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EVALUATING FACTORS INFLUENCING FARM WOMEN'S UTILIZATION OF DIGITAL EXTENSION SERVICES

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ABSTRACT

These digital extension services empower farm women by providing access to real-time information, enhancing their decision-making capabilities, and enabling them to adopt modern agricultural practices that improve productivity and sustainability. The study investigates the factors influencing the utilization of Digital Extension Services (DES) by farm women in the Southern, Central, and Northern Telangana zones of India. With women constituting a significant portion of the agricultural workforce, their access to and use of Information and Communication Technologies (ICTs) is crucial for enhancing agricultural productivity and empowerment. The study was conducted across eight villages in three districts of Karimnagar, Medak, and Mahbubnagar of Telangana involving 120 women farmers who actively use DES. The research employed a structured questionnaire and open-ended interviews to gather data, which was analysed using the Garrett ranking technique to identify key factors influencing DES usage. The findings highlight that the attributes of ICT, including ease of adoption, affordability, and wider coverage, were critical in influencing women's engagement with digital services. User-friendliness, such as content relevancy and timely information, also played a significant role. Personal factors like interest and ability to use ICTs, along with supporting policy environments, particularly government financial support further impacted DES utilization. Major constraints faced by farm women included limited internet access, low literacy levels, and the dual burden of household and farming responsibilities. These barriers, alongside socio-cultural factors, hindered the effective use of digital tools. The study suggests that while DES and ICTs have the potential to empower women, addressing these challenges through targeted interventions, training, and gender-responsive policies is essential for maximizing their benefits.

Keywords: *digital extension services, empowerment, farmwomen, information and communication technologies, utilization*

INTRODUCTION

Women's participation in agriculture since its inception has shown a significant rise, as supported by various studies and reports. According to the Xth Agricultural Census (2015-16) by the Government of India, the percentage of female operational holders increased from 12.79% in 2010-2011 to 13.87% in 2015-2016, highlighting a steady rise in women's involvement in the agricultural sector. This growing participation says that show women increasingly having land ownership rights, enhanced support from government schemes targeting women farmers, particularly in developing countries like India. The agricultural sector employs about 80% of all economically active women in India, where they account for 33% of the agricultural labour force and 48% as self-employed farmers (OXFAM, 2018). These statistics underscore the critical role that women play in both the production and management of agricultural activities. As their involvement expands, the need for gender-responsive policies and technologies becomes more pressing, particularly in the realm of digital extension services, which can significantly improve farm women's productivity and decision-making abilities.

Women farmers in developing countries often face barriers to accessing the same productive resources as men. According to the Food and Agriculture Organization (FAO, 2011), if women had equal access to productive resources, agricultural output could increase by up to 30%. This points to the urgent need for targeted interventions, particularly in the form of Information and Communication Technologies (ICTs), which can bridge the gap in information dissemination and access to critical resources such as input availability, pest management, and market prices. ICTs, including mobile phones, internet platforms, and other digital tools, are proving to be transformative in agriculture. They enable farmers to access timely and relevant information regarding crop management, pest control, and market trends. Studies,

such as those conducted by the International Conference on Digital Libraries (International Conference on Digital Libraries, 2019), demonstrate that ICTs can contribute directly to several Sustainable Development Goals (SDGs) such as zero hunger (SDG 2), gender equality (SDG 5), and decent work and economic growth (SDG 8). In the Indian context, 72% of farmers possess mobile phones, followed by access to televisions (61%) and radios (42%). These digital tools not only provide information but also serve as platforms for knowledge sharing, thereby fostering community collaboration and economic empowerment (Pratik and Vinaya 2021)

Despite the potential of ICTs in empowering farm women, there remain significant barriers to their widespread adoption and use. A World Bank report (2018) on "Breaking the Grass Ceiling" emphasized that digital extension services often overlook the specific needs of women farmers. This is a critical oversight, as tailored services that address the unique challenges faced by farm women, such as access to financial services, land ownership, and market information, are essential to achieving their full participation in the agricultural economy (Pratik Kiritkumar Patel and Vinaya Kumar, 2021; Tankodara et al., 2019; Pratik and Vinaya 2022; Vaishnavi and Ramesh, 2023). Digital extension initiatives in India, such as the National e-Governance Plan for Agriculture (NeGP-A), Agricultural Marketing Information Network (AGMARKNET), mKisan, and National Agriculture Market (e-NAM), have been developed to enhance the delivery of information and services to farmers. However, these programs must evolve to be more inclusive of women's needs, providing access to tools that help them manage both their household responsibilities and their agricultural activities effectively. Mobile applications like Kisan Suvidha and e-Mandi, for instance, offer market information and weather forecasts, yet they often fail to address gender-specific concerns such as childcare, workload management, and limited literacy, which are critical factors influencing women's utilization of these digital platforms.

Furthermore, as Morla (2021) concluded, women's empowerment is one of the key determinants of their ability to utilize ICTs effectively. Empowerment, particularly in rural contexts, not only enhances women's economic opportunities but also allows them to participate more actively in decision-making processes. This empowerment is crucial for leveraging digital extension services to their full potential, particularly in enhancing farm women's productivity, market access, and overall livelihood sustainability. The growing involvement of women in agriculture demands greater attention to the tools and technologies that can facilitate their participation. Digital extension services, powered by ICTs, offer a promising avenue for enhancing women's access to essential agricultural information, improving their productivity, and promoting gender equality. However, the utilization of these services by farm women is shaped by a myriad of factors, including socio-economic constraints, access to technology, and cultural barriers. Identifying and addressing these factors is crucial to ensuring that women can fully benefit from digital extension.

OBJECTIVE

To evaluate factors influencing the utilization of digital extension services by farm women

METHODOLOGY

The present study was purposively conducted in the erstwhile districts of Southern, Central, and Northern Telangana zones of India, namely Karimnagar, Medak, and Mahbubnagar, during April and May of 2021. These districts were selected based on their high usage of digital extension services within each zone of Telangana. The study forms part of a larger research project titled "Impact of Digital Extension Services on Farm Women Empowerment in relation to Sustainable Development Goals," undertaken by the Department of Extension Education at Professor Jayashankar Telangana State Agricultural University, Rajendranagar, Hyderabad, India.

For the study, eight villages were randomly selected from each Mandal where a significant number of farm women were known to access digital extension services. This selection process was carried out in the districts of Karimnagar, Medak, and Mahbubnagar, ensuring geographic diversity across Telangana zones. From each selected village, five farm women were chosen randomly, resulting in a total sample size of 120 respondents who actively utilized digital extension services.

Data collection was carried out using a structured questionnaire and an open-ended interview schedule, designed to capture both quantitative and qualitative insights from the respondents. The gathered data was subsequently recorded and analysed using garret ranking. The external and internal ranking was given for easy way of analysing the statements among each factor head (Attributes of ICT, User-friendliness of ICT, Supporting policy environment, and Personal factors) and also among the factors that determining the utilization of Digital Extension Services by farm women.

Garrett's Ranking Technique

Constraints were identified by studying previous studies and review of literature. It was used to rank the factors determining the utilization of DES by the farm women in priority. As per this, the respondents were asked to assign the ranks for factors determining the utilization of DES for the given below table.

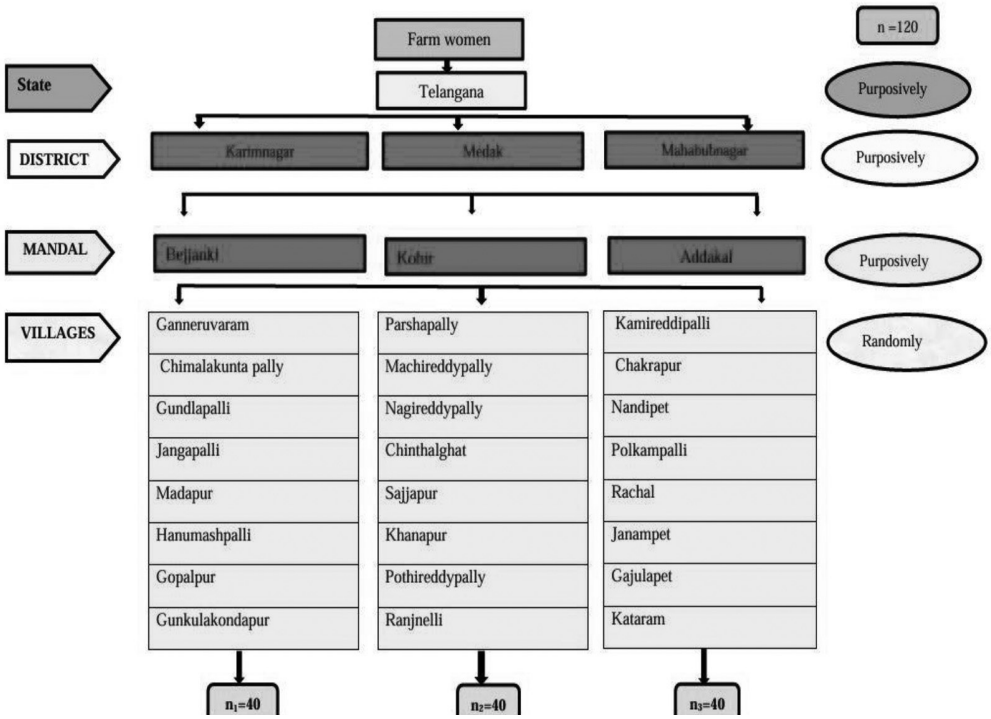

Fig 1: Schematic representation of the sampling

These ranks were converted into score values with the help of the formula suggested by Henry Garrett (1969).

The Percentage score computed was as given below

$$\text{Percentage score} = \frac{100(R_{ij}-0.5)}{N_j}$$

Where,

R_{ij} = Rank, i^{th}item, j^{th}individual

N_j = Number of items ranked by j^{th} individual

With the help of Garrett's table, the percentage score estimated was converted into Garrett score. Then for each factor viz., Attributes of ICT, User-friendliness of ICT, Supporting policy environment, and Personal factors which determine the utilization of DES by farm women, the total scores and mean scores were calculated. The process was delineated below. Here is the table given below showcasing the ranks and their conversion into Garret Score using percentage score Formula. Based on this table Garret Score and frequency of farmwomen responses received, the total Score was calculated by multiplying each other. To obtain the mean score, the total score has to be divided by the total respondents. The highest mean score was considered as the most important vis- a- vis.

Table 1: Percentage positions and their corresponding garett table values

Rank	Percentage Score Formula Calculation		Garret Score/ Garret table values
1	100(1-0.5)/12	4.166	83
2	100(2-0.5)/12	12.50	73
3	100(3-0.5)12	20.83	66
4	100(4-0.5)12	29.16	60
5	100(5-0.5)12	37.50	56
6	100(6-0.5)12	45.83	52
7	100(7-0.5)12	54.16	48
8	100(8-0.5)12	62.50	43
9	100(9-0.5)12	70.83	39
10	100(10-0.5)12	79.16	34
11	100(11-0.5)12	87.50	27
12	100(12-0.5)12	95.83	18

RESULTS AND DISCUSSION

The factors determining the utilization of Digital Extension Services by farm women are divided into different tables *viz*., internal and external ranking for easy understanding. Here we have mentioned one of the factors' statements *i.e*., Attributes of ICT in Table 2.

S. No.	Statements	Please give Ranking
A.	**Attributes of ICT based extension services**	
I	**Relative advantage**	
1	Easy of adoption	
2	Up to date nature of the advisories	
3	Wider coverage of the advisories	
4	Relatively cheaper	
II	**Compatibility**	
5	Compatible with farmers needs	
6	No socio - cultural barriers	
III	**Absence of Complexity**	
7	Simplicity of use of ICT tools	
8	Requirement of no expertise	
IV	**Trialability**	
9	Possible to try at smaller level	
10	No restriction on the user	
V	**Observability**	
11	Provision for Immediate feed back	
VI	**Predictability**	
12	Easy to predict the outcome of the advisories	
B.	**User friendliness of the ICT based extension services**	
13	Content wise	
14	Quality wise	
15	Relevancy of information	
16	Ease of application of advisories	
17	Timeliness of information	
18	Affordability of ICT based extension services	
C.	**Supporting policy environment**	
19	Regular training facility for effective use and up scaling	
20	Financial support from govt	
21	Involvement of farmers in content development	
D.	**Personal factors**	
22	Interest	
23	Ability to use ICTs	
24	Education back ground	
25	Economic status of the individual	

Internal Ranking

External Ranking

Internal Ranking

Internal Ranking

Attributes of ICT

Table 2 : Internal ranking of attributes of DES an ICT-mediated extension (n=120)

Sr. No.	Statements	Mean score	Rank
1	**Easy of adoption**	78.40	I
2	**Up to date nature of the advisories**	77.45	IV
3	**Wider coverage**	77.52	III
4	**Relatively cheaper**	78.47	II
5	**Compatible with farm women needs**	56.88	X
6	**No socio-cultural barriers**	55.54	XI
7	**Simplicity of use of ICT tools**	63.52	VII
8	**Requirement of no expertise**	63.82	VI
9	**Provision to try at smaller level**	58.05	IX
10	**No restriction on user**	58.65	VIII
11	**Provision for immediate feedback**	71.69	V
12	**Easy to predict the outcome of the advisories**	53.07	XII

Internal ranking of attributes of DES an ICT-mediated extension

Results from Table 2 provide an internal ranking of attributes for DES and ICT-mediated extension services based on their mean scores. The attributes are evaluated to determine their significance for users, with the highest mean score indicating the most valued attribute. The highest-ranking attribute is the ease of adoption, with a mean score of 78.40. This suggests that users prioritize systems that can be easily integrated into their existing practices, reflecting a preference for technologies that require minimal adjustment or learning. Ranked second is the attribute of being relatively cheaper, with a mean score of 78.47. Cost-effectiveness is a critical factor, as users are more inclined to adopt systems that offer significant benefits at a lower cost. The third-ranked attribute is wider coverage, with a mean score of 77.52. This highlights the importance of systems that can reach a broad audience, extending the benefits of digital extension services to a larger number of users. The up-to-date nature of advisories is ranked fourth, with a mean score of 77.45. Timely and current information is crucial for effective decision-making and ensuring the relevance of the advice provided. Ranked fifth is the provision for immediate feedback, with a mean score of 71.69. The ability to receive prompt responses is valued for improving the effectiveness of the advisory services and addressing user queries in real-time. The requirement of no expertise ranks sixth, with a mean score of 63.82. This indicates that users prefer systems that do not necessitate advanced skills or knowledge, ensuring broader accessibility. Simplicity in using ICT tools is ranked seventh, with a mean score of 63.52. User-friendly and straightforward systems are preferred to facilitate smoother adoption. The attribute of having no restriction on user access is ranked eighth, with a mean score of 58.65. This emphasizes the importance of unrestricted access to digital extension services for all potential users. The ability to trial the system at a smaller level is ranked ninth, with a mean score of 58.05. Users appreciate the opportunity to test the system on a limited scale before full adoption. Compatibility with the needs of farm women is ranked tenth, with a mean score of 56.88. This reflects the need for systems that align well with female farmers' specific requirements and contexts. The absence of socio-cultural barriers ranks eleventh, with a mean score of 55.54. Systems that do not encounter cultural or social hindrances are preferred for ensuring widespread acceptance. Finally, the ease of predicting the outcome of advisories is ranked twelfth, with a mean score of 53.07. While important, predictability is less critical compared to other attributes in determining user satisfaction and adoption. The rankings reveal that users prioritize ease of adoption, cost-effectiveness, and coverage attributes. These findings align with previous research emphasizing the importance of user-friendly, affordable, and broadly applicable systems for effective ICT-based extension services (Rogers, 2003).

Table 3 : External ranking of attributes of DES an ICT-mediated extension (n=120)

Sr. No.	Statements	Mean score	Rank
1	**Relative advantage**	72.55	I
2	**Compatibility**	38.55	V
3	**Absence of complexity**	53.71	III
4	**Trialability**	46.96	IV
5	**Observability**	62.20	II
6	**Predictability**	25.35	VI

External ranking of attributes of DES an ICT mediated extension

It is observed from Table 3 that the external ranking of attributes of Digital Extension Systems (DES) and ICT-mediated extension services. The attributes are ranked based on their mean scores, highlighting their significance in influencing the effectiveness and adoption of these systems: The highest-ranked attribute is the relative advantage of ICT-mediated extension services. This indicates that users perceive significant benefits and improvements over traditional methods, such as increased efficiency, better access to information, and enhanced productivity. Observability, the extent to which the results of the ICT-based services are visible to others, ranks second. This attribute underscores the importance of visible outcomes and success stories in encouraging adoption among potential users (Rogers, 2003). The ease of use and minimal complexity associated with ICT-mediated services is crucial. Users prefer systems that are straightforward and easy to understand, which facilitates their acceptance and effective utilization. Trialability, or the ability to experiment with the ICT-based services on a limited basis before full-scale adoption, is ranked fourth. This attribute allows users to test the system and gain confidence in its effectiveness and reliability (Rogers, 2003). Compatibility, or how well the ICT-based services align with existing practices and needs, is ranked fifth. While important, it is less critical compared to the perceived advantages and ease of use, but still affects user acceptance. Predictability, or the degree to which the outcomes of using the ICT-based services can be anticipated, ranks lowest. This suggests that users may place less emphasis on predictability compared to other attributes when evaluating the usefulness of digital extension systems . These rankings are consistent with the findings of Rogers (2003), who emphasized the importance of relative advantage and observability in the adoption of new technologies. The lesser emphasis on predictability aligns with observation that practical benefits and ease of use often outweigh concerns about the predictability of outcomes.

Table 4 : Internal ranking of User friendliness of DES an ICT-mediated extension (n=120)

Sr. No.	Statements	Mean score	Rank
1	**Content wise**	73.83	I
2	**Quality wise**	47.43	IV
3	**Relevancy of information**	60.24	II
4	**Ease of application of advisories**	26.99	VI
5	**Timeliness of information**	52.70	III
6	**Affordability of ICT-based extension services**	37.79	V

User friendliness of DES an ICT mediated extension

It is evident from Table 4 that the internal ranking of user-friendliness factors for ICT-based extension services, with content, relevancy of information, timeliness of information, and quality occupying the top ranks, followed by affordability and ease of application. The findings reflect several crucial aspects of user satisfaction and service effectiveness: The most critical factor is the quality of the content provided through ICT-based extension services. High-quality, relevant, and actionable content directly impacts the effectiveness of the information for farmers, ensuring that it meets their specific needs and contributes to better agricultural practices. The relevance of information is essential for practical use. Extension services must offer information tailored to local conditions and farming practices to be effectively utilized by farmers. Providing timely information is critical for effective decision-making in agriculture. Delays in receiving information can hinder farmers' ability to act promptly on recommendations, affecting their productivity and outcomes. The overall quality, including accuracy and clarity of the information, influences user trust and adoption. High-quality content builds confidence in the ICT tools and their recommendations. Although not the top factor, affordability is important. The cost associated with accessing and using digital tools can affect their adoption, particularly in resource-constrained environments. The practical usability of the advisory services is crucial for effective implementation. If farmers find the advice challenging to apply, the benefits of the ICT tools are reduced.

Table 5 : Personal factors (n=120)

Sr. No.	Statements	Mean score	Rank
1	**Interest**	70.08	I
2	**Ability to use ICTs**	55.91	II
3	**Educational background**	43.29	III
4	**Economic status of the individual**	29.46	IV

Findings from Table 5 indicate that, among personal factors, interest ranks highest, followed by the ability to use ICTs, educational background, and economic status of the individual, in that order. This suggests that personal interest plays a critical role in leveraging digital tools in agriculture, as motivated individuals are more likely to adopt and utilize ICTs effectively. The ability to use ICTs also emerged as a significant factor, demonstrating the growing importance of digital literacy in agricultural development. Educational background was ranked third, highlighting the relevance of formal education in ICT adoption but indicating that it is not the sole determinant. Economic status ranked last,

implying that while financial capacity influences access to technology, other factors may have a stronger impact on digital engagement.

Supporting policy environment

Table 6: Internal ranking of supporting policy environment

(n=120)

Sr. No.	Statements	Mean score	Rank
1	**Regular training facility for effective use and upscaling**	50.00	II
2	**Financial support from the government**	67.57	I
3	**Involvement of farmers in content development**	32.74	III

Findings from Table 6 indicate that financial support from the government is ranked highest, followed by regular training facilities and the involvement of farmers in content development. The top ranking of financial support underscores its critical role in facilitating the adoption and expansion of digital extension services. Government funding is essential for developing infrastructure, subsidizing technology costs, and supporting various aspects of digital service implementation. Regular training facilities are ranked second, highlighting their importance in ensuring effective use and upscaling of digital tools. Training equips farm women with the skills needed to navigate and utilize digital extension services effectively, thus enhancing their overall impact. The involvement of farmers in content development is ranked third, reflecting its role in creating relevant and practical content that addresses the specific needs and challenges faced by farm women. This inclusion ensures that the digital services are tailored to the real-world context, thereby improving their utility and effectiveness. These findings are consistent with Verma (2016) and are further supported by literature from the World Bank (2018), reinforcing the need for a supportive policy environment that includes financial support, effective training, and farmer involvement in content development to successfully implement and utilize digital extension services.

Results from Table 7 depict the analysis of factors affecting the utilization of Digital Extension Systems (DES) by farm women, based on their mean scores and rankings.

The highest-ranked factor is the attributes of DES an ICT-mediated extension, with a mean score of 71.30. This indicates that the inherent qualities and features of the DES are the most influential in determining its utilization among farm women. Attributes such as ease of adoption, cost-effectiveness, and relevance are critical for effective use. Ranked second is

Table 7 : Overall External Factors affecting the utilization of DES by farm women (n=120)

Sr. No.	Statement	Mean Score	Rank
1	**Attributes of DES an ICT-mediated extension**	71.30	I
2	**User-friendliness of DES an ICT-mediated extension**	55.85	II
3	**Supporting policy environment**	43.55	III
4	**Personal factors**	28.27	IV

the user-friendliness of DES an ICT-mediated extension, with a mean score of 55.85. This suggests that how easily farm women can interact with and use the DES is crucial for its successful adoption. Systems that are intuitive and accessible are more likely to be utilized effectively. The supporting policy environment is ranked third, with a mean score of 43.55. This factor encompasses the external conditions and policy support that can facilitate or hinder the use of DES. Effective policies and support mechanisms are necessary but are less influential compared to the direct attributes and user experience of the DES. Personal factors are ranked fourth, with a mean score of 28.27. These factors include individual attributes such as interest, ability to use ICTs, and educational background. While important, personal factors have the least impact compared to the other categories in determining the utilization of DES. This highlights that external factors and system attributes play a more significant role. The rankings indicate that the effectiveness and features of the DES are paramount in influencing its utilization among farm women, followed by its user-friendliness, supportive policy environment, and individual characteristics. These findings underscore the need for designing user-centric and feature-rich systems to enhance adoption and utilization (Rogers, 2003; Tadavi et al., 2024; Rathwa et al., 2024; Dhanwal et al., 2024)

CONCLUSION

The study concludes that Digital Extension Services (DES) hold immense potential for empowering farm women by providing timely, relevant information and enhancing agricultural productivity. However, their effective utilization is influenced by multiple factors, including the ease of use, affordability, and content relevancy of digital tools. Additionally, socio-economic constraints such as limited internet access, low literacy, and the dual burden of household and farm responsibilities impede full engagement with these services. To fully unlock the benefits of DES for women farmers, there is a need for gender-responsive policies that focus on improving digital literacy, infrastructure, and

accessibility. Government support in the form of financial aid and training programs tailored to women's specific needs can help overcome these barriers. By addressing these challenges, DES can significantly contribute to the empowerment of women in agriculture, promoting both gender equality and sustainable development in rural communities.

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CONFLICT OF INTEREST

There is no conflict of Interest between the authors.

REFERENCES

Agriculture Census of India. 2015-16. Retrieved from http://agricoop.nic.in/division type /agriculture-census.

Dhanwal, Sanyogita (2023) Purpose and extent of use of social media by students. Gujarat Journal of Extension Education, 35(2):115-121. https://doi.org/10.56572/gjoee.2023.35.2.0023.

FAO. 2011. Closing the gender gap. Retrieved from https://www. Worldbank.org/en/news/feature/2018/03/06/breaking-the-grass-ceilingempowering-women-farmers.

Garrett H.E. 1979. Statistics in Psychology and Education. Vakils Feffer and Simons Ltd., Bombay, India.

International Conference on Digital Libraries. 2019. Digital Transformation for SDGs, Teri, The Energy and Resource Institute, 1-54

Morla M. K. R. 2021. Performance of women and child development sector in India – A Critical Analysis. Economic and political weekly, 56(13)

OXFAM. 2018. Oxford Committee for Famine Relief, move over sons of the soil: Why you need to know the female farmers that are revolutionizing agriculture in India. Retrieved,from:https://www.oxfamindia.org/women-empowerment-indiafarmers

Pratik Kiritkumar Patel and Vinaya Kumar, H. M. (2021). Farmers socio- econimic status and constraints using social media for sustainable agriculture development. *Guj. J. Ext. Edu.* 32 (1): 34-39.

Pratik Kiritkumar Patel and Vinaya Kumar, H. M. (2021). Farmers socio- econimic status and constraints using social media for sustainable agriculture development. *Guj. J. Ext. Edu.* 32 (1): 34-39.

Pratik Kiritkumar Patel and Vinaya Kumar, H. M. (2022). Predictive Factors for Farmers' Knowledge of Social Media for Sustainable Agricultural Development. *Indian Journal of Extension Education,* 58 (4): 55-59. http://doi.org/10.48165/IJEE.2022.58412

Rathwa, Minal S., Christian, B. M. and Patel, Dhruv N. (2024) Relationship between farmers' profile and their social media utilisation behaviour. *Gujarat Journal of Extension Education,* 37(1):82-86. https://doi.org/10.56572/gjoee.2024.37.1.0013.

Rogers, E. M. 2003. Diffusion of Innovations. 5th ed. Free Press.

Tadavi, Sameer A., Kadam, Rajesh. P. and Manvar, Vidyanand. S. (2024) Use of social media as a source of market information by the farmers. *Gujarat Journal of Extension Education,* 37(2):110-114. https://doi.org/10.56572/gjoee.2024.37.2.0018.

Tankodara K. D., Gohil G. R. and Meghwal P. K. (2019). Impact of on campus training programme on knowledge level of farmers regarding scientific cultivation technology of oilseed crops. *Gujarat Journal of Extension Education* 30(2):179-181.

Vaishnavi, P. and Ramesh, P. (2023) Relationship between profile characteristics of women SHG members and their empowerment through TNCDW incuddalore district. *Gujarat Journal of Extension Education* 35(2):55-58. https://doi.org/10.56572/gjoee.2023.35.2.0012

Verma. R. K. 2016. Empowerment of women through information and communication technology: A Case analysis of connecting dream foundation. M.Sc. (Ag) Thesis ICAR- Indian Agricultural Research Institute, Division of Agricultural Extension.

World Bank Report. 2021-22. New world bank country classification by income level:2020-2021. Retrieved,from:https://blogs.worldbank.org/opendata/newworld-bank-country-classifications-income-level-2021-2022

World Bank. 2018. Breaking the Grass Ceiling: Promoting Digital Inclusion in Agriculture. World Bank Publications. Retrieved from https://www.worldbank.org/en/news/feature/2018/03/06/breaking-the-grass-ceiling-empowering-women-farmers (accessed on 8 October 2024)

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