Perception of entrepreneurs, small and medium industries in household product development and waste processing of chips corn in Province of Gorontalo

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Abstract. The purpose of this study was: 1) Knowing the perception of small and medium enterprises industry players in Gorontalo Province. 2) Analyzing the Effect of perception or interest in the development of products cornflakes in Gorontalo Province. The research was conducted in two (2) District of Gorontalo and Pohuwato. The study begins from April to June 2019 with a sample of 54 people. The results showed those perceptions or interest through institutional aspects IKM / Industrial RT, the introduction and training of IKM / Industrial RT, and the capacity of SMEs / Industrial RT towards the development of chips and corn waste products on the recapitulation are in both categories with a percentage value 80 percent. Based on calculations that have been done by using multiple linear regression analysis was obtained that perception or interest simultaneously significant effect on the increase in the development of chips and corn waste products in Gorontalo Province. While partially the positive and significant impact that institutional IKM / Industrial RT, the introduction and training of IKM / Industrial RT and the capacity of SMEs / Industrial RT towards the development of chips and corn waste products in Gorontalo Province.

1. Introduction
Cornflakes is a product diversification that can support the development of rural agro-industries and increase value-added. Corn is a source of calories substitute or supplements the rice. Although it tends to decrease the level of consumption, corn is a food substitute or supplement. Corn has a pretty good nutrient content, as a fellow Cereal carbohydrate content in maize is no different from the rice. Aside from being a source of carbohydrates, corn is also an important source of protein in the menu of Indonesian society. One derivative of maize west is raw material for textile products, where this raw material is easy to find and collected in every district of Gorontalo, including in Pohuwato district. In this case, the raw material should be introduced by the government or university for intending the maize product processing will gain more value of economy into the society especially for the farmer and SMEs in Pohuwato districts [1].

The development of SMEs of maize processed food products in Gorontalo district is quite prospective because a number of human resources our labor and raw materials make the derivative of maize products are getting low the price [2]. And then the corn crop is one of the basic foodstuffs [3].
Approximately 75% of corn production used for consumption. In addition as a food ingredient, corn also be a mixture of animal feed, ingredients non-oil exports, as well as the raw materials of industry support. The use of corn can be grouped into three sections: food, animal feed, and industrial raw materials \[4,5\]. The conclusion of farmer become respondents in this research that majority of respondents would like to sale their rubber because it is more provitable and support their welfare to the future also in the social perspective the farmer and the trader have a good relationship and so make them easier to transact each other the rubber \[6\].

Corn is a major food crop commodities in Indonesia in terms of aspects of the cultivation and use of the results, namely as a raw material of food and feed. Corn demand continues to rise with the increasing demand for feed ingredients. The composition of poultry feed raw material corn requires approximately 50% of the total material required. To increase the production of maize, the government has launched a program to accelerate the improvement of food self-sufficiency through programs UPSUS Rice Corn and soybeans. The program focuses on the expansion of planting areas/harvest and increases in the intensity of cropping (IP), the producing areas of corn in Indonesia there is still potential land spacious enough for the development of farming corn.

Perception is a process that is preceded by sensations. Sensing is a process of acceptance of the stimulus by the individual through a receiver that sensory organs. But the process does not stop there are, in general, the stimulus is forwarded by nerves to the brain as the central nervous system, and the subsequent process of perception processes. Because the process of perception cannot be separated from the process of sensing, and the sensing process is a process that precedes perception \[7\].

The factors which influenced the farmer of palm oil such us capital, life insurance also income, social which is related with education, history and health and also skill factors \[8\]. Furthermore, in the popular science dictionary is defined as the perception of observation, preparation of impulses within its ranks, things to know through the senses, the senses, and the power response \[9\].

The perception that the objects around us, we perceive through the senses and the tools are projected in certain parts of the brain so that we can observe such objects. Furthermore, the perception takes place when a person receives a stimulus from the outside world that is captured by the organs of aid who then into the brain. Occur in the process of thinking that ultimately manifest in an understanding. This understanding that more or less is called perception and before the perception in humans, we need a stimulus that should be captured through the organs that could be used as an aid to understanding the environment \[10\].

From the above understanding, the perception that the authors mean response or views on a phenomenon or relationship. With the perception of the individual is aware, can understand the state of the environment, and also on the individual circumstances. Thus the stimulus perception may come from outside the individual because the perception is that the integrated activity (integrated). Although the stimulus received the same, because of the experience and ability to think is different between individuals with each other possible outcomes are also different perceptions.

\[1.1 \text{ Factors influencing perceptions} \]

According to Morris, occurs in the brain's perception is the process of organizing, interpretation, and gives meaning to the data in order to understand what's happening around us \[11\]. In this case the past experience and learning, as well as personal factors also influenced our perception. For example, the proximity to the object affects our study of how the object looks, especially when we examine the changes that arise.

Miftah Thoha argues that the general perception due to two factors, namely internal and external factors \[12\]. Internal factors derived from the individual, e.g. attitudes, habits, and abilities. While external factors are factors that come from outside the individual that includes the stimulus itself, both social and physical, there are several sub-processes in perception and can be used as evidence that the tactile nature is complex and interactive. The first sub-process is the stimulus or stimuli are present. It was the beginning of perception that occurs when a person is faced with the situation. Sub next process is registration, interpretation, and feedback. During registration, a symptom that appears is the
physical mechanisms such as neural sensing an influential person, other than the physical ability to hear and see, will affect perception. In this case, someone hears or sees for the information sent to him and then interprets it. Once that happens, the interpretation as important cognitive aspect of perception. This process depends on how the deepening of (learning), motivation and personality of a person, so that a same information to different interpretations. Sub latter process is the feedback, which can affect a person's perception.

According to Dedy Mulyana, human perception is divided into two, namely the perception of the object (physical environment) and the perception of the human (social environment) [13]. Everyone has a different picture of the reality around him. Some important principles regarding the perception, among others:

1. Perception-based on experience
   Patterns of human behavior based on their perception of reality have been learned. Human perception of a person. Objects or events and their reactions to things based on experience (and learning) their past relating to people, objects, and similar events. The lack of previous experience in the face of an object will obviously make one interprets the object is based on conjecture or similar experience.

2. Perception is based on allegations
   Therefore we obtain data about the object through the sensing never complete; perception is a direct jump to the conclusion.

3. Perception is selective
   Our perceptions of a stimulus is a major factor that determines the selectivity of us on that stimulus. Internal factors that influence the perception that biological factors (hunger, thirst, etc.); physiologic factor, (tall, short, healthy, sick, and so on); socio-cultural factors (gender, religion, educational level, age, education, occupation, income, role, social status, past experience, habit); and physiologic factor, (the will, the desire, motivation, hope, and so on). External factors that influence the perception that the attributes of the object that is perceived as movement, intensity, contrast, novelty, and looping the object perceived.

4. Perception evaluative
   Perception is a cognitive process, and the people who determine the attitudes, beliefs, values, and expectations that are used to interpret the objects of perception.

5. Perception is contextual
   A stimulus from the outside to be organized. Of all the influences that exist in our perception, the context is one of the most powerful influences. Context which surrounds us when we see a person, an object, or an event greatly affects the structural cognitive, hope, and perception.

2. Methods
   This study will be conducted in two places, namely Gorontalo regency and Pohuwato in Gorontalo province at the time the study will begin in April until June 2019. This study is survey research. Types and sources of data used to use primary data and secondary data. The determination of the respondents in this study were randomized perfect (random sampling) with a total sample of 54 people. One way to obtain a representative sample is in a process known as random sampling (random sampling). In this process, each member of the population has the same chance or opportunity to be elected to the sample [14]. As an analytical tool used in this study are:

2.1. Descriptive analysis
   Methods of data analysis used in this research are descriptive analysis method, which explains in detail perception or interest in the development of chips and corn waste products The next Gorontalo Province This method will provide an explanation or description of the wide range of matters relating to the study of the data in the study.

The formula used is:

\[
P = \frac{f}{n} \times 100\%
\]

Where:
P = Percentage
f = Respondents frequency response
n = Number of respondents
100% = Numbers remain

As symptoms are encountered, then the gauge data used is a Likert scale. According to Sugiyono, a Likert scale used to measure attitudes, opinions, and perceptions of persons or a group of social phenomenon [15]. In a Likert scale variable to be measured are translated into indicator variables, then the indicators are used as a starting point to construct items instruments, which can be either a question or a statement. In this study, the authors use a ladder to 5 (1, 2, 3, 4, 5) using scores on each index is as follows:
1. If the respondent answered (a) by a score of 5
2. If the respondent answered (b) by a score of 4
3. If the respondent answered (c) by a score of 3
4. If the respondent answered (d) was given a score of 2
5. If the respondent answered (e) given a score of 1

Percentage score obtained by each indicator shows farmers' participation in the development of new fields of printing as in the following table:

Table 1. Percentage score classification perception or interest in the product development and waste corn chips in Gorontalo Province, 2019.

| Percentage score | Classification   |
|------------------|------------------|
| 85% to 100       | Very good        |
| 76% - 84%        | Well             |
| 56% - 75%        | Enough           |
| 40% - 55%        | Not good         |
| 0% - 39%         | Not good         |

2.1.1. Multiple linear regression analysis. To find out how much influence the interest in the development of chips and corn waste in Gorontalo, then analyzed using linear regression with SPSS 22. The formula of Regression namely:

\[ Y = a + b_1x_1 + b_2x_2 + b_3x_3 \]  

Where:
Y = Product Development and Waste Corn Chips
X1 = Institutional IKM / Industrial RT
X2 = Introduction and Training IKM / Industrial RT
Members X3 = Capacity IKM / Industrial RT
a, b = magnitude that would allegedly
e = Numbers natural, e = 2.718
u = Error (disturbance term)

3. Results and discussion

3.1. Perception recapitulation or interests against product development and waste corn chips
Based on an assessment of perception or interest in the product development waste dam corn chips include institutional IKM / Industrial RT, the introduction and training of IKM / Industrial RT, the capacity of SME / Industrial RT then can be found on the recapitulation. The result can be seen in the following table:
Table 2. Summary of against interests perception or product development and waste corn chips, 2019.

| Indicator | Score  | Percentage (%) | Category |
|-----------|--------|----------------|----------|
| IKM institutional / Industrial RT introduction and training of IKM / Industrial RT | 2.271  | 78.4           | Well     |
| the capacity of member IKM / Industrial RT | 1.693  | 89.5           | Very good|
| Total | 6.852  | 80             | Well     |

Source: Data processed, 2019

Through total recapitulation score above can be shown that the perception of or interest in the product development chips and corn waste had good views of each aspect of institutional IKM / Industrial RT, the introduction and training of IKM / Industrial RT, the capacity of SME / Industrial RT already successful applied by members of SMEs in order to increase their business productivity. Through the percentage of total respondents, a score can be seen that the institutional SMEs in product development cornflakes already done by the members of the SME itself. Furthermore, it can be seen that this aspect of the introduction and training of members of the SME in the excellent category, meaning that each member is able to apply what they get in the training because with processing tool manually, especially machine cornflakes have been able to distribute appropriately in times of need and can with the introduction and training can increase the motivation and desire to improve SME members. Based on the percentage of the total score of respondents viewed that the capacity of SME / Industrial RT by members included in either category. This means that members of respondents have an awareness that very well against the activities of the development of cornflakes on the productivity of their businesses because of the conduct of the business of SMEs the needs of their members are met, with the formation of institutions in an effort SMEs to bridge the achievement needs and be able to channel the aspirations of the business and can be a trigger in increased production efforts. With the introduction and training of manual processing, tools are a very helpful member of SMEs in the work so that it can increase the motivation to achieve the appropriate targets that will be determined.

3.1.1. Classic assumption test

3.1.1.1. Normality test data

![Graph test results in normal probability plot.](image)
Based on these images can be seen that the data (point) spread around the diagonal line and follow the direction of the diagonal line. By following the above basis for decision making, it is concluded that the data in this regression model meet the assumption of normality.

3.1.1.2. Test multicollinearity

Table 3. Testing multicollinearity.

| Variables                           | VIF  | Conclusion      |
|-------------------------------------|------|-----------------|
| IKM Institutional / Industrial RT   | 1.046| Non-multicollinearity |
| Introduction and training of IKM / Industrial RT | 1.113| Non-multicollinearity |
| The capacity of member IKM / Industrial RT | 1.024| Non-multicollinearity |

Source: SPSS Data Processing 22, 2019

Based on the above table it can be seen free multicollinearity regression model for the independent variable VIF <10, the variable IKM Institutional / Industrial RT 1.046, variable introduction and training of IKM / Industrial RT as big as 1.113 And variable the capacity of member IKM / Industrial RT amounted to 1.024, so in this study did not happen multicollinearity in the regression.

3.1.1.3. Test heteroscedasticity

Based on the picture above can be seen that (1) dots spread randomly and (2) spread out both above and below zero on the axis Y. Therefore it can be concluded that the regression model did not happen heteroscedasticity.

3.1.1.4. Autocorrelation test

Table 4. Testing autocorrelation.

| Model | R       | R Square | Adj R Square | Std. Error of estimate | Durbin - watson |
|-------|---------|----------|--------------|------------------------|----------------|
| 1     | 901a    | 812      | 803          | 1.26705                | 1.566          |

a. Predictors: (Constant), X3, X1, X2
b. Dependent variable: Y

Source: Processed data SPSS 22, 2019

Based on the table above, in obtaining the results of the Durbin-Watson (DW count) of 1.566. Predetermined criteria, DW count, is between -2 and 2, i.e. -2 < 1 < 2, this means that no autocorrelation and autocorrelation test are met.

a. Test indicators statistics
- Regression analysis

The results of multiple linear regression analysis using SPSS 22 is shown in the following table:

| Model                        | Coefficients unstandardized | Standardized coefficients | t    | Sig. |
|------------------------------|-----------------------------|---------------------------|------|------|
| (Constant)                   | 2.207                       | 10.539                    | .209 | .000 |
| Institutional IKM            | .314                        | .073                      | .246 | 4.277| .000 |
| The introduction and training of SMEs | .235                        | .086                      | .341 | 2.723| .009 |
| Member capacity of SMEs      | .018                        | .002                      | .603 | 9054 | .000 |

Source: SPSS data processing 22, 2019

Based on the analysis using SPSS 22 above the regression model is obtained as follows:

\[ Y = 2207 + 0235 + X1 + 0.314X1 0.018X3 + e \]

Based on the results of multiple regression analysis above, the interpretation is as follows:
1. Constants of 2,207 (α = 2,207)
   This value is a constant value the development of chips and corn waste in Gorontalo if there is no influence of institutional SMEs, the introduction and training of SMEs, and the capacity of SME members. The results were positive coefficient indicates that the institutional importance of SMEs, the introduction and training of SMEs, and SMEs in enhancing the capacity of members improve corn chips and waste IKM / Industrial RT.
2. X1 regression coefficient 0.314 (β1 = 0.314)
   The regression coefficient institutional variables IKM / Industrial RT indicates that any changes to the institutional variables IKM / Industrial RT for 1 unit of the perception or interest in the development of chips and corn waste products in Gorontalo will be unchanged at 0.314 unit with variable conditions and the introduction of training IKM / Industrial RT, and the capacity of SMEs / Industries RT in a state of constant (ceteris paribus).
3. X2 regression coefficient of 0.235 (β2 = 0235)
   The regression coefficient variable introduction and training of IKM / Industrial RT indicate that any changes to the variable introduction and training of IKM / Industrial RT by 1 unit, then the product development chips and corn waste in Gorontalo Province will change of 0.235 units with the provisions of institutional variables IKM / Industry RT, and the capacity of SMEs / Industries RT in a state of constant (ceteris paribus).
4. X3 regression coefficient of 0.018 (β3 = 0.018)
   The regression coefficient variable capacity member, IKM / Industrial RT, indicates that any changes to the variable capacity member IKM / Industrial RT by 1 unit, then the product development cornflakes and waste in Gorontalo Province will change of 0.018 units with the provisions of institutional variables IKM / Industrial RT, and the introduction and training of IKM / Industries RT in a state of constant (ceteris paribus).
- Test the coefficient of determination (R2)

**Table 6.** Test results in the coefficient of determination (R2).

| Model | R   | R square | Adjusted R square | Std. Error of the estimate |
|-------|-----|----------|-------------------|----------------------------|
| 1     | .901a | .812     | .803              | 1.26705                    |

a. Predictors: (Constant), X3, X1, X2
b. Dependent Variable: Y

*Source: Processed data SPSS 22, 2019*

Based on the table above, the coefficient of determination adjusted R2 value of 0.803, This value means that amounted to 80.3% of the amount of product development chips and corn waste in Gorontalo can be explained by the institutional IKM / Industrial RT, the introduction and training of IKM / Industrial RT, and the capacity of SMEs / Industries RT in Gorontalo Province. While 19.7% is explained by other factors outside the model. Other factors are outside of the model allegedly also impacts perception or interest in the development of chips and corn waste products is the level of cleanliness of the warehouse as well as the influence of climate and weather on corn growth.

- Simultaneous testing (Test F)

**Table 7.** Simultaneous testing results.

| Model       | Sum of squares | df | Mean square | F     | Sig.  |
|-------------|----------------|----|-------------|-------|-------|
| Regression  | 610 348        | 3  | 152 587     | 95 045| .000b |
| Residual    | 141 277        | 50 | 1.605       |       |       |
| Total       | 751 625        | 53 |             |       |       |

a. Dependent variable: Y
b. Predictors: (Constant), X3, X2, X1

*Source: Processed data SPSS 22, 2019*

Based on the analysis in the table above were obtained Fcount 95 045 with probability value 0,000, because the probability value less than 0.05, the value of F obtained are significant and accepted the H0 in H1 while in decline so it can be said that there is a positive and significant influence among institutional SME (X1), the introduction and training of SMEs (X2), and the capacity of members (X3) together towards the development of chips and corn waste products (Y). The high market demand conditions make all parties begin to look cornflakes as one of the commodity business to be reckoned with.

3.1.1.5. Testing partial (t-test)

**Table 8.** Partial test results.

| Variables                  | t     | P-Value | Information |
|----------------------------|-------|---------|-------------|
| Constant                   | 0029  | 0000 ** | Significant |
| Institutional IKM          | 4,277 | 0000 ** | Significant |
| The introduction and training of SMEs | 2,723 | 0009 ** | Significant |
| Member capacity of SMEs    | 9054  | 0000 ** | Significant |

*, Significant at the 0.1 level (2-tailed), ** Significant at the 0.05 level (2-tailed), ** Significant at the 0.01 level (2-tailed),
Based on the analysis summary of the above data processing, it can be described the processing of the following data:

a. Institutional variables influence IKM/industrial rt against corn chips product development in Gorontalo

Based on the positive regression coefficient analysis shows that institutional IKM / Industries RT in the region of the rational. Based on the obtained value of the t-test for age input 4,277 that the significance value (0.000) is smaller than the probability value of 0.05. It can be concluded that the institutional IKM / Industrial RT significant effect on the increase in the perception of interest in product development cornflakes in Gorontalo Province.

In this research, institutional IKM / Industrial RT positive and significant impact on the improvement of product development chips and corn waste in Gorontalo means that with the institutional industry small, medium or industry households have been able to bridge the achievement of the needs of member SMEs, can easily channel the aspirations and can trigger increased production and well-being of SME members. Institutional small and medium industries and home industries have mamou fulfill the needs of SMEs in terms of raw material needs of modern processing machines. With their institutional SME industry has been able to increase the revenue of SMEs and increase the amount of production.

b. The introduction and training variables influence IKM / industrial rt against corn chips product development in Gorontalo

Based on the positive regression coefficient analysis showed that the introduction and training of IKM / Industries RT in the region of the rational. Based on t-test values obtained recognition input and training for SMEs 2,723 that the significance value (0.009) is smaller than the probability value of 0.05. It can be concluded that the introduction and training of IKM / Industrial RT significant effect on the increase in the perception of interest in product development cornflakes in Gorontalo Province.

In this case, the introduction and product training cornflakes positive and significant effect on the increase in the perception of interest in product development cornflakes, meaning that in the presence of training to members of the SME can increase employee motivation and training processing tools, especially machinery cornflakes and processed materials others have been able to support the increased production of SMEs in order to promote their business. Machine cornflakes modern food, especially SMEs can be used optimally so that it will reduce production costs by using the SME business modern machine tools in the research area of respondents believe that is capable of producing high quality refined corn chips are able to meet the needs of the market.

c. Member capacity variable influence IKM / industrial rt against corn chips product development in Gorontalo

Based on the positive regression coefficient analysis showed that the capacity of SME / Industrial RT is the rational area. Based on t-test values obtained input capacity of SME members9054 that the significance value (0.000) is smaller than the probability value of 0.05. It can be concluded that the capacity of SME / Industrial RT significant effect on the increase in the perception of interest in product development cornflakes in Gorontalo Province.

Variable-capacity of members positive and significant effect on the perception of or interest in the product development chips and corn waste in Gorontalo province means the capacity of SMEs in view of the level of education of the members that the higher the level of education that is owned by a member of the SME / Industry RT effect on their performance, their motivation in trying as well as the capability to want to compete. With SME members, the more well-educated work so that would support an increase in production.

4. Conclusion and suggestion

4.1. Conclusion

Based on the results of perception or interest in developing chips and corn waste products in Gorontalo obtained conclusion:
1. Perception or interest through institutional aspects IKM / Industrial RT, the introduction and training of IKM / Industrial RT, and the capacity of SMEs / Industrial RT towards the development of chips and corn waste products based on the recapitulation are in both categories with a percentage value 80 percent.

2. Based on calculations that have been done by using multiple linear regression analysis was obtained that perception or interest simultaneously significant effect on the increase in the development of chips and corn waste products in Gorontalo Province. While partially the positive and significant impact that institutional IKM / Industrial RT, the introduction and training of IKM / Industrial RT, and the capacity of SMEs / Industrial RT towards the development of chips and corn waste products in Gorontalo Province.

4.2 Suggestion
Based on the above conclusions, obtained advice as follows:
1. We recommend the development of chips and corn waste products can contribute to improving the economy of the community that may affect the success of their enterprises in order to obtain maximum results.
2. Members IKM / Industrial RT is expected to better understand and always follow when there is a meeting or training undertaken by the Government.

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Reference
[1] Hasdiana H and Ayuddin A 2017 Quality Improvement Of Corn Husk As Raw Material For Textile Products 1st International Conference on Social, Applied Science and Technology in Home Economics (ICONHOMECS 2017) (Atlantis Press)
[2] Halid A 2019 Development of Small Medium Interprises of Mize Prosessed Food Production as a Locomotive of Gorontalo District’s Economy J. Perspect. Financ. Reg. Dev. 6 729
[3] Windarto, Fatmawati and Putri K M 2019 A Maize Foliar Disease Mathematical Model with Standard Incidence Rate IOP Conference Series: Materials Science and Engineering vol 546
[4] Latif R, Dirpan A and Indriani S 2017 The Status of Implementation of Good Manufacturing Practices (GMP) Shredded Fish Production in UMKM Az-Zahrah, Makassar IOP Conf. Ser. Earth Environ. Sci. 101 12040
[5] Sulistyono N, Fanani Z and Utami M 2018 Sustainability status of integrated rice-corn and beef cattle farming agriculture business in Jember regency IOP Conference Series: Earth and Environmental Science vol 207 p 12025
[6] Purwono and Hartono R 2011 Planting Corn Superior (Jakarta: Governmental spreade)
[7] Walgito B 2002 Introduction to General Psychology (Yogjakarta: Andi Offset)
[8] Sapitri D 2014 Faktor–Faktor yang Mempengaruhi Persepsi Petani terhadap Peremajaan Kelapa Sawit (di Desa Suka Makmur Kecamatan Sungai Bahr Kabupaten Muaro Jambi) J. Ilm. Sosio-Ekonomika Bisnis 17
[9] Satrio A 2005 Dictionary of Popular Science (Jakarta: Visit Jakarta)
[10] Sarwono and Wirawan S 2009 Introduction to General Psychology (Jakarta: PT Raja Grafindo Persada)
[11] Morris C 2003 Understanding Psychology (New Jersey: Prentice Hall, Upper Saddle River)
[12] Thoha M 1994 Basic Concepts and Applications of Psychology (Jakarta: King Grafindo Persada)
[13] Mulyana D 2002 *An Introduction to Communication Studies* (Bandung: PT Youth Rosdakarya)
[14] Spiegel M and Stephens L 2004 *Statistics* (Jakarta: Publisher)
[15] Sugiyono 2008 *Qualitative Research Methods Kuantitatif and R & D* (Bandung: Bandung Alfabeta)