

## The role of ICT in disseminating market information among coconut farmers- an empirical analysis

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### ABSTRACT

The study was conducted to identify the different market channels of coconut farmers and usage of e-business tools by them. Sixty coconut farmers of Erode, Tamil Nadu at regulated market were randomly selected for survey. The five-point Likert scale was used to find out their attitude to adopt e-business tools. The coconut farmers generally marketed their produce in the form of matured coconut or tender coconut and copra. Majority (53.30%) of the respondents used mobile phones for daily market information. It was found that 63.33 per cent used the information provided by government departments. The farmers sold their produce when the prices were high in the market. The study showed that mobile phone was most useful to the farmers for getting market information. The overall acceptance and opinion of the coconut farmers about e-business tools were positive.

**Keywords:** e-business; tools; market; channels; market information; attitude

### INTRODUCTION

The marketing system plays an important role in the economy in a way to control price spread of agri-commodities. The subject of agricultural marketing is in the concurrent list of the Indian constitution and is gaining importance. Especially the market information dissemination facilitates marketing decisions directs the competitive process and simplifies marketing mechanisms. The four 'A's of marketing information are accuracy, availability, applicability and analysis and this has significance in marketing systems. The information to be provided must be accurate, timely and farmers must understand it. A farmer may decide how much to produce, when and where to sell and a trader may expand trade. Accurate and timely market intelligence about the market prices of the agricultural commodities is of extreme significance (Cecchini and Scott 2003).

Recent advances in information technology are making it more feasible to provide farmers with

the marketing information they need (Walsham 2010). There are different e-business tools like telephone, mobile, internet, intranet, kiosks, mail etc (Senthil Nathan 2009, Seetha Naik and Shivaraj 2006). Also some farmers access the information directly from the market intelligence (Balasubramanian and Eswaran 2008). Efficient market information can be shown to have positive benefit for farmers and traders. Up to date information on prices and other market factors enables farmers to negotiate with the traders and also facilitates spatial distribution of products from rural to urban areas and between markets. Very few farmers participate in commercial markets due to lack of access to market information and understanding as to how the market operates. The inability to access agricultural marketing information has denied most of the farmers' opportunity to effectively plan and market their produce. Hence the present study was conducted to identify the different marketing channels of coconut farmers and to analyze the usage of ICT tools by them.

## METHODOLOGY

The study was carried out at Avalpoondurai regulated market committee, Erode, Tamil Nadu which was purposefully selected based on the high arrival rates of copra. The data were collected through well-structured interview schedule from 60 coconut farmers of Erode. The farmers were randomly selected for the survey. The five-point Likert scale (strongly agree- 5, agree- 4, neutral- 3, disagree- 2, strongly disagree- 1) was used to find out the attitude of the farmers to adopt ICT tools.

## RESULTS and DISCUSSION

### General characteristics of the sample farmers

The general characteristics of the farmers in selected study area with respect to age, education, experience and occupation are presented Table 1. It was found that 46.67 per cent of the farmers were in

41 to 55 years age group followed by 56 to 70 years age group (30.00%). Most of them were educated up to secondary level (30.00%) followed by middle (25.00%) and higher secondary (21.67%) level. Most of them (80.00%) were doing farming only whereas 20.00 per cent were also engaged in some secondary occupation in addition to agriculture. Most of them (36.67%) had farming experience of 21-30 years followed by 11-20 years (26.67%).

The coconut farmers generally marketed their produce in the form of matured coconut or tender coconut and copra. They marketed the matured coconut or tender coconut to consumers through direct market (Sandies). They also marketed the produce through traders. The traders also collected coconut from farmers and sold copra to oil mills/ companies. Some companies also made contract with coconut farmers directly. Some farmers sold directly through regulated market (Fig 1).

Table 1. General characteristics of the sample farmers

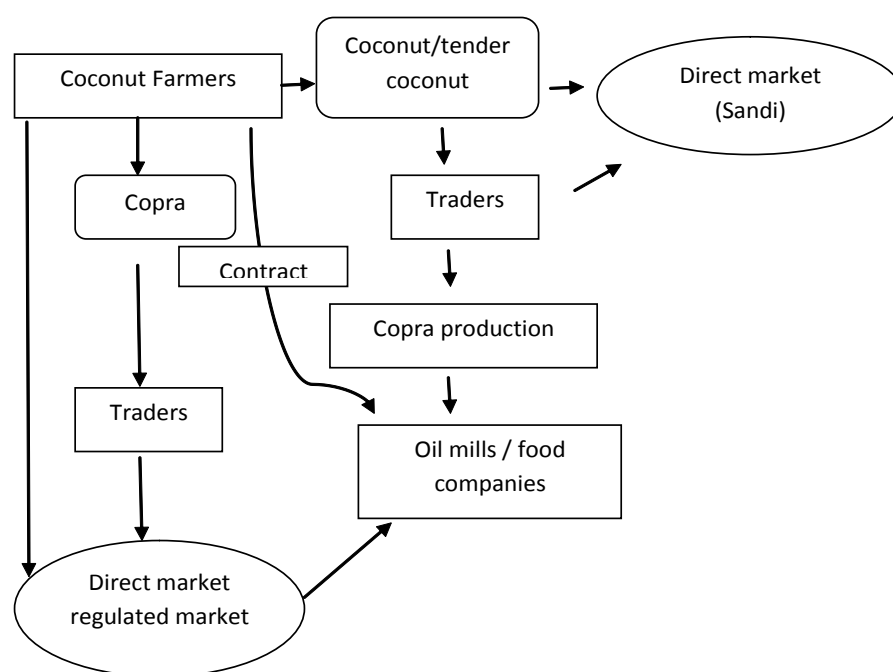
Variable	Respondents	
	Number (n= 60)	Percentage
<b>Age (years)</b>		
25-40	12	20.00
41-55	28	46.67
56-70	18	30.00
>70	2	3.33
<b>Educational status</b>		
Illiterate	2	3.33
Primary	7	11.67
Middle school	15	25.00
Secondary	18	30.00
Higher secondary	13	21.67
Graduate	5	8.33
<b>Occupational status</b>		
Agriculture only	48	80.00
Agriculture+ Secondary occupation	12	20.00
<b>Farming experience (years)</b>		
More than 10	14	23.33
11-20	16	26.67
21-30	22	36.67
Less than 30	8	13.33

The results shown in Table 2 reveal the usage of e-business tools by the farmers to access market information. Majority (53.30%) of the respondents used mobile phones for daily market information and 15.00 per cent also used internet.

Data given in Table 3 present the source of information about market price and it was found that

63.33 per cent used the information provided by government departments followed by 13.33 per cent who received information from traders.

Data given in Table 4 show that highest score (4.53) was assigned to the statement 'I store the copra for some time based on the market information' showing that farmers sold their produce when the prices were



**Fig 1. Different market channels of coconut farmers**

**Table 2. e-business tools used to access market information**

Medium	Respondents		
	Daily market price (%)	Planning details to produce (%)	Input details (%)
Mobile phone	53.30	41.70	25.00
Internet	15.00	21.70	21.70
Kiosks	0.00	16.70	10.00
Mail	0.00	0.00	0.00
others	31.70	73.30	50.00

**Table 3. Source of information about market price**

Source	Respondents	
	Number	Percentage
Government departments	38	63.33
Private services	2	3.33
Traders	8	13.33

high in the market. This was followed by ‘mobile phone information through message is really useful to create awareness about the market price of products’ with mean score 4.37 and ‘mobile messages, calls, voice mails etc are very easy to access media to collect information quickly’ with mean score of 4.36. The study showed that mobile phone was most useful to the farmers for getting market information. The

respondents assigned overall mean score 3.98 to various statements that shows that overall acceptance and opinion about e-business tools were positive.

Earlier Jensen (2007), Mittal and Mehar (2012) and Senthil Priya and Mathiyalagan (2012) found that mobile phones decreased price dispersion and wastage by facilitating the spread of information.

Table 4. Attitude of farmer towards e-business ICT services

Statement	Likert scale mean score
I read mobile messages frequently	3.54
I use internet frequently	1.97
Mobile messages are really useful to create awareness about the market price of products	4.37
I often tell my friends about products that interest me	4.24
I trust opinion of a friend or acquaintance who has used the product/service	4.16
I store the copra for some time based on the market information	4.53
Directly getting mails/messages about the products from marketer are more trustworthy	4.28
Price prediction can be made with the daily market information	4.31
Government institutions' market predictions, prices and other information are very useful	3.86
Mobile messages, calls, voice mails etc are very easy to access media to collect information quickly	4.36
Market information is used to make decision to produce copra	4.14
Overall mean score	3.98

## CONCLUSION

From the above discussion it is to be inferred that most of the farmers were literate and had agriculture as their only main occupation. Most of the farmers (80.00%) were considering and regularly accessing the market information and used mobile phones for daily market information. Mainly mobiles helped the farmers to get timely price information and making decisions on the best place to land and sell their produce. The use of mobile phones was found to encourage the small farmers and other partners of supply chain to take advantage of the free flow of information by catering to demand in untapped markets.

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