Injuruty: Interdiciplinary Journal and Humanity
Volume 2, Number 9, September 2023
e-ISSN: 2963-4113 and p-ISSN: 2963-3397

FACTORS AFFECTING FARMERS' CAPACITY IN HANDLING HARVEST AND POST-HARVEST MANGO EXPORT COMMODITIES GEDONG GINCU

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Abstract

The aims of this study were (1) to determine the effect of stakeholder roles and direct access to information on farmer capacity in harvest and postharvest handling, and (2) to determine the influence of the role of stakeholders and access to information on the capacity of farmers in handling harvest and postharvest through. The research was conducted in Majalengka Regency with the central areas of Majalengka District and Panyingkiran District. The time of the research was carried out in August 2023. The determination of the sample was carried out by census on 30 farmers who had supplied gedong gincu mangoes to exporters. Data analysis used path analysis with the independent variable the role of stakeholders and access to information with the dependent variable being the farmer's capacity in handling harvest and postharvest through farmer behavior. data analysis using path analysis. The results of the analysis show that there is an influence on the role of stakeholders and access to information on the variable capacity of farmers in handling harvest and postharvest directly or through farmer behavior. The first path equation is Y = 0.391 + 0.517 + 0.796 and the second path equation is Y = 0.336 + 0.420 + 0.445 + 0.630. The effect of stakeholder roles on farmer capacity directly or indirectly is 0.500, the effect of information access on farmer capacity is 0.662 and the influence of farmer behavior on farmer capacity is 0.420.

Keywords: Majalengka, Mango, Post Harvest, Farmers

INTRODUCTION

Mango is a superior fruit commodity in the Majalengka Regency. According to data from the Central Statistics Agency (BPS), in 2021 mango production will reach 65,288.9 tons or around 14.70% of the total mango production in West Java. The type of mango plant commonly planted by farmers in Majalengka Regency is the gedong gincu mango type. According to Supriatna (2010), gedong gincu mango fruit has good development prospects because it meets market specifications. Furthermore, According to Ariningsih et al. (2021), this fruit has a sweet taste, a distinctive aroma, lots of fiber, a shape that tends to be round, and a medium weight size of around 200-250 grams/fruit, This condition causes the gedong gincu mango has a higher price level compared to other types of mango.

The distinctive characteristics of the gedong gincu mango in terms of shape, taste, and color make it attractive to people abroad (Ariningsih et al., 2021). The government,

through the Ministry of Agriculture, issued a Gratieks policy (Triple Export Movement) which will be carried out by agribusiness actors (Sa'diah and Tamami, 2020). Mango commodities for market purposes have good specifications, this condition can be realized with good harvest and post-harvest handling techniques.

Various activities arising from the harvest process to inappropriate distribution to warehouses of fruit commodities pose a risk of high levels of damage, so this condition affects the quality of mango fruit (Amalia et al., 2018). The poor quality of the fruit makes it difficult for gedong gincu mango commodities to enter the market with export specifications. It is estimated that the impact of improper harvest and post-harvest handling causes a loss of potential yield of 30% (Waryat dan Nurawan, 2022).

Based on observations, only around 30-40% of the gedong gincu mangoes produced by farmers in Majalengka Regency meet export specifications. Around 70-60% of production cannot meet export specifications. The harvest shows the quality of Gedong Gincu mangoes with the physical condition being stemless, gummy, with spots, scratches, and bruises. This condition is caused by handling errors made by farmers, including (1) harvesting does not use standard tools; (2) collecting in the garden does not use a base, and (3) distribution from the garden to the warehouse using sacks so that there is a lot of shaking which causes gedong mangoes to become injured and bruised.

Weak harvest and post-harvest implementation by farmers has an impact on exporters' selectivity in choosing farmers who can partner. Farmers' capacity in handling harvest and post-harvest can increase farmers' ability to carry out good harvest and post-harvest. The stages that farmers need to pay attention to include: (1) determining the age of harvest; (2) picking technique; (3) sorting techniques; (3) grading techniques; (5) techniques for handling post-harvest pests and diseases; and (6) packaging techniques (Baihaqi et al., 2022).

Farmer capacity is influenced by several things, including farmer characteristics (Waryat dan Nurawan, 2022), the role of stakeholders (Sholiha dan Charina, 2018), and access to information (Andriani et al., 2019). The influence provided directly or through intervening farmer behavior can influence farmer capacity (Rasmikayati et al., 2018).

The aim of this research consists of 2 objectives, namely (1) to determine the influence of stakeholder roles and direct access to information on agricultural capacity in handling harvest and post-harvest, and (2) to determine the influence of stakeholder roles and access to information on farmers' capacity in handling harvest and post-harvest through.

RESEARCH METHOD

This research was carried out in Majalengka Regency, The location of this research was determined purposively on the basis that Majalengka Regency is one of the gedong gincu mango production centers in West Java and has entered the export market. The research was conducted in Majalengka District and Panyingkiran District as areas that consistently supply gedong gincu mangoes to exporters in Cirebon Regency. The research

was carried out in the 1st and 2nd weeks of August 2023. The population of this research was gedong gincu mango farmers who had partnered with exporters, namely 30 farmers. The sampling method was carried out using a census of a small research population so that the population size was used as the sample. The sample size came from Majalengka District, 8 farmers, and 22 farmers from Panyingkiran District.

The research design used is descriptive quantitative and associative. Data analysis using path modeling (path analysis) data processing using the SPSS v.26 for Windows application. The variables in this research include the role of stakeholders (X1), access to information (X2), farmer behavior (Y), and farmer capacity in handling harvest and post-harvest (Z). The instrument used was a structured questionnaire using a Likert scale of 1 to 5 (response strongly disagree to response strongly agree). The framework for thinking in this research is in Figure 1.

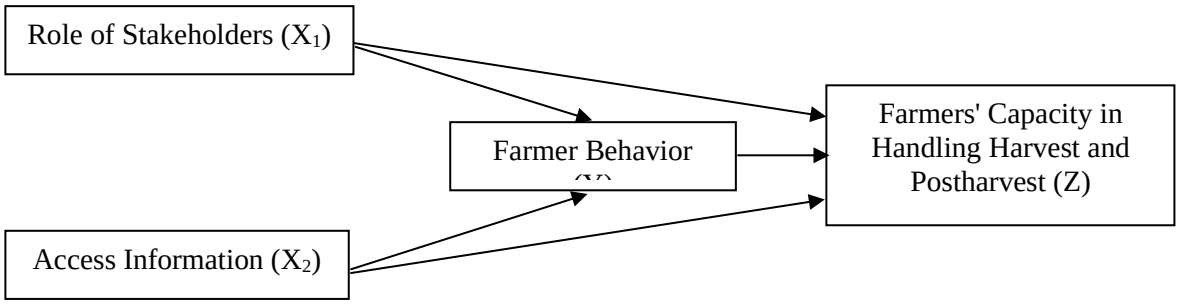

Figure 1. Framework of Thought

Path analysis consists of two paths, namely (1) the first path is the influence of variables X1 and X2 on Y; and (2) the second path is the direct influence of X1, X2, and Y on Z.

The hypothesis of this research is:

1. H0 : There is no direct influence on the role of stakeholders and simultaneous access to information on farmers' capacity in handling harvest and post-harvest.
   H1 : There is a direct influence on the role of stakeholders and simultaneous access to information on farmers' capacity in handling harvest and post-harvest.
2. H0 : There is no direct influence on the role of stakeholders and partial access to information on farmers' capacity in handling harvest and post-harvest.
   H1 : There is a direct influence on the role of stakeholders and partial access to information on farmers' capacity in handling harvest and post-harvest.
3. H0 : There is no influence of the role of stakeholders and simultaneous access to information on farmers' capacity in handling harvest and post-harvest through farmer behavior
   H1 : There is a partial influence of the role of stakeholders and access to information on farmers' capacity in handling harvest and post-harvest through farmer behavior.

Based on the framework in Figure 1, it can then be described in the operationalization of the variables in Table 1.

Table 1. Variable Operational Overview

Variable	Variable Type	Indicator	Data Scale
Role of stakeholders	Exogenous (independent variable)	Assistance program	Ordinal
		Counseling	Ordinal
Access information	Exogenous (independent variable)	Quality perception	Ordinal
		Technology	Ordinal
		Market	Ordinal
		Price	Ordinal
Farmer behavior	Intervening (between variables)	Perilaku	Ordinal
		Attitude	Ordinal
		Skill	Ordinal
Farmers' capacity in handling harvest and postharvest	Endogenous (dependent variable)	Harvest age	Ordinal
		Picking	Ordinal
		Sorting	Ordinal
		Grading	Ordinal
		Pest and disease management	Ordinal
		Packaging	Ordinal

RESULT AND DISCUSSION

Description of The Research Location

Majalengka Regency is one of the mango production centers in West Java Province. Since 2001, the Majalengka Regency Agriculture Service and the West Java Province Food Crop Agriculture Service have determined that gedong gincu mango is one of the superior fruit commodities. The Gedong Gincu mango plant has been owned by the majority of people. People plant mango trees in their yards and gardens. Currently, people intensively cultivate mangoes in gardens in the same area as plants in rice fields.

Farmer Characteristics

Farmer characteristics are the profiles of Gedong Gincu mango farming actors who were used as research samples. Farmer characteristics were studied based on age, education, experience, and number of gedong gincu mango tree owners.

Farmer's Age

Farmer age is the length of time the farmer lived until this research was conducted (Narti, 2015). The productive age tends to have stronger energy with a good level of innovation adoption (Susilowati, 2016). Age of gedong gincu mango farmers based on productive age in Table 2.

Table 2. Age of Mango Farmers

Number	Age (years old)	Amount (Person)	Percentage (%)	Label
1	30 – 64	28	93.33	Productive age
2	65 – 70	2	6.67	Unproductive age
	Amount	30	100.00	

Table 2 shows that the age range for gedong gincu mango farmers is 30 to 70 years. The productive age of farmers is in the range of 30 – 64 years, totaling 28 farmers

and the unproductive age is in the range of 65 – 75 years, totaling 2 farmers. This condition means that the average age of farmers is still in the productive category.

Farmer's Education

In general, formal education influences farmers' mindsets, this condition is because education is a process of developing farmers' knowledge, attitudes, and skills in a planned manner (Narti, 2015). Gedong gincu mango farmer educators in Table 3.

Table 3. Farmer Education

Number	Education	Amount (Person)	Percentage (%)
1	Elementary school	18	60.00
2	Junior High School	6	20.00
	Senior High School	6	20.00
	Amount	30	100.00

Table 3 shows that the majority of farmers' education is in elementary school. This condition means that the farmer's education level is in the low education category. Workers with higher education tend to avoid the agricultural sector (Susilowati, 2016).

Farmer's Experience

Farmer experience is the length of time farmers spend pursuing their work as farmers (Yulida, 2012). Farmers with long experience tend to be able to carry out their farming effectively and efficiently. The experience of gedong gincu mango farmers is in Table 4.

Table 4. Farmers Experience

Number	Experience (Year)	Amount (Person)	Percentage (%)
1	3 – 15	13	43.33
2	16 – 27	10	33.33
	28 – 40	7	23.33
	Amount	30	100.00

Table 4 shows that the most experience is between 3 and 15 years with a percentage of 43.33%. Farmers' farming experience at the research location began with cultivating mango plants in their yards and then working more seriously on their gardens as a source of livelihood.

Number of Tree Holding

The scale of farming carried out by gedong gincu mango farmers can be illustrated by the level of ownership. The average farmer's tree ownership is more than 100 trees planted on his orchard with a spacing of 10x10 meters. The number of gedong gincu mangoes owned by farmers is shown in Table 5.

Table 5. Number of Tree Holding

Number	Number of trees	Amount (Person)	Ownership	Percentage (%)
1	50 – 100	8	Low	27.67
2	101 – 150	12	Medium	40.00
	151 – 200	10	High	33.33
	Amount	30		100.00

Table 5 shows that the largest ownership of gedong gincu mango trees is 101 to 150 trees with a percentage of 40%. The level of mango tree ownership can influence farming costs and farmers' income levels.

Path Analysis

Path analysis is used to analyze causal relationships that occur in the context of regression if the independent variable influences the dependent variable either directly or indirectly. Direct influence occurs if one variable influences another variable without a third variable mediating (intervening) the relationship between the two variables, while indirect influence occurs if there is a third variable mediating (Sugiyono, 2019).

Path analysis consists of the first path and the second path. The first path includes stakeholder role variables, and access to information as independent variables, and farmer behavior variables as dependent variables. The second path includes the variables of stakeholder role, access to information and farmer behavior as independent variables and the variable of farmer capacity in handling harvest and post-harvest gedong gincu mango as the dependent variable.

The research data is an ordinal scale so before testing the data quantitatively, data transformation is first carried out using the Method of Successive Interval (MSI) which aims to transform ordinal data into interval data.

First Path Analysis

The results of path analysis can be seen from the regression coefficient values. The relationship between variables in the first path is in Table 6.

Table 6. First Path Coefficient of Determination

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.605[a]	.366	.319	2.445205

a. Predictors: (Constant), Akses_Informasi, Peran_Stakeholder

Table 6 shows that the correlation value is in the range of 0.600 – 0.799, meaning a strong correlation. The proportion of influence exerted by the independent variable is 0.366 or 36.6% and around 63.4% is influenced by other variables. Then the first path coefficient is in Table 7.

Table 7. First Path Coefficient

Coefficients[a]					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1(Constant)	-4.531	7.585		-.597	.555
Role_of_Stakeholder	.113	.045	.391	2.525	.018
Access_Information	.527	.158	.517	3.342	.002

a. Dependent Variable: Perilaku_Petani

Table 7 contains values that can be used for path analysis, namely the Standardized Coefficients Beta value for the stakeholder role variable is 0.391 and the information access variable is 0.517.

Second Path Analysis

The results of the second path analysis show that the regression coefficient values and variable relationships in the second path can be seen in Table 8.

Table 8. The Second Path Determination Coefficient

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.777[a]	.603	.557	3.583293

a. Predictors: (Constant), Perilaku_Petani, Peran_Stakeholder, Akses_Informasi

Table 8 shows the magnitude of the correlation between 0.600 – 0.799, indicating that there is a strong relationship. The proportion of influence exerted by independent variables is 0.603 or 60.3% and around 39.7% is influenced by variables outside the research variables. This second path coefficient can be seen in Table 9.

Table 9. Second Path Coefficient

Coefficients[a]					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1 (Constant)	27.591	11.188		2.466	.021
Role_of_stakeholders	-.177	.073	-.336	-2.421	.023
Access_Information	.779	.275	.420	2.836	.009
Farmer_Behavior	.809	.282	.445	2.869	.008

a. Dependent Variable: Kapasitas

Table 9 shows the values that will be used for path analysis the Standardized Coefficients Beta value for the Stakeholder Role variable is 0.336, Access to Information is 0.420 and Farmer Behavior is 0.445.

Based on the data in Table 8 and Table 9, a Sobel test can be carried out to test whether the intervening variable is suitable for use or not. The results of the sobel test are in Table 10.

Table 10. Sobel Test

Subpath	Sobel Test Statistic	One-tailed probability	Two-tailed probability
Intervening to X1 – Y	1.88	0.02	0.05
Intervening to X2 – Y	2.17	0.01	0.02

Table 10 shows that the Sobel test value of the farmer behavior variable as a mediating variable shows that the one-tailed probability and two-tailed probability values are smaller than 0.05, meaning that the farmer behavior variable can be used as an intervening variable that mediates between the influence of X1 on Y and the influence of X2. towards Y.

Path Diagram

The data analysis output in Table 7 and Table 9 on the Standardized Coefficients values will be used in the path diagram. The Standardized Coefficients value can be used to determine the influence and effective contribution given by the independent variable to the dependent variable in effect at that time with the existing sample (Kuncoro and Riduwan, 2014). Each path has an error value, namely other factors that influence the dependent variable, obtained by taking the root of 1 minus the value of the Coefficient of Determination.

Path analysis diagram in Figure 2.

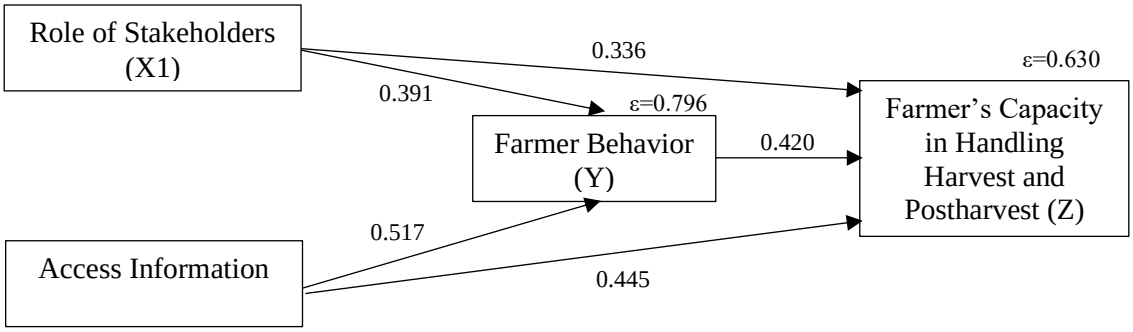

Figure 2. Path Diagram

Figure 2 shows the structural form of the route which consists of 2 (two) sub-structural elements, namely:

1. The first path equation is: Y = 0.391 + 0.517 + 0.796
2. The second path equation is: Y = 0.336 + 0.420 + 0.445 + 0.630

The path coefficient values based on direct influence and through intervening variables can be explained in Table 11.

Table 11. Path Coefficient Value

Influence of Variable	Direct Influence	Through intervening	Path Value
X1 – Y	0.336	(0.391 × 0.420) = 0.164	0.500
X2 – Y	0.445	(0.517 × 0.420) = 0.217	0.662
Y – Z	0.420		0.420

Table 11 shows the path coefficient values for direct influence and intervening variables. Direct path analysis is the coefficient of variables directly influencing Y, while indirect path analysis is through intervening variables. The coefficient value through intervening is the result of multiplying the coefficient X to Y with the coefficient Y to Z. Table 10 explains that the influence of stakeholder roles on farmers' capacity in handling harvest and post-harvest directly is 0.336 and through farmer behavior is 0.164 with a total influence of 0.500. The influence of access to information on farmers' capacity in handling harvest and post-harvest is 0.445 directly and through farmer behavior is 0.217 with a total influence of 0.662 and the influence of farmer behavior variables is 0.420. The results of the second path analysis have the greatest variable influence compared to the first path.

Direct Influence

The variables of stakeholder role and access to information directly influence farmers' capacity in handling harvest and post-harvest gedong gincu mango. The role of stakeholders is a step taken by the government to support the production of gedong gincu mangoes in terms of quality, quantity, and continuity so that they can meet market standards desired by consumers. The role of these stakeholders includes extension activities carried out by extension workers with indicators as facilitators, innovators, motivators, dynamists, and educators (Dewi et al., 2023). Activities carried out by extension workers include assisting to Gedong Gincu mango farmer groups so that they can produce good quality harvests with post-harvest handling that can minimize the level of damage to Gedong Gincu mango fruit. Activities carried out by extension workers are considered important to increase farmers' knowledge of the techniques of cultivating

Gedong Gincu mangoes until post-harvest so that farmers can increase their competitiveness (Barokah et al., 2021).

Apart from that, the government's technical role is to provide programs in the form of equipment assistance that can support the harvest and post-harvest processes. The assistance program provided by the government through related agencies aims to facilitate the harvest and post-harvest processes to make them more effective and efficient (Awaliyah, 2018). Facts in the field found that farmers experienced limited use of tools to support harvest and post-harvest activities so farmers did not use good harvest and post-harvest techniques. Farmers in the research location have not received assistance from the harvest and post-harvest supporting equipment program, so farmers use simple personal tools, including a pole rake, so they cannot pay attention to the standard condition of the mango stalks. Then, in the transportation aspect, only sack containers are used, which causes a high risk of gedong gincu mangoes becoming bruised and unable to be sold.

Access to information on gedong gincu mangoes is also very necessary for farmers to be able to know the market conditions for the mango commodities that farmers produce. Access to this information includes price information, technology information, and quality perceptions (Kusumo et al., 2018). Gedong gincu mango is a fruit commodity that has a higher price compared to other types of mango. This high price is caused by the demand for gedong gincu mangoes and more complicated harvesting patterns (Sholiha and Charina, 2018). Farmers believe that the price factor is more dominant in encouraging farmers to use good harvesting and post-harvest techniques. Farmers already understand the technology needed and understand the good quality of gedong gincu mango fruit, but farmers still have limited access to this technology. Farmers generally use harvest and post-harvest techniques when there are comparable price conditions.

Indirect Influence

The variables of stakeholder role and access to information influence farmers' capacity in handling harvest and post-harvest gedong gincu mango through farmer behavior. This indirect effect has an intervening variable that mediates between the independent variable and the dependent variable. This intervening variable is farmer behavior as a factor that can determine the way farmers handle the harvest and post-harvest of gedong gincu mango. Farmer behavior consists of aspects of knowledge, attitudes, and skills(Wawan and Dewi, 2010). The farmer's level of knowledge is formed from various information they have received, the more information they receive, the better their level of knowledge regarding harvest and post-harvest gedong gincu mango (Situmorang and Septiani, 2021). Sources of information are obtained from various parties, including agricultural extension workers because farmer knowledge is the basis for farmer behavior in handling harvest and post-harvest.

Farmer attitudes are the tendency to choose various alternatives based on information known to farmers (Maharani et al., 2020). Farmers tend to always choose based on what they think is better. Various knowledge and attitudes will form farmers' skills in handling harvest and post-harvest (Sholiha and Charina, 2018)..

CONCLUSION

The results of the research have been described so that there are several points of conclusion including (1) the role of stakeholders and access to information has a direct influence on farmers' capacity in handling harvest and post-harvest, and (2) the role of

stakeholders and access to information has an indirect effect on farmers' capacity in handling harvest and post-harvest through farmer behavior.

Based on the results and discussion, it can be recommended that (1) strengthen the information system to change farmer behavior to increase farmer capacity in harvesting and post-harvest, and (2) future researchers can conduct research related to strategies for controlling access to agricultural information for farmers.

REFERENCES

Amalia, R. R., Hairiyah, N., & Nuryati, N. (2018). Analisis Kerusakan Mekanis dan Umur Simpan Pada Rantai Pasok Buah Naga di Kabupaten Tanah Laut. Industria: Jurnal Teknologi Dan Manajemen Agroindustri, 7(2), 107–115.

Andriani, R., Rasmikayati, E., Mukti, G. W., & Fatimah, S. (2019). Faktor-Faktor yang Mempengaruhi Keputusan Petani Mangga dalam Pemilihan Pasar di Kabupaten Indramayu. Jurnal Penyuluhan, 15(2), 286–298.

Ariningsih, E., Saliem, H. P., Maulana, M., & Septanti, K. S. (2021). Kinerja Agribisnis Mangga Gedong Gincu dan Potensinya sebagai Produk Ekspor Pertanian Unggulan. Forum Penelitian Agro Ekonomi, 39(1), 49–71.

Awaliyah, F. (2018). Gedong Gincu di Kabupaten Cirebon Agibusiness Of Gedong Gincu Manggo Comodities In Cirebon Regency Fitri Awaliyah. 1(2), 129–141.

Baihaqi, B., Desparita, N., Fridayati, D., Akmal, A., & Hakim, S. (2022). Kajian Strategi Penerapan Teknologi Pascapanen pada Rantai Pasok Kopi Ditinjau dari Aspek Nilai Tambah dan Susut Pasca Panen. Jurnal Teknologi Pengolahan Pertanian, 4(1), 18–28.

Barokah, I., Sendja, T. P., & Andayani, S. A. (2021). Kinerja Bauran Pemasaran Para Pengumpul Dalam Meningkatkan Daya Saing Dan Omzet Penjualan Mangga Gedong Gincu The Collector's Marketing Mix Performance In Improving The Competitiveness And Turnover Of Gedong Gincu Mango Sales. OrchidAgri, 1(1), 34–45.

Dewi, R. W. K., Prasetyo, H., & Fibrianingtyas, A. (2023). Peran Penyuluh Terhadap Peningkatan Kelas Kemampuan Kelompok Tani (Kasus Di Desa Branggahan, Kecamatan Ngadiluwih, Kabupaten Kediri). Jurnal Ekonomi Pertanian Dan Agribisnis, 7(2), 493–504.

Kuncoro, E. A., & Riduwan. (2014). Cara Menggunakan dan Memakai Path Analysis (Analisis Jalur) (Cetakan ke). Alfabeta.

Kusumo, R. A. B., Rasmikayati, E., Mukti, G. W., Fatimah, S., & Saefudin, B. R. (2018). Faktor-Faktor yang mempengaruhi keputusan petani mangga dalam menggunakan teknologi off season di Kabupaten Cirebon. Mimbar Agribisnis: Jurnal Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis, 4(1), 57–69.

Maharani, F. D., Sulistyaningsih, E., & Prayitno, H. (2020). Gambaran Karakteristik, Pengetahuan, Dan Sikap Petani Pengguna Pestisida Di Kecamatan Pasirian Kabupaten Lumajang. Multidisciplinary Journal, 3(2), 71–74.

Narti, S. (2015). Hubungan karakteristik Petani dengan Efektivitas Komunikasi Penyuluhan Pertanian dalam Program SL-PTT (Kasus Kelompok Tani di Kecamatan Kerkap Kabupaten Bengkulu Utara). Jurnal Professional FIS UNIVED, 2(2), 40–52.

Rasmikayati, E., Mukti, G. W., & Saefudin, B. R. (2018). Faktor Penentu Dinamika Perilaku Agribisnis Petani Mangga di Kecamatan Greged Kabupaten Cirebon. Sumber, 7, 71.

Sa'diah, S. A., & Tamami, N. D. B. (2020). Proyeksi Ekspor Beras Nasional Melalui Gerakan Tiga Kali Lipat Ekspor (Gratieks) Pertanian Indonesia. Jurnal Pamator: Jurnal Ilmiah Universitas Trunojoyo, 13(2), 159–169.

Sholiha, M., & Charina, A. (2018). Perilaku Petani Mangga Gedong Gincu dalam Menghadapi Masyarakat Ekonomi ASEAN (Mea) 2015 (Studi Kasus Gapoktan Sami Mulya, Kecamatan Sedong, Kabupaten Cirebon). Jurnal Ilmiah Mahasiswa Agroinfo Galuh, 4(3), 779–786.

Situmorang, B., & Septiani, E. (2021). Faktor-Faktor yang Mempengaruhi Perilaku Penggunaan Alat Pelindung Diri (APD) pada Pekerja Sektor Pertanian: A Systematic Review.

Sugiyono. (2019). Metode Penelitian Kuantitatif, Kualitatif dan R&D (M. Dr.Ir. Sutopo, S.PD (ed.); 1st ed.). ALPABETA.

Supriatna, A. (2010). Analisis Pemasaran Mangga "Gedong Gincu"(Studi Kasus di Kabupaten Cirebon, Jawa Barat). Agrin, 14(2).

Susilowati, S. H. (2016). Fenomena penuaan petani dan berkurangnya tenaga kerja muda serta implikasinya bagi kebijakan pembangunan pertanian.

Waryat, W., & Nurawan, A. (2022). Keragaan Penanganan Pasca Panen Mangga di Kabupaten Cirebon. Jurnal Ilmiah Respati, 13(1), 64–74.

Wawan, A., & Dewi, M. (2010). Teori dan pengukuran pengetahuan, sikap dan perilaku manusia. In Yogyakarta: Nuha Medika (Vol. 12). Nuha Medika.

Yulida, R. (2012). Kontribusi usahatani lahan pekarangan terhadap ekonomi rumah tangga petani di Kecamatan Kerinci Kabupaten Pelalawan. IJAE (Jurnal Ilmu Ekonomi Pertanian Indonesia), 3(2), 135–154.