Information Management Behaviour of Papaya Growers of Karnataka: A Comparative Study

Aparna Radhakrishnan[1], S.K. Meti[2] and S.B. Goudappa[3]

1. Ex-PG Student, 2. Prof. and Head, UAS, Raichur, 3. Programme Coordinator, KVK, Raddewadi, University of Agricultural Sciences, Raichur, Karnataka

Corresponding author e-mail: aparnaradhak@gmail.com

ABSTRACT

The study was conducted in North Eastern region of Karnataka State, to assess the information management behaviour of papaya growers. The expost facto research design was followed for the study conducted in the purposively selected Northern district of Karnataka (Raichur). A sample of 120 farmers were selected 60 farmers from Gulbarga representing North and 60 from Raichur representing Eastern region of Karnataka respectively by using proportionate sampling procedure and information was gathered and analyzed. The results showed that, in Raichur district, half (50.00%) of the papaya growers belonged to medium Information Management Behaviour category, 26.67 per cent of them belonged to high Information Management Behaviour category and 23.33 per cent of them belonged to low Information Management Behaviour category. In Gulbarga district more than two fifth (41.11 %) of the papaya growers belonged to medium Information Management Behaviour category, 37.78 per cent of them belonged to low Information Management Behaviour category and 21.22 per cent of them belonged to high Information Management Behaviour category

Key words: *Information management; Information seeking; Evaluation; Dissemination behaviour;*

Information explosion in modern technologies had created a unique situation, making the recipients unable to understand and cope up with the vast amount of information. There is a gap between those who use ideas and those who produce them. Information Management is an activity that primarily increase the knowledge level of the papaya farmers, secondly it reduces or decreases uncertainty for decision-making process and thirdly, it can serve as representation of situation. Agricultural Information Management was defined as the process of identifying, collection of information on agricultural technologies of origin, storing, updating and retrieving it whenever necessary to process manipulate and disseminate the processed information to various users. (*Raju, 2005*). The information management behaviour has been conceptualised as a composite measure of information seeking, evaluation, preservation, utilisation and dissemination behaviour of the individual growers and each dimension of information management behaviour was analysed under selected horticulture operations and the growers selected for study were such that by performing all these four major operations they do cultivation.

India has long way to achieve self sufficiency in fruit production. In recent years, greater attention is being paid to horticulture for better utilisation and development of waste lands, which are not suitable for economic cultivation of field crops (*abfionline*). Horticultural crops particularly fruits, like papaya have great export potential and can earn foreign exchange in sizeable quantum and also can meet the consumer demand if the existing resources are tapped to the fullest extent. According to the National Horticulture Board, it is estimated that India produces 250 lakh quintals (2,500 million kg) of papaya annually. Although Karnataka stands seventh in area, it takes sixth place with regard to production of papaya. The major papaya growing districts are Bidar, Bangalore, Mandya, Kolar, Gulbarga and Koppal. It is also coming up well in other districts like Raichur, even though the area is less. Papaya farmers confront many serious challenges that include infrastructure constraints, supply chain inefficiencies and significant problems in the diffusion of and access to information. Information is viewed as a resource like land, labour, and capital. It is not a free good. It must be

obtained, processed, stored, retrieved, manipulated, analyzed and put into use. The terms data and information are used interchangeably, but they refer to two distinct concepts. To avoid the common problem of ambiguity and confusion, *Laudon and Laudon (2001)* defined these terms, as they should be used. According to them, data are the streams of raw facts representing the events occurring in physical environment before they have been organized and arranged into a form people can understand and use. Information is the result of modelling, formulating, organizing and converting data in a way that increases the level of knowledge for its recipients. Data and information are closely related since information is produced from data. Since information is a critical resource, low quality information has an adverse effect on papaya farmers and also the information explosion in modern technologies related to all the fields including agriculture has created unique situation and making the papaya growers unable to understand and cope with the vast amount of information. The quality of information is determined by how it can motivate human action and contribute to effective decision making. Further, the magnitude of modern technologies seems to be in advance of the capacity of the society for using and understanding them. Information to be 'value' for papaya farmers, it must possess certain desirable quantitative and descriptive characteristics. The primary characteristics which information must possess are: relevance, availability and timeliness. Beside, certain desirable and necessary variable attributes of information are objectivity, sensitivity, comparability, consciousness and completeness. The information has the quality dimension as well. There is a gap between those who use ideas and those who produce them. A good technique of information management will certainly reduce this gap, if not eliminate it. The driving factors behind this study were to understand the extent of usage of information and the impact of information management behaviour on papaya cultivation in rural areas of North Eastern Karnataka with following objectives:

1. To assess the socio economic and psychological characters of papaya growers.
2. To study the information management behaviour of papaya growers
3. To study the relationship between dependent and independent variables.
4. To compare the information management behaviour of papaya growers

METHODOLOGY

The present research was carried out for comparing the Information Management Behaviour of papaya growers of North Eastern Region of Karnataka State. This region was purposively selected for the study as horticulture crops occupies the major cultivated area and shares the major portion of income of the growers of North Eastern Region of Karnataka and among the horticulture crops Papaya plays an eloquent role. Among the six districts under the NE Karnataka, Gulbarga, Bidar, Bellary, Raichur, Koppal and Yadgiri- Gulbarga, Bidar, Bellary, Raichur, Koppal are the major papaya growing districts and the district Gulbarga even though high in area is least in productivity and Raichur even though less in area has the highest productivity. A comparative study research was undertaken in these two districts of North-Eastern Karnataka. The samples of 120 respondents were drawn from Gulbarga and Raichur districts, 60 from Lingasugur taluk of Raichur and 60 from Gulbarga district *i.e.* 20 each from Alanda, Gulbarga and Afsalpur talukas. Thus, in all 120 growers were selected with the help of simple random sampling method which constituted the sample respondents collected through personal interview method with the help of interview schedule in an informal atmosphere either at home or at field. The mean, standard deviation and correlation co-efficiency were worked out for interpretation of results. The characteristics of respondents namely age, education, land holding, annual income, social participation, mass media exposure, extension orientation, change proneness, management orientation, risk orientation and economic motivation were selected as independent variables. The dependent variable is Information Management Behaviour which was studied on five dimensions such as information seeking, information evaluation, information preservation/storage behaviour, information utilisation and information dissemination behaviour.

RESULTS AND DISCUSSION

From Table 1 it is clear that from the overall sample, majority (73.33%) of the papaya growers were of middle age category, where as more than four fifth

(86.67%) of the papaya growers of Raichur and 68.89 per cent of Gulbarga, belonged to middle age category. Age influenced the behaviour of an individual by exposing to varied situations. Therefore, the influences of age of the papaya growers were considered as essential aspect in this investigation. The probable reason that majority of papaya growers were of middle age category might be that were enthusiastic and had moderate experience in farming and had more work experience than older and younger ones. Further, middle age farmers possess more physical vigor and shoulder more responsibilities. Over one third (38.33%) of papaya growers, had primary school education. In Raichur none of the papaya growers were illiterate. This may be due to the availability of primary and secondary schools at village level and colleges at Raichur and Gulbarga taluka places. The probable reason for varied level of annual income depicted in table might be due to the difference in productivity of land, price fluctuation in market and variation in the cultural operations of papaya. Majority of papaya growers of the region were marginal and medium category of land holdings. The reason may be that the parents used to give a part of land to their children as a share after their marriage. Due to this continuous fragmentation process and emergence of large number of nuclear families that divides the ancestral property might have caused the reduction in the land holding of families. Industrialization and urbanization may also play an important role for reducing per capita availability of land. Inability of papaya growers to devote their time, lack of awareness of activities of various social institutions and they are found to be more busy in their crop management aspects may be the probable reason for low social participation.

High literacy and the influence of Information Technology era on the papaya growers may be the reason for high mass media exposure. In depth analysis of Table No 1 shows that more number (52.50%) of papaya growers had medium extension orientation. The probable reason might be less eagerness and low enthusiasm to solve their problems with extension agents and also non availability of extension agents in time. They also lack updated knowledge with the extension agencies. Medium age, better annual income and high mass media exposure had made the respondents to be in medium category of change proneness. High and medium management orientation of papaya growers is

Table 1. Personal socio-economic and psychological characteristics (%) [N (n_1+n_2)=120]

Variables	Raichur	Gulbarga	Pooled
Age,			
Young (18-30 years)	06	6.67	7.50
Middle (31-50 years)	62	68.89	73.33
Old (>50 years)	22	24.44	19.16
Education			
Illiterate	08	8.89	6.67
Primary school	43	47.78	38.33
Middle school	17	18.89	16.67
High school	05	5.55	5.83
PUC	10	11.11	17.50
Graduation & above	07	7.78	15.00
Income			
Low (Mean - 0.425 SD)	61	67.78	60.83
Medium (Mean ± 0.425 SD)	24	26.67	33.33
High (Mean + 0.425 SD)	05	5.55	5.83
Land Holding			
0.1-2.5 acres (marginal)	31	34.44	40.00
2.51-5.0 acres (small)	10	11.11	13.33
5.01-10.0 acres (semi medium)	2	2.22	2.50
10.01-25 Acres (medium)	38	42.22	35.83
>25 acres (big)	09	10.00	8.33
Social Participation			
Low (Mean - 0.425 SD)	41	45.50	45.00
Medium (Mean ± 0.425 SD)	28	31.10	27.50
High (Mean + 0.425 SD)	21	23.30	27.50
Mass Media Exposure			
Low (Mean - 0.425 SD)	26	28.89	25.00
Medium (Mean ± 0.425 SD)	18	20.00	23.33
High (Mean + 0.425 SD)	46	51.11	51.67
Extension Orientation			
Low (Mean - 0.425 SD)	28	31.11	35.00
Medium (Mean ± 0.425 SD)	58	64.44	52.50
High (Mean + 0.425 SD)	3	8.89	11.67
Change Proneness			
Low (Mean - 0.425 SD)	19	21.11	27.50
Medium (Mean ± 0.425 SD)	52	57.77	48.33
High (Mean + 0.425 SD)	19	21.11	24.17
Management Orientation			
Low (Mean - 0.425 SD)	34	37.77	36.67
Medium (Mean ± 0.425 SD)	28	31.11	31.67
High (Mean + 0.425 SD)	28	31.11	31.67
Risk Orientation			
Low (Mean - 0.425 SD)	21	23.33	21.67
Medium (Mean ± 0.425 SD)	52	57.77	56.67
High (Mean + 0.425 SD)	17	18.89	21.67
Economic Motivation			
Low (Mean - 0.425 SD)	31	34.44	34.16
Medium (Mean ± 0.425 SD)	38	42.22	38.33
High (Mean + 0.425 SD)	21	23.33	27.50

quite logical because all papaya growers tend to introduce high management aspects in horticulture crops especially in papaya. It can be concluded that a large majority of the Papaya growers had medium level of risk orientation. The reason for above situation might be better annual income, medium farm size and cultivation of more than one horticulture crop. Moreover, higher education and economic status might have helped them for taking risk in papaya cultivation operation. Horticulture crop growers especially papaya growers were found to be more profit motive this may be the probable reason for medium to high economic motivation of papaya growers.

Table 2. Dimensions of Information Management Behaviour of papaya growers (%) [N (n_1+n_2)=120]

Behaviour	Raichur	Gulbarga	Pooled
Info. Seeking Behaviour			
Low (Mean - 0.425 SD)	16.67	26.67	24.16
Medium (Mean ± 0.425 SD)	66.67	53.33	56.67
High (Mean + 0.425 SD)	16.67	20.00	19.16
Info. Utilisation Behaviour			
Low (Mean - 0.425 SD)	20.00	26.67	25.00
Medium (Mean ± 0.425 SD)	76.67	60.00	64.16
High (Mean + 0.425 SD)	3.33	13.33	10.83
Info. Evaluation Behaviour			
Low (Mean - 0.425 SD)	23.33	56.67	48.33
Medium (Mean ± 0.425 SD)	30.00	26.33	27.5
High (Mean + 0.425 SD)	46.67	16.67	24.16
Info. Storage Behaviour			
Low (Mean - 0.425 SD)	30.00	44.44	40.83
Medium (Mean ± 0.425 SD)	40.00	36.67	37.50
High (Mean + 0.425 SD)	30.00	18.89	21.67
Info. Dissemination Behaviour			
Low (Mean - 0.425 SD)	30.00	40.00	37.50
Medium (Mean ± 0.425 SD)	53.33	32.22	37.50
High (Mean + 0.425 SD)	16.67	27.77	25.00

Information management behaviour of papaya farmers: The detailed analysis of the dimensions of information management for the four cultural operations (Table 2) also reveals that the majority of the respondents were belonging to medium and low category. The same trend was observed in all phases of Information Management Behaviour. The probable reason for above finding might be that most of the papaya growers were of young and middle age, medium to high level of annual income, better social participation, and medium to high level of mass media exposure high management orientation and economic motivation. The detailed analysis of the dimensions of information management for the four cultural operations also reveals that the majority of the respondents were belonging to medium and low category. The dimensions of information management behaviour varies for seed and nursery management irrigation and nutrient management, plant protection and for harvesting and marketing operations.

Table 3. Relationship between independent variables with dependent variable

Variable	'r' value	P
Age	-0.312*	0.039
Education	0.172NS	0.921
Land holding	0.171NS	0.844
Annual income	-0.249*	0.049
Social Participation	0.532**	0.023
Mass media exposure	0.611**	0.011
Change Proneness	0.139NS	0.786
Extension Orientation	0.168NS	0.877
Management Orientation	0.540**	0.038
Risk Orientation	-0.140NS	0.759
Economic Motivation	-0.130NS	0.797

The data presented in Table 3 clearly indicates that social participation, mass media exposure and management orientation of the papaya growers had been positively correlated with the Information Management Behaviour of papaya growers at one per cent level of significance. Age negatively correlated at five per cent level of significance. Annual income is negatively correlated with Information Management Behaviour at five per cent level of significance.

It can be concluded that age of the respondents was found to be a dependent factor in IMB of papaya growers. More young age papaya growers are found to have high IMB. The finding revealed that young age of the papaya growers had highly significant relationship with the information management behaviour; because of this papaya growers who were young had an interest to access to the print media and even internet on the subject and were more likely to be receptive to new ideas and have trained their mental fitness to remember better

It can be visualized that social participation played an important role in IMB of papaya growers. The probable reason may be that the younger age and socio-economic status of the farmer might have influenced

the papaya growers to become member of various organisations and develop a desire to seek technical advice from experts. In both Gulbarga and Raichur, the farmers are active members of various farmers' organisations and that make them excel in papaya crop marketing. Further, it is also likely that they have frequent contacts with the extension agencies like KVK Gulbarga, Extension Education Unit Lingasugur and other private extension workers, thereby acquiring more information. The probable reason for association of IMB and mass media exposure (MME) might be due to the fact that greater contact with larger society via mass media exposure seemed to be associated with higher IMB of papaya growers. Majority of farmers of Gulbarga and Raichur possess television or radio. Positive correlation of management orientation (MO) and information management behaviour (IMB) is quite logical because all the papaya growers tend to introduce high management over horticulture crops especially papaya.

Table 4. Comparison of Gulbarga and Raichur papaya growers using Mann Whitney U test [N (n_1+n_2)=120]

Variables	Ranks		MWU Test (n_2=90)	Significance
	Raichur (n_1=30)	Gulbarga		
Age	35.76	17.76	1391.123	0.234
Income	29.87	25.98	1762.124	0.457
MME	29.671	26.871	1098.89	0.041*
MO	28.671	27.761	1673.33	0.312
IMB	31.987	21.598	1125.345	0.049*

*Significant if MWU value < 0.05

Table 4 indicates the Mann Whitney U test to test two independent groups of papaya growers Raichur region (n_1=30) and Gulbarga region (n_2=60), how they differ significantly. A comparative analysis of the Information Management Behaviour of Raichur region (n_1=30) and Gulbarga region (n_2=60) was done using Mann Whitney U test. The results gave 'p' value of < 0.05, which indicated that the Information Management Behaviour of two regions differ significantly. The reason for the difference might be due to difference in the independent variables like age, education, and mass media exposure and management orientation. Thus the results on Mann Whitney U test which is one of the strongest non parametric tests revealed that the Information Management Behaviour is not same for the regions that are the major factor for difference in Raichur and Gulbarga papaya growers.

CONCLUSION

In Gulbarga and Raichur districts majority of the papaya growers belonged to medium Information Management Behaviour category. In his study he also explained that medium information management behaviour is the general trend among Indian farmers. The probable reason for above finding might be that most of the papaya growers were of young and middle age, medium to high level of annual income, better social participation, and medium to high level of mass media exposure, high management orientation and economic motivation. The findings indicated that information management behaviour with regard to modern channel, like internet and website is very meager, since this is a era of liberalization, globalization (under the context of WTO and GATT) there is a need to create awareness among the farmers for their survival. The policy makers and administrators should take care to design awareness programmes regarding internet and agriculture based website and making easy accessibility of these sources at village level to make Information Management Behaviour effective in this era.

Paper received on : August 08, 2013
Received after revision : January 23, 2014
Accepted on : February 23, 2014

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