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Communication behavior and institutional linkages of farm women: An analysis of extension participation and media exposure

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Abstract

Women play a significant role in agricultural and allied activities; however, their access to communication sources, extension services and institutional linkages remains comparatively limited. The present study was conducted to analyze the communication behaviour and institutional linkages of farm women in Karnataka. A multistage sampling technique was adopted and primary data were collected from 1200 farm women respondents through a pre-tested structured interview schedule. The descriptive and inferential statistical tools such as frequency, percentage, mean score, ranking and Chi-square test was employed for analysis. The findings revealed that majority of respondents belonged to middle age group (54.58%), Other Backward Class category (43.08%) and nuclear families (78.42%), while 24.50 per cent of respondents were illiterate. Family members emerged as the major source of information (mean score: 1.73), followed by friends and relatives (1.44). Among extension activities, Kisan Mela/Krishi Mela recorded highest participation (mean score: 0.61). Television (mean score: 1.91) and mobile phones (1.90) were the most utilized mass media sources among respondents. Majority of respondents regularly utilized television and mobile phones for information and entertainment purposes. Information sharing behaviour was highest with family members (mean score: 1.70) while orientation towards research stations was comparatively higher towards universities and women and child welfare departments. Chi-square analysis indicated a significant association between educational level and utilization of television, newspapers and mobile phones for information and entertainment purposes at one per cent level of probability. Regular utilization of television for information increased from 56.46 per cent among illiterate respondents to 85.11 per cent among graduates, while regular utilization of mobile phones increased from 51.02 per cent to 89.36 per cent across the same categories. The study concluded that educational status significantly influenced communication behavior and media utilization among farm women. The strength of digital literacy, extension participation and institutional accessibility may enhance effective communication and information dissemination among rural women.

Keywords: Communication behavior, farm women, mass media exposure, institutional linkages, extension participation.

1. Introduction

The rural women constitute a significant proportion of the agricultural workforce in India and contribute extensively to crop production, livestock management, post-harvest operations and household nourishment. According to the National Sample Survey Office (2019) ^[14], more than 55 per cent of female workers are engaged in agriculture and allied sectors in India. The Food and Agriculture Organization (2011) ^[4] reported that women account for nearly 43 per cent of the agricultural labour force in developing countries. Furthermore, recent reports by the Ministry of Agriculture and Farmers Welfare (2023) ^[11] indicate an increasing feminization of agriculture due to migration of male labour and diversification of rural livelihoods. Despite their substantial contribution, farm women continue to face constraints in accessing extension services, institutional support systems, agricultural information and decision-making platforms. The scientific studies by Indian Council of Agricultural Research (2022) ^[6] highlighted that women farmers have comparatively lower access to training

programmes, extension contact and technological resources, which adversely affects adoption behavior and agricultural productivity. Similarly, recent Indian scientific studies have emphasized that gender disparities in information access and institutional participation continue to restrict the effective involvement of farm women in agricultural development processes.

The communication behavior plays a crucial role in determining the extent to which farm women access, interpret and utilize agricultural information. The communication channels such as extension activities, mass media and research institutions facilitate dissemination of scientific knowledge, improved technologies and advisory services, thereby strengthening awareness, skill development and adoption behavior. The participation in extension programmes enhances technical competence and exposure to modern agricultural practices, while mass media provides timely information related to agriculture, markets and health and livelihood opportunities. The research conducted by Indian Council of Agricultural Research (2021) ^[5] reported

that regular extension contact and media exposure significantly improve technology adoption and decision-making ability among rural women. Likewise, studies by National Institute of Agricultural Extension Management (2022) ^[13] emphasized that institutional orientation and research linkages strengthen farmer-scientist interaction and improve awareness regarding location-specific innovations and scientific farming practices.

However, disparities in education, socio-economic conditions, institutional accessibility and information exposure continue to influence the communication behavior of farm women. The interaction with formal extension systems and research organizations often improves their ability to fully utilize available agricultural support services and technological opportunities. Therefore, understanding the extent of extension participation, media utilization, information-seeking behavior and institutional orientation becomes essential for strengthening inclusive agricultural

communication systems and enhancing women's participation in agricultural development. Hence, the present study was undertaken to assess farm women's communication behavior through their engagement with extension services, mass media and research institutions.

2. Materials and Methods

The methodological framework adopted to assess the communication behavior and institutional linkages of farm women is presented in Fig. 1. The study focused on understanding the participation of farm women in extension activities, utilization of mass media, purpose of information seeking and orientation towards research institutions. A multistage sampling design was employed to ensure representative coverage of respondents across different farming systems in Karnataka. Primary data was collected through a structured interview schedule and suitable statistical tools were used for analysis and interpretation.

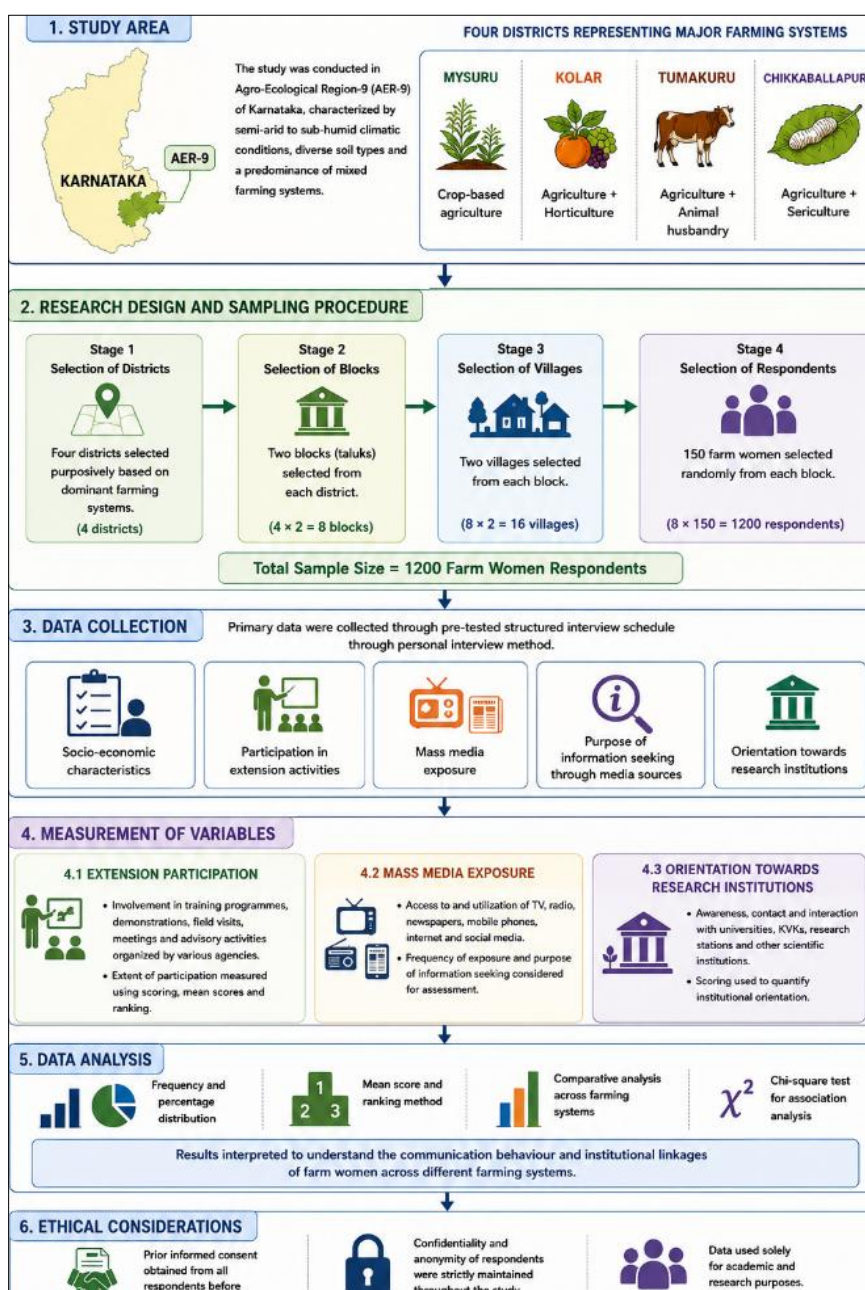


Fig 1: Methodological Flow Chart of Research

2.1 Study area

The study was conducted in Agro-Ecological Region-9 (AER-9) of Karnataka, India, characterized by semi-arid to sub-humid climatic conditions, diverse soil types and predominance of mixed farming systems. The districts of AER-09 representing major farming systems were purposively selected to capture system-specific variations: Mysuru (crop-based agriculture), Kolar (agriculture + horticulture), Tumakuru (agriculture + animal husbandry) and Chikballapur (agriculture + sericulture).

2.2 Research design and sampling procedure

A cross-sectional research design was adopted for the study. A multistage sampling technique was employed to ensure adequate representation across farming systems. In the first stage, four districts were selected based on the dominance of specific farming systems. In the second stage, two blocks (taluks) were selected from each district, followed by the selection of two villages from each block. From each selected block, 150 farm women respondents actively engaged in agricultural and allied activities were selected using random sampling technique, resulting in a total sample size of 1,200 respondents (4 districts × 2 blocks × 150 respondents). The sampling framework ensured proportional representation of farm women across different farming systems.

2.3 Data collection

Primary data were collected using a structured and pre-tested interview schedule administered through personal interviews with the selected respondents. The instrument was designed to obtain information on:

- Socio-economic characteristics
- Participation in extension activities
- Mass media exposure
- Purpose of information seeking through media sources
- Orientation towards research institutions

Necessary modifications were incorporated after pre-testing to improve clarity, reliability and validity of the instrument.

2.4 Measurement of variables

2.4.1 Extension participation

The participation of farm-women in extension activities was assessed based on the extent of respondents' involvement in various extension programmes, training programmes, demonstrations, field visits, meetings and advisory activities organized by agricultural departments, universities and extension agencies. Mean scores and ranking methods were employed to determine the level of participation.

2.4.2 Mass media exposure

The mass media exposure of farm was measured based on respondents' access to and utilization of different communication sources such as television, radio, newspapers, mobile phones, internet and social media platforms for obtaining agricultural and livelihood-related information. The frequency of exposure and purpose of information seeking were considered for assessment.

2.4.3 Orientation towards research institutions

The orientation of farm-women towards research institutions was assessed by examining the level of awareness, contact and interaction of respondents with agricultural universities,

Krishi Vigyan Kendras (KVKs), research stations and other scientific institutions. An appropriate scoring procedure was used to quantify institutional orientation.

Time allocation for different activities was also recorded to analyze labour distribution patterns among respondents.

2.5 Data analysis

The collected data was coded, classified, tabulated and analyzed using suitable statistical tools. Analytical techniques included:

- Frequency and percentage distribution
- Mean score and ranking method
- Time-use analysis
- Comparative analysis across farming systems
- Chi-square test for association analysis

The results were interpreted to understand the communication behavior, institutional linkages and social participation and work participation patterns of farm women.

2.6 Ethical considerations

The consent information was obtained from all respondents before data collection. The confidentiality and anonymity of respondents were strictly maintained throughout the study and the collected information was used solely for academic and research purposes.

3. Results and Discussion

The collected data was analyzed using appropriate statistical tools to examine the communication behaviour and institutional linkages of farm women across different farming systems. The findings pertaining to extension participation, mass media exposure, information-seeking behavior and orientation towards research institutions were interpreted using frequency, percentage, mean score, ranking method and Chi-square analysis to derive meaningful inferences in line with the objectives of the study.

The socio-economic profile of respondents presented in Table 1 revealed that a majority of farm women belonged to the middle age group (54.58%), indicating active involvement in agricultural and household activities. Similar findings were reported by Kumari V., (2021) ^[9], who observed predominance of middle-aged rural women in agricultural activities. The caste composition showed higher representation of Other Backward Classes (43.08%), followed by Scheduled Castes (26.17%), reflecting the typical rural social structure. The educational status indicated that a considerable proportion of respondents had education up to high school (24.17%) and middle school level (22.50%), whereas 24.50 per cent were illiterate, hence education plays a significant role in improving communication behaviour and access to agricultural information, as reported by Bora *et al.* (2022) ^[1]. The majority of respondents belonged to nuclear families (78.42%), which may be attributed to changing rural socio-economic conditions, corroborating the findings of Kumari, N., *et al.* (2021) ^[8]. Further, most respondents (93.08%) belonged to the Below Poverty Line category, indicating economically constrained livelihood conditions that may limit access to extension services and communication resources. Similar observations were reported by Lalitha Navya Challa (2025) ^[2] regarding restricted access to information systems among economically weaker farm women.

Table 1: Socio-economic profile of respondents

Sl. No.	Socio-economic variables	N (%)
1.	Age of the Respondent	
	Young (18-35 yrs)	382 (31.83)
	Middle (36-55 yrs)	655 (54.58)
	Old (above 55 yrs)	163 (13.58)
2.	Caste	
	General (GM)	185 (15.42)
	SC	314 (26.17)
	ST	179 (14.92)
	OBC	517 (43.08)
	Others	5 (0.42)
3.	Educational Status	
	Illiterate	294 (24.50)
	Can read and write	39 (3.25)
	Primary School (1-4 std)	145 (12.08)
	Middle School (5-7 std)	270 (22.50)
	High school (8-10 std)	290 (24.17)
	PUC	115 (9.58)
	Graduate and above	47 (3.92)
4.	Family Type	
	Nuclear	941 (78.42)
	Joint	225 (18.75)
	Extended	34 (2.83)
5.	Annual Income from different sources	
	BPL (upto 1,32,000)	1117 (93.08)
	Medium (1,32,000 to 5,72,000)	79 (6.58)
	APL (above 5,72,000)	4 (0.34)

*n (%) = Frequency (Percentage)

Table 2: Source of information availed by the respondents for farming

Sl. No.	Source	Frequency of seeking behavior				
		Always n (%)	Sometimes n (%)	Never n (%)	Mean Score	Rank
1.	Family members	920 (76.67)	242 (20.17)	38 (3.17)	1.73	I
2.	Friends & Relatives	601 (50.08)	525 (43.75)	74 (6.17)	1.44	II
3.	Neighbours	422 (35.17)	591 (49.25)	187 (15.58)	1.19	III
4.	Progressive farmers	124 (10.33)	498 (41.50)	578 (48.17)	0.62	V
5.	Gram Panchayat members and officers	146 (12.17)	579 (48.25)	475 (39.58)	0.72	IV
6.	Cooperative societies in the village/ RSK centres/ NGOs	143 (11.92)	621 (51.75)	436 (36.33)	0.52	VI
	Other	35 (2.91)	563 (46.91)	602 (50.16)	0.52	VI

*Weights for score calculation: 2- Always; 1 - Sometimes; 0 - Never

The data presented in Table 2 revealed that family members were the most preferred source of agricultural information among respondents, securing the highest mean score (1.73) and rank I, with 76.67 per cent of farm women always depending on them for farming-related information. This may be attributed to trust, easy accessibility and frequent interpersonal interaction within family systems. Similar findings were reported by Meena *et al.* (2021) ^[10], who observed higher dependence of rural women on informal interpersonal sources for agricultural information. Friends and relatives (1.44) and neighbours (1.19) also emerged as

important information sources, highlighting the role of local social networks in information dissemination. In contrast, formal sources such as Gram Panchayat members, cooperative societies, RSK centres, NGOs and progressive farmers recorded comparatively lower mean scores, indicating limited institutional interaction among respondents. Similar observations were reported by Singh and Kumar (2022) ^[20], who stated that farm women predominantly relied on informal communication networks rather than formal extension agencies for farming information.

Table 3: Participation of the respondents in extension activities

Sl. No.	Extension activities	Extent of Participation				
		Regularly n(%)	Sometimes n(%)	Never n(%)	Mean Score	Rank
1.	Field days	200 (16.66)	400 (33.33)	600 (50.00)	0.66	VIII
2.	Demonstration	64 (5.33)	560 (46.66)	576 (48.00)	0.57	V
3.	Training	56 (4.67)	545 (45.42)	599 (49.92)	0.55	II
4.	Meeting/Ghosti/discussion	59 (4.92)	489 (40.75)	652 (54.33)	0.51	III
5.	Study tour	29 (2.42)	339 (28.25)	832 (69.33)	0.09	VII
6.	Exhibition	29 (2.42)	428 (35.66)	743 (61.91)	0.12	VI
7.	Film show	19 (1.58)	345 (28.75)	836 (69.66)	0.05	VIII
8.	Kisan Mela/Krishi Mela	32 (2.67)	671 (55.92)	497 (41.42)	0.61	I
9.	Any other	15 (1.25)	303 (25.25)	882 (73.50)	0.28	IV

*Weights for score calculation: 2- Regularly; 1 - Sometimes; 0 - Never

The findings tabulated in Table 3 showed that participation of respondents in extension activities was generally moderate, with most respondents participating occasionally rather than regularly. The graph clearly indicates that Kisan Mela/Krishi Mela recorded comparatively higher participation, securing the first rank with a mean score of 0.61, followed by field days, demonstrations and training

programmes. This may be attributed to better exposure, practical learning opportunities and easier accessibility of such programmes. Similar findings were reported by Patel *et al.* (2021) ^[16], who observed higher preference for agricultural fairs and melas among rural women due to their interactive nature.

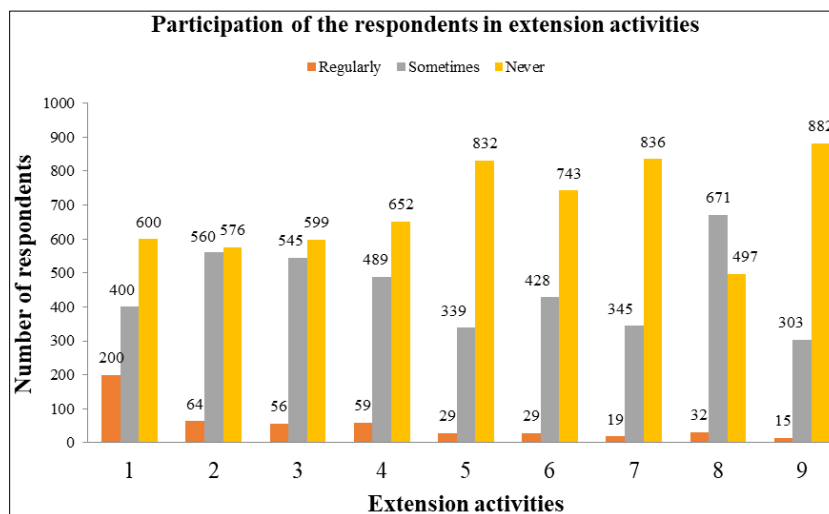


Fig 2: Trends in participation of the respondents in extension activities

The graphical trend (Fig. 2) further shows that activities such as study tours, exhibitions and film shows had comparatively higher proportions under the “Never” category, indicating lower participation levels. The household responsibilities, mobility constraints and limited institutional outreach may have restricted participation in such activities. Sharma and Devi (2022) ^[19] also reported that socio-economic and accessibility constraints limited women farmers’ participation in formal extension programmes. Overall, the graph reflects that farm women predominantly participated in locally accessible and practically oriented extension activities, while participation in exposure-based programmes remained relatively low.

The findings presented in Table 4 revealed that television and mobile phones were the most dominant mass media sources among respondents, securing the highest mean scores of 1.91 and 1.90, respectively. The graphical trend also indicated comparatively higher awareness, ownership and regular usage of television and mobile phones than other media sources. Their higher utilization may be attributed to easy accessibility, affordability and wider rural penetration. Similar findings were reported by Verma and Sharma (2022) ^[22], who observed increasing use of television and mobile-based communication among rural farming communities for accessing agricultural and livelihood information.

Table 4: Mass media exposure of the respondents

Sl. No.	List of Mass Media (Print & Electronic Media)	Aware		Owning		Using			Mean Score	Rank
		Yes n(%)	No n(%)	Yes n(%)	No n(%)	R n(%)	O n(%)	N n(%)		
1.	News paper	426 (35.50)	774 (64.50)	89 (7.42)	1111 (92.58)	66 (5.50)	345 (28.75)	789 (65.75)	0.68	III
2.	Magazines	171 (14.25)	1029 (85.75)	19 (1.58)	1181 (98.42)	2 (0.17)	254 (21.17)	944 (78.67)	0.43	VI
3.	Television	1173 (97.75)	27 (2.25)	1001 (83.42)	199 (16.58)	886 (73.83)	257 (21.42)	57 (4.75)	1.91	I
4.	Radio	628 (52.33)	572 (47.67)	51 (4.25)	1149 (95.75)	23 (1.92)	310 (25.83)	867 (72.25)	0.55	V
5.	Digital Camera	156 (13.00)	1044 (87.00)	11 (0.92)	1189 (99.08)	1 (0.08)	15 (1.25)	1184 (98.67)	0.03	VIII
6.	Video player	120 (10.00)	1080 (90.00)	4 (0.33)	1196 (99.67)	5 (0.42)	3 (0.25)	1192 (99.33)	0.01	IX
7.	Projector	94 (7.83)	1106 (92.17)	7 (0.58)	1193 (99.42)	1 (0.08)	5 (0.42)	1194 (99.50)	0.01	IX
8.	Mobile Phone	1164 (97.00)	36 (3.00)	1148 (95.67)	52 (4.33)	870 (72.50)	271 (22.58)	59 (4.92)	1.90	II
9.	Computer	201 (16.75)	999 (83.25)	30 (2.50)	1170 (97.50)	6 (0.50)	45 (3.75)	1149 (95.75)	0.08	VII
10.	Internet	354 (29.50)	846 (70.50)	312 (26.00)	888 (74.00)	61 (5.08)	269 (22.42)	870 (72.50)	0.56	IV

*Note: R: Regularly, O: Occasionally and N: Never *Weights for score calculation: 2- Regularly; 1 - Occasionally; 0 - Never

The responses of the respondents showed that newspapers and internet services had moderate levels of utilization, whereas digital tools such as projectors, video players, digital cameras and computers recorded very low ownership and usage. Limited digital literacy, economic constraints and inadequate infrastructural facilities may have restricted the

adoption of these communication media. Similar observations have been reported in earlier studies, which found that socio-economic factors, educational status and access to information and communication technologies significantly influence the adoption of digital communication tools among rural households and farming communities

(Mittal & Mehar, 2016) ^[12]. Overall, the findings indicate greater dependence of farm women on easily accessible electronic media sources for information and communication purposes.

The findings presented in Table 5 revealed that television and mobile phones were the major mass media sources utilized

by respondents for information, entertainment and combined purposes. Television secured the first rank across all categories with mean scores of 1.63, 1.69 and 1.65 for information, entertainment and both purposes, respectively. Similarly, mobile phones ranked second with corresponding mean scores of 1.61, 1.59 and 1.60.

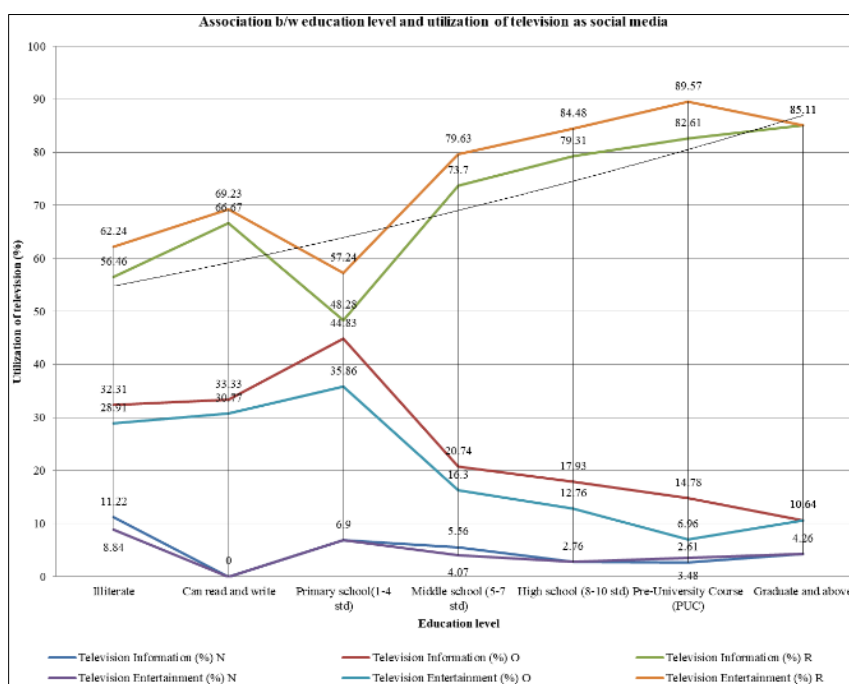
Table 5: Purpose of seeking information from mass media

Sl. No.	Mass media	Purpose														
		Information					Entertainment					Both				
		R n(%)	O n(%)	N n(%)	Score	Rank	R n(%)	O n(%)	N n(%)	Score	Rank	R n(%)	O n(%)	N n(%)	Mean Score	Rank
1.	Radio	25 (2.08)	236 (19.67)	939 (78.25)	0.24	III	25 (2.08)	233 (19.42)	942 (78.50)	0.24	IV	24 (2.00)	232 (19.33)	944 (78.67)	0.23	IV
2.	Television	826 (68.83)	303 (25.25)	71 (5.92)	1.63	I	896 (74.67)	243 (20.25)	61 (5.08)	1.69	I	850 (70.83)	289 (24.08)	61 (5.08)	1.65	I
3.	News paper	53 (4.42)	268 (22.33)	879 (73.25)	0.31	IV	37 (3.08)	257 (21.42)	906 (75.50)	0.27	III	36 (3.00)	265 (22.08)	899 (74.92)	0.28	III
4.	Magazine/ Journal	5 (0.42)	182 (15.17)	1013 (84.42)	0.16	V	6 (0.50)	179 (14.92)	1015 (84.58)	0.16	V	5 (0.42)	204 (17.00)	991 (82.58)	0.17	V
5.	Mobile	813 (67.75)	313 (26.08)	74 (6.17)	1.61	II	801 (66.75)	311 (25.92)	88 (7.33)	1.59	II	797 (66.42)	326 (27.17)	77 (6.42)	1.60	II
6.	Computer	8 (0.67)	160 (13.33)	1032 (86.00)	0.14	VI	9 (0.75)	164 (13.67)	1027 (85.58)	0.15	VI	6 (0.50)	162 (13.50)	1032 (86.00)	0.14	VI
7.	Video player	1 (0.08)	12 (1.00)	1187 (98.92)	0.01	VII	2 (0.17)	10 (0.83)	1188 (99.00)	0.01	VII	1 (0.08)	11 (0.92)	1188 (99.00)	0.01	VII
8.	Others	1 (0.08)	7 (0.58)	1192 (99.33)	0.01	VII	1 (0.08)	9 (0.75)	1190 (99.17)	0.01	VII	0 (0)	111 (9.25)	1189 (90.75)	0.01	VII

Note: R: Regularly, O: Occasionally and N: Never

The higher utilization of television and mobile phones may be attributed to their easy accessibility, affordability and wider rural penetration. Similar findings were reported by Princy and Makkar (2022) ^[18], who observed that mobile phones and television were the most preferred ICT tools among farm women for accessing agricultural and non-agricultural information. Newspapers and radio showed comparatively moderate utilization, whereas magazines, computers, video players and other media sources recorded

very low usage for all purposes. A majority of respondents reported never using these media sources, indicating limited digital access and low familiarity with advanced communication tools. Similar observations were reported by Das (2024) ^[3], who stated that farm women predominantly depended on mobile phones and television, while utilization of advanced digital media remained comparatively low due to accessibility and awareness constraints.



Note: N = Never; O = Occasionally; R=Regular; **Significant at $p < 0.01$; χ^2 (Information) = 95.554; Entertainment=89.010

Fig 3: Graphical representation of association between education and television utilization

Association between education levels on the utilization of television as a mass media source

Fig. 3 revealed a significant association between educational level and utilization of television for information and entertainment purposes among respondents, as indicated by the Chi-square values of 95.554 and 89.010, respectively, significant at one per cent level of probability. The figure showed that regular utilization of television increased with increase in educational level. Respondents with graduate education and PUC recorded higher regular utilization of television for information (85.11% and 82.61%) and

entertainment purposes (85.11% and 89.57%), respectively, whereas illiterate respondents recorded comparatively lower regular utilization for information (56.46%) and entertainment (62.24%). The trend further indicated a decline in occasional and non-utilization categories with increase in educational attainment, suggesting that education positively influenced television utilization behavior among farm women. Similar findings were reported by Princy and Makkar (2022) ^[18], who observed that educational level significantly influenced utilization of electronic mass media among rural women.

Table 6: Association between education level and utilization of newspaper as mass media

Education	Newspaper					
	Information (%)			Entertainment (%)		
	N	O	R	N	O	R
Illiterate	67.35	27.55	5.10	68.71	26.87	4.42
Can read and write	51.28	43.59	5.13	56.41	41.03	2.56
Primary school (1-4 std)	65.52	33.10	1.38	66.90	31.03	2.07
Middle school (5-7 std)	82.59	15.56	1.85	82.96	15.56	1.48
High school (8-10 std)	80.69	15.17	4.14	83.45	14.83	1.72
Pre-University Course (PUC)	68.70	22.61	8.70	73.91	20.00	6.09
Graduate and above	63.83	21.28	14.89	72.34	19.15	8.51
χ^2	66.607**			51.464**		

The tabulated in table 6 revealed a significant association between educational level and utilization of newspapers for information and entertainment purposes among respondents, as indicated by the Chi-square values of 66.607 and 51.464, respectively, significant at one per cent level of probability. The majority of respondents across all educational categories belonged to the “Never” category for newspaper utilization, but comparatively higher regular utilization for information was observed among graduates (14.89%) and PUC

respondents (8.70%), whereas middle and high school respondents recorded non-utilization levels above 80 per cent. The lower utilization of newspapers may be attributed to limited reading habits, literacy constraints and greater dependence on electronic media for easy and timely access to information. Patil and Dolli (2021) ^[17] also reported comparatively lower utilization of print media among farm women than electronic media sources.

Table 7: Association between education level and utilization of mobile as mass media

Education	Mobile					
	Information (%)			Entertainment (%)		
	N	O	R	N	O	R
Illiterate	12.24	36.73	51.02	11.56	37.07	51.36
Can read and write	2.56	28.21	69.23	5.13	25.64	69.23
Primary school (1-4 std)	5.52	42.07	52.41	6.90	41.38	51.72
Middle school (5-7 std)	4.07	21.11	74.81	5.56	21.85	72.59
High school (8-10 std)	4.83	19.66	75.52	6.21	18.28	75.52
Pre-University Course (PUC)	3.48	12.17	84.35	6.96	13.04	80.00
Graduate and above	0.00	10.64	89.36	2.13	10.64	87.23
χ^2	102.263**			84.313**		

The analysed data presented in table 7 showed a significant association between educational level and utilization of mobile phones for information and entertainment purposes among respondents, as indicated by the Chi-square values of 102.263 and 84.313, respectively, a significant at one per cent level of probability. The utilization of mobile phones regularly increased with increase in educational level, especially graduates and PUC respondents recording higher regular usage for information (89.36% and 84.35%) and entertainment purposes (87.23% and 80.00%), respectively.

In difference, illiterate respondents recorded comparatively lower regular utilization and higher occasional usage. The higher utilization of mobile phones among educated respondents may be attributed to better digital literacy, accessibility and awareness regarding mobile-based information services. Teza and Bodapati (2022) ^[21] also reported that mobile phones were widely utilized by rural women due to their accessibility, affordability and effectiveness in accessing agricultural information.

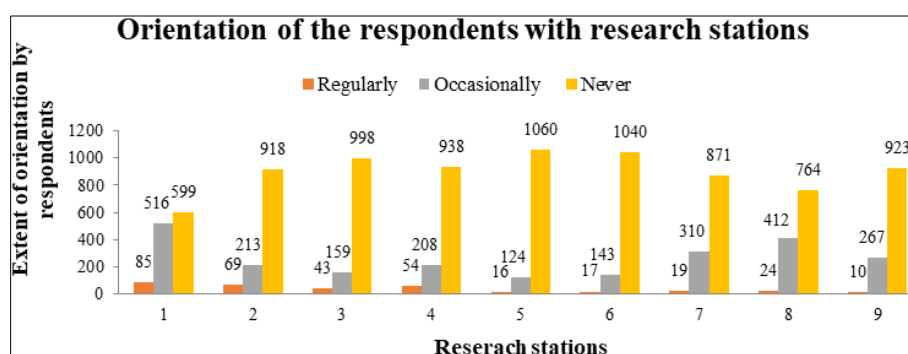
Table 8: Orientation of the respondents with research stations

Sl. No.	Research stations	Extent of visit				Rank
		Regularly n (%)	Occasionally n (%)	Never n (%)	Mean Score	
1.	University (ATIC, KVK, AEEC, AC & ARS)	85 (7.08)	516 (43.00)	599 (49.92)	0.57	I
2.	State Department of Agriculture	69 (5.75)	213 (17.75)	918 (76.50)	0.29	III
3.	State Department of Horticulture	43 (3.58)	159 (13.25)	998 (83.17)	0.20	VII
4.	State Department of Animal Husbandry & Veterinary Services	54 (4.50)	208 (17.33)	938 (78.17)	0.26	V
5.	State Department of Fisheries	16 (1.33)	124 (10.33)	1060 (88.33)	0.13	IX
6.	State Department of Forestry	17 (1.42)	143 (11.92)	1040 (86.67)	0.15	VIII
7.	Department of Social Welfare	19 (1.58)	310 (25.83)	871 (72.58)	0.29	IV
8.	Women and child welfare department	24 (2.00)	412 (34.33)	764 (63.67)	0.38	II
9.	Others	10 (0.83)	267 (22.25)	923 (76.92)	0.24	VI

*Weights for score calculation: 2- Regularly; 1 - Occasionally; 0 – Never

The findings presented in Table 8 revealed that respondents had comparatively greater orientation towards university-based research and extension institutions such as ATIC, KVK, AEEC, AC and ARS, which secured the highest mean score (0.57) and rank I. About 43.00 per cent of respondents visited these institutions occasionally, while 7.08 per cent visited regularly. The graph also indicates comparatively higher participation under the “Occasionally” category for

university-related institutions than other departments. This may be attributed to better outreach activities, farmer-oriented training programmes and extension services offered by agricultural universities. Similar findings were reported by Kumar and Singh (2021) ^[7], who observed that Krishi Vigyan Kendras and university extension centers served as major institutional sources of agricultural information for rural farm women.

**Fig 4:** Orientation of the respondents with research stations

Women and Child Welfare Department secured the second rank with a mean score of 0.38, followed by the State Department of Agriculture (0.29). In contrast, departments such as Fisheries, Forestry and Horticulture recorded comparatively lower mean scores, with a majority of respondents reporting no visits. The graph clearly reflects predominance of the “Never” category for these departments, indicating limited institutional linkage and low awareness among respondents regarding specialized research and development agencies (Fig.4). Similar observations were reported by Patel *et al.* (2022)^[15], who stated that farm women generally exhibited low interaction with formal agricultural institutions due to mobility constraints, inadequate awareness and limited extension contact.

4. Conclusion

The study concluded that communication behaviour and institutional linkages of farm women were significantly influenced by educational status and access to communication sources. Informal sources such as family members and relatives remained the major channels of information sharing, while television and mobile phones emerged as the most preferred mass media sources due to their accessibility and ease of use. In contrast, utilization of print media and formal institutional sources remained

comparatively low among respondents. Chi-square analysis indicated a significant association between educational level and utilization of television, newspapers and mobile phones for information and entertainment purposes, revealing that higher educational attainment enhanced media utilization and information-seeking behaviour among farm women. The findings infer that education and digital literacy play a vital role in strengthening communication effectiveness and institutional connectivity in rural areas. The study recommends strengthening women-oriented extension programmes through digital literacy initiatives, mobile-based advisory services, localized communication strategies and increased participation of farm women in extension activities and institutional networks. Overall, improving communication behaviour and institutional linkages among farm women can enhance information access, technology adoption and sustainable agricultural development.

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