Information Seeking Behavior of Coastal Society in Southeast Sulawesi

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Abstrak	*Article Info*
The goal of this study was to discover the information-seeking behaviour of coastal communities in Southeast Sulawesi, which has the second highest marine catch (fish) income in Indonesia, despite the fact that the majority of its territory is made up of oceans, but the people's income is still low and less prosperous, as evidenced by the export value of marine catches still falling under East Java, Jakarta, and South Sulawesi. The data for this study were collected from 105 respondents who used a quantitative technique to fill out a list of information seeking behaviour, while 10 respondents used a qualitative approach, namely in-depth interviews about the hurdles experienced when seeking information. According to the findings of this study, the information seeking behaviour of coastal populations in Southeast Sulawesi is still manual, that is, they still use experiences and feelings by 45.8% of the time, and the barriers they confront in obtaining information are related to technology by 29.1% of the time. The outcomes of the study are directly related to the income obtained by the coastal villages of Southeast Sulawesi, which is still poor and less prosperous.	

Keywords: Information Seeking Behavior; Coastal Society; Information Behavior; Southeast Sulawesi

A. Introduction

Indonesia is an archipelagic country with cities ranging from Sabang to Merauke. The islands are strewn throughout the ocean. Because it is surrounded by sea, Indonesia is a coastal country. As a result, in addition to farmers, the majority of Indonesians work as fisherman. According to data from the Ministry of Marine Affairs and Fisheries, Indonesia's territory is 8.3 million KM2, with water covering 6.4 million KM2 (KKP, 2020). According to data from the Central Statistics Agency

(BPS), the contribution in the fisheries industry is Rp. 419,982 billion, or around 2.65% of GDP (Central Bureau of Statistics, 2020a). Southeast Sulawesi is the second most productive province in Indonesia after Maluku province, producing 11.29% of Indonesia's GDP in 2019 (Central Bureau of Statistics, 2020a). This is in accordance with the statement of the Food and Agriculture Organisation of the United Nations (FAO) (Food and Agriculture Organization of the United Nations, 2018)"developing countries have increased the share of capture fisheries production in the sea (from 29 percent in the 1950s to 71 percent in 2016). In 2016, Asian countries accounted for 54% of total output, with Indonesia ranking second (second) after China." Based on this statistics, it is possible to conclude that Indonesia is a country that must be able to properly and sensibly utilise its natural resources, particularly in Southeast Sulawesi. This is because, in addition to helping the Indonesian economy, it will improve the nutrition and intelligence of the Indonesian people, who consume a lot of animal protein found in fresh fish, particularly in the region of Southeast Sulawesi (Central Bureau of Statistics, 2020b).

In order to increase fishing production in Southeast Sulawesi and improve the economics of coastal communities, particularly fishermen, they must be equipped with expertise in catching and handling the fish they capture so that they have a high selling value.It was more expensive at the time of selling. Expertise in catching and managing fish captures In order to catch a great amount of fish and sell it for a high price, one must be knowledgeable and skilled in technology, particularly computer technology. This is due to the fact that if you do not have the knowledge and master the technology of fishing, you will only catch a few fish. Furthermore, if you lack the competence to understand technology, particularly computer technology, he will be less effective in managing the fish he captures so that they can be shipped beyond the province or even outside for a better selling value. However, the reality is that coastal communities in Indonesia, particularly in Southeast Sulawesi, are generally uneducated and lack the awareness to master information technology in supporting fishing activities and managing fish catches, such as information retrieval or information retrieval regarding how to catch fish and effectively manage fish catches with the help of information Technology. The process of searching for information related to a specific topic from the internet, online databases, journals, institutional repositories, or e-books in the form of news, information, or research to meet information needs and overcome knowledge gaps is known as information seeking. This is in line with Case's assertion. The process of searching for information related to a specific topic from the internet, online databases, journals, institutional repositories, or e-books in the form of news, information, or research to meet information needs and overcome knowledge gaps is known as information seeking. This is consistent with Case's assertion. In library science, information seeking or information seeking is the process of searching for information related to a specific topic on the internet, online databases, journals, institutional repositories, or e-books in the form of news, information, or research to meet information needs and overcome knowledge gaps. This is consistent with

Case's assertion (Case, 2002) The deliberate endeavour to obtain information in response to a need or knowledge gap is known as information seeking. Statements were used to reinforce Kwanya(2016) Information seeking is the process of acquiring or obtaining information for specific or general goals. In addition to overcoming knowledge gaps, the purpose of information seeking is to gather information effectively based on needs and goals. Effective knowledge, particularly on how to catch fish, can be used as a foundation for decision making. According to Kaye (1995), good information is vital for effective operation and decision making at all levels in firms, confirming that managers use information in decisionmaking processes (strategic and operational). Information seeking is directly tied to information seeking behaviour. This is because each individual's information seeking behaviour vary depending on their level of education, knowledge, and mastery of information technology, such as information seeking expertise in coastal communities, particularly fishermen, differs from academics. According to the statement Spink & Cole (2005) Information seeking is a subprocess of information behaviour that comprises the purposeful search for information in relation to a goal or task. Based on the issues raised above, the researcher wishes to investigate the information-seeking behaviour of coastal populations in the province of Southeast Sulawesi.

B. Literature Reviews

Information Seeking Behavior

The practise of getting information in order to meet information needs and achieve goals is known as information seeking behaviour. This is consistent with Wilson's (1999) remark that information seeking behaviour is the intentional search for information to meet a need. There are various models of Information Seeking Behaviour, such as the Kriklas model(Kriklas, 1983), the Kuhlthau model(Carol C. Kuhlthau, 1991);(Carol C. Kuhlthau, 1993a);(Carol C. Kuhlthau, 1993b);(Carol Collier Kuhlthau, 2004); Ellis model(Ellis, 1993);(Ellis & Haugan, 1997); the Bytrom and Jarvelin models(Bystrom & Järvelin, 1995); the Savolainen model(Savolainen, 1995); the Robson and Robinson model(Robson & Robinson, 2013); the Williamson model(Williamson, 1998); the Foster model(Foster, 2004); the Wilson model (1999); the Shenton and Hay Gibson models(Shenton & Hay-Gibson, 2011); Freund's model(Freund, 2015); the Johnson model(Johnson, 1997); Dervin's (1983) model, Leckie's et al(Leckie et al., 1996); choo model(Choo, 1998); Godbold model(Godbold, 2006); the Jarvelin and Wilson model(Järvelin & Wilson, 2003); and the Ikoja-Odongo and Mostert models(Koja-Odongo & Mostert, 2006). This study uses the Kuhlthau model(Carol C. Kuhlthau, 1993a), Ellis model (Ellis, 1993)and the Robson and Robinson model(Robson & Robinson, 2013), since it is relevant to the study's subject, which is information seeking behaviour among coastal communities in Southeast Sulawesi.

Kuhlthau Model

Kuhlthau model, also known as the Information Search Process (ISP) Model. On the ISP model, information seeking behaviour is divided into seven stages: initiation, selection, exploration, formulations, collections, presentations, and assessment. The seven stages are divided into three categories: emotional (feelings), cognitive (thinking), and physical (activity).(Carol C. Kuhlthau, 1993a)
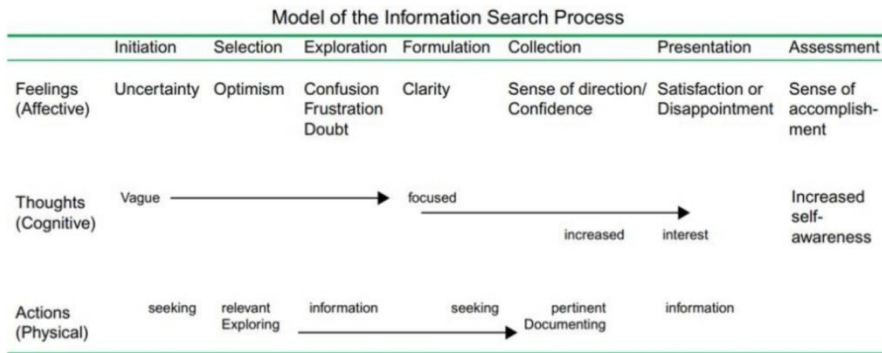

Figure 1 The Model of the informastion search process (source: Kuhlthau, 1993)

1. Initiation is the first stage in which a person recognises the need for information due to a lack of expertise in that sector or issue. In this scenario, fishermen require weather, fishing method, and adequate fish processing information to support their actions.

2. The second stage is selection, which occurs once he recognises the need for information and his lack of understanding. Selection is the process of choosing which topics are required, taking into account the topic's level of relevance, the most recent information, and other factors. In this situation, fisherman typically concentrate on the process or procedure for catching fish as well as good fish processing.

3. The third stage is exploration, which involves searching for relevant information sources based on information requirements. At this point, questions arise as to which sources are authentic, credible, and trustworthy.

4. The fourth stage is formulation, which ensures clarity about the content of the information acquired from these numerous sources.

5. The fifth stage is collection, which involves gathering pertinent information to be stored so that it may be quickly discovered again when needed.

6. The sixth stage is presentation, which involves presenting or recalling information that has been stored in order to meet information demands or complete tasks (such as task reports).

7. The seventh stage is assessment, which is an evaluation of the information acquired from multiple sources to determine which one is the most appropriate or immediately useful for answering information needs. In this instance, fisherman can determine which information is most relevant or valuable in terms of good fishing tactics and fish processing.(Carol C. Kuhlthau, 1993a)(Kuhlthau, 1993)

According to Kuhlthau's remark above, there are seven steps in the information seeking process. In addition to the seven steps listed above, Kuhlthau suggests that when doing an information search, pay attention to the affective (experienced feelings), cognitive (thoughts about content and process), and physical (actual actions conducted) dimensions (Zaremohzzabieh et al, 2016). This is because information seekers' behaviour in obtaining information must use the cognitive domain, direct action, and emotional components.

Ellis model

The Ellis model is an information search process model that consists of eight stages, beginning with the beginning and finishing with the end. The Ellis model is used to guide the following information search procedure.
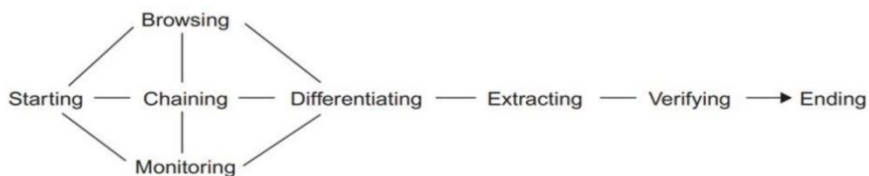

Figure 2 The Ellis models. (Source: Wilson, 1999)

1. The first step is to identify the topic or subject related to the information sought.

2. Chaining is the second stage of looking for information that has credibility or can be believed by tracing the citation of the source of the information if the information is research, but if the information is from the media, look at the credibility of the media's popularity. Furthermore, if you wish to find something relevant to this topic, you can search from references used by that topic or that link to that topic.

3. Browsing is the third stage of looking for information with more precise information needed, such as by reading tables of contents, tables, keywords, or subjects that are pertinent to the material we wish to find.

4. The fourth stage is differentiating, which involves picking or grouping material based on the quality of the information or the suitability of the theme.

5. Monitoring, the fifth stage, requires a person to be aware of the advancement of knowledge in their subject, such as through the use of journals, conferences, or books that explore certain fields.

6. The sixth stage is extraction, in which a person undertakes a systematic search with the goal of getting relevant and more precise information from particular and trusted sources.

7. The seventh stage, verifying, focuses on checking the content of information or evaluating information sources based on accuracy, authenticity, and credibility.

8. Finally, the eighth stage, the search process is complete, and all of the results of the search process are combined into a single unit.(Ellis, 1993)

Robson and Robinson models

A person seeking knowledge must have specific incentives in order to attain their objectives. According to Robson and Robinson(Robson & Robinson, 2013) Factors that impact someone's decision to do an information search include:

1. Context: the environment in which an information actor operates.
2. Demographics: age, sex, ethnicity, and so forth.
3. Expertise: an actor's knowledge, education, training, experience, career stage, etc.
4. Psychological factors: personality and mental processes, including self-efficacy, cognitive dissonance, coping abilities, emotions, and the like.
5. The information recipient's needs, wants, and goals.
6. The information provider's needs, wants, and goals.
7. Motivating and inhibiting factors.
8. Features of the information seeking process, such as thoughts and feelings while searching.(Robson & Robinson, 2013)

Information Needs

According toCase (2007) when someone performs an information search because of the need for information, the following is a summary of the related AI research experts behind the emergence of the need for information: Robert Taylor(Taylor, 1968), Nicholas Belkin(Belkin, 1978), Carol Kuhlthau (1997), and Brenda Dervin (1983).

1. Searching Answers
2. Reducing Uncertainty
3. Making Sense
4. The Spectrum of Motivations(Case, 2007)

According to the preceding statement, one's purpose in carrying out the information search process is as answers, as uncertainty reduction, or as gaps. (Case, 2007)

Sailing and Fishing Knowledge

Referring to Ansaar's research(Ansaar, 2019)related to the research "Shipping And Fish Catching Knowledge System Of The Fishermen Community In The Village Of Rangas, Majene Regency" that for coastal communities, especially fishermen, to sail and catch fish, they must have knowledge. The following is the knowledge that fishermen must have, including:

Sailing Knowledge

1. Knowledge of Waves
2. Knowledge of the Existence of Corals
3. Astrology Knowledge
4. Cloud Knowledge
5. Month calculation knowledge
6. Occult Knowledge
7. Knowledge of the Places of Spirits
8. Knowledge of Hazardous Matters(Ansaar, 2019)

Fishing Knowledge

1. Fish Catching
2. Catchment Area
3. Seasonal Knowledge
4. Knowledge of Astronomy(Ansaar, 2019)

Barriers to Information-Seeking

According to Yusuf et al., (2016), there are various impediments to doing an information search, including:

1. Age and gender are demographic parameters that influence the information seeking process. Younger people are more adaptable to technology than elderly folks. In addition to age, gender level influences the information search process; men are typically more adaptable and confident in using information technology than women.

2. Income levels, education levels, the lack of ICT-related infrastructure, and electrical supplies are all socioeconomic elements that influence the process of accessing information.

Unwillingness to recognise one's requirements as information needs, inability to articulate one's information needs, unawareness of information sources, low self-efficacy, poor search skills in the digital environment are all examples of cognitive skills. (Yusuf et al., 2016).

C. Research Methodology

This study employs both quantitative and qualitative research methods.This study's data comes from questionnaires and in-depth interviews with coastal populations, particularly fishermen. This study includes five coastal area points in Southeast Sulawesi province: Abeli, Lapulu, Nambo, Bungkutoko, and Tanjung Pinang. The overall number of respondents is 105, with 21 people responding from each of these points. The researcher prepared a questionnaire for 105 respondents to complete. In terms of in-depth interviews, the researcher only questioned 10 respondents from a total of 5 places throughout Southeast Sulawesi province's coastal areas, with each point containing two respondents chosen at random. Fishermen's activities in catching fish are divided into three stages, which are the planning stage, the execution stage, and the post-capture stage, according to researchers. Administration, equipment, season, and K3 (Occupational Safety and Health) comprise the preparatory stage. This is due to the fact that before sailing, fisherman must take care of shipping administration, prepare fishing equipment, and have knowledge of the season to Occupational Safety and Health. This stage of implementation includes knowledge of fishing for marine items and the catchment region for marine products; a wave; a coral reef; a cloud; a month; a star; a ghost; occult knowledge, and potential danger. This stage of implementation includes knowledge of fishing for marine items and the catchment region for marine products; a wave; a coral reef; a cloud; a month; a star; a ghost; occult knowledge, and potential danger. This stage of implementation includes knowledge of fishing for marine items and the catchment region for marine products; a wave; a coral reef;

a cloud; a month; a star; a ghost; occult knowledge, and potential danger (Ansaar, 2019). Processing and sales or income are included in the post-capture steps. The segmentation of these three stages allows researchers to organise questions in a more methodical and measurable manner. These three stages are linked to Ellis, Robson, Robinson, and Kuhlthau's information needs and information seeking behaviour theory, and the dimensions of the variables in Ellis, Robson, Robinson, and Kuhlthau's information needs and information seeking behaviour are derived into questionnaire questions. The focus of the in-depth interview questions was on what obstacles fishermen faced in carrying out these stages of activity, including internal barriers (cognitive dissonance and selective pressure); demographic barriers; interpersonal barriers; physiological barriers; and external barriers (time, geographical, and information source characteristics) (Wilson, 2000).

D. Result Findings

Information seeking behavior of coastal communities in Southeast Sulawesi in capturing marine catches

The information search for coastal communities in capturing marine catches is divided into three stages: preparation, implementation, and post-capture for marine catches using a quantitative approach, namely filling out a questionnaire guided directly by researchers regarding the list of information searches carried out by coastal communities. Based on field data, it can be concluded that, with the exception of large vessels, coastal communities in Southeast Sulawesi, particularly those populated by fishermen, do not request permission in advance from the local government when seeking information, especially when it comes to administrative or permit preparations. According to their claim, this is already being utilized if in the area, thus the authorities cannot accurately document how many fishermen go sailing in this situation. Additionally, as shown in Figure 1, individuals rely more on their feelings and experience while looking for information about the equipment to be utilized. In order to avoid using substandard equipment when sailing to catch marine products like fishing boats, nets, hooks, and others. This is due to the fact that, based on their claim and expertise, this can be done as usual to catch marine products. Fishermen rarely use government-provided apps to check the weather when engaging in sailing activities during the planning stage, especially when it comes to season knowledge. Figure 1 illustrates how people rely more on feelings or experience in the form of natural indications when seeking out weather-related information when sailing. Fishermen employ improvised equipment to sail and catch marine items, in addition to safety and occupational health. In this situation, fisherman don't look for information about the risks they can encounter if they are in the middle of the sea.

The stages of implementation are notably linked to knowledge of marine product fishing, marine product fishing grounds, and sailing circumstances (waves,

rock positions, clouds, moon, stars, potential hazards, even ghosts or other paranormal entities). Fishermen employ more sentiments or experience when looking for knowledge about fishing for marine items, as shown in figure 1. Because they are sold directly on the auction market, the marine items they receive in this situation are scarce, and the fish sold is similarly inexpensive, resulting in minimal profits. This is due to a lack of understanding about the sale of marine products. The location of where marine products is anticipated to contain a lot of marine products is known as the catchment area for marine products. Fishermen do not use reliable information sources such as government marine applications and marine product detection technology tools when looking for information about the catchment area of marine products. Fishermen use sentiments or personal experience to find knowledge about marine catchment areas (see Figure 1). When sailing in the middle of the sea, knowledge of the waves, position of corals, clouds, moon, stars, potential threats, and even ghosts or supernatural entities in the sea is required. When sailing, fishermen utilise natural indications such as the direction of the moon and stars to determine their course. Furthermore, searching for information on fisherman in comprehending the condition of the clouds, they can understand how rain, wind, or waves would occur merely by looking at it. In this instance, fishermen can overcome the various threats that may arise. Fishermen have a stronger belief in spirits or supernatural beings in the water, thus they will not catch marine items in the fishing region. All information searches connected to present sailing circumstances (waves, rock positions, clouds, moon, stars, potential risks, and even ghosts or the supernatural) are mostly based on sensations or experiences, as illustrated in Figure 1.

The post-capture stage involves the search for information about the processing of marine captures after they have been caught, as well as knowledge about the selling of marine catches. Processing of marine catches refers to how to process marine items after they have been caught from the sea, such as knowing how to preserve seafood so that it remains fresh while on land. Figure 1 depicts how fishermen utilize feelings and experience to find information when processing marine catches. Fishermen's understanding of how to sell marine catches in order to maximize profits is referred to as knowledge connected to the sale of marine catches. When looking for information on the sale of marine catches, fishermen typically ask friends or colleagues about successful sales outcomes. In truth, fisherman may maximize their income and earnings by learning about the sale of marine catches. In this situation, the coastal villages of Southeast Sulawesi are unaware of any sales. The graphic below depicts the information-seeking behavior of coastal communities in Southeast Sulawesi in capturing marine catches, including:
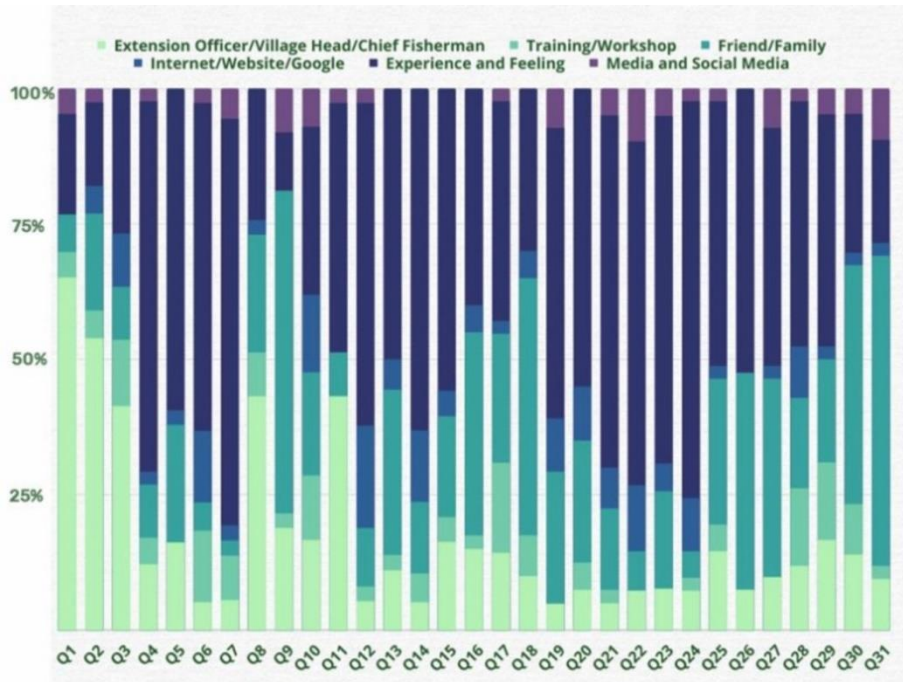
Figure 3 The result questionnaire of information seeking behavior of coastal society (source: author's processing)

According to Figure 3, extension officers/village heads/chief fisherman account for 16.9%; training/workshops account for 5.5%; friends/family account for 22.5%; internet/website/google accounts for 5.9%; experience and feelings account for 45.8%; and media and social media (such as a newspaper, Twitter, and others) 3.3%. When searching for information from coastal communities in Southeast Sulawesi to catch marine products, 45.8% rely solely on their experiences and feelings, rather than valid information from various sources such as BMKG media for weather, marine applications for searching for information, the internet, and so on. This is due to a lack of understanding, unsupportive technology, and a lack of involvement by Southeast Sulawesi's central government.

Obstacles to coastal communities in Southeast Sulawesi's information-seeking behavior in capturing marine catches

In this study, barriers to information seeking for coastal communities were investigated using a qualitative approach, including in-depth interviews. This is due to researchers' desire for complete data on the obstacles encountered while searching for information on coastal populations catching marine catches. The NVivo 12plus tool was used to process the interview results, namely by grouping the interview

results according to the subject raised, namely cognitive; demographics; interpersonal communication; technology; location.(Wilson, 2000)(Wilson, 2000).
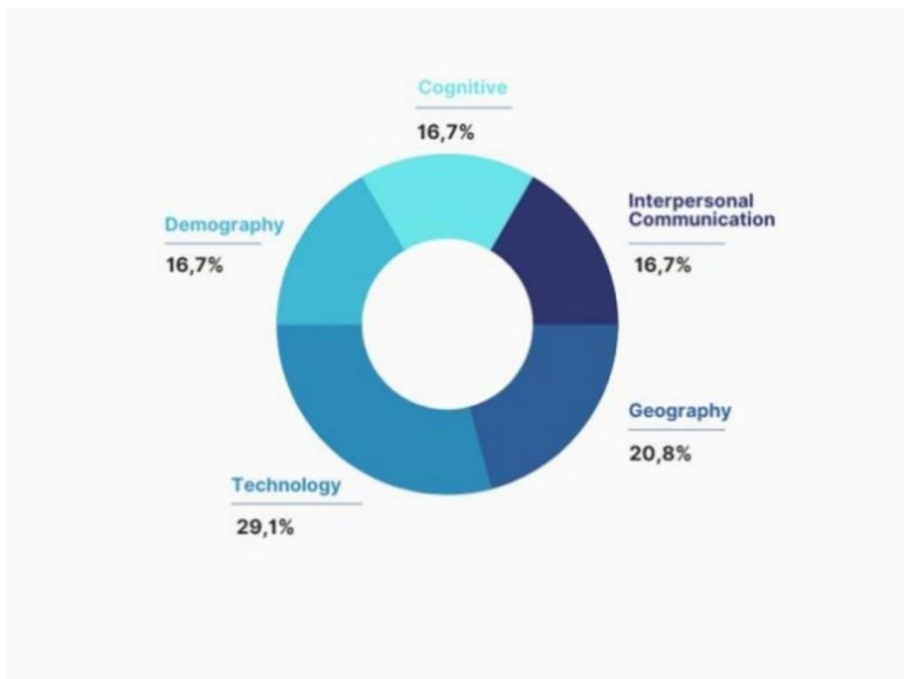

Figure 4 The Barrier of information seeking behavior of coastal society (source: author's processing)

According to Figure 4 the data presented above, the percentage of information obtained that is related to technology is around 29.1%. In terms of technology, Southeast Sulawesi's population, among other things, does not properly utilise the internet in the area and does not have access to technological equipment capable of generating sound waves. As a result, if the Southeast Sulawesi population is not adept in using technology and information gathering methods, this condition is appropriate, as there are many people who use judgement and persistence while acquiring information

E. Discussion

Southeast Sulawesi's seafood export revenues trail those of East Java, Jakarta, and South Sulawesi in Indonesia. This requires special attention because Sulawesi has the second highest income from marine captures in Indonesia (Central Bureau of Statistics, 2020a). According to the findings of this study, there is a strong association between the search behavior of coastal populations in Southeast Sulawesi, with the majority (45.8%) relying on experience and sentiments. Aside

from that, technology is the most significant barrier to finding information, accounting for 29.1% of the total. Given this situation, it is understandable that the majority of coastal villages in Southeast Sulawesi do not prosper. Because the majority of Indonesia's territory is ocean, complete improvements such as fishermen's cognition (entrepreneur mindset), technology (offering access and mastery of technology), and using plentiful demographic and geographical factors are required. Aside from that, interpersonal communication between Southeast Sulawesi's coastal villages and the central government, particularly the Southeast Sulawesi administration, is critical. It is envisaged that skills and capital will be made available to the coastal communities of Southeast Sulawesi. Thus, in the future, there may be positive changes in the information seeking behaviour of coastal communities in Southeast Sulawesi, which, in turn, may increase the revenue of coastal communities in Southeast Sulawesi.

F. Conclusion

This study found that the results of information seeking behaviour of coastal communities in Southeast Sulawesi are still manual, with 45.8% still relying on their own abilities rather than looking for more valid sources of information such as the media, scientific articles, and expert opinions. Furthermore, there are 22.5% more information searches that rely on information sources from friends/family than on more reliable information sources. Although the senior friend or relative uses his experience and sentiments in gathering information to catch marine catches. According to the findings of this study, technology occupies the greatest level in the information search process for coastal communities, accounting for 29.1%. This is similar with the situation in the field, where the majority of coastal villages continue to struggle with networks, lack advanced technological equipment, and are thus unable to use these technological instruments. This is consistent with the information-seeking behavior of Southeast Sulawesi's coastal populations, which is still manual, relying on experience and feelings. This is also related to the money earned by these coastal settlements, who are still far from rich despite having the second highest marine income (fish) in Indonesia. This is consistent with the information-seeking behavior of Southeast Sulawesi's coastal populations, which is still manual, relying on experience and feelings. This is also related to the money earned by these coastal settlements, who are still far from rich despite having the second highest marine income (fish) in Indonesia. This is consistent with the information-seeking behaviour of Southeast Sulawesi's coastal populations, which is still manual, relying on experience and feelings. This is also related to the money earned by these coastal settlements, who are still far from rich despite having the second highest marine income (fish) in Indonesia.

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