

A study of Rural Women Empowerment through ICTs in West Godavari District of Andhra Pradesh

A.Padma Yasoda Kumari¹, Dr. A. Udaya Shankar²

¹ Research scholar, KLU Business school, KL University, Guntur Dt, Andhra Pradesh, (India)

² Associate Professor, KLU Business school, KL University, Guntur Dt, Andhra Pradesh, (India)

Abstract

Women empowerment is important for the development of our country. A majority of the Indian women live in villages. Therefore, the development of rural women empowerment is necessary for the true development of our countries economy. The Government of India and the Planning commission of India acknowledged that rural women empowerment is to be promoted for the economic development. The rural women of India are trying to foray into entrepreneurship for their empowerment. However, the problems encountered by the rural women entrepreneurs is completely different from those of their urban counterparts. ICT sector can provide lot of chances for the rural women development through entrepreneurship. This phenomenon of contemporary practices in ICT sector is deliberated about in this study bringing forward the case study of rural women entrepreneurs of West Godavari district of Andhra Pradesh in ICT sector. The focus of the present paper is to gain insight into the concept of rural women entrepreneurship in ICT sector focussing on to examine the need of rural women entrepreneurs in ICT's, barriers as well as difficulties experienced by rural women, issues and challenges in contemporary practices in ICT's and to suggest measures for women empowerment from ICT's.

Keywords: rural women entrepreneurship, Information and Communication Technology (ICT), contemporary practises in ICT sector, need, issues, challenges, measures

1. Background

In India, a majority of the rural women are working in agricultural sector. The agriculture work is seasonal in nature. As a result, many rural women are looking for alternative sources of employment when no agricultural work exists.

Numerous rural women are semi-educated or unskilled and they battle a great deal even to win bread for the family. They don't have financial independence. Similarly, tax payment services are not effectively available to open in villages. This ICT venture is planned to connect these holes and inspiring the lives of rural women. Therefore, the present study is undertaken to gain insight into the concept of rural women entrepreneurship in ICT's.

The ICT centres were started in West Godavari District to provide People- To – People services and People – To- Government services in the rural areas of the West Godavari District. The unique feature of these e seva centres is that they are completely run by the rural women self- help groups of West Godavari district. The ICT project thus aimed to transform the rural women as communication leaders in the rural areas.

Based on the above observations, the present focus on to better understand the concept of rural women entrepreneurship in ICT sector. It also serves the objective of empowering them and giving them economic freedom on one hand while increasing the ICT potential in the rural areas on the other hand.

2. Significance

Thus this paper explores the various issues faced by the rural women entrepreneurs along with understanding the challenges faced by them in ICT sector in India. The focus of the present paper is to gain insight into the concept of rural women entrepreneurship in ICT sector focussing on to examine the need of rural women entrepreneurs in ICT's, barriers as well as difficulties experienced by rural women, issues and challenges in contemporary practices in ICT's and to suggest measures for women empowerment from ICT's.

This research assumes significance by highlighting the instances of rural women entrepreneurship in ICT sector in the West Godavari District of Andhra Pradesh. This study examines as to how small rural women entrepreneurs in the ICT sector overcame the challenges in the 200 centres and different mandals of West Godavari District and also recognises the standard basis for the triumph of the rural women eseva entrepreneurs.

While different research analysis pointed out that rural women are engaged in the entrepreneurial development of our country, but very few literature reviews are available about the collaboration of rural women in ICT entrepreneurship.

3. Literature Review

Hafkin N and Taggart N (2000) observed that the rural women are generally economically and socially marginalised. The development of ICT's in rural areas helps them to empower.

Nathan, Kelkhar (2002) stated that the rural areas generally have mostly low paid jobs. The ICT's can thus solve this problem by paying wages in the range of 5,000 to 15,000 thousand per month to the rural women which greatly contributed for their economic independence.

Thus, it is understood that Information and Communication Technologies (ICT's) bring with them greater efficiency as well as new possibilities for rural women empowerment.

Arabi (2006) further observed that with the ICT's, the gender disparity can be lessened in the rural areas.

Heeks (2004) observed that ICT's are the potential tools for self-employment in the rural areas.

Objectives

It is necessary to increase the opportunity of self-employment for educated and uneducated women through the development of rural entrepreneurship. Also the self-employed women entrepreneur creates not only her employment but also creates employment opportunities to other rural people. It is most important to create a favourable atmosphere for a healthy development of entrepreneurship.

It is important to expand the chance of self-employment for Enlightened and uneducated ladies through the advancement of rural entrepreneurship. Likewise, the independently employed female business person generates not only her work but also makes business chances to other rural individuals. It is generally imperative to make a favourable atmosphere for a solid advancement of entrepreneurship.

However, this study attempts to study how the rural women in ICT sector in the West Godavari District of Andhra Pradesh have managed to establish successful eseva ventures. This study also focuses on how they have managed to increase the opportunity of self-employment, financial autonomy, social capabilities

and personal attitudes among rural women. The rural women have also achieved success in developing the non-agricultural related businesses in the rural areas.

Traditionally in Indian economy, women are generally associated with low paid jobs. This study observes the efforts and capabilities of the rural women to establish themselves in the rural ICT industry and develop entrepreneurial activity instead of settling in stereo-type jobs like house-keeping.

Thus, the objective of the present study is

1. To gain insight into the concept of rural women empowerment in ICT sector
2. To focus on the need for women entrepreneurs in ICT's
3. To study the barriers and difficulties experienced by rural women in establishing their ICT businesses successfully
4. To examine the issues and challenges in the contemporary practices in ICT's to make them beneficial for the rural communities and
5. To suggest measures for rural women empowerment through ICT sector.

The phenomenon of contemporary practices in ICT has been discussed in this paper with reference to the rural women in ICT sector in the West Godavari District of Andhra Pradesh.

To gain insight into the concept of rural women empowerment in ICT's

The ICT project was started in the year June 2002 in one centre. The main objective to start these ICT venture is to empower the rural women of West Godavari district. In November 2002, these ICT centres started offering self- employment scheme services.

By January 2003, the ICT's were started in 46 centres providing various web enabled services to the local people. In June 2003, a record 30,000 transactions were done in these ICT's. In the same year, the ICT's tied up with Premji Foundation to offer multimedia training to the children of Government schools in these ICT centres. By November 2003, the ICT centres have increased from 46 to 120. 28,000 children from Government schools are given training in IT skills and the total number of transactions increased to a whopping 6,00,000.

As on July 2004, the multimedia training to the children of Government schools in these ICT centres increased to 70,000. The rural women learned to expand their ICT centres into bigger size and into large offices. A record 1.5 million transactions were done in these ICT's. 350 million rupees was collected through electricity bill payments. Tele- medicine services were also made available for rural people from December 2004. Nearly 50 patients were utilizing the tele- medicine services per day.

The number of transactions in the ICT centres rose to 2 million. The ICT projects started providing training facilities to the school dropout children and unemployed youth in computer science, communication skills, English language and managerial training.

The services were offered both in English and Telugu in these ICT's for the convenience of the local rural people.

The various services offered through these ICT's are filling the complaints and grievances online, filling the online application for various government welfare schemes, issuing various land record certificates, helping the rural people to participate in online auctions for various self- help groups, tele- medicine

services, tele- agricultural services for the farmers, online matrimonial services, keeping the accounts for the DWAKRA groups and many more services.

Need for Rural Women Empowerment and Opportunities for Rural Women in ICT Sector

ICT is a sector which can contribute to the social, economic, cultural, educational i.e. overall development of a region. ICT's support women in rural areas by providing immediate or indirect business openings without antagonistically influencing horticultural workforce.

ICT sector helps in providing employment opportunities to the rural women who cannot out-migrate from the villages by developing the rural women entrepreneurial system. Also majority of activities in the rural ICT's do not require hard core training for local women.

With least training required for skill development, rural women are capable of offering a varied range of services. Since ICT industry is majorly contributing for the economic development, it facilitates many forms of business development opportunities for rural women.

Due to the Indian government efforts to develop rural ICT sector, increased opportunities for the employment of local rural women have originated. ICT industry offers varied business and entrepreneurial opportunities for income generation for rural women. Rural females can grab multiple opportunities by way of offering various services like issuing numerous certificates, giving latest information to the rural people about the various government programmes, helping the rural people with networking and assisting the rural people with making various online payments.

Women's preference to work from home and desire for social recognition motivates them for self-employment. The trained women entrepreneurs can assume the responsibility of operation and maintenance of the ICT ventures at their villages. Since the women entrepreneurs have already been trained, it is suggested that the opportunity be pursued further.

The rural women entrepreneurs can thus generate employment opportunities for others while keeping pace with their personal, family and social life.

Issues and Challenges Experienced by Rural Women Entrepreneurs in ICT Sector

The businesses started by the rural women entrepreneurs in ICT sector are small, unorganised with no competitive advantage. This is due to the lack of experience and necessary training of the rural women. Rural women are mainly concerned with earning decent profits and fail to understand the long term goals of their businesses. They are not in a position to expand their business due to the non- availability of skilled labour in rural areas. Also the poor infrastructural facilities in the rural areas add to their woes.

The following problems are faced by rural women entrepreneurs as per the ILO report:

Lack of Support- the rural women face the problem of lack of support both at home and at work place in the pursuit of business

Lack of capital – the women in villages generally neither lack the capital to start the business nor they know the procedure to procure a loan for their venture.

Lack of confidence and faith – these women tend to start their ICT ventures very timidly due to lack of guidance and confidence.

Lack of Education- Women starting as entrepreneurs do not have the required technical skills due to lack of education

Lack of Experience- the lack of previous experience for the rural women is resulting in running into business losses. Also, the rural women are unable to expand their ventures due to the lack of experience.

Also, the rural women entrepreneurs may be required to deal with difficult tasks as they aim to expand their business enterprise and the track needs to up-scaling themselves with improvisation mechanism like better service, more amount of capital for expansion and good marketing techniques.

The rural women entrepreneurs may have fewer customers in the initial stages. Good business management practices are to be implemented for the success in the long run.

Lack of good communication is a common problem usually faced by these rural women. These rural women may not have the business flourishing especially during the non- agricultural work season. Sometimes they are not able to run their businesses cost effectively ultimately. Beforehand training is a must upon the start of their ICT ventures. Incentives offered for the IT work are low compared to the drudgery. Women entrepreneurs are finding it difficult to provide the incentives while keeping the costs low.

Measures for Rural Women Empowerment through ICT Sector

Firstly, the rural women should know about the various chances available in the ICT sector. Also the information regarding the emerging opportunities in the ICT sector suitable for rural women should be made known to them.

Secondly, required training should be given to these women before the start of their ICT ventures. During the training they should understand the hospitality procedure to be adopted towards their customers. They should also be trained in the communication skills.

Thirdly, as these women do not have the required capital to start the business, they should be guided with the procedures to procure the loans. They should be informed of the advantages to form and work in cooperatives to enable the easy procurement of capital.

Fourthly, the rural women should be guided with regard to marketing of their services. They should be made aware of creating business networks in this process.

Lastly, as these women lack the experience and confidence to run the business, they should be supported by the family throughout and by the society in the initial stages.

4. Methodology

An empirical research has been conducted in the West Godavari district of Andhra Pradesh in order to gain insight into the concept of rural women empowerment in ICT sector in West Godavari district of Andhra Pradesh focussing on to study the women entrepreneurs in ICT's, to explore the opportunities and advantages experienced by rural women in establishing their ICT businesses successfully, to investigate the issues and challenges in the practices in ICT to make them beneficial for the rural communities and to identify the changes in the lives of rural women entrepreneurs from ICT's.

The study is also based on the secondary data like ICT journals, newspapers, ICT related articles, internet, books on ICT sector, published reports of ICT industry, world bank observations on ICT developments.

5. Research Design

The survey method is used for the primary data collection in the West Godavari district through a well-structured questionnaire. The Mandal Revenue Office, the Panchayat office, the Village heads were approached to get the details about the rural women in the villages. The rural women having entrepreneurial capabilities and engaged in the rural ICT centres were purposively selected.

The quantitative study of my research is carried on through survey method by using a standardized questionnaire and personal interviews with the rural women engaged in the rural e seva centres.

The qualitative study is carried on through Participatory research methods like Focus group discussions and direct observation.

Maintaining Field notes is also a part of my research work Before taking up the actual data collection procedure, considerable time was spent on literature review to build up a strong theoretical background of the study.

6. Research Tools and Methods

Survey Method

The research is done in West Godavari district. A questionnaire is developed to understand the working of the rural ICT's.

Under the survey, information related to the various aspects of the rural women, demographic information, problems and potentials of ICT business resources, impact on women's workload and the level of women's participation are obtained.

Personal Interviews

Personal interviews were conducted with all the selected rural women in the West Godavari district. The interviews were conducted in Telugu as it is the language of the local people. The personal interviews helped in getting information which is not covered by the survey method. The survey method combined with the personal interview helped to ascertain the information related to the various aspects of ICT's of West Godavari district.

Direct observation

Direct observation requires the researcher to be in the field or to be present in the natural settings where the phenomenon under study takes place. This enables the researcher to understand about the participant's lives and their perceptions concerning the phenomenon under study (Maykut and Morehouse, 1994).

Focus Group Discussions

Focus group discussion is considered as a basic method of qualitative analysis and PRA. In a focus group discussion 8 to 10 people assemble in the presence of a trained moderator who guides a discussion lasting about 2 hours (Goldman and McDonald, 1987: 7)

For this research, Focus group discussions are conducted for women's group exclusively. These discussions are conducted in order to know their views and opinions about ICT technology, their likes and dislikes, acceptance and rejection, their interests and needs and so on.

Sampling Method

Two methods of sampling were used in the research namely the Purposive sampling approach and the stratified random sampling approach.

For selecting the rural women, a three stage stratified random sampling method has been used. There are 5 revenue divisions in West Godavari district with 48 mandals and 881 villages. Out of the 48 mandals, 20 mandals and from each mandal, 5 villages were selected. In each village all the rural women engaged in the ICT centres were purposively selected.

Stage1: Mandals

Stage2: Villages

Stage3: Rural women

The selection of rural women is done through Purposive sampling approach. Since the purpose of the research is to explore and analyse the factors enhancing the empowerment of rural women, the rural women were purposively chosen to accommodate these factors.

Sample Area

To choose the sample respondents West Godavari District has been selected.

The West Godavari district has five revenue divisions. These revenue divisions are divided into 48 mandals in the district. These 48 mandals consists of 881 villages, 1 municipal corporation, 8 municipalities and 5 census towns.

As per 2011 census, the total population of the West Godavari District is 39,36,966. It accounts for 4.65 % of the total population of the State. The female population of the West Godavari District is 19,72,048 and this forms 50.09 % of the District. Of the total population of 39.4 lakh, 31.3 lakh people live in rural areas. That is, a majority of the people, nearly 79% people, live in villages in west Godavari district.

According to 2011 census, rural population of the West Godavari District is 31,28,189 and it constitutes 79.46% of the West Godavari District population. The Literacy rate of the West Godavari District is 74.32% which is higher than the State literacy rate of 67.66%. The sex ratio of the West Godavari District is 986 females per 1,000 males as against 978 of the State.

The reason for selecting west Godavari district is that it is the most densely populated district in central coastal Division. Also the literacy rate is more and the women constitute nearly 50% of the population. Also, this district has been selected as the research implications will have wider implications throughout the state because the features of this area are representative of many parts of the state.

Sample Size

A total of 384 members were running 200 eseva centres in west Godavari district currently. of these women members 150 rural women were taken as the sample size for the data collection.

7. Limitations of the Study

The study is limited to the West Godavari district of Andhra Pradesh. Utmost care was taken to avoid divergence in data collection. As the number of rural women in Andhra Pradesh are very large, data was collected from only one district and sampling method was used for data collection.

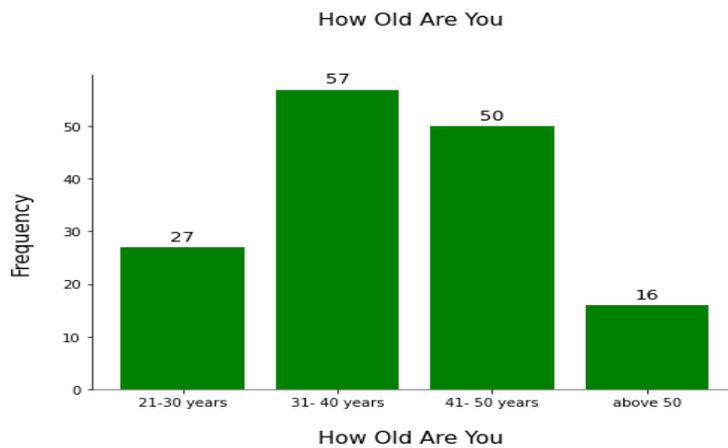
Diagnostic Tools

Various diagnostic tools like mean, percentage, Chi-square test, standard deviation, SPSS version 20 are used to analyse the data collected.

1.Age of the rural women respondents

How old are you

How old are you	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 21-30 years	27	18.0	18.0	18.0
31- 40 years	57	38.0	38.0	56.0
41- 50 years	50	33.3	33.3	89.3
above 50	16	10.7	10.7	100.0
Total	150	100.0	100.0	

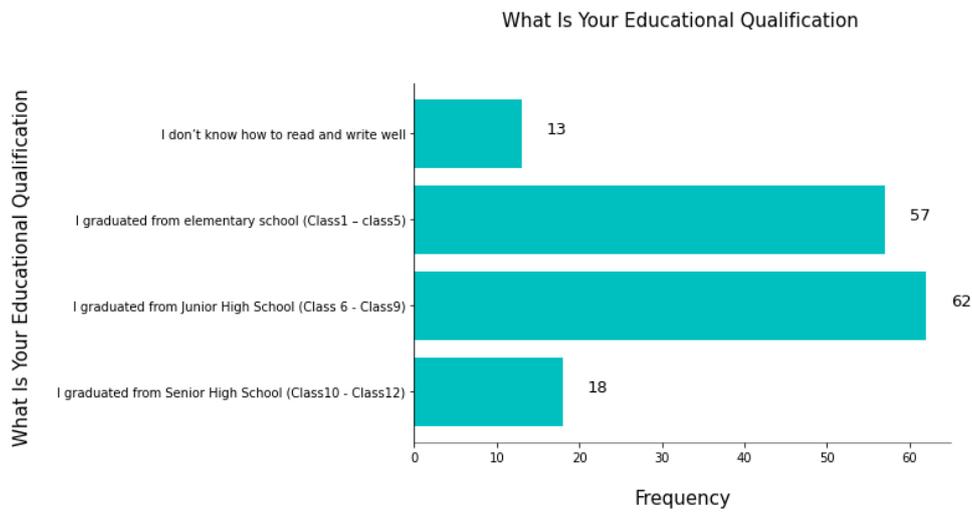


2.Educational qualification of the rural women respondents

What is your educational qualification

What is your educational qualification	Frequency	Percent	Valid Percent	Cumulative Percent
Valid I don't know how to read and write well	13	8.7	8.7	8.7

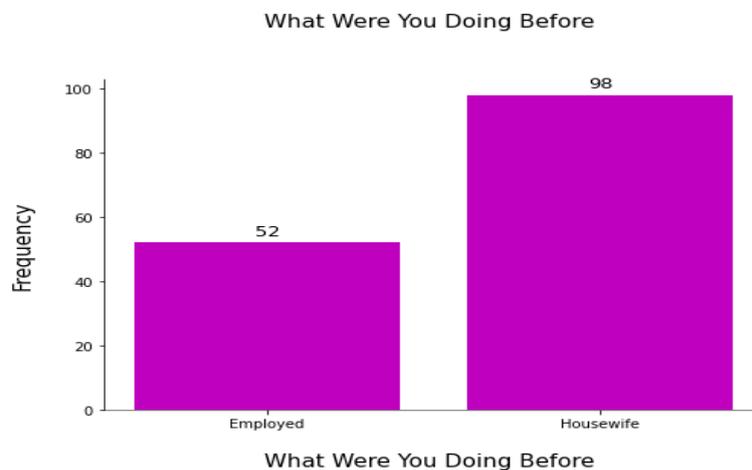
I graduated from elementary school (Class1 – class5)	57	38.0	38.0	46.7
I graduated from Junior High School (Class 6 - Class9)	62	41.3	41.3	88.0
I graduated from Senior High School (Class10 - Class12)	18	12.0	12.0	100.0
Total	150	100.0	100.0	



3. What were you doing before

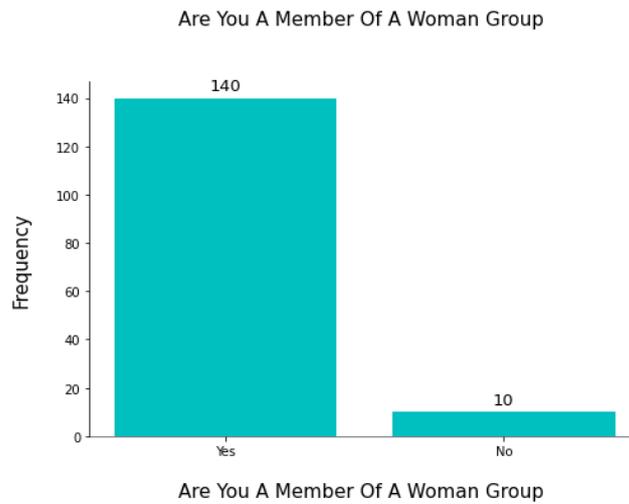
What were you doing before

What were you doing before	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Employed	52	34.7	34.7	34.7
Valid Housewife	98	65.3	65.3	100.0
Total	150	100.0	100.0	



4.Are you a member of a woman group

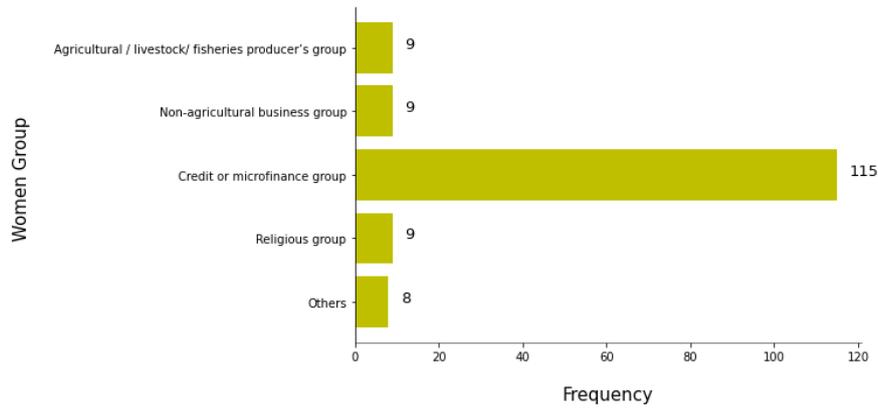
Are you a member of a woman group	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	140	93.3	93.3	93.3
Valid No	10	6.7	6.7	100.0
Total	150	100.0	100.0	



5.If, yes which type is the woman group you are currently most active in

If, yes which type is the woman group you are currently most active in

Women Group	Frequency	Percent	Valid Percent	Cumulative Percent
Agricultural / livestock/ fisheries producer's group	9	6.0	6.0	6.0
Non-agricultural business group	9	6.0	6.0	12.0
Valid Credit or microfinance group	115	76.7	76.7	88.7
Religious group	9	6.0	6.0	94.7
Others	8	5.3	5.3	100.0
Total	150	100.0	100.0	

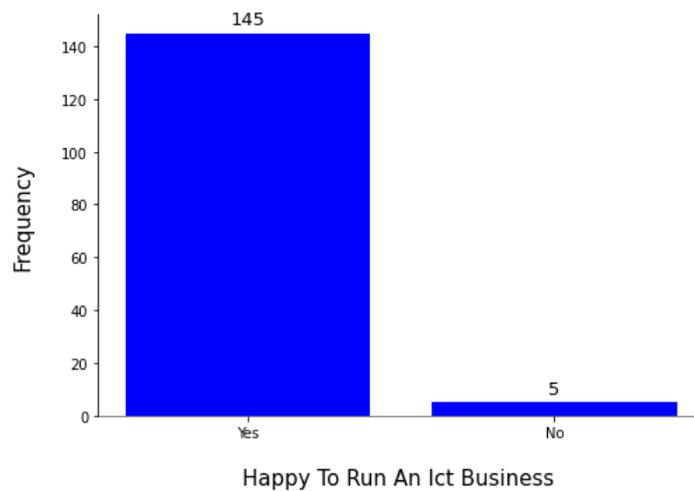


6. Are you happy to run an ICT Business?

Are you happy to run an ICT business

Are you happy to run an ICT business	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	150	98.0	100.0	100.0
Missing System	3	2.0		
Total	153	100.0		

Happy To Run An Ict Business

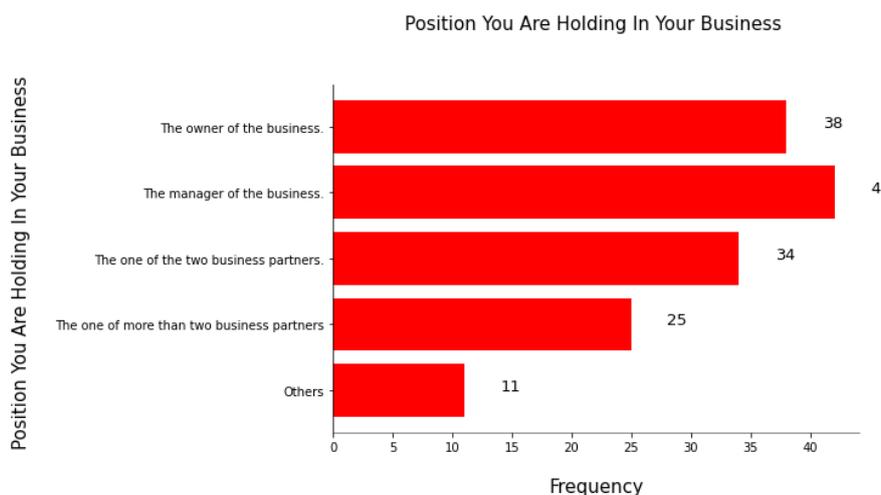


7. If yes, which position are you holding in your business

If yes, which position are you holding in your business

Position you are holding in your business	Frequency	Percent	Valid Percent	Cumulative Percent
---	-----------	---------	---------------	--------------------

Valid	The owner of the business.	38	25.3	25.3	25.3
	The manager of the business.	42	28.0	28.0	53.3
	The one of the two business partners.	34	22.7	22.7	76.0
	The one of more than two business partners	25	16.7	16.7	92.7
	Others	11	7.3	7.3	100.0
	Total	150	100.0	100.0	

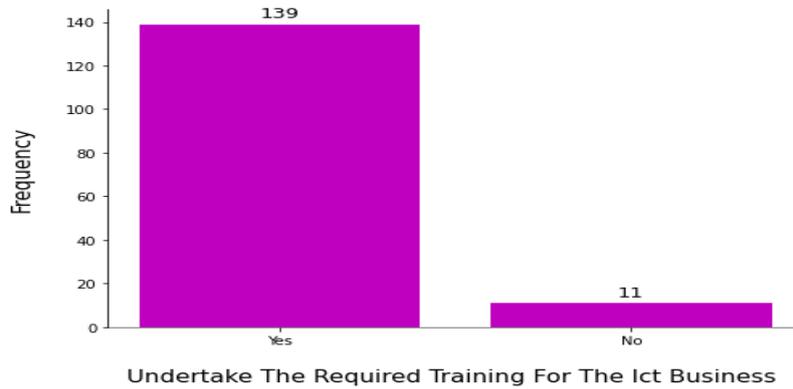


8. Did you undertake the required training for the ICT business?

Did you undertake the required training for the ICT business?

Undertake the required training for the ICT business	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	139	92.7	92.7	92.7
Valid No	11	7.3	7.3	100.0
Total	150	100.0	100.0	

Undertake The Required Training For The Ict Business

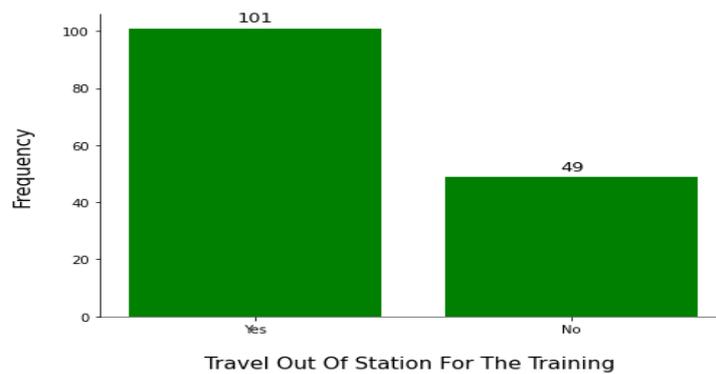


9. Did you travel out of station for the training mentioned above?

Did you travel out of station for the training mentioned above?

Travel out of station for the training	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	101	67.3	67.3	67.3
Valid No	49	32.7	32.7	100.0
Total	150	100.0	100.0	

Travel Out Of Station For The Training



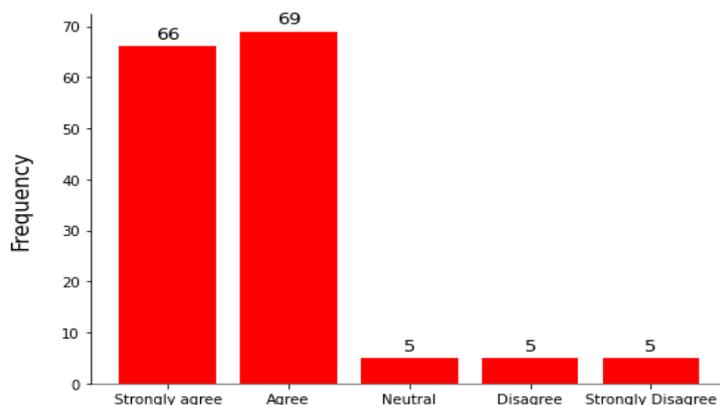
10. The ICT business improved my financial status

The ICT business improved my financial status

The ICT business improved my financial status	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	66	44.0	44.0	44.0
Valid Agree	69	46.0	46.0	90.0

Neutral	5	3.3	3.3	93.3
Disagree	5	3.3	3.3	96.6
Strongly Disagree	5	3.3	3.3	100.0
Total	150	100.0	100.0	

The Ict Business Improved My Financial Status



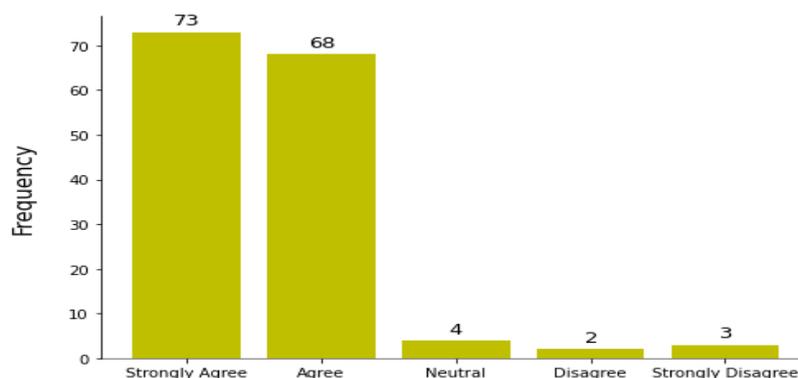
The Ict Business Improved My Financial Status

11. I get recognition in the society by doing ICT business

I get recognition in the society by doing ICT business

Recognition in the society by doing ICT business	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	73	48.7	48.7	48.7
Agree	68	45.3	45.3	94.0
Neutral	4	2.7	2.7	96.7
Disagree	2	1.3	1.3	98.0
Strongly Disagree	3	2.0	2.0	100.0
Total	150	100.0	100.0	

Recognition In The Society By Doing Ict Business

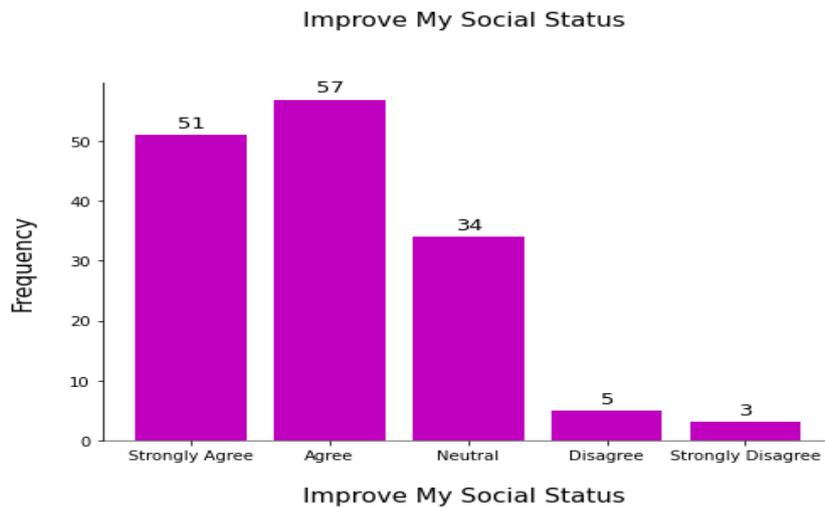


Recognition In The Society By Doing Ict Business

12. The ICT business improved my social status

The ICT business improves my social status?

Improve my social status	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	51	34.0	34.0	34.0
Agree	57	38.0	38.0	72.0
Neutral	34	22.7	22.7	94.7
Valid Disagree	5	3.3	3.3	98.0
Strongly Disagree	3	2.0	2.0	100.0
Total	150	100.0	100.0	

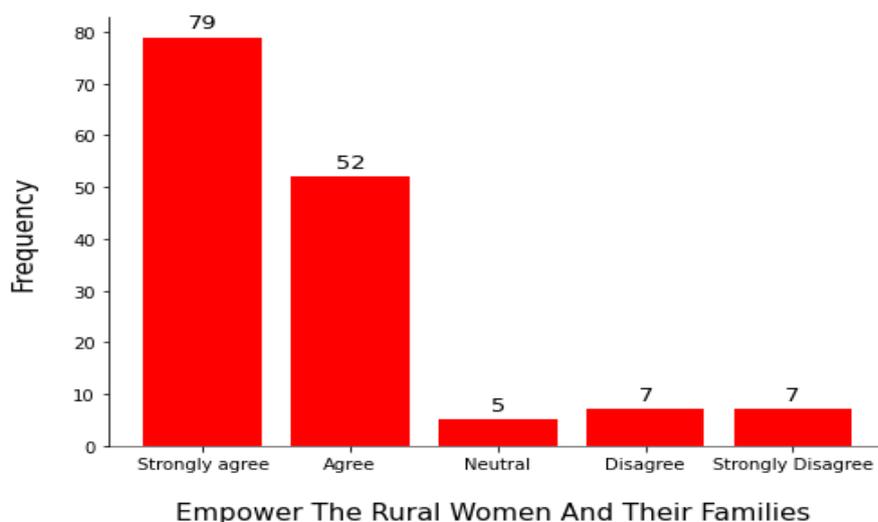


13. Does this ICT project empower the rural women and their families

Does this ICT project empower the rural women and their families

Empower the rural women and their families	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	79	52.7	52.7	52.7
Agree	52	34.7	34.7	87.4
Neutral	5	3.3	3.3	90.7
Valid Disagree	7	4.7	4.7	95.4
Strongly Disagree	7	4.6	4.6	100.0
Total	150	100.0	100.0	

Empower The Rural Women And Their Families



8. Findings and Conclusion

Findings

1. Most of the respondents are in the age group of 31- 40 years who are interested in the ICT business. The next majority is in the age group of 41 to 50 years. This clearly suggests that the young and middle age rural women of the West Godavari district are mostly into ICT's.
2. The majority of the respondents i.e. 40% of them are graduated from Junior High School (Class 6 - Class9) and the next majority of the rural women respondents have graduated from elementary School (Class 1 – Class5). This indicates that the rural women are confident to enter into ICT business though they are not highly educated.
3. Of the surveyed women respondents, 65% are housewife's doing household chores while the remaining 34% of the rural women are employed as agricultural workers.
4. Most of the rural women respondents, to the extent of 92% are members of the self- help groups and the remaining 8% are non- members.
5. A look at the data shows that 6% of the rural women respondents are engaged in agricultural work, another 6% are engaged in non- agricultural work. 76% are engaged in micro- finance group, 6% are engaged in religious groups and the remaining 7% are engaged in other groups. This shows that the majority of these women are engaged in the credit- finance groups.
6. 98% of the women respondents gave a positive response when they were asked if they were happy to run the ICT business. whereas a mere 2% gave a negative response.
7. Then the women were asked which position they were holding in the ICT business. 25.8% of the rural women are owners of their business. 28% are the managers of their business. 22.2% are one of the two business partners. 16.3% are one of more than 2 business partners. Others were 7.2% are just the workers. This shows that the majority of the rural women wanted to manage the business.
8. As training is necessary for this business, the women respondents were asked if they undertook the required training. 93%, i.e. the majority of the respondents gave a positive response to this and the remaining 7% said no.

9. 67% of the women respondents said that travelled out of station for the training mentioned above and 33% said that they are not able to travel out of station for the training.
10. 44% of the rural women strongly agreed that the ICT business improved their financial status while 46% agreed to this opinion. This clearly shows that 90% of the rural women agreed with the opinion that ICT business improves their financial position.
11. Here again, 94% of the rural women said that the ICT business improved their recognition in the society. 48% strongly agreed and 45% agreed.
12. The majority of the women respondents constituting 74% believed that ICT's improved their social status, 38% agreed that ICT business improved their social status. 34% strongly agreed to this opinion whereas 19% were neutral.
13. The majority of the rural women respondents with 97% felt that the ICT project empowered them and their families.

The majority of the rural women felt that the ICT project provided them the opportunity to improve their incomes through skill development.

9. Conclusion

Rural women are integral to the ICT sector in rural areas since they can play significant role in carrying on the ventures and managing the resources. In turn their participation is very crucial in the development of the rural ICT sector. They have the prospective to contribute to the promotion of the ICT sector in terms of their indigenous knowledge and skills relating to providing efficient services.

Thus these case studies have been an effective tool to gain insight into the concept of rural women empowerment in ICT sector focussing on to study the need of women entrepreneurs and their opportunities in ICT's, barriers and difficulties experienced by rural women and to suggest measures for rural women empowerment from ICT's.

This case study also helped in studying the valuable influence of ICT's on the rural women. The rural women entrepreneurs in ICT sector are able to enhance their capabilities because of their better financial position. Their prestige and status in the society has improved and hence are motivated to undertake new training courses. ICT sector has positively impacted the self-perceptions of the rural women that they can now undertake new business opportunities.

Also, this study shows how the rural women in the West Godavari District of Andhra Pradesh have managed to establish successful ICT ventures and how they have managed to increase the opportunity of self-employment, economic independence, personal and social capabilities among rural women.

The rural women's self-employment activities not only can improve their own lives and family but also contribute to the development of that rural area. The quality of life of the rural women has been improved along with regional development.

The overall goal of this paper is to study the rural women managed ICT enterprises in the West Godavari district of Andhra Pradesh that resulted in strengthening the livelihoods of the rural women and for the preservation and development of local heritage of the villages.

References

- 1) Gurumurthy A., Swamy M., Nuggehalli R., Vaidyanathan V. (2008), Locating gender in ICTD projects: five cases from India, Bangalore: IT for Change.
- 2) Rice, M.F. (2003). Information and communication technologies and the global digital divide: Technology transfer, development and least developing countries. *Comparative Technology Transfer and Society*, 1(1), pp. 72–88.
http://shodhganga.inflibnet.ac.in/bitstream/10603/5387/12/12_chapter5.pdf
- 3) Pilat, D. 2004. The ICT Productivity Paradox: Insights from Micro Data. *OECD Economic Studies* 38: 1-65.
- 4) Paul J., R. Katz and S. Gallagher. 2004. *Lessons from the Field: An Overview of the Current Uses of Information and Communication Technologies for Development*. World Resources Institute.
- 5) <http://www.digitaldividend.org/pdf/lessons.pdf>
- 6) Colle, R.D., and R. Roman. 2002. The Tele-centre Movement: Using ICTs for Social Change. Paper Presented at the Nineteenth Annual Intercultural Communication Conference, February 23, at the University of Miami.
- 7) Swapna Veldanda, Independent Researcher panitha_v@rediffmail.com & Sanjay Jaju, Project Co-initiator(2005), Women's IT Sector Enterprises Case Study No 4.
- 8) <http://www.womenictenterprise.org/eseva.htm>
- 9) Meenu Agrawal, Shobana Nelasco (2009) “Empowerment of Rural Women in India” KanishkaPublishers, New Delhi
<http://www.mbacademy.org.uk/osir-journals/2015-2016/vol-1/Prof.%20Mukesh%20Ranga.pdf>
- 10) Patil, D. A. (2006) Information and Communication Technology (ICT) and Rural Development: Lessons from Rural India. *IASSI, Quarterly*, Vol. 25, No.2.
http://shodhganga.inflibnet.ac.in/bitstream/10603/8124/11/11_chapter%204.pdf
- 11) S.K.Chaudhury (2013) Empowering Rural Women Entrepreneurship in India
<http://www.cgg.gov.in/workingpapers/WP-77-92.pdf>
- 12) Chaudhury.S (2011) Micro-Finance and Rural Women Entrepreneurship in India
https://en.wikipedia.org/wiki/Digital_India
- 13) Digital India Portal. (2014).
<http://digitalindia.gov.in/content/about-programme>
The Government of India report on Digital India. (2014). <https://www.mygov.in/group/digital-india/>
- 14) A report on ICT Project in Self- help group in A.P. (2002).
<http://egyankosh.ac.in/bitstream/123456789/25867/1/Unit-13.pdf>
- 15) Shodhganga Infiltrate. Literature Review.
https://shodhganga.inflibnet.ac.in/bitstream/10603/8484/10/10_chapter%202.pdf
- 16) B Dr. B.Kishore Babu and M.V.A.L. Narasimha Rao, A Study on Civil Engineering Students Perception towards Demonetization in Guntur District ,Andhra Pradesh, *International Journal of Civil Engineering and Technology*, 8(12),2017, pp. 160–174
- 17) Dr. B. Kishore Babu, A.Tulsi Ram Naveen and Sampath,Perception of the Engineering Students towards 7ps of Organized Retail Stores and Unorganized Retail Stores, Vijayawada- A Comparative Study, *International Journal of mechanical Engineering and Technology* 9(1), 2018. pp. 841–851.
- 18) Dr. B. Kishore Babu, Vanama Sri Harshini and A. Madhavi. A Study on Engineering Faculty Perception Towards Investment Avenues in Godavari Districts of Andhra Pradesh. *International Journal of Civil Engineering and Technology*, 8(12), 2017, pp.
- 19) Dr. B.Kishore Babu and M.V.A.L. Narasimha Rao, A Study onCivil Engineering Students Perception towards Demonetization in Guntur District, Andhra Pradesh, *International Journal of Civil Engineering and Technology*, 8(12),2017, pp. 160–174