

## Promotion of SHG Through Cloud Computing Platform

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### ABSTRACT

*This paper focuses on marketing problems faced by the women SHG in the study area. The growth in the online marketing and the trend of digital marketing demands SHG to join e-commerce to market their products. The respondents were asked about their difficulties in the operation and working of the SHG and the common issue was marketing of their produce. Thus, the current study focuses on the benefits of the SHG and the problems faced by them in marketing. The paper has also suggested a cloud-based marketing model for the SHG which can be used by the SHG to market and sell their produce. The study also identified various difficulties in implementation of the model and solution for the same.*

**Keywords:** Microfinance, Self Help Group, ICT, Cloud marketing, Women Empowerment.

### INTRODUCTION:

The concept of microfinance is not new for any country. Prof. Yunus first introduced the concept as a pilot project considering the needs of the poor around him. The concept got recognition at the start of the Grameen Bank. Considering the potential and the growth showed the concept in Bangladesh it was then introduced by NABARD the regulatory body again as a pilot project (Ashok B. D.). The concept showed a significant impact on upliftment of the poor and acted as a medium to provide formal financial services to the poor section of the society (Bharathi & Masthani, April - June 2014). The government along with other agencies is continuously striving for the successful implementation and sustainability of the concept.

The concept primarily targets the rural poor who are deprived of the formal banking services and are forced to rely upon the moneylenders who charge huge amount of interest (Bundela, Kumar Dubey, & Pande, Jan. - Feb. 2013). The concept has been successful in creating a reasonable supply of funds to meet the demand of the client. The government is actively involved in bringing appropriate changes and modifications in the microfinance policies to avoid misuse of the funds and successfully cater to the needs of the poor. The concept still has a long way to go, as the target of the concept is to eliminate poverty in the country by making timely and reasonable financial services available to the people at affordable cost (Suri & Kaur, February 2016).

### Self Help Groups:

The concept of microfinance is mostly interchangeably used with the Self-Help Group (SHG). It is one of the medium of providing formal financial or microfinance services to the needy poor. An SHG usually consists of 10 to 20 members with the homogenous background and wanting to work towards understanding and catering to the common problems of the group members and to find solutions to the same. Most of the SHG's are women-centered or targeted towards upliftment of the rural women (Das, June 2012). Considering the ability and the skills among the women which mostly remains unused or restricted by the family boundaries, SHG provides an opportunity to start some income generating activity as well as create some saving for the future use (Rajasekaran & Sindhu, 2013).

The primary intention of the concept is to create confidence among the women and motivate them to positively deal with socio-economic and socio-political challenges faced by them in their daily life (Doss & Devi, 2013).

The groups are a mere voluntary association of people with common intentions or ideas. Over a period, the concept of SHG has played a significant role in reducing poverty among the rural population by providing them with timely finance (Kulkarni, Patil, & Nadaf).

#### **Cloud Computing:**

The invention of the computers is a significant development which is continuously progressing at making its use simpler day by day. The entire nation's progress and the growth information is at a distance of a click on the computer. It has acted as a solution and substitute for the record maintenance issue and challenge. The concept of cloud computing is not new.

The Cloud computing is providing on-demand delivery of all the facilities or compute power or database storage of IT applications and resources through a cloud service platform through the internet. It has various advantages some of them are briefly mentioned below.

- Economies of Scale: It helps to achieve a lower variable cost. As is cloud creates records and demands of hundreds and thousands of customers. It intern reduces the price of the product.
- Trade capital expenses for variable expenses: The clouds make it possible and accessible to the entire data set of the customers. Thus there is need to invest considerable amounts in identifying the probable customer's agencies. Hence payment can be made only for the services consumed and not for the task performed by the cloud.
- Stop Guessing capacity: The cloud creates access to the probable consumer needs thus eliminating the guessing on the infrastructural needs. The decision on the investment can be made considering the capacity and the need of the market.
- Increase Speed and agility: In the case of cloud computing the entire database is just and clicks distance which reduces or eliminates the time gap taken to make the resources available to the end consumers. This increases the performance and ability of the organization as the time gap between the investment and returns is significantly lower.
- Global outreach: the cloud platform an opportunity to put forth the application in all the regions around the globe. This gives a broader coverage and market for the products of the organization.

#### **REVIEW OF LITERATURE:**

(V, Deshpande, M, & Nair): The author has considered that the evolution of science and engineering is the key reason for the development of various commercial applications. The widespread usage of such applications has led to the emergence of cloud computing. The paper has proposed a cloud-based microfinance model in order to reduce high transaction risks involved during the operation of microfinance activity.

(SAPKAL & Kherdikar, 2015): The author considers the use of Information and Communication Technology (ICT) tools at various levels for effective and economical marketing of the products. The research paper focuses on the use of ICT tools to promote the SHG products. The purpose is also to propose various ICT tools which can be used for marketing of the SHG products.

(Nimbalkar & Berad, March 2014): The author speaks about the role played by women in various sectors such as economic, political, social, sports, educational, enterprising. The study tries to highlight the significance of trends for promoting women empowerment in India. The study revealed that the knowledge of internet could upgrade the knowledge of women about the political, economic and social situation of the whole world. The author tried to identify the benefits of information technology derived by the women members of Self Help Groups in Ahmednagar district. The findings revealed that information technology plays a vital role for women empowerment, members of Self Help Groups viewed that if sources are available, then information technology can empower women in economic, social, political and other ways.

(Goswami & Dutta, Feb. 2015): The review article highlights the role of ICT in the business environment of women entrepreneurs. Information and Communication Technology (ICT) is an essential element in today's competitive business world. The author stresses on the necessity of ICT and further adds by saying that the survival of business organizations are mainly depending on the effective and efficient use of ICTs in enhancing their competitive position. The study further focuses on unique and vast opportunities of ICT to empower women in various ways. The study concludes by saying about the existence of gender gap in the digital divide prevalent in the developing countries. Further, the difficulties and challenges faced by women regarding ICT training, financing, social norms and linguistic issues cannot be ignored. Thus, the study suggests that the Government should come up with special policies and schemes on financial support, infrastructural support and training facilities in school to promote and develop the usage of ICT among women entrepreneurs.

## METHODOLOGY OF THE STUDY:

The current conceptual study is done on the current scenario of microfinance through SHG and the technology impact on its promotion in Goa. The essential data is gathered from the various secondary sources like textbooks, magazines, journals, e-journals, published and unpublished articles, websites.

### Objective:

1. To understand the importance of Information and communication technology among SHG
2. To develop a Cloud marketing model for the SHG promotion.
3. To study the potential impact of cloud computing on SHG

### Hypothesis:

Based on the objectives the following hypothesis is formulated.

- **H<sub>0</sub>:** There is no impact of technology on the marketing performance of SHG business.

### Sampling Design:

The state of Goa is divided into two districts North Goa and South Goa. For the purpose of the study, a random sample of 100 women SHG is selected. It is divided equally among both the district that is 50 groups from North and 50 groups from the South Goa.

### The scope of the Study:

The current study only covers the SHG women members in both North Goa and South Goa district. It is restricted to the demographic aspect of the sample population and skill development of the respondents.

### Tools for Data Collection:

For the purpose of study both primary and secondary data are used, the primary data were collected by using a structured interview schedule, and the secondary data was collected from various publications of both central and state governments and NABARD.

## Importance of Information Technology for Women Empowerment:

**Social Empowerment:** The survey data revealed that most of the women respondents gained awareness about various social issues and also gained new knowledge and information about other various range of issues which are of interest to women only after being associated to ICT. The access to such information often acted as a motivator for the women members and broadens their way of thinking about the various opportunities available and modes of availing them. It gave them the opportunity to participate in activities at various levels and to express their views and opinion with others. They can also share their problems and collectively give some suggestions to the affected person (Krishnaveni & Haridas, 2013).

- **New knowledge and information:** They get access to new information and knowledge. The poor background of the members usually restricts and limits their awareness level. It increases their understanding level about various issues thus making them able to make more sensible and reliable decisions.
- **Skills, abilities, and competence:** the ICT increases their Skills as their can now learn more techniques which can make their work more cost efficient through visual videos or even by interacting with professionals online.
- **Participating in group activities with women:** the mere association with the SHG and the use of technology encourages the group members to participate actively in group activities.

**Political Empowerment:** The use of technology has created an opportunity for the members of SHG to be aware of the political environment. The mere association with the SHG has given them a chance to raise their voice and to put forth their demands in front of the Government. As they lead a group of females, it builds a kind of leadership quality among the members of the SHG.

- **Participating in policy making:** The unity among the groups makes SHG one amongst the stakeholder in decision making. Thus, they get a chance to be a part of decision making.
- **Taking action to change life or community:** The mere association with the SHG strengthens and motivates the rural women. It encourages the women to take up economic activity and, in a way, contribute towards the upliftment of the society.
- **Changing stereotypes about rural women:** The SHG is a kind of opportunity to break free from the traditional belief that women should be restricted to the housework only. The SHG encourages women to make some financial contribution towards the family income actively.

**Psychological Empowerment:** The psychological empowerment deals with motivating the women members of the SHG. It targets at boosting the Self-confidence and sense of worth among the SHG members. It also deals with motivating, inspiring and creating a kind of interest to develop new skills and knowledge. Being associated

with different kind of people also acts as a support to face problem in life.

- Self-confidence and self-esteem: Boosting of confidence is the key reason for starting and joining an SHG. The group gives the confidence to face risk as it is shared with all the members.
- Feeling more valued and respected: The progress from being restricted to only household activities to be associated and involved in some income generating activities acts as a motivating factor thus leading to increase in the self-respect and social value.
- Freedom to do things or express them self: It provides an opportunity to express views among the members. As a group, they can utilize their skills and create a successful business enterprise which will help them to earn income.

**Technical Empowerment:** This is the most crucial aspect need attention as most of the SHG members being less educated are reluctant to use technology without considering the benefits that can be derived from the use of the same (Sravani, September, 2013).

- Knowledge of Information and Communication Technology (ICT): The lack of knowledge about ICT makes them reluctant to use them. The awareness and understanding of the concept in itself will increase the interest of the groups towards the use of ICT. It is vital for the group to use ICT to cope up with the progressing economy and to be able to face competition.
- Skill and Competence in using ICT: The use of ICT requires specific skills and ability. The Groups thus can get themselves involved in training programs which will help them improve their technical skills which will help them in the long run (Vanithamani & Menon, 2012).
- Confidence to use and Speak about ICT: The mere understanding and basic use of ICT creates confidence among the Women members. Thus, making them motivated to face challenges. The use of ICT gives them access to information on the global scale which also increases their awareness and knowledge.

**Economic Empowerment:** The use of the latest technology is directly linked to the increase in the income by reducing the overall expenditure. The cost incurred on various business aspects can be reduced by using the latest technology. It boosts the income of the women thus making them active contributors towards the family income (Sarmah). The knowledge and the awareness created through the use of ICT makes them understand various issues more systematically thereby getting more precise and optimum solution. The ICT leads to optimum utilization of resources thus increasing their overall income (Lagare, Talathi, Deorukhakar, & Naik).

**Testing the Hypothesis:**

The marketing being the most crucial aspect of any business unit, it is very much essential to understand the same. The process of identifying and communicating with the probable customer is very much vital to achieving the expected sales. The current analysis is conducted to analyze the impact of technology on the marketing aspect of SHG business. The technology here means any new machinery or infrastructural changes taken up over and above the traditional method of production, bookkeeping, or marketing. A five-point Likert scale question was asked to the SHG to rate their business marketing performance pre, and post-use of technology was valued one meant unsatisfied whereas value 5 meant satisfied. For the purpose of the analysis, a Wilcoxon signed rank test is being used.

**H<sub>0</sub>:** There is no impact of technology on the marketing performance of SHG business.

**Table 1**

Descriptive Statistics								
	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25 <sup>th</sup>	50 <sup>th</sup> (Median)	75 <sup>th</sup>
Pre-Technology Marketing	100	1.48	.502	1	2	1.00	1.00	2.00
Post-Technology Marketing	100	3.77	.815	2	5	3.00	4.00	4.00

**Source:** primary data, SPSS output

The descriptive statistics of the Wilcoxon signed rank test indicate that post median score 4 is statistically higher than the pre-median score 1. This depicts an increase in the impact of technology

Table 2

Ranks				
		N	Mean Rank	Sum of Ranks
Post technology – Pre-technology	Negative Ranks	0 <sup>a</sup>	.00	.00
	Positive Ranks	98 <sup>b</sup>	49.50	4851.00
	Ties	2 <sup>c</sup>		
	<b>Total</b>	<b>100</b>		

a. Post technology < Pre-technology

b. Post technology > Pre-technology

c. Post technology = Pre-technology

Source: primary data, SPSS output

The rank table shows some interesting data on the comparison of pre and post technology impact. The Zero negative ranks depict that there is no negative ranking in case of marketing the respondent made efforts to market their products and were happy with their performance. The use of technology has only increased their performance to a higher level which is evident from the 98 positive ranks depicting an increase in the satisfaction level of the marketing performance. There are still two respondents who have not managed to gain benefits from the technological usage.

Table 3

Test Statistics	
	Post technology – Pre technology
Z	-8.693 <sup>b</sup>
Asymp. Sig. (2-tailed)	.000
a. Wilcoxon Signed Ranks Test	
b. Based on negative ranks.	

Source: primary data, SPSS output

The final test statistics table helps us to discover the impact of technology on the overall marketing performance of the SHG. The Wilcoxon signed rank test indicated that the Scores given for post-technological impact are significantly higher than the pre-technology usage for marketing scores. Thus, we reject the null hypothesis and accept the alternate stating that technology usage has impacted marketing performance of the SHG positively.

(Z= -8.693, p= .000)

**Cloud Marketing Model:**

The survey study revealed that most of the SHG lack the marketing skills which are most important for marketing their end output. The lack of marketing knowledge and experience leads to the loss due to non-sales of the output produced. The concept of cloud marketing model is a solution to this problem or issue. It aims at systematically catering to the marketing problem of the SHG. The concept considers all types of SHG, i.e., food products, handicraft, textile. The model considers all the aspects needed for the success of the SHG. The input is derived from the SHG, and the intermediary or Business market developer will look after the marketing and promotion task. The end consumer can also place their orders on the cloud directory which will eliminate SHG’s problem independently identifying the probable customer.

The parties involved in the model are the Resource suppliers (SHG’s and SHG Federations), the Business Market Developers (BMD), Cloud Directory and the final Consumer.

➤Resource Supplier: For a product to be sold in the market requires to be produced or manufactured. Similarly, in the current case, the manufacturer or producer of the products are the SHG or SHG Federation. The SHG producing or involved in similar types of activities are grouped together after considering their similar needs and requirements. The problem of marketing and finding the probable customer is eliminated as the BMD gives the SHG orders after considering the consumer demand and the price quoted.

➤Business Market Developer (BMD): The Business Market Developers play a significant role in the development of the SHG under these cloud model. As the future success or failure of the SHD depends on the market demand created by the BMD. The BMD is entrusted with the task of keeping a record of all the Resource suppliers and their prices quoted in the Cloud directory. They are also required to play marketing and advertising role on behalf of the SHG. They need to create demand for the produce of the SHG. They are

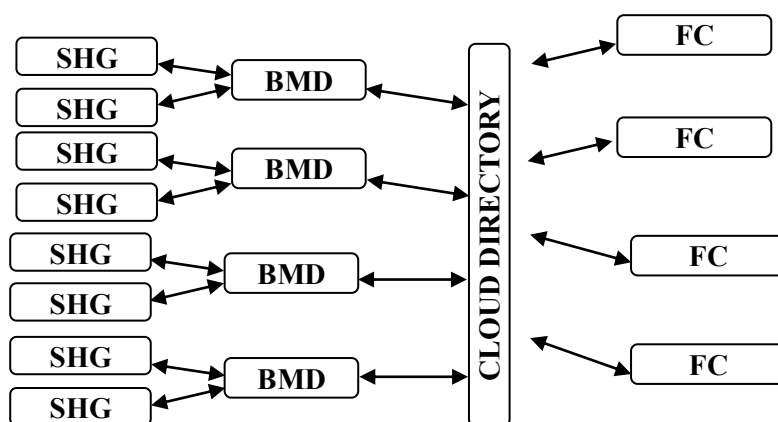
also required to maintain records of the consumer demands and needs in the cloud directory and thereby match their demand with the supply based on the price quoted. The BMD will be mean for specific category or type of SHG. For instance, there will be special BMD for SHG in the catering business, similarly, for textile, food products, agricultural products, textile. there will be categorical BMD.

- Cloud Directory: The Cloud Directory is a record-keeping tool for better accounting of the SHG data. The Cloud Directory will have all the data relating the Suppliers their products, their prices, and other products related information. Similarly, it will also have the data of the consumer as an when the demand or the order is being placed on them. The directory records help to match the orders in the most optimum manner after considering all the factors related to the product.
- Final Consumer: They are the final clients or sometimes the retailers who want to sell the product in the market. The final consumers are allowed to place their order on the cloud directory with complete details about the product, price and the quantity needed. The cloud will then consider the suppliers quoted prices and match or suggest the best price supplier to the consumer.

The model can be best explained with the help of the following diagram.

- SHG: Self Help Groups are the Resource Suppliers
- BMD: Business Market Developers are the intermediary between SHG and the Consumer, entrusted with the task of marketing, advertisement, and market development.
- Cloud directory: It is a record keeping tool to maintain a record of the supplier and the final consumer
- FC: Final Consumer or the Retailer who demands the final goods or the product produced.

**Cloud computing Model:**



**The Potential of the Cloud Marketing Model:**

The Cloud-based marketing model is proposed keeping in mind the marketing inefficiency and the difficulties faced by the women SHG (Palanivel, May 2015). The benefits of the model can be explained based upon the benefits derived by the concerned stakeholders.

- Self Help Groups: From the SHG perspective the model is very much opportunistic as it creates free of cost market for the products of the SHG. The members of the SHG being less educated lack the marketing knowledge and also have fewer funds to spend on the advertisement of their products. Most of the time they suffer loss due to spoilage of their food products as they fail to forecast the demand. The model is a solution to all such problems of the SHG. The intermediary involved acts as a marketing and business development agent for the SHG, the cost of the intermediary is also shared over all the registered SHG which makes the model more cost-efficient. The SHG do not have to forecast or predict the demand for the cloud directory informs the group about the total quantity demanded and then the group can proceed with the production process. This will reduce the wastage and eliminate the fear of loss in the minds of the SHG members.
- Government And NGO: The SHG's are mostly dependent on the Government for the supporting hand right from the formation till the closure of the group. The current model gives an opportunity to the Government agencies to perform their task with least cost and efficient manner. The agencies can play the role of Business Market Developers (BMD) which is a purely digital task involving least amount of funds. The model will also reduce the marketing burden over the agencies as now the SHG will be less dependent on the Government exhibitions for the sales of their products.
- Final Consumers or Retailers: The task to find perfect suppliers requires huge investment and efforts. The supplier needs to be identified after considering the price, quality, and the ability of the supplier. The model

keeps a record of all the suppliers in the area along with their products and the quoted price. The customer can also independently contact the supplier and bargain over the price if needed. The cloud only acts as a platform to bring the supplier and the purchaser on the same ground which otherwise becomes very difficult.

#### **Barriers to the Implementation of the Model:**

- First and foremost, the level of knowledge and education will act as a barrier to accept the model. The model demands a basic understanding of the computers as the entire business deal is to be done on the computers. Hence computer knowledge should be provided to members of the groups.
- The fear of competition is another barrier to the model: The model will bring all the SHG in a particular area on the same platform to market their product. This will eliminate monopoly of a group in particular area and allow groups from neighboring places to market their products.
- Understanding of language: The language is the major difficulty or issue faced by the SHG. Most of the digital work is in English language and the SHG mostly being from rural areas lack English knowledge thus making them hesitant and less confident to opt for this model.
- The unbranded products: All most all of the SHG products are unbranded as they are homogenous in nature and type. The only difference is the taste of the product and the price. They may consider that some of their unique products especially embroidery or handicraft products can be copied if posted online.
- Infrastructure is another barrier to the implementation of the model as the rural areas lack infrastructure and funding to buy various equipment to support such activities.

#### **SUGGESTIONS:**

- For the success of these model the support and assistance of the Government both financially and Non-financially is very much essential, as they need to play the role of the intermediary and also arrange for the necessary infrastructure.
- The awareness creation is another need which will help in the success and growth of the model in the long run.
- The Government will have to conduct grassroots training, and education programs for the SHG have to educate them and develop their technical skills.

#### **CONCLUSION :**

The concept of SHG has been very much successful in empowering women, especially from the rural areas. The financial difficulties faced by them were being identified, and efforts are being made to redress the same. It is now considered as an alternative or a tool to provide formal financial services to the rural poor. The success of the SHG depends on the bond, and the confidence developed among the members of the SHG.

The analysis in the paper revealed that the use of technology impacts the marketing performance of the SHG positively. The respondents seem to have given higher scores for their performance post use of technology. The respondents are merely using technology to keep their records and to make the bills. It was observed that the respondents have started using e-billing method theirs by eliminating traditional handwritten bill method.

The study also revealed that SHG members lack marketing skills and also has limited funds to spend on marketing of their products thus making them less profitable. The model in the current paper is therefore suggested to solve the marketing problem of the SHG members. The paper has also considered the barriers that can arise in the implementation of the model and the remedial measures that need to be taken to overcome such difficulties.

Further, the model will act as a tool to promote the local SHG on a larger and global scale, giving them identity and publicity through online marketing. The cost incurred in marketing under this model will be negligible hence making it a profitable decision to opt for the same.

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