

The Impact Of Digital Marketing On Agricultural Business In India

Dr.T.Sudhakar Reddy,

Asst. General Manager, Coromandel International Ltd & Visiting Faculty at Vishwa Vishwani Institute Systems & Management, Hyderabad, Telangana

ABSTRACT:

The internet & digitalization have changed the entire world. Like other sectors, business of agriculture has taken up e-marketing or internet marketing and expanding to new boundaries and providing services better than the conventional marketing places. Farmers can use internet on many possible ways to sell their products. And they are using internet as a means & ways for selling their agricultural products. So marketing channels in the agribusiness industry are also getting changed. Now farmers can market their agricultural products through KISAN, NAPANTA APP, NAFED, e-Choupal, AGMARKNET & other e-market platform known as the "e-NAM", which was launched by our Prime Minister Narendra Modi.

Agriculture marketing is defined as the series of activities conducted to explore, create & deliver the value to satisfy the needs of agriculture products selling markets. Agriculture market identifies the unfulfilled needs, desires & wants of the targeted consumers who are available for the purchase of Agriculture products like vegetables (Chillies, Tomato, Brinjal, Coccinea, Carrot, Beetroot, Potato etc.), food grains (Rice, Wheat, Millets, Redgram, Green gram, Blackgram, Ground nut, Sunflower, Soya bean, Maize etc.), Fruits (Apples, Banana, Oranges, Lemon, Grapes, Pomegranate etc.) & commercial crops (Tobacco, Cotton, Sugar cane etc.). Agriculture marketing system is gradually developing from the last the six decades. Because of increase of the urbanization & high income levels of customers, the purchase power of the same has been increasing year on year. Even the production of agriculture products is getting increased every year since the high yielding seeds varieties, fertilizers & micro irrigation systems have supported for the same. Hence the farmers, farmers groups & F.P.Os (Farmer producer organizations) are trying to market their agriculture products through digital media by using information and communication technology (ICT). Farmers & F.P.Os are using android phones to access the internet, WhatsApp, Facebook, Twitter & YouTube to get the updated information globally. By using the above information which has got from the digital mode, they are getting linked with national & international markets to sell their agricultural products for the best prices. The digital marketing also helps.

Digital marketing is helping all the small farm holding & large farm holding farmers (marginal, small, medium & large farmers) to find the multiple buyers for their produce and get higher prices. At the same time the buyers/ customers/ consumers are also getting the farm fresh products for reliable prices as the commission agents & middle men are not getting involved in the digital marketing system.

KEYWORDS:

Agriculture, Agri-output (or) product (or) Produce, Digital Marketing, Information communication technology (ICT), e-marketing platforms.

INTRODUCTION:

India is a dream country for the crops' cultivation in the fertile lands across the length of North to South and breadth of West to East. And it has got a huge population of more than 140 crores. Our

country ranks second in the world in the production so many crops. Agriculture is the backbone of India. More than 60% of the Indians are involved in the agriculture. There are ample opportunities & possibilities available for the farmers to market their products. Digital marketing in Indian Agriculture has got a great scope in marketing of the agricultural products. And the future is going to get brighter in the coming years for digital marketing of agri output as the digital marketing is playing an important role in saving the time, increasing the sales & customers.



Fig1: Importance of Digital Marketing (Source: www.yoururl.com)

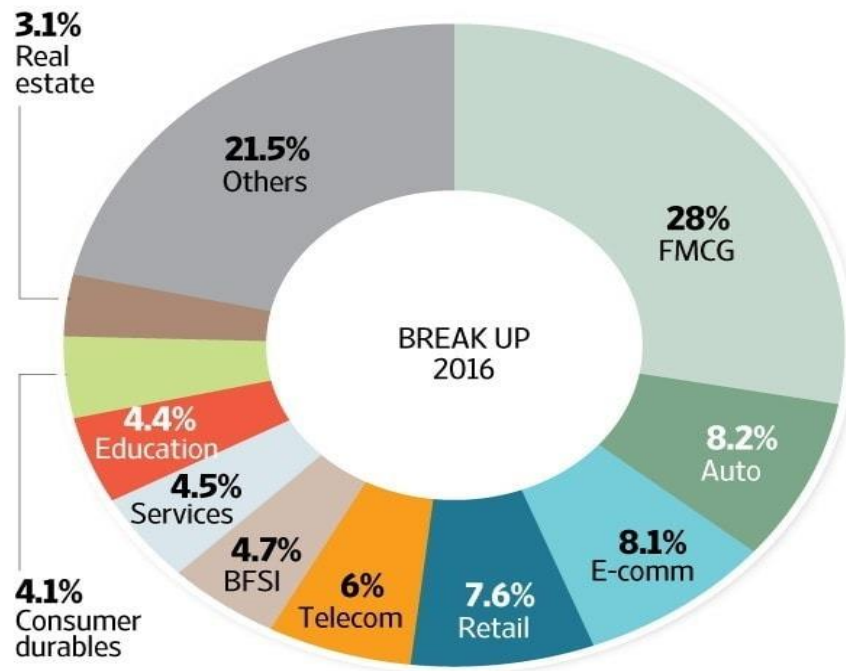
A mobile cell phone is becoming an important need & necessity for the farmers to progress with the digital marketing & its information. Now there is great demand for digital agriculture. And large transactions & developments are happening in the digital agriculture business. Every farmer wants to market their agricultural products and services for the best prices traditionally or through internet enabled systems. But farmers are preferring the internet services to increase the reach of customers or consumers. When compared with the traditional marketing, the digital marketing is more effective and affordable. A survey report (Internet and Mobile Association of India (IAMAI)) says that India is having around 479.1 million internet users by this year of 2021 and it increases year on year as shown in the below figure 2. This supports the digital agricultural business and the opportunities to sell & buy agricultural products by the farmers (sellers) & customers (buyers). And these products & services of digital marketing will satisfy the needs & desires of the growing population of our great India

Fig2: Growth in the number of internet users

India has shown much thrust on agriculture production and it is ranked second in rice, fruits, vegetables production after China. Agricultural marketing plays an eminent & important role in reaching of output to the consumers (customers). Digital marketing provides the best prices to the farmers & the best fresh products to the customers. It also strengthens the relationships of the farmers & customers by fulfilling & satisfying their needs & desires.

SECTOR WISE SPENDING

FMCG remains the most dominant sector with a 28% of the advertisement expenditure. Despite facing volume pressure, the sector is expected to continue ad investment aided by the softening of commodity prices.



BFSI: Banking, Financial services and Insurance

Source: GroupM

Fig3: Sector wise spending in Digital Marketing (Source: [www. GroupM](http://www.GroupM))

Agriculture products' marketing FMCG companies are spending more money on advertisements. The share when compared with other sectors is as high as 28% for the FMCGs. These companies are serving the producers (farmers) & consumers (customers) very well in the digital marketing mode also.

LITERATURE REVIEW:

- 1). The advantages to the farmers by marketing of agricultural products are more in the digitally regulated markets. And it differs from market to market because of the establishment of the infrastructure & the facilities available to the buyers & sellers in the markets (Jairath, M. S,2012).
- 2).ICT (Information and communication technology)helps the agricultural marketing to evaluate,organize and facilitate the smallholder marketing for easy marketing of agricultural products (USAID FACET project,2012).
- 3).Marketing department in digital agricultural marketing of helps the farmers to sell their agriculture products for better prices (Ms.K.Kiruthiga,et al.,2015).
- 4).Important private sector organizations are practicing excellent models for digital marketing of agro-products (V.Nagendra .,2015).

IMPACT OF DIGITAL MARKETING&INFORMATION AND COMMUNICATION TECHNOLOGY SOLUTIONS ON AGRICULTURE BUSINESS:

Governments are supporting to develop the agricultural marketing by intervening in it for the past several decades. In this digitally dominated world, we can extensively develop the agriculture marketing end to end by digital applications.ICT helps the small farm holding farmers to find the multiple buyers for the agriculture products who are willing to pay high prices as the products are fresh. Earlier the Small farm holding farmers deal with only less number of buyers who pickup directly. Now the buyers are getting increased in the digital agriculture marketing mode.The digital & internet based applications in the android phones provide the market information to the farmers which can decrease the market distortions, logistics / transportation losses & products' wastage & damage. In the national & international digital marketing scenario, android mobile & internet based digital applications can help in locating the farmers, agri-input dealers, agri-out put buyers, storage warehouses, recognized financial institutes for investments set care easily identified & hence the farmers are getting the higher profits to their yields in the digital agriculture markets.

Technology such as 'Blockchain' is used to identify the poor quality in food grain chain of any agriculture commodity and allowing an early and efficient actions against its organization. Hence competitive advantage is possible for the consumers. Walmart is using "Blockchain" to trace each & every bag of agriculture products coming (purchasing) from the farm. It helps to ensure the fresh and quality agricultural products to the customers. Private sector initiatives are successfully disseminating the required messages to the consumers & to the farmers on the daily basis.

In India e-choupal by I.T.C, Reliance, "More" (Aditya Birla group) AGMARKNET, M & M (Shubhlabh), Godrej group, N.A.F.E.D, NAAPANTA APP, A.P.M.C.etc., are playing an important & responsible role for the welfare of the farmers.

Digital marketing of agricultural products increases the income, specially to the smallholder producers (farmers). Hence it is encouraging the small holding rural youth to continue in the agriculture as the future seems to be bright.

KISANMANDI ONLINE AGRIS:

It incorporated/registered market as a Private Limited Company on 26-04-2016, is recognized as a startup by the Department of Industrial Policy and Promotion, Govt. of India.

E-CHOUPAL:

It is a digital marketing department of ITC (Indian Tobacco Company limited) started in the year of 2000. e-Choupal links rural farmers via internet & digital media to procure the agriculture products like coffee, soyabean, wheat, Rice, Pulses, Oil seeds etc. ITC has distributed computers, & has given the internet access in the villages where farmers can directly discuss about the price and other information. Farmers collect the information on market prices, good farming practices, weather forecast through the digital media. They can also purchase the required agro chemicals, manures & other farm products by internet enabled digital media.

ITC is running kiosks in the villages by their registered & trained farmers. Each kiosk can serve more than 600 farmers in the nearby 10 villages in a radius of 5 K.M. Hence there are no middlemen. Since introduction of e-Choupal services farmers have seen raise in their income levels. As of recent data, ITC company is serving the farmers & consumers with more than 6155 e-Choupals in 35135 villages across 11 states of India.

RELIANCE GROUP:

Mr. Mukesh Ambani (Reliance group) has a strategy to establish 5000 acres of contract farming business in Karnataka, Andhra & Telangana immediately. This can help to emerge as one of its best agriculture business hub for farm produce exports. Also planning to setup warehouses across the India. Reliance fresh stores will be purchasing the fruits, vegetables, grains & other agricultural commodities from the farmers directly, and thus saving the time, energy, efforts & also saving on transportation expenses.

AGMARKNET:

Electronic trading portal integrating 585 markets across 16 states. More than 164.53 lakh M.Ts of farm commodities have been transacted on e-NAM. It is developed to transport the agri products from one market to another in smooth way to save the produce.

NAFED:

It is the apex body of the cooperative marketing system at our country level. It is an excellent & oldest cooperative body established in the year of 1958 for the benefit of the Indian Horticultural crops' farmers. It is helping the farmers by giving fantastic profits & prices by removing the middlemen system.

IKISAN:

It is an Information Technology based organization to help the farmers from seed to seed business. It provides market information, products' prices, weather and other agriculture management techniques etc.

MAHINDRA AND MAHINDRA GROUP:

Mahindra & Mahindra group has started two divisions namely d Mahindra krishivihar in madhurai in the year 2000 to provide agricultural extension services to farmers. and buyers a lot of produce And the second one is “MAHINDRA SHUBH LABH”, a farm implements division for providing tractors, ploughs, disc harrows, power tillers, ferti- cum seed drills etc.

UZHAVAN APP:

Tamilnadu government launched bilingual app in Tamil and English. It is an android mobile application based system where in the farmers get all market information& extension services.

NAPANTA APP:

It is an internet based app launched to serve the famers across the villages of Telangana and Andhra Pradesh. Market information of more than 3650 agricultural markets and 3 concurrent & consecutive years price trend & graph could be provided for more than 95 commodities. It is developed in Telugu & English language.

CHALLENGES FOR E-MARKETING OF AGRICULTURAL PRODUCTS:

(1). Lack of knowledge of Electronic medias- Some of the farmers do not have computer knowledge & unable to operate android mobiles. So there may be issues to them to go with the marketing of agricultural products. (2). Worldwide competition- There are many sellers from different geographical areas of different countries. So it is difficult to expect to sell of Indian farmers products and with right price on right time. (3). No security- Sometimes farmers may enter fake websites or fake online portals. This will be a wastage of time, efforts. (4). Cannot fully depend on E-marketing because still many customers prefer to purchase the products physically. So it is necessary to depend on offline market also to some extent.

OBJECTIVES OF THE STUDY:

- 1) To assess an extent of awareness& usage of ICT (information and communication technology) in agricultural sector.
for the digital agriculture marketing by the Indian farmers.
- 2) To ascertain the decrease in the cost of agriculture marketing in India.
- 3) To evaluate the effect of socio-economic, demographic characteristics of farmers on the digital agriculture marketing in India.
- 4) To discuss the new trends and benefits (advantages) as well as the issues and disadvantages of agricultural digital marketing in India.

RESEARCH METHODOLOGY:

Source of Data Collection:

- **Primary Data:** The required information from farmers and dealers is collected through specially structured questionnaires.
- **Secondary Data:** Publications of the Indian Agricultural universities, Books of Department of Agriculture of the District, State & India. And the Publications of the existing private corporates.

- **Research Design:** Descriptive Research Design
- **Population:** Farmers and dealers of Telangana, Andhra Pradesh, Karnataka, Uttar Pradesh & Madhya Pradesh States.
- **Sampling Method:** Simple Random Sampling is adopted at District and Village level. Quota method is followed in selection of farmers in each selected village.
- **Sampling size:** (1). Farmers :500 & (2). Dealers :50
- **Sampling unit:** Farmers and Dealers
- **Sampling procedure:** Telangana, Andhra Pradesh, Karnataka, Uttar Pradesh & Madhya Pradesh States are selected purposively for the study on the following grounds. The farmers of these states also cultivate many crops such as cotton, paddy, sugarcane, wheat, chilies and maize.
- **Selection Procedure:** The list of villages are obtained from Private corporates & Agriculture department officials. In each selected village, farmers & dealers are surveyed.
- **Research Instrument:** Standard Procedure Questionnaire
- **Contact Method:** Telephonic Personnel interviews & Whats app information
- **Statistical procedure:** Suitable statistical systematic & good procedures and excellent & relevant methods are used and help of software programs of MS-Excel and SPSS is employed in processing the data. (Statistical methods include arithmetic mean, standard deviation, frequency distributions, correlation and regression co-efficient etc.).

Table – 1: Ways & means and Sources through which the Information and Communication Technology (ICT) is known to use the digital marketing platform to sell their products

SL.NO	Sources of information	No. of respondents	%
1	Self-knowledge	160	32
2	Fellow farmers	185	37
3	Dealers	80	16
4	Agricultural dept	247	49.40
5	Corporate Company field staff	93	18.60
6	Advertising	307	61.40
	Total farmers sample	500	100

Each percentage is calculated to 500

ANALYSIS (FINDINGS): Table – 1 assess the Ways & means and sources through which the farmers know about the ICT & digital marketing sources/locations for marketing their agricultural products through self-knowledge is 32 %. Those who follow advertising constitute as high as 61.4%. Farmers who know through the Corporate company field staff is 18.6 %. In the remaining samples, cultivators (farmers) who know regarding digital marketing platforms through dealers are comparatively smaller than the people who know about digital marketing platforms through fellow farmers. Therefore, it is found that

the advertisement & the self-knowledge are major factors to aware & use ICT and digital marketing platforms to sell their products while the dealers play a less role in informing about the usage of digital platforms.

Table – 2: Factors considered by farmers to use digital marketing platforms to reduce the marketing cost & to increase the selling price.

SL.NO	Factors considered	No. of respondents	%
1	Their agricultural products' quality is assured for longer period	327	65.40
2	No middle men & less storage cost	234	46.80
3	Minimum logistics' issues	245	49.00
4	Maximum price to their products	349	69.80
	Total farmers sample	500	100

Each percentage is calculated to 500 respondents

ANALYSIS (FINDINGS): Table – 2 ascertain the digital marketing platforms are helpful to reduce the marketing cost of their agriculture (products) output like cotton lint, paddy, maize grains, pulses, horticulture crops etc. And it also increases the opportunities for the best prices. Out of 500 respondent farmers 327 farmers (65.4%) have happily told that their agricultural products' quality is assured for longer period by the digital marketing platforms.

Farmers about 49 % who have responded have had expressed their view that no middle men interference & less storage cost helped them to get more income after selling their produces on digital platforms.

69.80% of the respondent farmers have had replied as they have been getting maximum price to their products.

Table – 3: Socio-economic, demographic factors of farmers determining the use of digital marketing platforms

SL.NO	Socio-economic, demographic factors	No. of respondents	%
1	Age (25 years to 45 years)	327	65.40
2	Age (46 years to 60 years)	171	34.20
3	Sex (Males)	450	90.00

4	Sex (Females)	50	10.00
5	Education (below 10 th class)	197	39.40
6	Education (11 th class to Degree)	300	60
7	Marital status (Un married)	180	36
8	Marital status (Married)	320	64
	Total	500	100

Each percentage is calculated to 500 respondents

ANALYSIS (FINDINGS): Table – 3 evaluates the effect of socio-economic, demographic characteristics of farmers on the digital agriculture marketing in India. Out of 500 respondent farmers 450 farmers (90.00 %) are expressing that the digital marketing in agriculture would be good for male farmers & only 50 farmers (10.00 %) of the respondent farmers are expressing that the digital marketing in agriculture would be good for female farmers also.

Among the 500 respondent farmers, a good number of 171 farmers (34.20 %) are aged around 46 years to 60 years who are using the digital marketing and it is 65.40 % farmers who have responded are having age ranging from 25 years to 45 years.

The above table -3 shows the educated (11 th class to degree) farmers are more (60%) in number who are using digital marketing platform for selling their crop produces. And 39.40% of the respondent farmers are below 10 th class.

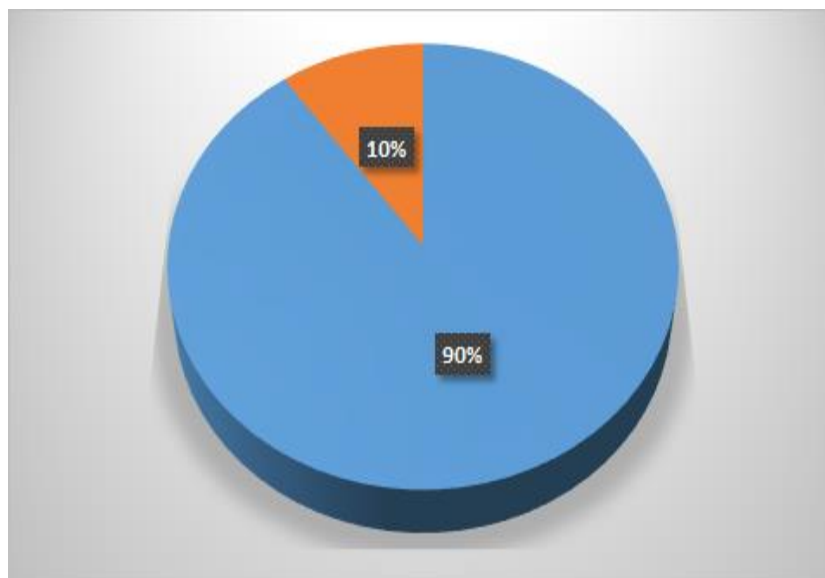
A percentage of respondents around 64 % are married & 36 % of the un-married farmers have been benefitting from the digital marketing by selling their agricultural products.

Table – 4: To discuss the new trends and advantages as well as the challenges and disadvantages of agricultural digital marketing in India.

SL.NO	New trends / advantages & Challenges / disadvantages	No. of respondents	%
1	Advantages	450	90
2	Disadvantages	50	10
3	Total	500	100

ANALYSIS (FINDINGS): Table – 4 discusses about the new trends and advantages as well as the challenges and disadvantages of agricultural digital marketing in India.

Out of 500 respondent farmers 450 farmers (90.00 %) are expressing that the digital marketing in agriculture is good & having advantages. And only 50 farmers (10.00 %) of the respondent farmers are expressing that the digital marketing in agriculture is having disadvantages.



SUGGESTIONS FROM THE STUDY:

- Farmers know about the ICT & digital marketing platforms to sell their agriculture products through self-knowledge is 32 %. Farmers responded are aware of advertising constitute as high as 61.4%. Hence Government & private corporate companies have to advertise better regarding the internet enabled platforms to sell or market the agriculture products by the farmers & buy the agriculture products by the consumers (customers)
- Digital marketing platforms are helpful to the farmers as they increase the selling price and reduce the marketing cost of their agriculture (products) output like cotton lint, paddy, maize grains, pulses, vegetables etc.
- As high as 90 % of the respondent farmers are expressing that the digital marketing in agriculture is good & having advantages & new avenues and trends could be explored.
- Traditional marketing is harder to target the customers as there will be less information about them & digital marketing is having wider range of sources, customers & avenues.
- High rate of customer engagement & high conversion rates to buy agriculture (products) output is possible in digital marketing.
- Digital marketing is a valuable business and information tool. And it communicates to more number of customers & sellers (farmers) about the business. Market bulletins reaches the masses with less cost, in less time & with more efficacy. Hence the digital media helps the marketing of high volumes of agriculture

CONCLUSION:

Android phones are the main breakthrough to the farmers where in the apps & internet enabled services are used for the digital marketing of agricultural products. It provides complete information on the selling prices, weather reports, package of practices of crops and the supply & demand of the crop or agriculture output. Hence the farmers are getting expected prices to their products and profits to their

cultivation. Traditional agriculture marketing is no longer sustainable as the middle men & expenses on marketing are high distortion.

We have to more liberalize the agriculture and make digital markets more farmers & consumer friendly. It is also advised to treat the agriculture as an industry where in the investment, profit & loss could be estimated properly. If it so, then farmers will reduce the unnecessary cost on cultivation of crops. Most of the times cultivation of crops & agriculture business should be planned in such a manner to get more profits. Strategy should be followed to reduce the cost of cultivation & increase the crop yield so as to get maximum profits.

Indian government and states governments must put forth the strategies & frame the policies towards the sustainable digital agriculture market development.

Good models are need to be developed for the upliftment of rural farming community & also for their economic prosperity by initiating the establishment of digital markets at the farmers vicinity.

Internet facilities, smart technologies, IOT in agriculture & Agricultural digi-marketing infrastructure has to be enhanced to

Digital marketing plays a major & key role in doubling the farm income, a central government vision

REFERENCES:

1. Jairath, M.S., Hema Yadav. 2012. Role of ICT in Decision Making in Agricultural Marketing, *Ind. Jn. of Agri. Econ. Vol.67, No.3*
2. Bibhu Santosh Behera., Babita Panda., Rudra Ashish Behera., Narayan Nayak., Anama Charan Behera et al. (2015). Information Communication Technology Promoting Retail Marketing In Agriculture Sector in India as a Study. *International Conference on Intelligent Computing, Communication & Convergence Procedia Computer Science 48 (2015) 652 – 659*
3. Ms. Kiruthiga. K., Dr. Karthi. R., Ms. Asha. B., Daisy. 2015. Agricultural marketing – An overview, *International Journal of Scientific and Research Publications, Volume 5, Issue 4, ISSN 2250-3153*
4. Singh, U.S., Mishra, U.S., 2015., Marketing Agricultural Produces *Journal of Marketing and Consumer Research ISSN 2422-8451 An International Peer-reviewed Journal Vol.16, 2015*
5. Shakeel-Ul-Rehman., Selvaraj. M., Syed Ibrahim. M., 2011. Indian agriculture marketing- An Overview of *Asian Economic and Social Society. ISSN(P): 2304-1455/ ISSN(E): 2224-4433*
6. Nagendra, V., 2015. Private Sector Initiatives in Agricultural Marketing in India *M.S. Ramaiah university of applied sciences publication*
7. Sukhpal Singh and Naresh Singla, (2010), Fresh Food Retail Chains in India: Organisation and Impacts, *CMA Publication No – 238*
8. Singh, U.S., 2011. Marketing Agricultural Produces, *Journal of Marketing and Consumer Research ISSN 2422-8451 An International Peer-reviewed Journal Vol.16, 2015*
9. Mohammad Sadegh Allahyari 'Adoption of Agricultural E-marketing' *Journal of International*

foodandagribusiness marketing 2017, volume27

10.Habbib Ullah khan 'The development of internetmarketinginthedevelopmentofagriculturalindustry'journalofinternetcommerceMarch,2015.

11.AGAbhishek,MBharathwaj,Lbhagyalakshmi

"Agriculturalmarketingusingwebandmobilebasedtechnologies", 2016.

12. Pratik Dholakiya (14 April 2015). "3 Digital Marketing Channels That Work for Every Advertiser"[2.]Mohammed R., —InternetMarketing||,McGrawHill,New York,Vol. 4,2001

13. Devi.C.SandAnita.M(2013):—Emarketingchallengesandopportunities||pg.96–105retrievedfromwww.ijsrm.in

14).Singh, S. P. (2017, Jan). Marketing in rural India: Opportunities and challenges. *Journal of Advanced Management Science*, 5(1), 53-56.

15.www.wikipedia.org

16.www.enam.gov.in

17. Nazimsha, S., and M. Rajeswari. "Comparing Digital Marketing with Traditional Marketing and Consumer Preference, Over which medium by taking concept of ads." *International Journal of Sales & Marketing Management (IJSMM)* 7 (2017): 1-12.

18. Ramdasani, Hitesh N., and B. B. Rayate. "Marketing Through Mobile Phone: The Next Big Thing in India." *International Journal of Sales & Marketing Management (IJSMM)* 6.1: 1-4.

19. Ayer, Ramesh Raj. "Adaptation of E-Commerce Channel by MSME in India." *International Journal of Business and General Management (IJBGM)* 6.6: 11-28.

20. Bhagwati, Darshana, and Dev Malya Dutta. "A Study on Literature Review for Identifying the Factors Impacting Digital Marketing." *International Journal of Sales & Marketing Management Research and Development (IJSMMRD)* 8.3 (2018): 1-8.

21. Mafazi, Muhammad Atras. "Capital Budgeting Analysis in Digital Marketing Activities at Yes Cake & Bakery." *International Journal of Business Management & Research (IJBMR)* 8.6 (2018): 1-8.

22. Sankaran, V. Siva, and N. Kannan. "Increasing Brand Reputation through Viral Marketing." *International Journal of Sales & Marketing Management Research and Development (IJSMMRD)* 6.1 (2016): 1-8.