

Use of Electronic Gadgets for Information Seeking Process by Fishermen in Tamilnadu – A Study

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ABSTRACT

The present study made an attempt to analyse the information need and information seeking process of fishermen in Tamilnadu. The respondents for the study consists of artisanal fishermen from three southern districts of Tamilnadu namely Kanyakumari, Tirunelveli and Thoothukudi district. The primary data are collected from the respondents using survey and secondary data are collected from Fisheries Department. The study reveals that majority of fishermen needs information related to their day-to-day activities and modern technology and gadgets are used for seeking information.

KEY WORDS: Information, Information Need, Information Seeking, Fishermen, Technology.

1. INTRODUCTION

India's vast coastline provides food, stability and income-producing opportunities for many of India's economically disadvantaged. Fisheries in India account for 2.5 per cent of the gross domestic product and generate powerful income and employment opportunities for many of the country's rural poor. They are also the dominant source of inexpensive animal protein for India's enormous domestic market. Of the total catch, 65 per cent is marketed as fresh for direct human consumption, and the demand is ever increasing along with India's population. Out of the 5.4 million active fishers in India, 3.8 million (70.37 per cent) are fishermen and 1.6 million (29.63 per cent) are fisherwomen (Narayanakumar, 2008). About 25 per cent of the labour force in pre-harvest activities of fish, 60 per cent in export marketing and 40 per cent in internal marketing are women (Dehadrai, 2002). Several factors such as low social status, poor economic conditions, illiteracy, leaning on middlemen, traditional fishing equipments and methods of fishing, low production rate and income influence the socio-economic conditions of fishermen.

1.1. Types of Fishermen: Fisher folk are classified into different categories based on nature and type of vessels used for fish harvesting. Implications of different types of fishing following the classification of FAO is given below:

a) Industrial Fisheries: Capital-intensive fisheries using relatively large vessels with a high degree of mechanization and that normally have advanced fish finding and navigational equipment. Such fisheries have a high production capacity and the catch per unit effort is normally relatively high.

b) Small-scale Fisheries: Labour-intensive fisheries using relatively small crafts (if any) and little capital and equipment per person-on-board. Most often it is family-owned. It may be commercial or for subsistence. Usually low fuel consumption.

c) Artisanal Fisheries: Typically traditional fisheries involving fishing households (as opposed to commercial companies), using relatively small amount of capital, relatively small fishing vessels, making short fishing trips, close to shore, mainly for local consumption. Artisanal fisheries can be subsistence or commercial fisheries, providing for local consumption or export. Such categories are also referred to as small-scale fisheries, though they may not be always using relatively low level technology.

d) Commercial Fisheries: Fisheries undertaken for profit and with the objective to sell the harvest on the market, through auction halls, direct contracts, or other forms of trade.

e) Traditional Fisheries: Fisheries established long ago, usually by specific communities that have developed customary patterns of rules and operations. Traditional fisheries reflect cultural traits and attitudes and may be strongly influenced by religious practices or social customs. Knowledge is transmitted between generations by word of mouth. They are usually small-scale and/or artisanal.

1.2. Information seeking: Information seeking is a complex information and communication activity requiring access to diverse source of information to deal with personal, social, and work related problems. The proliferation of personal computers, the growth of internet, and accompanying development of information communication services provide citizens with access to many new services and potential new channels of information access.

Information seeking behaviour is defined in different ways. According to Krikelas (1983), information-seeking behaviour as any activity of an individual that is undertaken to "identify a message that satisfies a perceived need". Mabawonku (2005) also threw light on the information-seeking behaviour of artisans and the various sources they use to satisfy their information need. However, Uhegbu (2007) defines; information-seeking behaviour is the way in which users conduct themselves when searching for information.

Information seeking behaviour is the purposive seeking for information as a consequence of a need to satisfy some goal. In the course of seeking, the individual may interact with manual information systems (such as a newspaper or a library), or with computer-based systems (such as the World Wide Web).

1.3. Fisheries information system: Flow of information and knowledge in a society is the prerequisite for the sustainable socio-economic development. Fishermen and the fishing communities are no exception. Traditionally, large numbers of women are involved in fish marketing and fishing related activities. They are active in both artisanal fisheries and the commercial fishery sector and contribute substantially to both national and household food security. A fisheries information system is a general term used to describe an information system to collect, manage, and share fisheries information and data for a wide variety of uses. Fishery information system provides platform that revolutionizes the way fisheries information is collected, analyzed and shared. It is intended to help fisherfolk to better track important resource data related fishing and related activities.

1.4. Need and Significance of the study: The fisheries sector occupies a very important place in the socio-economic development of India. The potential of the fisheries sector in general and the marine fisheries sector in particular was recognized quite early in the Indian development planning and since then a considerable amount of public effort has been channelized into the sector for developing it as a vehicle of growth. Apart from the prime consideration of securing food and nutritional requirements of the population, the fisheries sector plays an important role in trade and commerce and in the process promotes creation of millions of livelihoods for people who are often living at the margin. The study on information needs and information seeking behaviour of fisher folk in general and the fishermen in particular are necessitated due to social and economical implication on their social life. Fisher community needs information to meet their day-to-day information such as health information, climatic information, type of vessels, type of fish net, fishing, education needs of their children, marketing information and so on. Moreover, several studies were conducted on various aspects of information needs among different work groups both in India and in abroad. Very few studies on Information seeking behaviour among the fisher folk in Uganda by Odongo & Ochalla (2003), and information needs and information seeking behaviour of fishermen in Loga, state of Nigeria (Njoku, 2004). But a closer analysis of available studies on information seeking behaviour among the fisher community in Indian context shows very scanty. Hence, the present study is undertaken to analyse the information need and information seeking process fishermen in Tamilnadu.

1.5. Statement of the problem: The present study intends to assess the information need and information seeking process of fishermen in Tamilnadu and to analyse the use modern electronic gadgets for information seeking process. Hence, the problem for the study is entitled as "Use of Electronic Gadgets for Information Seeking Process by Fishermen in Tamilnadu – A Study."

1.6. Objectives of the Study: The major objectives of the study are as follows,

- a) To ascertain the general and specific information need of fishermen in Tamilnadu.
- b) To identify the technology perception of fishermen.
- c) To analyse the information seeking behavior of fishermen.
- d) To analyse the use of technology by fishermen for information seeking process.

1.7. Hypotheses of the Study: Hypotheses framed for the present study are

- a) Fishermen uses advance technology like Mobile phone, Computer, Wireless, Television, Radio and GPS for information seeking.
- b) There is no significant association between the place of residences of fishermen with respect to the variable possession of radio, frequency of using radio, time spent in the library, satisfaction towards information system.
- c) There is no significant difference in perception score among the respondents based on native place (district).

1.8. Methodology Used for the Study: The present study is aimed at finding the use of technology for information seeking by fishermen of Kanyakumari, Tirunelveli and Thoothukudi District and so the effective method is survey method is adopted for the study. Population for the present study is fishermen in the fishing community of Kanyakumari, Tirunelveli and Thoothukudi district. The sample respondents of the study consists 600 fishermen from three district using stratified random sampling technique by due weightage to various categories of variables under study. Tool used for the study is a well-structured questionnaire prepared the investigator in consultation with experts in the field. It includes various aspects on information need and information seeking strategies of fisher community. Both descriptive and inferential statistics are used for analysis and interpretation of data.

1.9. Limitations of the Study:

- a) The present study is confined only to the information needs and information seeking behaviours of the fishermen in Kanyakumari, Tirunelveli and Thoothukudi District.
- b) The study is based on the responses of the traditional and artisanal fishermen of selected fishing villages of Kanyakumari, Tirunelveli and Thoothukudi district and commercial and large scale fishers are excluded from the study.

1.10. Analysis and interpretation of data: The collected data are analysed and interpreted using appropriate statistical technique and presented under this heading. The respondents for the study consists of 200 fishermen from three districts namely Kanyakumari, Tirunelveli and Thoothukudi district.

1.11. Technology Perception of Fisherman on Fishing: Fishermen are expected to use latest technology for maximum yields. The opinion of the 429 respondents towards the use of technology in fishing is presented in Table.1.

Table.1. Technology Perception of Fisherman on Fishing

Type of Technology	Respondents	Percent
Traditional Technology	344	57.3
Modern Technology	357	59.5
Advanced Technology	147	34.2

Source: Primary Data: It is clear from the table 1 that majority of the respondents (59.5 per cent) uses modern technology for fishing, traditional technology is preferred by 57.3 percent and advanced technology is used by 34.2 per cent of the respondents. Hence, the researcher infers that fishermen prefer modern technology for fishing. Hence, effective information system and dissemination system are required for imparting knowledge on modern technology on fishing among the fishermen.

1.12. General Information Needs of Fishermen: Generally the fishermen community needs information for their survival in the society in general and specific information for day-to-day activities such as fishing and other related activities. The perceived information needs of the respondents are in Table 2.

Table.2. General information needs of fishermen

General Information Needs	Always	Sometimes	Never
Technical Information	359(59.8)	140(23.4)	101(16.8)
Climatologically Information	312(52)	143(23.8)	145(24.2)
Environmental Information	215(35.8)	362(60.3)	23(3.8)
Current Information	378(63)	188(31.3)	34(5.7)
Economic Information	401(66.8)	116(19.3)	83(13.8)
Geographical Information	115(19.2)	385(64.2)	100(16.6)

Source: Primary Data: It is clear from table 5.26 that the information needs of fisher folk in the selected districts are as follows, Technical information is always needed by 59.8 per cent of the respondents (359 out of 600), it is needed sometimes by 23.4 per cent of the respondents and it is never required by 16.8 per cent. It is inferred that fishermen requires technical information for fishing and its related activities. Climatologically or weather report is always required by 52 per cent of the respondents; sometimes it is required by 23.8 per cent and never by 24.2 per cent. Weather report is more required for the fishermen for fishing than other category of fisher community.

Environmental information is always required for the fisher community only for 35.8 per cent of the respondents; sometimes it is required by 60.3 per cent and never by 3.8 per cent. Therefore, it is inferred that environmental information is necessitated almost all but the intensity of requirement is only at average level.

Information on flow of water current existing in the sea is one of the important information that must be well familiar to all those who are involved in fishing. This information is always needed by 63 per cent of the respondents (378 out of 600), sometimes it is required by 31.3 per cent and never by 5.7 per cent.

However, the economic information is always required by the majority of the respondents (66.8 per cent), sometimes by 19.3 per cent and never by 13.8 per cent. Therefore, the researcher inferred that irrespective of the nature of work engaged by the fishermen community needed economic information.

Thus, artisanal and traditional fishermen needed more frequently the following information for their survival in the following order. They are: economic information, current information, technical information, and weather information.

1.13. Specific Information Needs of Fishermen for Fishing: Specific information needs vary from one to another due to the nature of their work and their social and educational background. The specific information requirements of fishermen are mainly related to climatic changes in the sea and its surrounding, directions, wind flow, water current existing in the sea, monsoons and its characteristics, different types of fishes, their marketing conditions, sign language, cyclonic storms, tide in the sea and so on. Frequency of specific information needs of the respondents is collected on a three point scale namely 'always', 'sometimes' and 'never'. The details are summarised in Table 3.

Source: Primary Data - It is clear from table 3 that 92.7 per cent of the respondents needed information about climate. Knowledge about flag hoisting and its related information are always needed by 88.2 per cent. Information about different types of fishes is always needed by 86.2 per cent. Right information about cyclonic storms is needed by 85.5 per cent. Related information of wind flow is always required by 84.8 per cent, safety measures are always needed by 82.8 per cent. Information about direction and equipment for direction identification are always needed by 78.8 per cent. Information about flow of water is needed by 71.5 per cent; current information about sky colour

by 68.5 per cent; knowledge about first aids by 66.5 per cent, information about monsoon by 63.3 per cent, sign language by 61.5 per cent, and stars and moons by 59.3 per cent.

Thus, it is inferred that the specific information needs of fishermen are on climate, flag hoisting, different types of fishes, information about cyclonic storms, wind flows, safety measures, and sea current.

Table.3. Specific Information Needs of Fishermen for Fishing

Information Needs for Fishing	Always	Sometimes	Never
Climate	556(92.7)	27(4.5)	17(2.8)
Directions	473(78.8)	36(6)	91(15.2)
Stars and Moons	356(59.3)	167(27.8)	77(12.8)
Sky Colour	412(68.7)	123(20.5)	65(10.8)
Wind Flow	509(84.8)	78(13)	13(2.2)
Monsoons	380(63.3)	164(27.4)	56(9.3)
Sea Current (flow)	429(71.5)	27(4.5)	144(24)
Different Types of Fishes	517(86.2)	39(6.5)	44(7.3)
Sign Language	369(61.5)	204(34)	27(4.5)
Smoke Fire	233(38.8)	312(52)	55(9.2)
Safety Measures	497(82.8)	62(10.3)	41(6.8)
Cyclonic Storms	513(85.5)	78(13)	9(1.5)
Flag Hoisting	529(88.2)	51(8.5)	20(3.3)
Highest of Mountains	123(20.5)	169(28.2)	308(51.3)
First Aids	399(66.5)	147(24.5)	54(9)

1.14. Preferred Information Sources of Fishermen: There are varied information sources available to meet the information requirement of the fisher folk. These information sources are broadly classified into three categories namely conventional sources, non-conventional sources and Indigenous sources. Opinion of the respondents on how these information sources are preferred by them is in Table 4.

Table.4. Preferred Information Sources of Fishermen

Preferred Information Sources	Respondents	Percent
Conventional Sources	186	31
Non-Conventional Sources	229	38.2
Indigenous Sources	301	50.1

Source: Primary Data: Multi Response Items: Table 4 reveals that 38.2 per cent of the respondents (229 out of 600) prefer non-conventional sources of information to meet their information requirements. Conventional sources are preferred by 31 per cent of the respondents (186 out of 600) and indigenous sources are preferred by 50.1 per cent (301 out of 600). It is inferred that indigenous source is the most preferred source among the fishermen. This may be due to their close interaction among the fisher community and the way they share information related to fishing. Moreover, proper guidance and awareness are required among them for the proper utilisation of conventional sources like libraries, information centers, village libraries and related conventional sources.

1.15. Use of Technology Gadgets Used for Collecting Information: Technology dominates almost all filed, fisheries sector has no exception. The modern technology used by the fishermen to retrieve the required information for their day-to-day information needs is analysed. The opinion collected from the respondents towards use technological equipment are summarised in Table 5.

Table.5. Preferred Non-Conventional Sources for Collecting Information

Technology-Gadgets	No. of Respondents	Technology-Gadgets	No. of Respondents
Internet	89 (14.8)	GPS	193(32.2)
Social Media	119(19.8)	Posters	-
Radio-HFR	170(28.3)	Films/documentary	93(15.5)
Mobile Phones	561(93.5)	Television	504(84)

Items inside the parentheses are in percentage, Multi – response items. It is clear from table 5 that among the various technological gadgets, mobile phones are used by 93.5 per cent (561 out of 600). It is followed by Television by 84 per cent (504 out of 600), GPS by 32.2 per cent (193 out of 600), Radio of High Frequency Radio by 28.3 per cent (170 out of 600), social media by 19.8 per cent (119 out of 600) and films and documentary by 15.5 per cent and Internet by 14.8 per cent. Majority of the respondents uses the equipments like Mobile Phone and Television for information seeking.

1.16. Frequency of Using Technology Based Gadgets: The fisher folk uses the gadgets and technology based tools such as Internet, Social medias, Radios, Mobile phones, GPS, Posters, Films and Television. How frequently these gadgets are used by the fishermen community for their information requirement is studied. The opinion of the

respondents are collected on a three point scale ranging from 'frequently', 'sometimes' and 'never'. The details given by the respondents are given in Table 6.

Table.6.Frequency of Using Technology Based Gadgets

Technology - Gadgets	Frequently	Sometimes	Never
Internet	61(68.5)	23(25.8)	5(5.6)
Social Media	79(66.3)	28(23.5)	12(10)
Radio-HFR	127(74.7)	29(17)	14(8.2)
Mobile Phones	527(94)	34(6.06)	0
GPS	166(86)	12(6.2)	15(7.7)
Posters	-	-	-
Films/ Documentary	69(74.2)	24(12.4)	10(5.1)
Television	387(76.7)	93(18.4)	24(4.7)

Source: Primary Data: Internet tools are frequently used by 52.3 per cent of internet users (61 out of 89), it is used sometimes by 25.8 per cent and 5.6 per cent of respondents never used. Social media is frequently used by 63.3 per cent of social media users, 23.5 per cent of respondents used it sometimes and 10 per cent never used. Radio of High frequency is more frequently used by 74.7 per cent of respondents, while sometimes it is used by 17 per cent and never by 8.3 per cent.

Similar to Radio of High frequency, mobile phones are also more frequently used by the respondents. Table indicates that 94 per cent of the respondents more frequently used mobile phones and it is sometimes used by 6 per cent. GPS is frequently used by 86 per cent of the respondents, it is used sometimes by 6.2 per cent and it is never used by 7.7 per cent. Films as source for collecting information are frequently used by 74.2 per cent of the respondents, sometimes it is used by 12.4 per cent and never by 5.1 per cent. Television as mass media is used for collecting information more frequently by 64 per cent of the respondents, sometimes by 20.5 per cent and never used by 15.5 per cent. Thus, electronic gadgets such as mobile phone, radio, television and internet are more frequently used by the fishermen for collecting their needed information to meet their day-to-day information requirements.

1.17. Purpose of Using Radio by the Fishermen: Generally the radio is being used for collecting information by the fishermen community. The exact purposes of collecting information vary from fisherman to fisherman. Out of 600 respondents 170 uses high frequency radio. The opinion of the respondents on various purpose of using the radio is in table 7.

Table.7.Purpose of using Radio

Purpose of using radio	No. of Respondents
Weather conditions/report	33 (19.4)
Current Information	52 (30.5)
To update knowledge	20 (11.7)
For entertainment	27 (15.8)
Health Information	38 (22.3)
Total	170(100)

Source: Primary Data: It is clear from table 7 that information related to water current existing in the sea is the most preferred purpose of using radio among the respondents. It is preferred by 52 respondents out of 170. It is followed by health information by 22.3 per cent, weather conditions by 19.4 per cent and entertainment by 15.8 per cent, and to update their existing knowledge by 11.7 per cent. Thus, the fishermen depend more on radio for collecting information on wind flow and water current information existing in the sea, health related information, weather conditions and entertainment.

1.18. Purpose of Using Mobile Phone by the Fisher Community: Mobile phone is used as an effective instrument for information gathering and sharing. The exact purposes for which the mobile phones are used by the fishermen are analysed. Out of 600 respondents 561 uses mobile phones for retrieve information. The opinion collected from the respondents is given in table 8.

Table.8.Purpose of Mobile Phone by the Fisher Community

Purpose of using Mobile Phone	Number of Respondents
Update Information	93 (16.6)
Know about the Climatic changes	186 (33.2)
Inform about National disasters	63 (11.2)
Price fluctuation in Fish Market	101 (18)
Relationship with Relatives	118 (21)
Total	561 (100)

Source: Primary Data: Table 8 reveals that the mobile phones are used by the fishermen for varied reasons. Major reasons for using mobile phone are : to know about the climatic changes by 33.2 per cent of respondents (186 out of 561); to establish relationship with friends and relatives by 21 per cent; price fluctuation in the fish market by 18 per cent; update information by 16.6 per cent; and inform about disaster by 11.2 per cent.

Hence, it is inferred that fishermen use mobile phone for climatic changes, information sharing with friends and relatives and price fluctuation in fish market.

2. FINDINGS OF THE STUDY

Major findings of the study are summarised as follows

- a) Majority of the respondents (59.5 per cent) uses modern technology for fishing, traditional technology is preferred by 57.3 percent and advanced technology is used by 34.2 per cent of the respondents.
- b) Artisanal and traditional fishermen needed more frequently the following information for their survival in the following order. They are: economic information, current information, technical information, and weather information.
- c) Specific information needs of fishermen are on climate, flag hoisting, different types of fishes, information about cyclonic storms, wind flows, safety measures, and sea current.
- d) Majority of the respondents use the equipments like Mobile Phone and Television for information seeking.
- e) The electronic gadgets such as mobile phone, radio, television and internet are more frequently used by the fishermen for collecting their needed information to meet their day-to-day information requirements.
- f) Fishermen use radio for collecting information on wind flow and water current information existing in the sea, health related information, and weather conditions.
- g) Fishermen use mobile phone for information on climatic changes, information sharing with friends and relatives and price fluctuation in fish market.

3. CONCLUSION

The present study revealed that fishermen in Tamilnadu require different kinds of information to carry out fishing activity effectively. They follow different methods to access required information from conventional and non-conventional sources. The study also revealed that modern gadgets especially electronic gadgets are frequently used. More awareness on use latest technology is to be imparted for optimum usage of modern gadgets which in turn helps to improve their socio-economic conditions.

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