



Welfare Level Analysis of Fish Skin Cracker Processors in Sugiharjo Village, Deli Serdang Regency, North Sumatra

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Authors' contributions

This work was carried out in collaboration among all authors. Author JYB designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors AR and Junianto managed the analyses of the study. Author IG managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

This study analyzes the welfare of fish skin crackers processors who live in Sugiharjo Village in the Deli Serdang district, North Sumatra Province. This study aim to analyze the level of household income and the welfare of the fish skin crackers processors who lives in Sugiharjo Village, Deli Serdang District Sumatra Utara Province. The method used in this research is a survey method with interviewing techniques. Then the types of data collected are primary data and secondary data. Furthermore, the respondent selection technique was carried out using the census method. The interviewed respondents were fish skin cracker processors who live in Sugiharjo Village and already have a family. The data were analyzed using quantitative descriptive method. Based on the research, it can be concluded that the income earned from the wages of fish skin cracker processing workers is IDR 30,000 - IDR 100,000 per day. Based on 10 indicators of household welfare level according to Statistics Indonesia [1], the household welfare of fish skin cracker processors in Sugiharjo Village has a score of 3.10. A total number of workers is 33. This result is retrieved after interviewing 33 respondents.

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Keywords: Welfare; processing laborer of fish skin crackers; fish skin crackers.

1. INTRODUCTION

The fish skin cracker factory in Sugiharjo Village is a famous cracker industry center in the Deli Serdang area. This village has many potential to increase fishery and marine production [2-5]. The processed fish skin crackers produced in Sugiharjo Village has been exported to various countries in Southeast Asia, including Malaysia, Vietnam, and Singapore.

Fish skin cracker is a superior agribusiness product of Deli Serdang Regency in which is still growing. The total production of fishery products in North Sumatra Province in 2017 increased by 4.1% and the contribution of North Sumatra fishery processing targets increased by 751,986.09 tons from the total production of fisheries processing products in Deli Serdang Regency, which has increased every year (Department of Fisheries and Marine Affairs of North Sumatra 2015) [6-10]. The development of this fish skin cracker processing business is expected to advance the welfare of the community, especially an increase in economy.

2. RESEARCH METHODS

This research uses a case study method. Research with a case study approach is part of descriptive research, namely research by providing an overview of current problems. With a depiction like this, various phenomena by collecting information or data in accordance with these phenomena can be explained (Arifin, 2012 as cited in Wulandari, [11]).

The method used to determine the respondents of this study was purposive sampling method, where the respondents were considered to have the ability to answer questions posed well and could understand the existing problems. Sample was part of the number and had the characteristics of a population (Sugiono 2005). A total number of workers is 33. For this study, the sample size used was 33 respondents.

Descriptive quantitative method was used to analyze the data in this research. Quantitative descriptive method aims to interpret data in a systematic, actual and accurate manner regarding facts and the relationship between variables to obtain the truth. Meanwhile the quantitative method aims to raise the facts of the state of the variables and phenomena that are

happening now and present them as they are (Sugiono 2002 as cited in Wulandari [11]).

Another explanation regarding the quantitative method was explained by Sugiyono [12] as cited in Alafgani (2013), he said that the quantitative method is based on a positive philosophy, meaning that it is a method used to research a particular population or sample. The sampling technique is usually carried out by calculating an appropriate specific sample. Collecting this quantitative / statistical data aimed to test predetermined hypotheses. In this study, the people's welfare would be analyzed using quantitative descriptive methods by measuring internal and external factors.

The level of Welfare is measured based on the criteria used by the Central Statistics Agency in 2015, namely ten welfare indicators. In general, the level of welfare can be formulated as follows:

$$LW = LW1 + LW2 + LW3 + LW4 + LW5 + LW6 + LW7 + LW8 + LW9 + LW10$$

Where,

LW: Level of Welfare
LW1: Household income
LW2: Household Expenditure
LW3: Residency Conditions
LW4: Residential facilities
LW5: Household Health
LW 6: Extent of Health Worker Facility Utilization
LW7: Education Level
LW8: Ease of Enrolling Children
LW9: Sense of Security
LW10: Ease of access to information and technology

The tenth level of welfare indicators each indicator has the highest score, so the total score is 3.41. This value is the highest number of scores in (Table). If the ten indicators have the lowest score for each indicator, the total is 1 which is the lowest total score. The range score is obtained by subtracting the highest number of scores from the ten welfare indicators 3.41 with the lowest score of 1, then dividing the results of the reduction by three, then the value of 0.8 will be obtained as the range score. Based on the range score, the determination of the level of welfare is grouped into 3 parts, namely:

- a) Score between 2.61-3.41 (high level of welfare)
- b) Score between 1.81-2.60 (Medium welfare level)
- c) Score between 1-1.80 (Low welfare level)

3. RESULTS AND DISCUSSION

3.1 General Condition of the Subject's Area

Sugiharjo Village is one of the villages in Batang Kuis District, Deli Serdang Regency, North Sumatra Province. The area of Sugiharjo Village, Batang Kuis District, Deli Serdang Regency is 15 Ha. The northern boundary is bordered by Unit Village, east by Mesjid Village, south by Sidodadi Village and in the West by Saentis Village.

The distance from the center of Sugiharjo Village to the district government center is 5 km. Sugiharjo Village itself consists of five hamlets, with various existing institutions and facilities. Based on the village infographic data, there are places of worship in the form of one mosque, three prayer rooms, and three churches. Other facilities such as a polyclinic / community service center has one building each, Other than that, there are two buildings for primary school. From a socio-cultural perspective, Sugiharjo Village is one of the villages that have a high level of heterogeneity, judging from the diversity of ethnicity, ethnicity and religion. Islam and Christianity are the religions that are most widely practiced by residents in Sugiharjo Village. In addition, the total population of Sugiharjo Village, Batang Kuis District, Deli Regency who works as casual daily laborers is 75% of the total number of other workers (Sugiharjo Village 2020).

3.2 Characteristics of the Respondents

Based on the results of field interviews, fish cracker processing workers in Sugiharjo Village, Deli Serdang Regency can be classified into one groups, namely fish skin cracker processing workers. A fish skin cracker processing worker is a worker who does not own the business.

There are 6 people aged 21-30 years old who work as fish skin cracker processing labor (24.2% of the total population). Then there were 14 people aged 31-40 years old (42.2% of the total population), and 11 people aged 41-50 years old (33.3% of the total population). This shows that most of the fish cracker processing workers in Sugiharjo Village are 21-48 years old and overall are in the productive age range.

Education is one important factor that can improve a person's quality of life. The education levels of fish cracker processing workers vary. The group with the final level of Elementary School (SD) numbered 6 people (18.18%), the final level of Junior High School (SMP) amounted to 20 people (60.6%), and the final level of Senior High School (SMA) amounted to as many as 7 people (21.21%). This indicates that fish skin cracker processing workers are on average with the last education at the junior high school level.

The number of family members of fish cracker processing workers also varies. There are 25 families that have 1-4 family members (75.70% of the total population) and 8 families that have 5-8 family members (24.20% of the total population).

The length of work experience of the fish cracker processing workers also varies. There are 22 people (66.67%) who have worked for 0 - 1.5 years. Then for the rest, 11 people (33.33%) have worked for 1.6 - 3 years. The length of experience of the fish skin cracker processing workers affects the skills of these workers, both in using fish skin cracker processing equipment and determining which items are suitable for consumption and market. Based on the results of interviews with fish skin cracker processing workers, it can be seen that the income earned by processing workers comes from the amount of wages received during the processing of fish skin crackers. The amount of income earned by processing workers ranges from Rp. 30,000 - Rp. 100,000 per day.

3.3 Welfare Level Analysis

The recapitulation results show that the household of fish skin cracker processing workers in Sugiharjo Village is considered to be in the high welfare category. This result is obtained based on the calculation of 10 welfare indicators according to Statistics Indonesia [1].

It can be seen that household income has a score of 29 (weighing 25%). Income is an important factor in a household to meet the needs of all family members. Furthermore, household expenditure has a score of 18.4 (weighing 16%). This is because household expenses are one of the supporting factors that are considered quite large in a household. Residency conditions have a score of 12.87 (weighing 13%) because adequate housing can provide comfort for household members.

Table 1. Recapitulation of welfare indicators

No	Indicator	Score	Weight (%)
1	Household Income	29	25
2	Household Expenditure	18,4	16
3	Residency Conditions	12,87	13
4	Residency Facilities	3,96	4
5	Household Health	9,9	10
6	Extent of Health Worker Facility Utilization	2,84	4
7	Education Level	9,5	10
8	Ease of Enrolling Children	9,7	10
9	Sense of Security	3,72	4
10	Ease of access to information and technology	3,36	4
Total		103,3	100

Table 2. Household welfare level

No	Indicator	Score
1	Household Income	0,85
2	Household Expenditure	0,56
3	Residency Conditions	0,39
4	Residency Facilities	0,12
5	Household Health	0,3
6	Extent of Health Worker Facility Utilization	0,09
7	Education Level	0,29
8	Ease of Enrolling Children	0,29
9	Sense of Security	0,11
10	Ease of access to information and technology	0,10
Total		3,10

Household health has a score of 9.9 with a weighting of 10%. The health of household members is a concern because if household members are frequently sick, the amount of medical expenses will have a major impact on the quality of life of the household. In addition, family income will be greatly affected if the head of the family is sick. The education level for family members got a score of 9.5 and the ease of enrolling children into education got a score of 9.7 (weighing 10%). Education is an important indicator for measuring a person's quality, especially in their role in the family.

Residency facilities has a score of 3,96. Other than that, Extent of Health Worker Facility Utilization has a score of 2.84, sense of security has a score of 3.72 and ease of access to information and technology has a score of 3.36. All these indicators weigh 4%. The complementary lifestyle is not really important but is still a concern of household members. This weighting is based on research by Moelyosusanto [13] which refers to the welfare indicators according to the 2015 BPS to

determine the level of welfare of fish skin cracker processing households in Sugiharjo Village.

This research shows that the level of household welfare level of fish skin cracker processing workers in Sugiharjo Village has a score of 3.10 / 33 respondents. These results indicate that the level of household welfare of fish skin cracker processing workers is at a high level of welfare. This is in accordance with the calculation of the level of welfare (Statistics Indonesia, [1]) which was grouped into 3 parts, namely a score between 2.61-3.41 (high level of welfare), a score between 1.81-2.60 (moderate level of health), and a score between 1.0-1.80 (low welfare level).

4. CONCLUSION

The income earned from the wages of fish skin cracker processing workers is IDR 30,000 - IDR 100,000 per day. Based on 10 indicators of household welfare levels according to Statistics Indonesia [1], the welfare of fish skin cracker processing households in Sugiharjo Village has a

score of 3.10 belong to the high level of welfare category. This result is retrieved after interviewing 33 respondents.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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