Marketing risk analysis of red chili

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Abstract

This study aims to determine the marketing risks as a whole in red chili agribusiness in the Cibedug village, Ciawi area. West Java is one of the chili agribusiness centers closest to the capital city which is a very large market potential. Starting with a group discussion forum among red chili farmers, the authors use interviews as well as surveys of red chili agribusiness entrepreneurs. Data analysis was carried out in a simple qualitative and quantitative way that found at least 10 (ten) unwanted events and the impact of existing opportunities, unwanted events that must be prioritized to be mitigated. The most extreme risk of unwanted events namely different retail price constraints; end consumers who don't take much; profit margins are being eroded by unexpected costs and difficult to find marketing channels that buy routinely.

Keywords: Red chili; marketing risk; unwanted events; chance of impact

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INTRODUCTION

Chili is a fruit and plant member of the genus capsicum, the fruit can be classified as a vegetable or a spice depending on how it is used. As a condiment, the spicy chili fruit is very popular in Southeast Asia as a food flavor enhancer. According to Sulaeni and Wibowo (2018) the need for red chili in fresh form is increasing day by day with the use as an ingredient in cooking spices so that production demands further increase both quantitatively and qualitatively. There are important reasons for the government to develop red chili as a leading horticulture commodity (Daryanto et al, 2010). West Java is one of the red chili agribusiness centers with many highlands which are ideal areas for chili plants. West Java is one of the largest producers of red chili and even occupies the second position after Central Java (Andayani, 2016). Chili farmers in West Java usually not only plant chili on their land but in other parts of the land are planted with other crops such as cucumbers, shallots, tomatoes and others. Not infrequently they also make intercropping of red chili plants with other plants such as cabbage and so on, which means to get more profit apart from harvesting chilies.

The chili plant was chosen because of its vital needs for the market in Indonesia, especially in DKI Jakarta as the nearest market from Ciawi as well as the marketing area for the chili plant. Market distance also affects because the farther away the marketing area is, the greater the transportation costs (Dumasari et al, 2009). However, awareness of the financial risks in the future makes the author cooperate with the land owner rather than rushing to buy it, while analyzing all the risk in the business. The definition of risk according to Vaughn in Dewi (2017) is risk is a chance of loss and risk is uncertainty. One of the risks that should be studied is the risk related to distribution, which is a series of marketing processes. Distribution channels are routes or a series of intermediaries, both managed by marketers and independent in delivering products from producers to consumers. These types of channels include vertically connected conventional channels which are generally practiced in the red chili agribusiness chain, from farmers selling at harvest to reaching the traders or consumers themselves. According to Asrianti in Raman et al (2018) marketing activities play a role in connecting producers with consumers, meanwhile marketing strategies on the other hand have developed a marketing mix, which is a combination of marketing activities in marketing goods or services in certain markets in order to be as effective as possible. According to Kloman in Arsyad et al (2016) the word "risk" in English comes from the ancient Italian word "risicare", and refer to Sunaryo (2007) risk is loss due to unexpected events, the size of the risk and the frequency of occurrence of unwanted events require risk management. According to Hastuti and Rahim (2005) agribusiness is an agriculture-based business and according to Putri (2017) marketing is a social and managerial process in which individuals and groups obtain what they need and want by creating and exchanging products, services and values from one person to another. So it can be said that the risk of agribusiness marketing is an unwanted occurrence of agricultural businesses in seeking profit from marketing and selling agricultural products.

METHOD

Data Sources and Collecting Method

This research was conducted using descriptive analysis method which is based on data sources, namely primary and secondary data. Primary data were obtained from direct interviews with farmer groups in Cibedug village, Ciawi. The data referred to are land area, cost and amount of production, as well as marketing process carried out by red chili farmers. Secondary data were obtained from literatures and agribusiness journals, especially red chili farming, as well as data obtained from related agricultural agencies and from the Central Statistics Agency along with data from relevant library materials. Data collection was carried out by means of observation and interviews in order to see and observe objects directly related to matters related to research. Respondents were taken for this study using purposive sampling, which is used if the researcher understands and believes that the information needed for the research can be obtained from a target group based on the established criteria (Ali and Limakrisna, 2013).
Data Processing and Analysis

Data processing and analysis include:

- Qualitative analysis, where the data that has been collected is being described as it is. Risk identification is carried out for each stage of the red chili marketing and distribution process.

- Quantitative analysis, aims to measure the level of risk that has been identified. Measurement of marketing risk is based on the risk factors inherent in activity and the risk control system (IBI in Meilan et al, 2018).

RESULTS AND DISCUSSION

Marketing Channels

Marketing channels that occur in red chili agribusiness in the research location are as shown below:

![Diagram of Marketing Channels of Red Chili](image)

As the picture above shows several marketing channels for red chili agribusiness in the results of the study:

**Channel 1 (one)**

It is the longest and most widely used channel because it is the simplest and represents the normal distribution of agricultural products in general. Red chili farmers who do not have the resources to bring their crops directly to wholesalers in urban areas such as Jakarta will choose this channel and accept any price from the collector or middleman who collects it directly, especially if the harvest is not large enough to cover the transportation costs of the product if it is to be marketed to the final consumer.

**Channel 2 (two)**

Chili agribusiness entrepreneurs sell to wholesalers who are relatively need struggle in this channel because the nearest wholesalers such as in Bogor City or several wholesale markets in Jakarta require very routines and large quantity than from wellknown middleman.

**Channel 3 (three)**

The route from producers to retailers of red chili is more profitable because they are selling red chili more expensive than wholeseller in the remote markets around capital city. Although need less quantity than wholeseller, these channels an give producers more revenue. But, the accommodation cost to deliver the product are higher.

**Channel 4 (four)**

Although it is the lowest percentage of distribution, the prices on this channel are the best but many agribusiness entrepreneurs or wholesalers rarely use it because carries risks. The final consumer may not be able to buy all of them and may result in spoilage of the chili itself because it is in stock too long.

According to Kotler in Anggraini (2014) producers and consumers are indeed the main part of a marketing channel, but the more commercial institutions involved in marketing a product (or many
call it the longer the marketing channel) it can be estimated that the higher the cost of marketing the commodity. Regarding the risks of each of the above marketing channels based on experience as well as the results of group discussions of red chili entrepreneurs, which type of channel is used by considering the current selling price and the number of red chili harvests themselves. The point is that when the selling price in the market is low enough then there is no point in using remote marketing channels such as channels 3 and 4, the estimated transportation costs will not be worth it. This means that it is enough to just release it at the price of the collector or middleman. Collectors are transportation providers who often provide loans to farmers, collectors also play a role in managing collection times; distribution of products in the market; and buying and selling transactions with market traders (Dwiartama et al, 2017). However, when the market price is high, there is an opportunity for us to bring the harvest to the farthest marketing channel at the best price, usually the middlemen will not give a much higher price at that time because they also want to take the momentum of the high price difference in the market. So the strategy in making this decision must also be right, but still have to maintain good relations with the parties in the marketing channel. Mubyarto in Kuswardhani et al (2012) states that the efficiency of marketing agricultural commodities in a marketing system is considered efficient if 1) it is able to deliver the results from producer farmers to consumers at the lowest possible cost, and 2) able to hold a fair distribution of the overall price.

Unwanted events

Unwanted events or adverse events have the opportunity to occur in the red chili agribusiness discussed in this study and based on the impact theory, the impact of each adverse event can be classified according to the author's experience and observations as well as from the group discussion forum (FGD) of fellow red chili entrepreneurs in Cibedug village. The following is a list of undesirable events in terms of the end of the red chili farming process that affect income:

| Unwanted Events                                                                 | Likelihood score | Frequency       |
|---------------------------------------------------------------------------------|------------------|----------------|
| The number of harvests that are far from expectations                           | 2                | Small Happens   |
| Poor yields                                                                     | 3                | Can happen      |
| The price of the collector is low                                               | 4                | Most likely     |
| Wholesaler don't want to take                                                    | 3                | Can happen      |
| Chili is mushy when brought to Jakarta                                           | 4                | Most likely     |
| Prices in retail vary                                                            | 5                | Almost certain  |
| End consumers don't take much                                                    | 5                | Almost certain  |
| Profit margins eroded by immeasurable costs                                     | 4                | Most likely     |
| Difficult to find retailers and end consumers who regularly buy                  | 4                | Most likely     |
| here are leftovers from every harvest that are quite rotten                       | 5                | Almost certain  |

The number of harvests that do not match the estimates may be something very common but the quantity of crops that fall short of expectations is an undesirable event or agribusiness risk. Although this is an oversight in the pre-harvest process or has not yet entered marketing, it can multiply the marketing risk because the small yield cannot be carried on the direct channel to retail in urban areas because it costs more to transport a small amount of production than the sale proceeds later. Unfavorable harvests, picked too quickly and chilies that are not dense can reduce selling prices and affect marketing at traders because traders are quite observant of the surface of red chilies because they are the ones who trade chilies every day. From the author's personal experience, from holding chilies or even seeing from a distance, wholeseller and retailers can know the quality of the chili and immediately determine the price they are willing to buy.

If chili agribusiness entrepreneurs directly bring their harvests to the market, then not all wholeseller want to buy because some have already got the goods. They want to sell at the optimal daily average sales level, so to add red chili in the sales window they may not be able to take too much or even refused on the grounds that the price could be lower. According to Kasymir (2017), price fluctuations are caused by several factors such as the amount of supply. The problem of price fluctuations can be very volatile in agricultural products, there are times when farmers get very big losses in terms of prices (Junaidi et al, 2019). In cutting marketing channels and bringing crops to the city with a pick-up car, for example, it must be considered for transportation media such as sacks or
others. That as much as possible it should not be damp or on the way exposed to water and excessive heat because when you arrive in the city when loading and unloading you will often find chilies broken. Do not be surprised at various wholesale and retail markets in big cities, prices can vary and the volatility is significant. For example the price per kilo of red chili in the bridge two market, namely north jakarta price is higher than in South Jakarta. Getting the highest price according to the author’s experience and according to various journal articles, of course, is obtained from the end consumer. 

There are housewives and catering businesses, for example. The problem is that they only buy what they need at that time, nothing more. Next problem was the duration of the next pick-up may not match the harvest period in the garden, maybe if there is a restaurant that can buy regularly, such as a Padang restaurant. They won't buy 100 kilograms a day, right? This is an unwanted event.

In the marketing process that seeks from all kinds of ways, there are some unexpected costs, such as the cost of sending chilies to two or three catering places in far different directions. For example in Cijantung area and then went to Jelambar (West Jakarta). Gasoline and delivery costs, when multiplied by frequency during the harvest season, can erode income and the expected final profit.

In practice, to carry and distribute chilies in big cities like Jakarta which is close to Ciawi, when we do not have final consumers or retailers in the market who regularly buy, we can be sure that there will be a lot of delayed harvest in stock waiting for other marketing destinations that can take our chilies. The problem here is that red chili is a commodity that can quickly reach its expiration date so that tomorrow or the day after that it will just get a marketing location, the quality will not be the same as when it was just harvested. The size or unit of purchase certainly has the right dose, in terms of harvest alone there must be more than even kilograms of scales. Especially if it is in the marketing channel where buyers buy in different quantities. Plus the problem of stockpiling pending sales above, the potential for spoilage in the shelter is definitely there. Usually this leftover chili is consumed alone by selecting it again and then in a blender for cooking purposes in the kitchen. This is a series of unwanted events in marketing red chili.

**Marketing Risk Impact Analysis**

The definition of impact according to the Indonesian Dictionary is a collision, an influence that has both positive and negative consequences. Positive impact is the desire to persuade, convince, influence, or impress others with the aim of getting them to follow or support his good wishes. While the negative impact is a strong influence that brings negative consequences. The impact in the risk assessment matrix column is profiled in the same size as the probability (likelihood) and in this study it is intended for the financial impact that affects the income of red chili agribusiness entrepreneurs.

The impact in each of the previously determined unwanted events has been experienced by us who are involved in the red chili agribusiness and have similarities among the members of the group discussion forum in the Cibedug area. On a scale of 1-5 the impact score is the same as the likelihood, it can be seen that the value of 1 is the smallest and the value of 5 is the largest impact. To make it easier to understand, here are the impacts of each unwanted events opportunity:

**Table 2.**

| Unwanted Events No. | Likelihood Score | Impact Description                  | Impact Score | Risk Score (L x I) |
|---------------------|------------------|-------------------------------------|--------------|--------------------|
| 01                  | 2                | The Potential for Loss is Very Large| 5            | 10                 |
| 02                  | 3                | Medium Potential Loss               | 3            | 9                  |
| 03                  | 4                | Medium Potential Loss               | 3            | 12                 |
| 04                  | 3                | Medium Potential Loss               | 3            | 9                  |
| 05                  | 4                | Medium Potential Loss               | 3            | 12                 |
| 06                  | 5                | Medium Potential Loss               | 3            | 15                 |
| 07                  | 5                | Medium Potential Loss               | 3            | 15                 |
| 08                  | 4                | Potential Big Loss                  | 4            | 16                 |
| 09                  | 4                | Potential Big Loss                  | 4            | 16                 |
| 10                  | 5                | Small Loss Potential                | 2            | 10                 |
Then each unwanted events can be plotted on a risk assessment matrix as below:

|   | 1   | 2   | 3   | 4   | 5   |
|---|-----|-----|-----|-----|-----|
| 5 | 01  |     |     |     |     |
| 4 |     |     |     | 08 & 09 |     |
| 3 |     | 02 & 04 | 03 & 05 |     |     |
| 2 |     |     |     |     | 06 & 07 |
| 1 |     |     |     |     | 10  |

Figure 2.

All unwanted events heatmap

In the risk group above, it can be seen that unwanted events number 6, 7, 8 and 9 are the biggest risks which are a combination of frequent opportunities and near-fatal impacts, although other adverse events require mitigation but those marked red or those identified as major risks should take precedence. Unwanted events no. 6 regarding retail prices that vary elsewhere creates confusion for novice chili businessmen in determining the best direction in terms of price to throw red chili production, it is very natural that producers want to sell at the best price but are looking for retail locations at low prices. The 7th unwanted events appears when they finally get buyers at the best selling prices where they are final consumers such as catering businesses or housewives, although here the author provides delivery services to their respective places but on average they only take enough at one time due to their needs depended on what they were going to cook at that time and the fear of spoilage if they took the risk of receiving large quantities of red chilies.

Unwanted events no. 8 is caused more because the author or maybe the beginners are red chili producers as well as suppliers who are also involved in the marketing area, so a lot of expenses are incurred from variable costs in the garden (on site) and other costs in finding the expected marketing channels. For example, the cost of sending chilies to final consumers such as the catering business earlier and to households, both the cost of an online motorcycle taxi or gasoline when delivering it yourself. The ninth unwanted events is closely related to the previous one, namely the final consumer target who gives the best price in the future it turns out that in the future it is not routine to buy. Anyway because in cost savings between deliveries we usually decide to pay delivery fees when there are several deliveries in the same direction so the end consumers often don't can wait and they buy from the market. It is not wrong because for the food industry they work also by order with deadlines.

**Unwanted Events Mitigation**

Unwanted events in the red area which should be effectively mitigated first when we study directly in practice in many trials (trial and error), where unwanted event no.6 for example is by recording the average price movement of chili in retail in various places. In order to see which retailers are reasonable and minimal in terms of distribution costs. The 7th unwanted event may be solved simply by stopping distribution to household end consumers. For example, because this has proven to be a waste of time and does not provide an appropriate sales focus unless there is a large caterer take in large quantities from time to time. The eighth unwanted event was mitigated by financial engineering on irrational cost reduction measures, for example the delivery fee to a separate place which was also far away in quantity. Lastly, unwanted event number 9 may be mitigated over a long period of time because it requires proper relationships with wholesalers who in the future can become permanent agents in retrieving the harvested red chilies.

The author is also interested in mitigating the risk of unwanted event no. 1, although not in the red zone. Seems to have to be anticipated as soon as possible because production or harvest results that are far from expectations can change the overall marketing plan because with a small harvest, red chili agribusiness actors lose a lot of money. The choice in supplying to the marketing channel at the best price, although the chances are small if the planting and maintenance process goes according to plan. But when unexpected things such as extreme climates make production numbers fall then there is no other option to sell the meager produce to middlemen. If you are forced to bring produce that is not widely carried from the gardens in Cibedug to the anchored marketing channels in DKI Jakarta and surrounding areas, the shipping costs will not be feasible in this case according to the author's
calculations. So it is necessary to find a way to maximize crop yields instead of forcing supply to a different marketing chain. Far from that in this study the author feels it is important to also provide a foundation for planting red chili in accordance with the developed theory apart from the marketing aspect.

CONCLUSION

From the discussion it can be concluded that:
There are at least 10 unwanted events in this study, of which there are four that must be immediately mitigated, especially by agribusiness entrepreneurs or red chili farmers in the Cibedug area, Ciawi; Marketing risk exists in each marketing channel which is also commensurate with the results obtained; and Mitigation of adverse events is carried out by repeated observations before taking the required strategy.

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