Original Research Article

Role of Social Media in Commercial Vegetable Farming for Rural Development

Krishna Prasad Gyawali
Department of Economics and Social Studies, Saptagandaki Multiple Campus

Abstract

This study explore the role of social media in commercial vegetable farming for rural development. A study of Bharatpur metropolitan city ward no 5 Chitwan district. The objective of the study is to explore the role of social media in commercial vegetable farming for rural development. The use of social media in commercial vegetable farming is increasing rapidly now days. Many agricultural service provider companies are giving better facilities to the farmers. Social media allows users to communicate directly with the customer's service provider's information sharing centers etc. Farmers are using social media to increase their produce at each stage. Rural development means as overall development such as social, economic, political and cultural of rural society. Commercial vegetable farmers have been impacted by social media in all aspects of their lives. The research design adopted in this study is exploratory as well as descriptive types. The universe of the study was commercial vegetable farmers in Ward No. 5 of Bharatpur Municipality. Out of the total number of commercial vegetable farmer households, 20 households have been sampled using the quota sampling and purposive sampling methods. The data has been collected from the Rambagh, Gulabbag, Kailashnagar, and Narayanpur areas. Each area 5 respondents has been selected for the study. The study shows that 5 % respondents were used own land and 95% respondents were used leasehold land for commercial vegetable farming. Similarly 40 % respondents were used YouTube, 35 % respondents were used Facebook and 25% respondents were used Tik Tok for agriculture information. In the study area, social media seem to have a positive effect on commercial vegetable farming. Commercial vegetable farming support to livelihood, capacity building, empowerment, increase in living standard ,saving habit, access to financial institutions, agricultural inputs services and market in the study area. Commercial vegetable farming has been playing a significant role for rural development in this area.

Keywords: *Social Media, Livelihood, Positive attitude, Source of information, Rural development*

Corresponding E-mail: gyakrish_kp@yahoo.com

Introduction

Communication is a key element of social interaction, learning and capacity, building processes in agricultural and rural innovation systems (Leeuwis & Aarts, 2011; Rivera & Sulaiman, 2009). Social media refers to internet-based digital tools for sharing and discussing information among people. It refers to the user-generated information, opinion, video, audio, and multimedia that is shared and discussed over digital networks. Aspects of social media that make them an important and accessible tool in development communication are their easy access through mobile phones, mass-personal communication, and mass-self communication, a larger set of weak ties to ensure receipt of original ideas, high degree of connectedness, and link ability and content sharing across multiple platforms (Indian Council of food and agriculture,2017). Social media have become the fulcrum of social interaction in both rural and urban areas. It has been observed that ICTs have a significant impact on rural development by mediating the flow of modern technology and also updating the knowledge and skills at the grassroots level. The smart mobile phone has become the choice of people at a mass scale as it is being used in both rural and urban areas. It has become an important medium in the dissemination of information even in the far-flung areas of the nation. Among the various social media, Facebook and WhatsApp have become the prime choice of people across the globe (Lal and Sharma,2020).

Social media has become important tools for the people. The number of people using social media is growing every day. People's use of social media is based on their preferences. Social media is a well-liked tool that makes it easier for people to generate and share content in virtual places, including information, ideas, hobbies, and other forms of expression. People use social media to share, write, and meet new friends on the internet. Social media is a platform that uses the internet to connect individuals from various locations. Because it provides us with so much knowledge that we can gain in our lifetimes, social media is now a necessity for everyone. Social media is used every day by billions of individuals in the modern world. In the 21st century, the use of social media has spread all over the world and has an impact on Nepal as well. In the context of Nepal, social media has become an important tool for people. Social media is typically used for social interaction and decision-making. It is a valuable tool for communicating with others locally and globally, as well as for sharing, creating, and disseminating information. Social media like Facebook, Twitter,

Instagram, TikTok, YouTube, and various platforms are used for social sharing. Globally and in Nepal, social media is now dynamically used for texting, chatting, sharing ideas, views, opinions, and much more. Social media is the greatest human discovery of this generation. Social media is a form of quick access to information. In Nepal, the number of social media users increased by 3.0 million between 2020 and 2021. The number of social media users in Nepal corresponded to 44.2% of the total population in January 2021 **(** Dahal**,** 2021)**.**

Agriculture is the base of livelihood, employment, and economic and social transformation which has also been a major sector of Nepal's economy. In the fiscal year 2011/12, the contribution of the agriculture sector (agriculture, forest, and fisheries) to GDP was 32.7 percent whereas it has been gradually decreasing in recent years and is estimated to remain at 25.8 percent in the fiscal year 2020/21 (GoN,20020/021). The share of the population depending on the agricultural sector is gradually declining due to the modernization and commercialization of agriculture as well as the expansion of services in non-agriculture sectors. According to the Nepal Labor Force Survey of 2008, 73.9 percent of the population was engaged in the agriculture sector, but in 2018 the proportion has decreased to 60.4 percent (GoN,20020/021). The share of food crops has been dominating the production of agricultural crops. Of the total production of agriculture crops during the current fiscal year, the share of food crops is estimated to be 44.9 percent, vegetables 17.2 percent, cash crops 14.7 percent, industrial crops 13.7 percent, and others 9.4 percent. During this period the production of spice crops, vegetables, cash crops, fruits, and honey increased whereas the production of industrial crops, pulse crops, and food crops decreased. Among the agricultural crops, the productivity of vegetable crops is high and the productivity of industrial crops is low (GoN,20020/021).

The Nepalese economy heavily depends on agriculture. The use of cellphones and the internet, as well as technology awareness and computer proficiency, are rising across the country. The spread of various agricultural information is being greatly aided by social media in the agricultural sector. It helps to bridge the geographical distance between the farmers of different places. Commercial vegetable farming, which refers to producing vegetables not only for own consumption but also to sell in the market thereby improve the livelihoods of smallholder farmers, remains the major intervention adopted by national and international governmental and non-governmental organizations (Shrestha & Karki 2017).

The use of social media in commercial vegetable farming is increasing rapidly now days. Many service provider companies are giving better facilities to the farmers. Social media allows users to communicate directly with the customer's service provider's information sharing centers etc. Farmers are using social media to increase their produce at each stage. Social media and information and communication technology start sharing of creation, information and advices for the particular cause. Increasing networking of mobile phones in rural areas increases two way communications. Social media is becoming powerful tool and connects millions of people globally (Sing, 2019). Agriculture has been the main source of livelihood for human beings from the ancient period of time. As in other developing countries, the major source of Nepalese Gross Domestic Product (GDP) is agriculture and the majority of people depend on it for their livelihood. However, the productivity of the crops has remained stagnant and is even declining in some cases despite greater emphasis and efforts placed on the agriculture sector in almost all development plans (NPC 1995).

Rural development is a process, which aims at improving the wellbeing and self-realization of people living outside the urbanized areas through collective process. Rural development means as overall development such as social, economic, political and cultural of rural society so that its people could live a dignified life. The all the interventions aimed at improving productivity, increasing employment and thereby incomes, having food security, access to shelter, education, health and housing is termed as rural development (Anaeto & Anaeto, 2010). Rural areas often suffer from isolation and often face lack of communication with the other part of the world. Information and communication is often termed as power in this 21st century which is vitally important for development of people. However, the rural areas are often detached from all kinds of information and a digital divide is created which discriminate themselves from the outside world. In this context, social media are the ones which link them with the rest of the world and provide a source of information that is happening around the world. Rural people need information about the happenings in and around the society which makes their living better (Anaeto & Anaeto, 2010).

Social media and rural development are linked together and there is a need to make some deliberations on modern-day media with traditional media. Rural development in general is used to define the action taken for improving the standard of the people. Agricultural activities are prominently considered in this direction. Nepal

is having a complex society with different cultures, castes, and languages and there is a disparity between the rural and urban people. The diverse social and infrastructural needs of the rural people must be addressed simultaneously to ensure the prosperity of the nation. Rural residents have been impacted by social media in all aspects of their lives. Social networking systems have repeatedly discovered a way and understood their potential to lead rural development. Farmers in Nepal are enthusiastic to receiving timely and helpful information on the agricultural sector and related sector through various social media platforms. Traditionally, agricultural information exchange has been dominated by industrial media such as newspapers, television and magazines. In recent years, however, technology awareness, computer literacy, and usage of smartphones and the internet are increasing across all demographics in Nepal.

Research Methodology

Study Area

Chitwan District is one of 77 districts in Nepal, and is located in the southwestern part of Bagmati Province with Bharatpur, the fourth largest city in Nepal, as its district headquarters. It covers an area of 2,238.39 km2 (864.25 sq mi), and in 2011, it had a population of 579,984 (279,087 males and 300,897 females) (BMC,2079). Bharatpur is a commercial and service center of central south Nepal and major destination for higher education, health care and transportation in the region. The district takes its name from the Chitwan Valley, one of Nepal's Inner Terai valleys between the Mahabharat and Siwalik ranges, both considered foothills of the Himalayas. Narayangadh is located on the banks of the Narayani River, and is the main town with numerous shopping zones where people come from all over the district and neighboring districts. Chitwan is one of the few remaining undisturbed vestiges of the Terai region, which formerly extended over the foothills of Nepal. Bharatpur is a city in the central-southern part of Nepal. Located in Chitwan District, Bharatpur is the district headquarter of the Chitwan District, as well as a separate Metropolitan authority, and is the fifth largest city of Nepal with the population of 199,867 (CBS, 2011). Bharatpur is one of the fast growing cities of Nepal. It lies on the left bank of Narayani River and serves as a commercial centre of Chitwan district and central region of Nepal. It is located at the centre of Mahendra Highway and Kathmandu - Birganj (North-South) road corridor (BMC,2079).

Population and Sample

Bharatpur Municipality Ward No. 5 lies in the western part of Chitwan district headquarters, Bharatpur. The total population of ward no. 5 is 7856 people, residing in 1683 households (BMC,2079). The research design adopted in this study is exploratory as well as descriptive types. The universe of the study was commercial vegetable farmers in ward no. 5 of Bharatpur Municipality. Out of the total number of commercial vegetable farmer households, 20 households have been sampled using the quota sampling and purposive sampling methods. The data has been collected from the Rambagh, Gulabbag, Kailashnagar, and Narayanpur areas. Each area, five respondents have been selected for the study. The study has drawn data and information from primary and secondary sources. .The primary data was collected by using different methods, such as household survey, field observation, and focus group discussion. The secondary data was collected through books, articles, journals, published and unpublished thesis, research report and ward profile. The collected data has been checked, coded, categorized, organized, and converted into data sheet. Data was analyzed descriptively through percentage, frequencies, and average mean value.

Results and Discussion

Demographic Condition of the Respondents

Age Structure of the Respondents

The age structure of a population refers to the proportionate numbers of people in different age categories in a given population for a defined time. It is a natural characteristic of a population in a country or a region. Age composition is the most important variable influence of the productive capacity in the economy. It helps to me assure potential population as potential school population, potential voting population and potential manpower. In demographic analysis the age structure of population is the subject of major importance. The total respondents for the study area are 20 households. The age structure of population of sampled vegetable farming households are given below (Table1).

Table 1

Age Structure of the Respondents

Age Group	No. of Respondents	Percent
31-40	3	15.00
41-50	5	25.00
51-60	10	50.00
61-70	2	10.00
Total	**20**	**100**

Source: Field Survey, 2022

Table 1 shows that the age profile of the respondent. 15% respondents are 31-40 age group, 25% respondents are 41-50 age group, 50% respondents are 51-60 age group and 10% respondents are 61-70 age group. It concluded that majority respondents are age group 51-60 years in the study area.

Educational Status of the Respondents

Education improves farmers' capacity to gather, decipher, and comprehend information, enabling them to use the knowledge at their disposal to more effectively address production, market, and financial difficulties. In other words, farmers who have had a strong education are better at making decisions and thus better able to manage resources to maximize the potential of farms of all sizes. (Asadullah and Rahman, 2009). The educational status of the respondents have given below (Table 2).

Table 2

Educational Status of the Respondents

Level of education	No. of respondents	Percent
Literate	2	10.00
L. Secondary	1	5.00
Secondary	5	25.00
SLC	9	45.00
Intermediate	1	5.00
Bachelor	2	10.00
Total	**20**	**100**

Source: Field Survey, 2022

Table 2 shows that 10% respondents were literate, 5% respondents have attained lower secondary level education,25% respondents have attained secondary level education,45% respondents have attained SLC level education,5% respondents have attained intermediate level education and 10% respondents have attained bachelor level education. The fact that educated farmers are better equipped to use information already accessible and have easier access to information needed suggests that education reduces information asymmetry in a variety of ways, particularly when it comes to input quality, which is crucial to agricultural output. As a result, farmers with higher levels of education employ a better combination of inputs than do farmers with lower levels of education, which means that the former allocates limited resources more effectively (Reimers and Klasen, 2013). Education is meant to lessen the farmer's perception of uncertainty and his aversion to endogenous risks resulting from his own selection of production equipment (Croppenstedt and Demele, 1997). Therefore, educating a farmer may encourage him to adopt new technology sooner and change his perspective on riskier production technologies. After then, depending on his better capacity to assess the associated risks and opportunities as a result of his education, the farmer optimizes his combination of inputs to nurture crops. The ability of farmers to recognize, understand, and react to new events in the context of risk may be enhanced through education.

Land Ownership of the Respondents

Nepal recognizes two land tenure types: ownership and leasehold. Landowners have rights to exclusivity and use of their land. Landowners can freely transfer their land and pass the land by inheritance. Land is unevenly distributed, and the size and quality of the landholdings has always been highly correlated with economic status. Throughout the country's history, Nepal's elite have held the majority of land and profited from land-based resources. 19.7 percent women in Nepal own land, while 41.4 percent and 36.7 percent of Terai and Hill Dalits respectively are landless. In fact, there are 1.3 million landless or land poor people in Nepal (CBS 2001).

The national survey in 2010/11 reported continuation of a significant imbalance in land distribution. The top 7 percent of the Nepalese households occupy 31 percent of the agricultural land while the bottom 20 percent own only about 3 percent. 45.7 percent of agricultural households own between half a hectare and three hectares of land and occupy 69.3 percent of total cultivable land. 52.7 percent of those households

own half a hectare or less and occupy 18.5 percent of cultivable area. The average size of agricultural landholding is 0.7 hectares in rural areas and 0.5 percent in urban areas. Five percent households do not own any land but work other people's land on a contractual basis (CBS 2011). Land, a predominant physical reality of the Nepali society, is one of the basics that plays a pivotal role in shaping social relations and power structure. Land in Nepal has served as a significant means of meeting both social and economic ends. The land is associated not only with the organization of economic life of people, alleviation of poverty, hunger and management of livelihood of them. It is also a powerful means to settle the social life of the landless or land-poor people with equality and justice in case the distribution of it is fair and equitable. Land ownership of the respondents are given below (Table3).

Table 3

Land Ownership of the Respondents

Ownership	No. of Respondents	Percent
Own land	1	5.00
Leasehold	19	95.00
Total	**20**	**100**

Source: Field Survey, 2022

Table 3 shows that 5 % percent respondents were used own land and 95% respondents were used leasehold land for commercial vegetable farming.

Landholding Size of the Respondents

Land is the most important factor for Nepalese people. The people who have enough land are considered as a Jamindar and treated as Kisan and given good position in rural society. Traditionally land is the principal form of wealth, the principal source of economic and political power. Ownership of land has meant control over a vital factor of production and therefore a position of prestige, affluence and power. People having no land considered as sukumbasi and treated as labours. So, they feel themselves as poor and standing as low position in society. Landholding size is given below (Table 4).

Table 4

Landholding Size

Land Size (Kattha)	No. of Respondents	Percent
< 20	2	10.00
20-30	3	15.00
31-40	5	25.00
41-50	6	30.00
51-60	3	15.00
>60	1	5.00
Total	**20**	**100**

Source: Field Survey, 2022

Table 4 shows that 40% respondents owned less than 20 Kattha land ,15% respondents owned 20 -30 Kattha land, 25% respondents owned 31-40 Kattha land, 30% respondents owned 41-50 Kattha land. Similarly 15% respondents owned 51-60 Kattha of land and only 5% respondents owned above 60 Kattha land for commercial vegetable farming.

Source of Agricultural Information

Information has received a wide range of acceptance as an essential resource of this century. It has been described as a simulating creativity, resulting in new outcomes and processes. All human societies depend very much on information for existence that is information is life. The proper identification and use of information sources are prerequisites for objective decision making. Consequently, the possession of awareness and use of appropriate information guarantee individual and organizational functioning. The major function of information is to increase the knowledge of the user, to reduce his level of uncertainty or reduce the varieties of choices available to the users of information. For information to be effective, it must be accurate, timely and relevant. The information sources for farmers depend on the type of work and services they perform. Information sources are tools or information carriers that meet the information needs of extension workers. Source of agricultural information is given below (Table 5).

Table 5

Source of Agricultural Information

Source of Information	No. of respondents	Percent
Social Media	8	40.00
Other Farmers	4	20.00
Agriculture Knowledge Centre	2	10.00
Prime Minister Agriculture Modernization Project	1	5.00
Ward office	1	5.00
Agriculture group	3	15.00
Tole Development institution	1	5.00
Total	**20**	**100**

Source: Field Survey, 2022

Table 5 shows that 40% respondents were used social media for agriculture information. Social media is the most widely used information source in the study area. This is possibly because social media is the main tool in information dissemination because it reaches larger proportion of the people irrespective of their position; it promotes the level of awareness of the people and it also enables people to be adequately informed. Social media can reach many people much more quickly than other media . Out of 20 respondents 20% of the farmers mentioned other farmers are the sources of agricultural information .Similarly 15 % of the respondents agreed that agricultural groups are the source of information to farmers in the study area. Agricultural groups normally originate from the local people thus, they can speak and delivering a message to people in that area. 5.% of the respondents said Prime Minister Agriculture Modernization Project were the source of information to farmers. 5% of the farmers reported that ward office is the source to disseminate agricultural information and 5% of the respondents stated that Tole Development institution were used in disseminating agricultural information in the study area.

Tools of Social Media

The term social media refers to a computer-based technology that facilitates the sharing of ideas, thoughts, and information through virtual networks and communities. Social media is internet-based and gives users quick electronic communication of

content, such as personal information, documents, videos, and photos. Users engage with social media via a computer, tablet, or smartphone via web-based software or applications. While social media is ubiquitous in America and Europe, Asian countries like Indonesia lead the list of social media usage. Respondents were further asked to indicate the social media tools they mostly used to obtain agricultural information. This would give an indication of the particular avenues of social media platforms farmers use in looking for agricultural information. Tools of social media is given below (Table 6).

Table 6

Tools of Social Media

Social Media Tools	No. of respondents	Percent
You Tube	8	40.00
Facebook	7	35.00
TikTok	5	25.00
Total	**20**	**100**

Source: Field Survey, 2022

The table 6 shows that 40 % respondents were used YouTube , 35 % respondents were used Facebook and 25% respondents were used Tik Tok for agriculture information.

Role of Social Media in Commercial Vegetable Farming for Rural Development

Municipal people are using social media for connecting with friends and family, reading current news, to get information from peers. Thus, connecting that to agriculture and leveraging it to bridge the farmer extension gap can prove to be a boon to the agriculture sector and the farm families. Mass media plays a significant role in dissemination of agricultural technologies. The success of agricultural development programmers largely depends on the nature and extent of use of mass media in mobilization of people for development. Moreover, it can be decisive in helping farmers access the information that they need and transmitting their concerns. Radio, Television has been acclaimed to be the most effective media for diffusing the scientific knowledge to the masses. Role of social media in commercial vegetable farming for rural development is given below (Table7).

Table 7

Role of Social Media in Commercial Vegetable Farming for Rural Development

Role of Social Media in Commercial vegetable farming for Rural Development	No. of respondents	Percent
Sources of income and livelihood	6	30.00
Capacity Building and Empowerment	3	15.00
Access to financial Institutions, agricultural inputs services and market	2	10.00
Increase in living standard	5	25.00
Use of risk reduction measures	1	5.00
Development of saving habit	2	10.00
Access to public service	1	5.00
Total	**20**	**100**

Source: Field Survey, 2022

Table 7 shows that 30% respondents were said commercial vegetable farming is the major source of income and livelihood, 15% respondents were said commercial vegetable farming is increase in capacity building and empowerment,10% respondents were said commercial vegetable farming is the source of access to financial institutions, agricultural inputs services and market,25% respondents were said increase in living standard, 5% respondents were said use of risk reduction measures,10% respondents were said development of saving habit and 5% respondents were said access to public service.

Conclusion

Agriculture is the major sector of Nepalese economy. It provide employment opportunities to around 65% of the total population and contribute about 27% of the GDP (MOAD, 2022). Therefore the development of agriculture sector is key for the development of national economy. The type and degree of social media use in promoting rural development in the research area had a significant impact on the success of agricultural development projects. The successful social media for spreading scientific knowledge to the general public are YouTube, Facebook and TikTok.

Social media is essential for spreading agricultural information on better agricultural practices among farmers with literacy. Social media is the main tool in information dissemination because it reaches a larger proportion of the people irrespective of their position; it promotes the level of awareness of the people and it also enables people to be adequately informed. Social media can reach many people much more quickly than other media. Commercial vegetable farming support to livelihood ,capacity building, empowerment ,increase in living standard ,saving habit, access to financial institutions, agricultural inputs services and market in the study area. Commercial vegetable cultivation has been playing a significant role for rural development in this area. The belief that social media is primarily advantageous as a source of agricultural information and that it is both affordable and easy comes from the fact that farmers have a positive attitude about using it to find agricultural information.

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