Understanding the Factors Influencing the Participation of the Warehouse Receipt System Program for Pepper Farmers.

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Abstract
The Warehouse Receipt System is a government program aimed at improving the welfare of small farmers, enabling them to postpone the sale of their goods to be stored in government warehouses and sold at a more profitable price. In practice, it shows the low level of farmer participation. This research is a qualitative study, trying to describe the causes of the problem through door-to-door interviews and questionnaires to pepper farmers. The results showed that several reasons that influenced and prevented pepper farmers from participating in the WRS program included the amount of pepper production produced by small-scale farmers, the lack of confidence of farmers in the program due to the absence of a pilot program, storage costs in warehouses were considered burdensome, farmers’ reluctance to deal with bank loans due to complicated procedures and emotional feelings of local residents.

Keywords: Warehouse Receipt System, Participation, Pepper Farmer.
I. INTRODUCTION

The Warehouse Receipt System is one of the government programs intended to improve the welfare of smallholder farmers. Through this program, farmers are allowed to postpone the sale of their goods to be stored in government warehouses and sold at a more favorable price.

Regulation of the Minister of Trade Number 33 of 2020, concerning goods that can be stored in warehouses in the context of implementing the Warehouse Receipt System stated that commodities that can be stored in WRS warehouses include unhulled rice, maize, coffee, cocoa, pepper, rubber, seaweed, rattan, salt, gambier, tea, copra, tin, shallots, fish, nutmeg and frozen chicken.

While in Kepulauan Bangka Belitung province, the commodity that was chosen for the Warehouse Receipt System (WRS) program is pepper, Bangka Belitung is the largest pepper producing province in Indonesia which is known internationally for its quality of pepper known as muntok white pepper.

Even so, the price of the pepper commodity has experienced ups and downs, causing pepper farmers to experience losses and reluctance to grow pepper. To respond to this situation, the provincial government issued a Warehouse Receipt System program that promised many benefits for the economy such as: controllability and stability of commodity prices, guaranteed production capital, industrial raw material security, etc. [1] Even though the program promises many benefits for farmers and the economy, practice shows low levels of participation of farmers.

II. METHODS

This research is a qualitative study that aims to better understand the reasons for pepper farmers which still hinder them from joining the program. The types of data obtained are primary data from respondents and supporting information in the form of secondary data from previous research and literature studies. The data were collected by means of interviews and questionnaires to 100 pepper farmers and analyzed descriptively, while the sampling used was a purposive sampling method. Data collection was carried out from October to November 2019 and continued in March 2020. Questionnaires were distributed to pepper farmers respondents in Mendo Barat District, Kepulauan Bangka Belitung Province.

According to [2], there are several concepts that need to be considered in qualitative research, namely, among others:
1. Credibility which is validity concept in term of qualitative research. Research is said to have good credibility if it succeeds in achieving the goal of exploring problems, describing settings, processes, social groups or complex interaction patterns.

2. Transferability is the concept of external validity in term of qualitative research. Research is said to have good transferability if the reader of the research results can get a clear picture and understanding of both the context and focus of the research report.

3. Dependability is a concept of reliability in term of qualitative research. Research is said to have good dependability if it is carried out with structured data analysis and good interpretation so that other researchers will get the same conclusion when using the perspective, raw data and documents.

4. Confirmability is a concept of transparency which means the willingness of the researcher to openly disclose the processes and elements of the research.

III. RESULT AND FINDINGS

Fig. 1. Word Frequency Result

At the time of collecting data at the respondent's location, the researcher found that the majority of respondents did not know about the WRS program of which was the research topic, therefore the researcher also guided and interviewed every respondents in filling out the questionnaire and acting like program socialization activities. With the respondent's consent, the researcher used a recording device to capture the information provided. The time required for each respondent lasts around 30 minutes to then proceed to the residence of the next respondent. The frequency of words that dominated the interviews was about agriculture,
warehousing and pepper. The recorded data was then transcribed into writing manually considering that the language and dialect used during the interview were in accordance with the local language and dialect which had a slight difference from bahasa Indonesia.

The agreement level intervals on the Likert scale used are as follows:

<table>
<thead>
<tr>
<th>Interval</th>
<th>Tier</th>
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<tbody>
<tr>
<td>4.3 – 5.0</td>
<td>5</td>
</tr>
<tr>
<td>3.5 – 4.2</td>
<td>4</td>
</tr>
<tr>
<td>2.7 – 3.4</td>
<td>3</td>
</tr>
<tr>
<td>1.9 – 2.6</td>
<td>2</td>
</tr>
<tr>
<td>1 – 1.8</td>
<td>1</td>
</tr>
</tbody>
</table>

1. Information

The information factor is a crucial factor in the success of a program implementation.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Level of Agreement</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>I know that the Warehouse Receipt System is a government program as an effort to improve the welfare of farmers where I can store my crops in government warehouses.</td>
<td>8</td>
<td>2.7</td>
</tr>
<tr>
<td>I know that the warehouse receipts can be exchanged for loan of money in the banks of SumSel Babel Syariah Bank, BRI Syariah and Perkreditan Rakyat Syariah Bank.</td>
<td>1</td>
<td>2.66</td>
</tr>
<tr>
<td>I know the location of the government warehouse is on Pangkalpinang Muntok street, Puding Besar District, Bangka Regency.</td>
<td>1</td>
<td>2.52</td>
</tr>
<tr>
<td>I know the cost of storing crops to government warehouses is IDR 1000, - per Kg for 6 months of storage.</td>
<td>4</td>
<td>1.96</td>
</tr>
</tbody>
</table>
Pepper farmers showed varying degrees of knowledge of the Warehouse Receipt System program. Apart from being daily laborers, the majority of the residents of the Mendo Barat sub-district work as farmers. Although some villagers serve as village officials but also have secondary livelihoods as farmers since they too own some fields. When asked for information as respondents, they did not know about this WRS program. They regretted that even as official at village levels they did not know about this program, let alone for mere farmer residents. Whereas, respondents who already had information about the program were certain heads of farmers union groups who had been previously invited by the provincial government to attend socialization events. Although only slightly in terms of quantity and did not get complete information.

Only a few residents have known about the government warehouse program in order to improve farmers welfare, but even with diverse perceptions and concepts compared to Warehouse Receipt System program. This is because the warehouse program was the Governor’s program that was put forward during the election campaign to the people. Few respondents indicated knowledge of the warehouse procurement program but did not know for sure the location of the warehouse, its designation nor construction time even though the WRS program had actually started since the late of 2017 in Kepulauan Bangka Belitung Province.

It can be concluded that the majority of respondents have a low level of knowledge of the WRS program, whether the actual implementation of the program and the provisions relating to the program itself. It is unfortunate that information and outreach are still factors hindering good government programs, while research by [3] states that the pre-conditions that will affect the successful implementation of the SRG program in the future are the commitment of the local government, as well as education and program socialization.

In addition to the information factor which is still a crucial factor in the success of a program implementation, researcher also wants to describe other factors as follows:
2. Trust

Capability

Table 3. Statement Response No. 9

<table>
<thead>
<tr>
<th>Statement</th>
<th>Level of Agreement</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe that the Government Warehouse is managed by trained and</td>
<td>1  4  2  1  1</td>
<td>3.61</td>
</tr>
<tr>
<td>experienced officers because they have been trained by a government</td>
<td>5  8  1  5  1</td>
<td></td>
</tr>
<tr>
<td>agency which is the Bhanda Ghara Reksa Ltd.</td>
<td></td>
<td></td>
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</tbody>
</table>
Farmers show a belief response that the WRS officers consisting of the warehouse head, warehouse admin and warehouse security are indeed persons who have the ability and experience in storing because they have been trained by government agencies which specialize in the warehousing sector. Meanwhile, the doubts are due to the unfamiliarity of the program and the lack of knowledge and socialization.

**Quality maintenance**

Pepper farmers have a doubtful response about the quality maintenance of pepper that they will store in the warehouse. Pepper farmers admit that producing quality pepper will have an impact on the difference in selling prices. Quality pepper will greatly affect the income and be more profitable. In terms of buyers, they will no longer be fussy about taking samples if the pepper looks white and clean. This causes farmers to pay attention to the quality of their pepper, giving rise to perceptions and concerns that pepper stored in government warehouses could get swapped or blended with other lower quality pepper.

**Capital benefits**

One of the benefits of the warehouse receipt program is to provide farmers with access to capital through bank loans while waiting for commodity prices to rise.

However, due to the low level of information and knowledge about the bank lending system that will be used, farmers are reluctant and afraid to deal with banks. The illustration regarding the terms of the profit sharing or the interest that must be paid causes the respondent farmers to not believe that the capital fund from the bank will be beneficial for them. Apart from the perspective of information, the respondent farmers also stated that they were reluctant to deal with banks because the procedures they felt would be impractical and troublesome compared to the practice of selling commodities that they are used to practicing, which is selling through middlemen.
## Safety

### Table 5. Statement Response No. 10, 6

<table>
<thead>
<tr>
<th>Statement</th>
<th>Level of Agreement</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe Government warehouses are managed by officers who are responsible and trustworthy so that the safety of the crops I store in warehouse receipts is guaranteed and will not be stolen.</td>
<td>2 6 3 2 2</td>
<td>3.58</td>
</tr>
<tr>
<td>I feel that the distance between the government warehouse location and my place is not a problem because it is reachable.</td>
<td>2 2 4 4 6</td>
<td>3.42</td>
</tr>
</tbody>
</table>
Farmers showed a doubtful response about the safety of pepper when storing it in the warehouse. In general, respondent farmers have a sense of assurance in the capability of the government to take responsibility for compensation should an untoward event happen to the stored pepper. Meanwhile, the doubts are due to the nature of the local farmers whose confidence will be formed if there is true action of the actual incident as clear evidence.

Farmers showed mixed responses regarding the ease of access to the warehouse location. This was motivated by reasons of the distance between the village and the warehouse, as well as the safety factor. Pepper farmers consider their pepper harvest to be of valuable asset which is too risky to transport it by themselves to the government warehouses, this is because there has been an incident of pepper theft while traveling even though it was a long past event.

This similar response is also in line with the results of research by [4] which states that the WRS implementation constraints are due to the remote location of the warehouse so that there are transportation costs and efforts to deliver the commodities to the WRS warehouse.

Another illustration show that the lack of socialization and information factors will have an impact on many other aspects because misinformation will reduce confidence in the ability of a program, it is also stated in research by [5] that one of the challenges of WRS in increasing sales is due to poor information flow lead to an inappropriate understanding of WRS operations.

3. Low Production

Farmers expressed their difficulties in cultivating pepper commodities. Will cost as much as 50 million IDR to plant 2000 seeds of pepper. Pepper plants will need to crawl into the holder for it to grow. The wooden upholder will require 15,000 IDR each pepper seed for only one year of use. Evenmore, The harvest output will only result in 500 kg due to plant yellow diseases. Pepper plants become increasingly difficult to survive, the healthy looking pepper plant that begins to wither will die in the next few days. The selling price of pepper in the last three years each kg is only around 50,000 IDR. Therefore, planting pepper is an adverse action to farmers because the results obtained are not commensurate with the costs incurred.
Apart from not being aware of the program, pepper farmers stated that the reason they have not used the warehouse to store the pepper harvest was because the quantity of pepper produced was still relatively small. Even though it has reached the minimum requirement for storing pepper in a government warehouse, which is 200 kg, it will be more troublesome to store a few pepper to the warehouse location. The reason pepper farmers cannot produce more pepper is because of the presence of jaundice that attacks pepper plants, which is not yet known how to deal with [6]. Farmers will find it more convenient to start storing in warehouses when their stock of pepper reaches around 500 kg to 1 ton. This reasoning also similar to the research result by [7] researching rice farmers' interest in the WRS program, stated that one of the factors is that rice farmers will have an increased interest if rice production also increases.

4. Local Emotional feelings

Respondent farmers stated that in contrast to traders who are more profit-seeking, farmers prefer to hold pepper instead of holding money because they feel that if they hold too much of money at one time it will become more consumptive and spend out quickly. Respondent farmers expressed their pride if they had a large stock of pepper at home. When there are guests visiting the house and then they are smelling the aroma of pepper, that would raise the farmer's prestige feeling in the eyes of the community. Respondents of farmers stated that the pepper that had accumulated in the house’s room was evidence of a day's hard work from morning to evening tilting the fields, the results of hard work that even capable of sending children to school. The fatigue after work will fade after seeing the many piles of pepper inside the house. This led to reluctance to store pepper in government warehouses.

5. Cost

<table>
<thead>
<tr>
<th>Statement</th>
<th>Level of Agreement</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>I have no objection to the cost of storing in the government warehouses at 1.000 IDR per kilogram every 6 months, because it is still fairly reasonable.</td>
<td>6 4 2 0 4</td>
<td>2.38</td>
</tr>
</tbody>
</table>

Table 6 Statement Response No. 30
Respondent farmers expressed objections to the current storage fees. The issuance of current storage fees is considered to be increasingly burdensome for farmers and further reduce farmers' desire to store their commodities in warehouses. Although the object of the WRS program is to improve the welfare of farmers, it is not only farmers who are allowed to store pepper in the government warehouses, but also middlemen and wholesalers are allowed. Storage fee in government warehouses is considered to be too expensive for ordinary farmers. Even so, farmers realize that for middlemen and wholesalers, this cost is considered reasonable because the benefits of the WRS program will be more profitable than the storage costs incurred.

IV. CONCLUSION

Distrust and misperceptions were caused by farmers' low knowledge of the provisions and implementation of the program. Therefore, program socialization is something the government must pay attention to and increase its activities. Program socialization can be carried out by the government by collaborating with universities through the Community Service Program.

The distance between the farmer's village and the location of the government warehouse is still considered an obstacle to participation. Therefore it is recommended for the government and warehouse managers to prepare transportation means to pick up the pepper commodity from the villages for the time being. Pepper commodity picking can be done according to a routine schedule as agreement.

Jaundice that attacks pepper plants is still a bugbear for farmers. It reduces the production of farmer's pepper, renders their selling at loss and deprives their welfare. Farmers prefer to store their pepper goods at home if they only have a few, because it's more practical to convert into money should they need it. Therefore the government and researchers are expected to resolve the jaundice problem.

The storage fees in government warehouses hinder the desire for participation of pepper farmers because it is considered too expensive. Therefore, farmers suggest that the government does not impose tariffs or provide bailouts in order to eliminate storage fees for several years as an example and evidence that farmers can actually benefit from this program.

An interesting finding regarding the reasons that hindered the participation of farmers in the WRS program is the emotional feelings of the local community. Pepper farmers consider their pepper goods to be like gold bars for the society in general, saving pepper is like...
investing in gold which indicates the results of the farmers’ hard work and thus gives prestige to farmers who have a lot of pepper reserves in their room of home in the community.

The benefits of the warehouse receipt system program have not been perceived by the farmers yet because of the low level of participation. Therefore the government is suggested to be more focused on providing evidence through pilot project programs as success evidence rather than taking profit. And also eliminating the reasons which hinder participation, so that farmers really enjoy the real benefits of the program and as introducing new patterns of agricultural habits.

REFERENCES