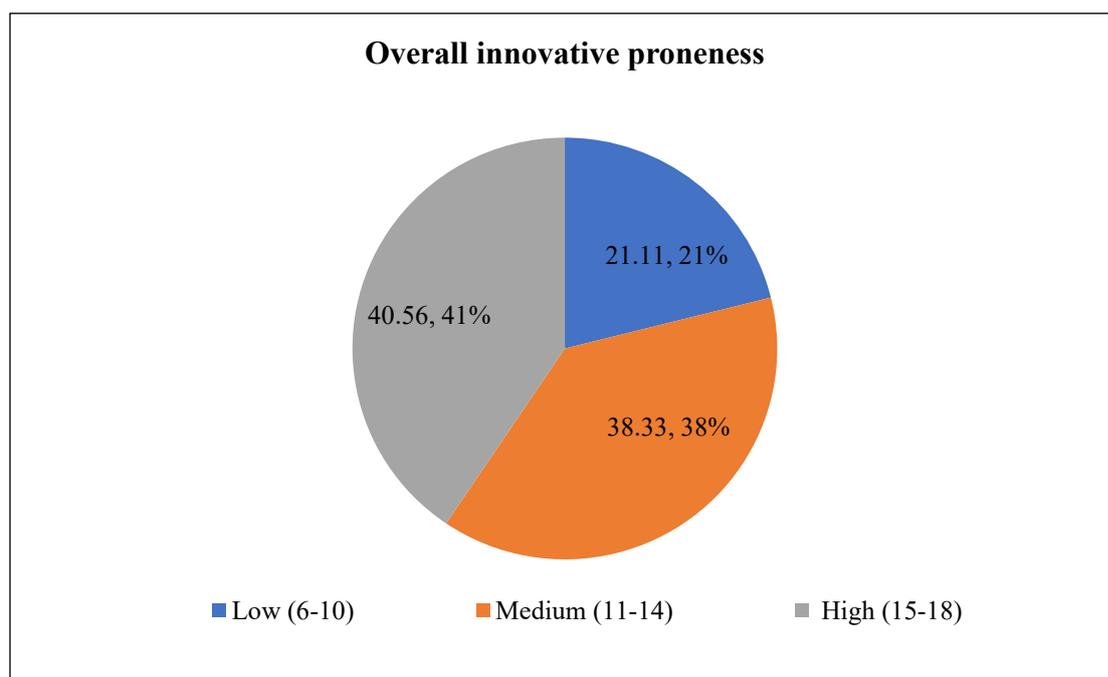


Fig. 2:

Overall innovative proneness level of respondents

3.3. Scientific orientation of rural women

Scientific orientation refers to the application of the scientific method to the study of social phenomena. The result showed Table 5. that scientific orientation on various aspects of rural women. The result showed that technologies reduce time, cost and effort has the highest weighted mean score with 2.42 and got 1st rank followed by Proper use of farm and household technologies yields remarkable (2nd) and Proven technology should be trusted and relied upon (3rd), respectively.

Table 5. Scientific orientation of rural women

Scientific orientation	Kurukshetra			Mahendragarh			WMS	RANK
	Agree	Undecided	Disagree	Agree	Undecided	Disagree		
Technologies reduce time, cost and effort.	124(68.89)	17(9.44)	39(21.67)	113(62.78)	23(12.78)	44(24.44)	2.42	I
Every incident in life	46(25.55)	61(33.89)	73(40.56)	59(32.78)	72(40.00)	49(27.22)	2.04	V

already had its conclusion decided by fate.								
Scientists and technologists strive to improve society.	80(44.45)	42(23.33)	58(32.22)	75(41.66)	39(21.67)	66(36.67)	2.08	IV
Proper use of farm and household technologies yields remarkable results.	70(38.88)	62(34.45)	48(26.67)	66(36.67)	75(41.66)	39(21.67)	2.13	II
Proven technology should be trusted and relied upon.	89(49.44)	37(20.56)	54(30.00)	73(40.55)	45(25.00)	62(34.45)	2.12	III
Humans plans, but fate makes the final decision—the silent tragedy of life.	54(30.00)	46(25.56)	80(44.44)	60(34.45)	50(26.66)	70(38.88)	2.1	VI

Figure in the parentheses denote percentage

3.3.1. Overall level of Scientific Orientation:

The table 6 showed the overall scientific orientation of respondents from the districts Kurukshetra and Mahendragarh. The result revealed that nearly two-fifth of the respondents (36.94%) has high level of scientific orientation followed by maximum number than two-fifth of the respondents (46.94%) has medium level and few percentage of respondents (16.11%) has low level, respectively (fig. 3.).

Table 6. Overall level of Scientific Orientation:

Sr. No	Overall level of scientific orientation	Kurukshetra	Mahendragarh	Total
1.	Low (6-10)	18(10.00)	40(22.22)	58(16.11)
2.	Medium (11-14)	87(48.33)	82(45.56)	169(46.94)

3.	High (15-18)	75(41.67)	58(32.22)	133(36.95)
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Figure in the parentheses denote percentage

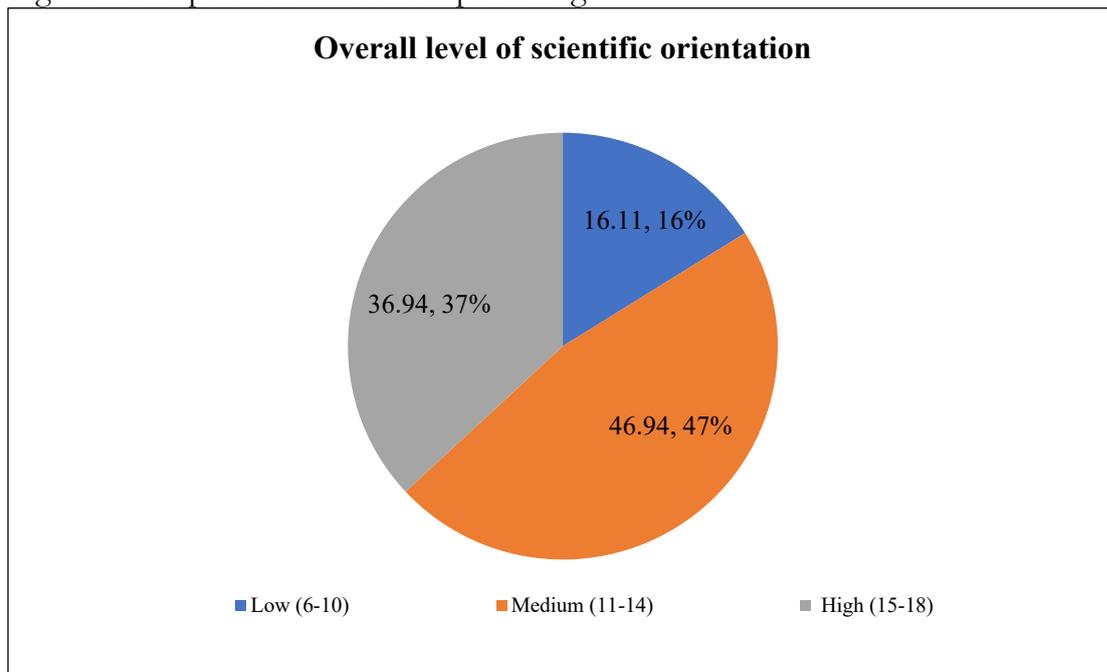


Fig. 3:

Overall scientific orientation level of respondents

3.4. Motivation of women for changing status

Changing Status of women can be measured by the positions possessed and roles played by the individual in social, political and economic spheres of life. In this way gender differentia in Status is perceived. Inequality between sexes is basically an inequality in access to material and social resources between them. The result in Table 7. showed that women are appreciated by their family members when they contribute positively to societal welfare has the highest weighted mean score with 2.63 and got 1st rank followed by women's right to make decisions is respected and honored remarkable (2nd) and women's household chores are valuable and deserve acknowledgment and appreciation relied upon (3rd), respectively.

Table 7. Motivation of women for changing status

Motivation of women	Kurukshetra			Mahendragarh			W MS	RA NK
	Agree	Undecided	Disagree	Agree	Undecided	Disagree		
Women's household chores are valuable and deserve acknowledgment and appreciation	121(67.22)	49(27.23)	10(5.55)	109(60.56)	58(32.22)	13(7.22)	2.57	III
Women experience happiness when appreciated	135(75.00)	39(21.66)	6(3.34)	94(52.23)	64(35.55)	22(12.22)	2.55	IV

for her delicious food								
Women's right to make decisions is respected and honored	123(68.33)	50(27.77)	7(3.90)	115(63.89)	55(30.55)	10(5.56)	2.61	II
Women deserve equal opportunities regardless of their position in society	119(66.12)	46(25.55)	15(8.33)	97(53.90)	66(36.66)	17(9.44)	2.51	V
Women are appreciated by their family members when they contribute positively to societal welfare.	141(78.33)	32(17.77)	7(3.90)	117(65.00)	39(21.66)	24(13.34)	2.63	I

Figure in the parentheses denote percentage

3.4.1. Overall level of motivation of women for changing status

The table 8. showed the overall level of motivation of women for changing status of respondents from the districts Kurukshetra and Mahendragarh. The result revealed that majority of the respondents (55.00%) has high level of motivation of women for changing status followed by nearly one-third of the respondents (27.22%) has medium level and few percentage of respondents (17.78%) has low level, respectively (fig. 4).

Table 8. Overall level of motivation of women for changing status

Sr. No	Overall level of motivation of women	Kurukshetra	Mahendragarh	Total
1.	Low (5-7)	26(14.44)	38(21.11)	64(17.78)
2.	Medium (8-11)	51(28.33)	47(26.11)	98(27.22)
3.	High (12-15)	103(57.23)	95(52.78)	198(55.00)

Figure in the parentheses denote percentage

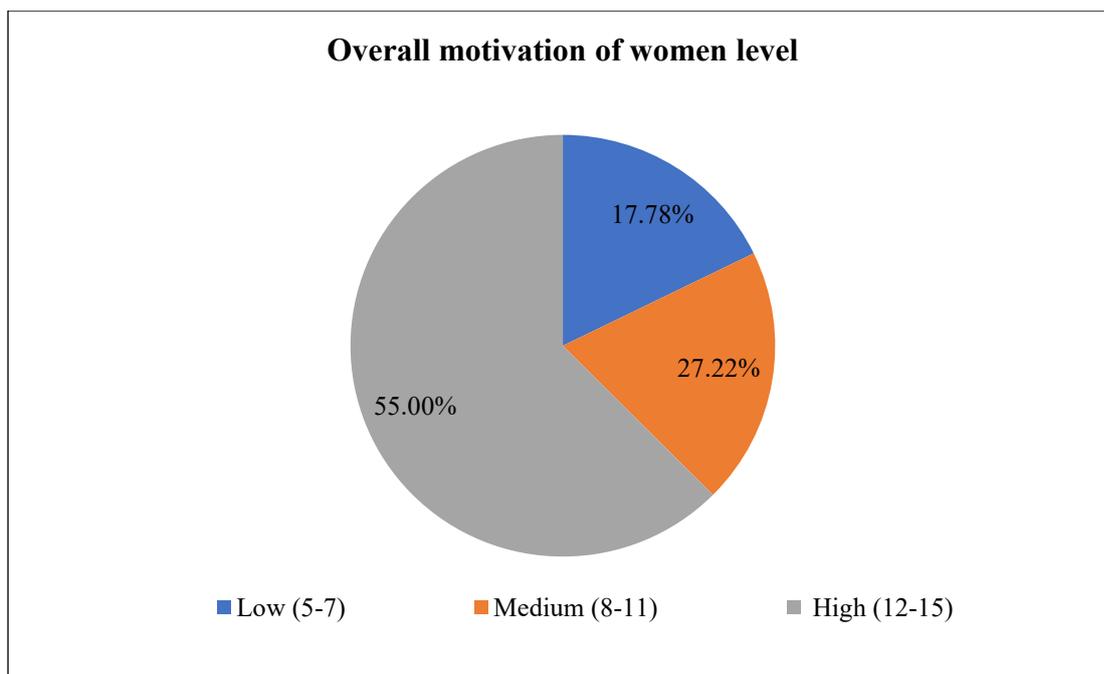


Fig. 4: Overall motivation of women level

DISCUSSION

The risk orientation of rural women highlights their attitudes toward adopting new technologies, with significant implications for agricultural and household productivity. The belief that new technology brings benefits scored the highest weighted mean (2.50, ranked 1st), followed by confidence gained from taking risks (2nd) and the perception that technology adoption boosts production (3rd). These findings align with Doss (2018), who notes that technology adoption enhances agricultural output and women's self-efficacy in rural settings. This risk-positive attitude suggests that rural women are open to innovation when perceived benefits outweigh uncertainties, providing a foundation for targeted extension services to encourage technology uptake.

The innovative proneness of rural women in Kurukshetra and Mahendragarh districts reflects a cautious yet progressive approach to adopting new technologies. Staying updated on technology but adopting selectively scored the highest weighted mean (2.37, ranked 1st), followed by staying informed about improved technologies without trying all (2nd) and observing neighbors' responses to new technologies (3rd). This "wait-and-see" strategy aligns with Rogers' Diffusion of Innovations Theory (2003), which highlights the role of social proof in rural adoption decisions, and ICRISAT (2020), which notes that selective adoption minimizes risks while leveraging relevant technologies.

The scientific orientation of rural women in Kurukshetra and Mahendragarh districts demonstrates a positive inclination toward evidence-based practices and technology adoption, as evidenced by the study's findings. The statement "Technologies reduce time, cost, and effort" received the highest weighted mean score of 2.42, ranking first, followed by "Proper use of farm and household technologies yields remarkable results" (2nd) and "Proven technology should be trusted and relied upon" (3rd). These results reflect a strong perception among respondents that technology enhances efficiency and productivity, aligning with ICAR (2021) and FAO (2022), which emphasize that labor-saving technologies reduce drudgery, particularly for women, and improve livelihood outcomes in rural settings.

The motivation of rural women to challenge traditional gender norms and enhance their societal status is evident in the study's findings. The highest motivation stemmed from

family appreciation for contributions to societal welfare (mean score: 2.63), followed by respect for women's decision-making rights (2nd) and acknowledgment of household chores (3rd). These indicators reflect a shift toward valuing women's roles in both community and domestic spheres, consistent with Kabeer (2022), Agarwal (2021), and NFHS-5 (2021), which highlight increased female participation in household decision-making and recognition of unpaid work, as further supported by UN Women (2022) and OECD (2021).

CONCLUSION

The study clearly indicates that rural women in Haryana are progressively developing positive orientations towards risk-taking, innovation, scientific reasoning, and motivation for improving their social status. High levels of motivation and considerable readiness to adopt new technologies suggest that rural women are no longer passive recipients of change but active agents of development.

However, the prevalence of medium levels in innovative and scientific orientation highlights the need for sustained capacity-building efforts. Gender-sensitive extension programs, exposure visits, skill-based training, and community-level support systems can further enhance women's confidence and accelerate technology adoption.

Strengthening these psychological and motivational dimensions will not only improve farm and household productivity but also contribute significantly to women's empowerment and inclusive rural development.

Reference

3. Agarwal, B., (2021). *Gender inequality, food systems, and climate change: Voices of women farmers*. UN Food Systems Summit.
4. https://www.un.org/sites/un2.un.org/files/agarwal_policy_brief.pdf
5. Doss, C. R. (2018). Women and agricultural productivity: Reframing the Issues. *Development Policy Review*.**36**(1): 35-50.
6. Food and Agriculture Organization of the United Nations. (2022). *The Status of Women in Agrifood Systems*. Rome: FAO.
7. Indian Council of Agricultural Research (ICAR). (2021). *Empowering Women through Agricultural Technologies*. New Delhi: ICAR Publication
8. International Crops Research Institute for the Semi-Arid Tropics. (2020). *Innovations and technologies for rural transformation: Annual Report 2020*. <https://www.icrisat.org>
9. Kabeer, N. (2022). Empowerment frameworks and gender equality. *Gender & Development*. **30**(1): 1-15.
10. National Family Health Survey (NFHS-5), India (2019-21). *Key indicators report*. Ministry of Health and Family Welfare, Government of India. http://rchiips.org/nfhs/NFHS-5Reports/NFHS-5_INDIA_REPORT.pdf
11. Organisation for Economic Co-operation and Development. (2021). *Tackling violence against women: The contribution of the OECD Social Institutions and Gender Index (SIGI)*. <https://www.oecd.org/dev/development-gender/SIGI-Brochure-2021.pdf>
12. Rogers, E. M. (2003). *Diffusion of Innovations* (5th ed.). New York: Free Press.
13. UN Women. (2022). *Progress on the Sustainable Development Goals: The Gender Snapshot 2022*. <https://www.unwomen.org/en/digital-library/publications/2022/09/progress-on-the-sustainable-development-goals-the-gender-snapshot-2022>