

Image Variety on Purchasing Decision of Rice Seeds in Sidrap

Fitriani R¹, Rahman Laba², Sutinah Made³

¹Faculty of Agriculture, Hasanuddin University, St. Perintis Kemerdekaan, Makassar, Indonesia

²Teaching Staff of Economic Faculty, Hasanuddin University, St. Perintis Kemerdekaan, Makassar, Indonesia

³Teaching Staff of Fisheries & Marine Science Faculty, Hasanuddin University, St. Perintis Kemerdekaan, Makassar, Indonesia

Abstract: *Varieties image is the determination of the purchase of rice seeds. This study aimed to analyze the influence on purchase decisions Image varieties of rice seed. This study was designed with a qualitative approach. Data collected by observation, interview, and documentation and descriptive analysis. Ciherang the most varieties preferred by farmers in planting by the percentage reached 42%. Mikongga varieties are second which is widely used by farmers with the percentage reached 27%. As many as 31% divided by several varieties of rice seeds as Inpari 4, Inpari 14 inpaari 36, Inpari 9 and Situbagendit. Ciherang is a variety of the most influential image in the purchase of rice seed in Sidrap*

Keywords: Variety, Image, Decisions Buyer, Seeds

1. Introduction

South Sulawesi, especially Sidrap is the region with the main production of seeds and has the largest potential which is derived from agriculture. Rice farming is the main activity of agriculture for local community.

Indonesia's natural potential is abundant and rich, especially in the field of agriculture. The majority of Indonesian citizens work as rice farmers, not a few of these farmers survive from rice farming. In 2015, Sidrap rice production reached 542 052 tones with a productivity of 6.34 tons per hectare which increased from the production in 2014 amounted only 488 883 tones.

The presence of varieties released and encouraged the government and private companies have had an impact on the behavior of farmers in the use of rice seed varieties, it is because of the differences in preferences rice farmers of varieties in each region is not the same. According to Engel et al in Mendis & Edirisinghe (2013), stated that farmers consideration in choosing rice seed varieties depend on characteristics rather than the result for example percentage of empty seeds, disease resistance. Killenga et al (2014), stated that the farmers choose varieties of rice according to the needs and problems faced by the varieties that are tolerant to high salinity. The main consideration of farmer's decision on purchasing seeds is the productivity, (yield potential), pest resistance and age of the plant from the seed (Rusyadi, 2014, Koes, 2013). Based on the research results Wicaksana et al (2013), it is known that the attributes that determine the satisfaction of the farmers is the potential for production, durability, sprouted seeds, uniformity of seeds, seed size, seed availability, the purchase price of seed, the origin of production. The purpose to analyze the effect on purchasing decisions Image varieties of rice seeds in Sidrap and to analyze the influence of the factors in the purchase decision Sidrap rice seed. seed size, seed availability, the purchase price of seed, the origin of production.

2. Review of Literature

a) Seed

Seed is a decisive stage in the agricultural cycle. Seed technology which consists of the stages of growing techniques, cleaning, drying, and setting the water content as well as a number of subsequent processes are to improve the viability and germination of seeds. Specifically, the use of high quality seeds has an impact on good plant growth and yields are high. Terms of quality seeds are: (1) pure and known the name of varieties; (2) to grow the seed is high (at least 80%) and good vigornya; (3) healthy seeds, pithy, no wrinkles, harvested when the seeds have matured; (4) harvested from healthy plants are not infected with the disease, and (5) not mixed bean seeds of other plants or grass seeds (Suhendrata and Kushartanti, 2009).

b) Varieties

Siregar (1981) in Saheda (2008) described that the excellent varieties are varieties in which plants have more properties than the properties owned by other rice varieties. Those properties can be the result of higher power, a shorter lifespan, resistance to pests diseases, more resistant to the fall of the plant, and the rice tastier. Mahmud and Purnomo (2014) in his research stated that the highest percentage of filled grain varieties obtained Mekongga, 94.86% which is significantly different from the varieties Sidenuk, Ciherang and Inpari 19, but not significantly different from Inpari 18. The difference in the percentage of filled grains is probably caused by genetic factors of each variety of rice used.

c) The decision to buy seeds

Purchasing decisions is the selection process of two or more alternative choices that produce a decision to buy or not to buy. Alternative options should be available when the consumer will take a decision. The purchase decision-making process requires a search or receive of different information. Purchasing decisions is a process where consumers decide which brand to buy. Consumers will buy the most preferred brand, but can be influenced by two

factors that are between purchase intentions and purchasing decisions is the attitude of people and situations that are not expected. Purchases intentions may change as the situation faced by consumers impede or forced to cancel a purchase or 8 switch to the other alternatives. The preference and the willing to buy are not always having the actual procurement.

3. Materials and Methods

This study was conducted in Sidrap, South Sulawesi province. The location determination is done intentionally (purposive sampling) with the consideration that Sidrap is the central of rice production which produce quite large even become rice barns in South Sulawesi to the national level. This study will be conducted in February-March 2017.

The population in this study was members of farmer's community in Sidrap. The sampling is done randomly (simple random sampling) based on previous field orientation with a population of farmer group members. According to Nazir (2003) in his book states that: "The population is a collection of individuals with the qualities and characteristics that has been set". While understanding the sample according to Nazir (2003), states that the sample is prosedur where only part of the population are taken and used to determine the nature and on the desired characteristics of populas.

The total sample of 99 respondents of this study were divided into 11 districts in Sidrap so in the District 1 represents one group of farmers with some respondents interviewed roughly corresponding recorded above. In addition to information dai farmers, researchers also conducted interviews with the PT. Sang Hyang Seri, Pertani and PT. Bisi International. TBK. This study uses data collection techniques by observation, interview and documentation.

Types and sources of data used for primary data obtained from interviews with respondents (Members of the group) who provide information in accordance with the required data. Primary data is data obtained from the interview to the board and members of farmer groups. Types of primary data needed include about brand image Sang Hyang Seri. Secondary data were obtained from institutions / agencies associated with this study as the Central Bureau of Statistics, department of agriculture and also PT Sang Hyang Seri and using descriptive analysis.

4. Results

a) Characteristics of Respondents Farmers

Individual characteristics Indonesia are characteristics or properties that are owned by a farmer who displayed through the mindset, attitudes and patterns of action on the environment (Mislini, 2006). These characters that can distinguish the type of farmer's behavior in certain situations. Characteristics of respondents identified the age, level of education and experience of farming and land use, can be as follows:

1) Age

Factors likely to affect the attitude of a person's age, as proposed by Feaster (1969) that there is a tendency of the different levels of age will cause the difference in determining attitudes toward a change.

No	Age (Year)	The number of farmer respondents (Percentage)	Percentage (%)
1.	0-14	0	0
2.	15-64	99	100
3.	≥65	0	0
Total		99	100

2) Education

Education will generally affect a person's way of thinking and influences success in managing the business. Someone relatively high education will lead to more dynamic follow technological developments. One precondition for successful agricultural development is the ever-changing farming technology. Therefore, the use of technology in rice farming is needed by farmers with the hope to increase productivity, improve business efficiency, increase the added value of products produced as well as increase the income of farmers. In fact, today there are many farmers that have not fully implemented the technology in rice farming. This is due to a lack of knowledge of farmers about agricultural technology. Educational background, and culture affect the fast or slow an innovation can be accepted by farmers. The education level of respondents Farmer in Sidrap can be seen in the following table.

No	Education	The number of farmer's respondents (person)	Percentage (%)
1.	Tidak Tamat SD	7	7,0
2.	SD	33	33,3
3.	SMP	23	23,2
4.	SMA	36	36,4
Total		99	100,00

3) Experience Farm

Learning by observing the experience of other farmers is very important, because it is a better way to make decisions than processing theirs existing information. For example, a farmer can observe closely from other farmers who have tried a new innovation and this is a learning process consciously. Learn new patterns of behavior, could also unwittingly (Soekartawi, 2002). The education level of respondents Farmer in Sidrap can be seen in the following.

No	Experience (Tahun)	The number of farmer respondents (Percentage)	Percentage (%)
1.	1-20	48	48,5
2.	21-31	34	34,3
3.	>31	17	17,2
Total		99	100,00

4) Gender

Gender of someone is a natural condition and the nature of the creator. The gender difference in the characteristics of each into the image of the degree of difficulty of the work that was involved by someone. The big difference in physical strength possessed between men and women usually have an impact on the differences in their work. Gender of respondents Farmers in Sidrap can be seen

in the following table.

No	Gender	The number of farmer respondents (Percentage)	Percentage (%)
1.	Women	0	0
2.	Man	99	100
Total		99	100,00

b) Characteristics of Farm

Characteristics Farm is parts of the process and the results of the farm. As for the parts that relate are the price of seeds, garden systems, irrigation systems, where the purchase of seed, yield.

1) Price Seeds

Price according to Kotler (2008) is the amount charged in a product or service. Prices can be seen from the perception of product value has meaning as the sum of all the values given by the customer to make a profit after owning or using a product or service. Price is the main factor influencing the choice of buyers, an important element in determining the market share, provide income for the company and is flexible because it can change quickly, different product features and commitments with the dealer price is the amount charged seed. Seed prices in Sidrap can be seen in the following table.

No	Seed Price (Rp)	Period I		Period II	
		The number	Percentage (%)	respondents (%)	Percentage (%)
1.	≤10000	57	87,7	57	57,6
2.	≥11000	8	12,3	8	8,0
Total		65	100	99	100

2) The System

Sidrap averagely use direct planting system or called Tabela. Cropping systems in Sidrap can be seen in the following table.

No	Cropping system	Period I		Period II	
		The number of farmer respondents (Percentage)	Percentage (%)	The number of farmer respondents (Percentage)	Percentage (%)
1.	Tabela	84	84,9	84	84,9
2.	Tapin	15	15,2	15	15,2
Total		99	100	99	100

3) Watering System

Irrigation System is a process in terms of meeting the water needs in rice plants. The irrigation systems are contained in Sidrap there are 3 kinds of rainfed, irrigation and pumping. Watering system in Sidrap can be seen in the following table.

No	Watering system	Period I		Period II	
		Respondents (%)	Percentage (%)	Respondents (%)	Percentage (%)
	Irrigation	47	47,5	47	47,5
	rainfed	23	23,2	23	23,2
	Pumping	29	29,3	29	29,3
Total		99	100	99	100

4) Production (Tons)

Yield is the result of the production process or so-called output produced by farmers. Production in Sidrap can be seen in the following table.

No	Production (Ton)	Period I		Period II	
		The number of farmer respondents (Percentage)	Percentage (%)	The number of farmer respondents (Percentage)	Percentage (%)
1	≤8	57	57,5	50	50,5
2	≥9	42	42,2	49	49,5
Total		99	100	99	100

5) Seed Distributors

Distributors of the seed is a place where the farmer's respondents can buy theirs seeds. The dealer places of the seed in Sidrap is PT. Sang Hyang Seri, PT. Pertani and PT. Bisi International Tbk. Seed Distributors in Sidrap can be seen in the following table.

S. No	Seed distriburs	Respondents (Percentage)	Percentage (%)
1.	PT. Sang Hyang Seri	49	75,3
2.	PT. Pertani	12	18,5
3.	PT. Bisi Internasional, Tbk	4	6,1
Total		65	100

c) Influence Buying Decision Against Variety Image Seeds in Sidrap

No	Rice seed varieties	Period I		Period II	
		Respondents (%)	Percentage (%)	Respondents (%)	Percentage (%)
1	Ciherang	43	43,4	42	42,4
2	Ciliwung	4	4,0	0	4,0
3	Inpari 30	1	1,01	0	1,0
4	Inpari 4	19	19,1	18	18,1
5	Inpari 14	1	1,0	1	1,0
6	Inpari 36	1	1,0	1	1,0
7	Inpari 9	1	1,0	1	1,0
8	Inpari 7	7	7,0	1	7,0
9	Mikongga	13	13,1	27	27,2
10	Situbagendit	9	9,0	8	8,0
Total		99	100	99	100

The above table shows that as many as 43.4% of respondents chose to use a variety ciherang farmers in the first planting period and 42.4% of respondents used a variety ciherang on planting the second period. Then the second most used varieties are Mikongga the first planting period is 27.2%. As many as 19% of respondents farmers choose to use rice seed varieties Inpari Situbagendit 4. Use around 9.0% in the first planting period and 8.0% in the second planting period used by the respondent farmers. Inpari 7 sebanayak its 7.0% in the first planting period and only 1.0% of use in the second planting period. Inpari 14 Inpari 36, Inpari 9 only 1.0% respectively in the period from planting to use first and second periods.

5. Discussion

a) Characteristics of Respondents Farmers

Farmers who still in Sidrap are relatively productive. This is because of the results seen that 100 percent or 99 respondents in the range of 15-64 years, which means

respondents, are in the productive age. Thereby they are enabling to work with a high motivation to develop their business as driven by high demand and able to perform better than its farming with farmers who are relatively older age or in the age range ≥ 65 . In accordance with the opinion of Swastha (1997) in Saediman (2011) that a person work productivity will increase in accordance with increasing age, then decline back towards old age.

Highest level of education respondents at the high school level, as many as 36 respondents, or 36.4%. More respondents' education level is at the level of completion of Elementary School (SD) as many as 33 respondents or by 33.3%, while the Junior High School (SMP) by 23 respondents, or 23.2%, while there are 7 or 7% of respondents who had not completed primary school (SD). The number of respondents who graduated from high school showed the highest value, it indicates that the level of education will affect someone in farming, where the higher the level of education, the higher the level of knowledge will be the development of farming, as well as to change the mindset, power of reasoning better, the higher level of education the better way of thinking, thus enabling them to act more rationally manage their farming. According Saridewi (2010), the level of education a person can change the mindset, power of reasoning better, so the longer the person's education will be more rational.

Farming experience of the respondents in Sidrap is quite a lot. Experience farm owned by respondents are 10-20 years old, by 48 respondents or 48.48%. Theoretically farmers who are more experienced in handling farm tend to be more selective in choosing and using varieties of seeds that it will impose, rather than farmers whose experience is still lacking. Farming experience plays an important role in efforts to streamline production factors to be used in farming activities. Of the 99 respondents, there are respondents where farming is in the range of 10-20 years amounted to 48.48%, and there were also respondents who long berusahataninya are at 21-31 year amounted to 34.34% and that has the most experience are a range of > 31 years of 17.17%. This indicates that farmers in the district can be classified Sidrap included in the average berpengalaman in terms of farming. So there can be no doubt of expertise in the selection of rice seeds to be used in the case of peasant farming. This is in accordance with Mardikanto (1993) which states that the experience is a good teacher to achieve success. 34% and which has the most experience are a range of > 31 years at 17.17%. This indicates that farmers in the district can be classified Sidrap included in the average berpengalaman in terms of farming. So there can be no doubt of expertise in the selection of rice seeds to be used in the case of peasant farming. This is in accordance with Mardikanto (1993) which states that the experience is a good teacher to achieve success. 34% and which has the most experience are a range of > 31 years at 17.17%. This indicates that farmers in the district can be classified Sidrap included in the average berpengalaman in terms of farming. So there can be no doubt of expertise in the selection of rice seeds to be used in the case of peasant farming. This is in accordance with Mardikanto (1993) which states that the experience is a good teacher to achieve success.

Men up to 100% and amounted to 0% of women. This is because in the farming requires more power and generally men more powerful than women, but did not rule out the possibility for women to be able to do. This is in accordance with the opinion of Swastha and Sukotjo (1997) that almost all men who have reached working age engaged in economic activity since man is the main breadwinner in the family.

b) Characteristics of Farm

A total of 57 respondents, or approximately 87.7% of farmers found the price of seeds in Sidrap relatively cheap and affordable, so that the average farmer who in Sidrap use dibenih seed purchase. Prices are affordable and relatively cheap, which became one of the important parts in terms of influence on purchasing decisions image varieties of rice seed in Sidrap. The cheaper price of seeds that offer the seeds of the more popular varieties of these seeds used by farmers in planting. A total of 87.7% of respondents use the seeds at a price of Rp ≤ 10000 . This corresponds to the fact that the seeds are widely distributed by the company such as PT. Sang Hyang Seri Rp 2500 / kg. This price is the price for the subsidized seed. Just as the seed distributed by PT. Agricultural seeds that price is Rp 2500 / kg. Unlike the case with seeds supplied by the PT. Bisi Internasional Tbk Rp price per kilo seed. 15,000. The existence of price differences due to different categories of seed, seed distributed by PT. Sang Hyang Seri and PT. Agricultural is a blue label extension seed or seed which use just one time and production less than labeled seeds purple. While the seeds are distributed by PT. Bisi Internasional Tbk is the principal seed or purple label production results higher than labeled seeds blue. Bisi Internasional Tbk Rp price per kilo seed. 15,000. The existence of price differences due to different categories of seed, seed distributed by PT. Sang Hyang Seri and PT. Agricultural is a blue label extension seed or seed which use just one time and production less than labeled seeds purple. While the seeds are distributed by PT. Bisi Internasional Tbk is the principal seed or purple label production results higher than labeled seeds blue. Bisi Internasional Tbk Rp price per kilo seed. 15,000. The existence of price differences due to different categories of seed, seed distributed by PT. Sang Hyang Seri and PT. Agricultural is a blue label extension seed or seed which use just one time and production less than labeled seeds purple. While the seeds are distributed by PT. Bisi Internasional Tbk is the principal seed or purple label production results higher than labeled seeds blue. While the seeds are distributed by PT. Bisi Internasional Tbk is the principal seed or purple label production results higher than labeled seeds blue. While the seeds are distributed by PT. Bisi Internasional Tbk is the principal seed or purple label production results higher than labeled seeds blue.

Direct planting system about 84% of farmers using direct planting system, which means the use of seeds in Sidrap 2 times more than the use of seeds with transplanting or Tapin system. This is in accordance with the opinion of Supriono and Milan (1993) Seed needs in this way ranged between 50-60 kg / ha, or between 1.5-2 times compared with transplanting. Direct seeding system (seeded) is planting rice plants without going through the nursery and transplanting. Direct seeding rice cultivation can basically be divided into two technology options, namely direct seeding

evenly in the planting area and direct seeding in the bolt. Some advantages of using using direct planting system that shortens production time, saving labor, saving the use of water, the number of unproductive tillers decreased. But there were also disadvantages, namely the risk of lodging of plants is high, the level of crop damage by pests rat is quite high, the need for relatively large seeds. But not all farmers in Sidrap using wet seeded, there are as many as 15% of farmers still use the system to transplanting the grounds the use of seeds that are used quite a bit around 1.5 or 2 times less than using direct planting system. With the percentage of direct or direct seeded rice seed systems were big enough, again became a part that affects the image of the varieties of seed purchasing decision, because by using the system of direct planting, the seeds are used a lot so that is the reason for the necessity of different varieties of seeds. The irrigation system is a way or a human effort to provide a flow of water to the fields. With the flow of the water made it easier for farmers in terms regulate the supply of water to the fields. With this irrigation system, farmers will also be easier to control the water needs of the rice fields. The purpose of irrigation is wet ground, in order to achieve a good soil conditions for crops' growing in relation to the percentage content of water and air between soil grains. In addition to the existing irrigation system in Sidrap, there are as many as 29% of farmers who use irrigation system pumping. No pumping is meant here, the actual irrigation system is paddy paddy farmers with rainfed irrigation system. Only with the creativity of farmers so they do pengoboran well and then drain the paddy fields with water. This is done to provide water supply to the rice when the dry season comes. If the water system is not good, then agriculture will be hampered. Because one of the benchmarks of success of agriculture is the water supply. Basically, by pumping the water system is part of the irrigation system.

Sidrap grain production in the 2017 harvest, it is seen that the production ≤ 8 tons / ha by 50.5% and production of farmers who ≥ 9 tonnes / ha at 49.5%. The absence of significant differences of grain production in Sidrap, it can be assumed that the turns of the various varieties of seeds used by farmers have their respective advantages. So naturally when Sidrap said rice barn, this is because production is abundant. With higher production of paddy in Sidrap influenced by jenih arable land, which began modern technology, cultivation and use the most important because of superior varieties.

Place the purchase of seed is one part that makes a wide range of varieties that exist in Sidrap own image. In Table 5 shows that 49% of farmers .There was Sidrap prefer to buy seed at PT. Sang Hyang Seri. This is caused by PT. Sang Hyang Seri has a subsidy program. Subsidy program is a government program in terms of the fulfillment of the seed, which is given to the farmers who are members of farmer groups, with the proviso mengajukan proposal to PT. Sang Hyang Seri. I got the information from the PT. Sang Hyang Seri, said the actual price of seed subsidy of about Rp. 11,033 / Kg. But the farmer subsidy program enough to pay Rp. 2500 / kg. In a sense this program is one promotional event to introduce a wide range of varieties with their respective advantages. According to information I

have received, it turns ration of seeds that farmers this subsidy amounted to 25 kg / ha.

c) Influence Buying Decision Against Variety Image Seeds in Sidrap

Varieties most devotees are varieties ciherang by 43.4%. the dominant factors of it are the policy group, the effect of planting time, seed excellence. Many enthusiasts ciherang seed varieties is influenced by the excellence of varieties ciherang according IAARD that ciherang suitable varieties planted on all dry and rainy season with an altitude below 500 m above sea level. This is in accordance with the topography Sidrap situated at an altitude of between 10 m - 1500 m asl above sea level. Mikongga varieties are varieties that have the highest interest in Sidrap. In addition mikongga varieties resistant to bacterial leaf blight disease strains IV and is also resistant to brown plant hopper pest. The reason is what makes the farmers prefer to plant varieties mikongga than other varieties. But not only ciherang and mikongga varieties preferred by farmers in Sidrap, but also Inpari 4. There are 19% of the farmers who planted the seed of interest Inpari 4. There is no significant difference of the various Inpari, it's just the principle of farmers when it was believed by the type of product it will be difficult to change their. Another thing to be considered using certain varieties are the result Tudang Sidrap Sipulung. As in other areas that before the plant there are regular meetings held between all perkecamatan farmer groups with the instructor on duty in the area. The meeting was conducted to discuss some varieties would be planted, and what are the constraints of each group of farmers in farming.

6. Conclusion

Ciherang image is a variety of the most influential in the decision to buy seeds, with the percentage reached 43% of its users.

References

- [1] Kotler dan Armstrong, Yudhi. 2008, "Kualiatas Produk, Merek dan Desain Pengaruhnya Terhadap Keputusan Pembelian Sepeda Motor Yamaha Mio", Jurnal EMBA. Vol. 1, No. 3.
- [2] Mendis S. & Edirisinghe JC. (2013). Willingness To Pay For Rice Traits in Kurunegala and Hambantota Districts: An Application Of A Spatial Hedonic Pricing Model. The Journal of Agricultural Sciences, 2013, vol.8, no.1.
- [3] Mislini. 2006. Analisis Jaringan Komunikasi Pada Kelompok Swadaya Masyarakat. Kasus KSM Di Desa Taman Sari Kabupaten Bogor, Propinsi Jawa Barat. [tesis], Bogor; Program Pascasarjana, Institut Pertanian Bogor.
- [4] Nazir, Mohammad. 2003. Metode Penelitian. Ghalia Indonesia. Jakarta. Rusyadi Y. 2014. Analisis Sikap Dan Kepuasan Petani Terhadap Atribut Benih Padi Hibrida Maro di Kabupaten Subang Jawa Barat. [tesis]. Bogor (ID). Institut Pertanian Bogor.
- [5] Saheda A. 2008. Preferensi dan Kepuasan Petani Terhadap benih Padi varietas Lokal Pandan wangi Di Kabupaten Cianjur. [Skripsi]. Fakultas Pertanian IPB.
- [6] Soekartawi, 2002, Analisis Usaha Tani, Ui - Press, Jakarta

- [7] Suhendrata dan Kushartanti, 2009. Inisiasi Kelembagaan Perbenihan Varietas Unggul. Prosiding Seminar Nasional Padi 2009 BALITPA. Sukamandi.
- [8] Wicaksana BE., Muhaimin AW., & Koestiono D.2013. Analisis Sikap dan Kepuasan Petani dalam menggunakan Benih Kentang Bersertifikat (*Solanum tuberosum* L.)(Kasus di Kecamatan Bumiaji, Kota Batu). Habitat Volume XXIV, No. 3, ISSN: 0853-5167

Author Profile



Fitriani R was born in Maros, South Sulawesi, Indonesia on May 4th, 1992. She got her bachelor degree (S.P) in 2014 at faculty of Agriculture of Hasanuddin University, Indonesia. In 2015 up to present, she continued her study to get her master degree on agribusiness Study Program at Faculty of agriculture at Hasanuddin University, Makassar, Indonesia and awarded by LPDP Scholarship. This paper is a part of her thesis which is supervised by prof. Dr. Rahman Laba, MBA and prof. Dr. ir. Sutinah Made, M.S