Jurnal Mantik, 7 (2) (2023), ISSN 2685-4236 (Online)

Published by:Institute of Computer Science (IOCS)

Jurnal Mantik

Journal homepage: www.iocscience.org/ejournal/index.php/mantik

The effects of horticultural farmer group performance on motivation, training, and production facilities

Hironimus Mawo Dopo[1], Philipus Tulle[2], Gaudensius Djuang[3]
[1,2,3] Management Department, Faculty of Economics & Business, Universitas Katolik Widya Mandira, Kupang, Indonesia

A R T I C L E I N F O

Article history:

Accepted Jul 11, 2023
Revised Jul 24, 2023
Accepted Aug 04, 2023

Keywords:

Motivation;
Training;
Production Facilities;
Performance.

ABSTRACT

The objective of this research was to learn more about the West Miomaffo District, North Central Timor Regency's horticultural farmers' motivation, training, production capabilities, and performance. With a population of 4,160 and a sample of 94 respondents, this study falls within the quantitative research area. The descriptive analysis's findings demonstrate that farmers had positive perceptions of the factors of motivation, training, production capabilities, and farmer performance. While the results of the inferential analysis demonstrate a significant linear relationship between Horticultural Farmer Performance (Y) and the variables Motivation (X1), Training (X2), and Production Facilities (X3), the results of the t test demonstrate a positive correlation between each of these variables and Horticultural Farmer Performance (Y).

Corresponding Author:

Hironimus Mawo Dopo,
Management Department, Faculty of Economics & Business, Kupang, Indonesia
Universitas Katolik Widya Mandira,
Jend. A. Yani Street Number 50-52, Kupang City 85225
Email: erwinmawo@gmail.com

1. INTRODUCTION

Agriculture is one of the most important sectors in Indonesia because the agricultural sector is the source of livelihood for most people (Mahendra, 2021; Mushoddaq et al., 2023). Other factors supporting the importance of this sector include the potential for abundant and diverse natural resources, a sizeable part of national income and exports, the provision of food for the community, and its potential to spur growth in rural areas (Dewi et al., 2017). In reality, the agriculture industry has a large worker pool. 38.23 million Indonesians, or around 29.76% of the population, are employed in agriculture (Sepriani & Yuliawati, 2022) The expanding possibilities of the agricultural sector and the rise in demand for agricultural goods are correlated. Public knowledge of the need of consuming nutritious and high-nutrient foods is the foundation for increased consumption (Ilyas, 2022). The numerous changes in a number of agricultural sub-sectors, including food crops, horticulture, plantations, and animals, provide as proof for this. Today's agricultural development is regarded as having a more dynamic performance (Sudaryanto et al., 2018). Unfortunately, due to the nature of farmers who still use traditional land management techniques, a lack of knowledge about agricultural technology, and the limitations of contemporary agricultural production facilities, small agricultural production and low farmer incomes detract from the performance of

agricultural development (Artawan et al., 2018; Lestari et al., 2019; Ndun et al., 2021; Suranny, 2017)

The state of horticulture growers in the West Miomaffo District also provides a summary of Indonesia's agriculture sector. Pre-research findings at the study site indicate that horticulture producers' productivity in the West Miomaffo District has not been maximized.

From 2017 to 2021, there will be consistent ups and downs in the production of horticulture crops for vegetables and garlic in different ways. Tomato plant production fell for two years in a row before rising for the next two years. In the past three years, chili production has consistently fallen.

According to preliminary findings, the decrease in horticulture crop yield was caused by: Inadequate land use for agricultural business activities, a lack of assistance for cultivating the land. The industrial processes are still done manually (with a crowbar, iron, or hoe). Because agricultural business operations have not been conducted extensively, crop production is still relatively low (and therefore not at its highest level given yield potential). Lack of human resource capacity as a result of insufficient coaching and mentoring Horticultural output is not at its best since horticultural cultivation is still small-scale, conventional, and lacking in enthusiasm. This circumstance demonstrates that there are numerous barriers to changing farmers' attitudes and work habits, including a lack of drive, a lack of education, and help with agricultural innovation or technology. Lack of equipment needed by farmers to cultivate agricultural land, such as tractors and cultivators Some farmers have knowledge or abilities, but they haven't been able to properly go beyond roadblocks to inspire other farmers to advance.

2. RESEARCH METHOD

The population is the entire research subject, while the sample is part of the population. (Amaral et al., 2021; Amaral & Watu, 2021; Lejap et al., 2021; Sugiyono, 2019) Quantitative survey research is the sort of study used. The population in this study were all 1,542 farmers in West Miomaffo District and North Central Timor District. Using the Slovin equation, the minimum sample of 1,542 people at a 10% margin of error is 93.90, or rounded up to 94 farmer. Techniques for gathering data included questionnaires, document analyses, and interviews. The farmers themselves received questionnaires. This study was carried out between January and June of 2023, and all data were analyzed using SPSS regression version 25.

3. RESULTS AND DISCUSSIONS

Data analysis in this study used SPSS 25 with the following results:

Tabel 1 Characteristic respondent

Description	Description	Description
Gendre		
Male	64	68, 08
Female	30	31,91
Age		
26 – 35 years old	10	10,63
36 – 45 years old	19	20,21
46 – 55 years old	32	34,04
56 – 65 years old	26	27,65
66 – 77 years old	7	7,44
Last Education Level		
Elementary school	54	57,44
Junior High School	20	21,27
Senior High School	19	20,21

Bachelor	1	1,06
Agricultural land area		
1-5 a	76	80,85
6-10 a	17	18,08
11-15 a	1	1,06
Agricultural production		
< 100 kg	79	84,04
100-250 kg	14	14,89
250-500 kg	1	1,06

Source: Reesearch Results

Based on the description of the respondents characteristics data, it can be concluded that most of the respondents were male, aged 46-55 years, graduated from elementary school, owned 1-5 a of agricultural land, and had a total production of <100 kg.

Tabel 2. Validity and Reliability Test

Variabel	r-table	r-count
Performance		
P1	0,300	0,505
P2	0,300	0,575
P3	0,300	0,728
P4	0,300	0,596
P5	0,300	0,675
P6	0,300	0,434
P7	0,300	0,524
P8	0,300	0,509
P9	0,300	0,728
P10	0,300	0,596
P11	0,300	0,675
Cronbach's Alpha Reliability Statistics		0,819
Motivation		
P1	0,300	0,674
P2	0,300	0,643
P3	0,300	0,628
P4	0,300	0,564
P5	0,300	0,689
P6	0,300	0,623
P7	0,300	0,561
P8	0,300	0,691
Cronbach's Alpha Reliability Statistics		0,786
Training		
P1	0,300	0,550
P2	0,300	0,581
P3	0,300	0,605
P4	0,300	0,567
P5	0,300	0,576
P6	0,300	0,561
P7	0,300	0,536
P8	0,300	0,588
Cronbach's Alpha Reliability Statistics		0,704
Production Facilities		
P1	0,300	0,737
P2	0,300	0,672
P3	0,300	0,623
P4	0,300	0,730
P5	0,300	0,604
P6	0,300	0,672
Cronbach's Alpha Reliability Statistics		0,758

Source: Reesearch Results

Tabel 3 Descriptive statistical analysis

Variable	question items	$\overline{X}$ Ps-p	Kategori	Ps-p	Category
Performance	P1	3,3936	Good	68,90	Good
	P2	3,5957			
	P3	3.4149	Good enough		
	P4	3,3617			
	P5	3,4468			
	P6	3,4468	Good		
	P7	3,3511			
	P8	3,6596			
	P9	3,4149			
	P10	3,3617	Good		
	P11	3,4468			
Variable	question items	$\overline{X}$ Ps-p	Kategori	Ps-p	Category
Motivation	P1	3,5638	Good	70,56	Good
	P2	3,6702			
	P3	3,5532	Good enough		
	P4	3,2021			
	P5	3,5957	Good		
	P6	3,6809			
	P7	3,2447	Good		
Variable	question items	$\overline{X}$ Ps-p	Kategori	Ps-p	Category
Training	P1	3,9149	Good	72,82	Good
	P2	3,7872			
	P3	3,5106	Good		
	P4	3,6277			
	P5	3,5213	Good		
	P6	3,6170			
	P7	3,5319	Good		
Variable	question items	$\overline{X}$ Ps-p	Kategori	Ps-p	Category
Production Facilities	P1	3,3723	Good	70,92	Good
	P2	3,7553			
	P3	3,5532	Good		
	P4	3,6064			
	P5	3,4362	Good		

Source: Reesearch Results

Validity refers to the extent to which a research instrument actually measures what it is supposed to measure, while reliability refers to how consistent the results of the research are when repeated in the same way. (Hair, Jr., et al., 2014; Hair, Sarstedt, et al., 2014; Sanaky, 2021; Sugeng, 2014)

Tabel 5. Multiple linear regression test

Coefficients[a]						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.623	.219		7.400	.000
	Motivation	.348	.067	.412	5.188	.000
	Training	.342	.076	.367	4.500	.000
	Production Facilities	.151	.067	.174	2.263	.026

a. Dependent Variable: Performance

Source: Reesearch Results

According to Multiple linear regression test, the equations of Multiple linear regression Y = 0,412X_1 + 0,367X_2 + 0,174X_3. The t-test results for the variable Motivation (X_1) show a value of 5.188 and a significance level of 0.000, which is lower than the threshold used, 5% (0.000 0.05), indicating that the variable Motivation significantly and positively affects the performance of horticultural farmers in the Miomaffo District West of North Central Timor. The research of Goni et al., (2021) and Syardiansah et al., (2021), whose research results are in accord, supports the findings of this study, which are that motivation has a favorable and significant impact on performance. The Training variable's (X_2) results from the t-test reveal a value of 4.500 and a significance level of 0.000, which is lower than the threshold chosen, which is 5% (0.000 0.05). In other words, the performance of horticultural farmers in West Miomaffo District, North Central Timor Regency, is positively and significantly impacted by the training variable. The outcomes of this variable test are consistent with the findings of Darmawan et al., (2017), who found that training significantly and favorably affects performance.FoEh et al., (2021) and Manafe et al., (2022) also found similar results. The t test results for the variable Production facility (X_3) show a t-count value of 2.265 and a significance level of 0.026, which is lower than the 5% (0.0260.05) level used, where the variable of production facilities has a positive and significant impact on Farmer Performance in Horticulture in West Miomaffo District, North Central Timor Regency. The findings of Silvano, (2018), Tisu, (2020) and Asmar et al., (2021)'s research, which revealed that production facilities have a favorable and significant impact on performance, are consistent with those of this study.

Tabel 7. F Test

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	28.495	3	9.498	53.662	.000[b]
	Residual	15.930	90	.177		
	Total	44.426	93			

Source: Reesearch Results

Based on the simultaneous test (Test F) a value of 53.662 is found with a significance level of 0.000, which is less than the 5% cutoff (0.0000.05), allowing the regression model to be applied to the productivity of horticultural farmers in West Miomaffo District, Regency North Central Timor. As a result, farmer performance variables (Y) are positively and significantly impacted by the variables of motivation, training, and production facilities at the same time.

Tabel 8 Coefficient of determination tes

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change
1	.801[a]	.641	.629	.4207174	.641

Source: Reesearch Results

The coefficient of determination (R^2) in the output of the summary model is 0.629. This number explains that three independent variables—motivational variables (X_1), training (X_2), and production facilities (X_3)—contribute 62.9% of the Horticulture Farmer Performance variable in West Miomaffo District, North Central Timor Regency, while the remaining 37.1% is explained by other variables not examined in this study.

4. CONCLUSION

The results of the descriptive analysis provide an overview of the category (PS-P) variables of farmer performance, motivation, training, and production facilities, which are categorized as good. Variables of motivation (X_1), training (X_2), and production facilities (X3) partially have a positive and significant effect on the performance of horticultural farmers in West Miomaffo District, North Central Timor Regency. When compared with the hypothesis made, the hypothesis in this study is proven. Variables of motivation (X1), training (X2), and production facilities (X_3) simultaneously have a positive and significant effect on the performance of horticultural farmers in West Miomaffo District, North Central Timor Regency. When compared with the hypothesis made, the hypothesis in this study is proven. The contribution of motivation, training, and production facilities to the performance of horticultural farmers in West Miomaffo District, North Central Timor Regency, is 62.9%, while the remaining 37.1% is explained by other variables not included in this study. Future studies should consider including additional factors such work stress, workload, and work discipline.

REFERENCES

Amaral, M. A. L., Goetha, S., Watu, E. G. C., & Fallo, A. (2021). Faktor-Faktor Pembentuk Perilaku Pelanggan "Pinnochio" Di Kupang. *Jurnal Manajemen*, *17*(2), 98–114. https://doi.org/10.25170/jm.v17i2.1844

Amaral, M. A. L., & Watu, E. G. C. (2021). Pengaruh Performance Expectancy, Effort Expectancy, Social Influence Dan Trust Terhadap Niat Berkelanjutan Menggunakan Fdas Pada Masa Pandemi Covid-19. *Sebatik*, *25*(2), 562–570. https://doi.org/10.46984/sebatik.v25i2.1510

Artawan, G. B. A. B., Tika, I. W., & Sucipta, N. (2018). Pengolahan Tanah Menggunakan Bajak Singkal Lebih Sedikit Memerlukan Air Irigasi daripada Bajak Rotary. *Jurnal BETA (Biosistem Dan Teknik Pertanian)*, *7*(1), 120. https://doi.org/10.24843/jbeta.2019.v07.i01.p01

Asmar, A. H., Kamase, J., & Dewi, R. (2021). *Pengaruh Gaya Kepemimpinan, Fasilitas Kerja, Dan Kepuasan Kerja Terhadap Kinerja Pegawai Sekertariat Daerah Kabupaten Pinrang*. *2*(1), 133–145.

Darmawan, Y. Y., Supartha, W. G., & Rahyuda, A. G. (2017). PRAMA SANUR BEACH -BALI Fakultas Ekonomi dan Bisnis Universitas Udayana , Bali , Indonesia Email : yunidarmawan@yahoo.com. *E-Jurnal Ekonomi Dan Bisnis Universitas Udayana*, *3*, 1265–1290.

Dewi, R. F., Prihanto, P. H., & Edy, J. K. (2017). Analisis penyerapan tenaga kerja pada sektor pertanian di Kabupaten Tanjung Jabung Barat. *E-Jurnal Ekonomi Sumberdaya Dan Lingkungan*, *5*(1), 19–25. https://doi.org/10.22437/jels.v5i1.3925

FoEh, J. E., Meutia, K. I., & Basuki, R. (2021). Faktor-Faktor Yang Mempengaruhi Kinerja Karyawan RSUD S.K. Lerik Kota Kupang. *Jurnal Kajian Ilmiah*, *21*(3), 275–292.

Goni, G. H., Manoppo, W. S., & Rogahang, J. J. (2021). Pengaruh Motivasi Kerja terhadap Peningkatan Kinerja Karyawan pada PT. Bank Rakyat Indonesia Cabang Tahuna. *Productivity*, *2*(4), 330–335. https://ejournal.unsrat.ac.id/index.php/productivity/article/view/35047

Hair, J. F., Jr., H. G. T. M., Ringle, C. M., & Sarstedt, M. (2014). A primer on partial least squares structural equations modeling (PLS-SEM). Sage Publications. *Journal of Tourism Research*, *6*(2), 211–213.

Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, *26*(2), 106–121. https://doi.org/10.1108/EBR-10-2013-0128

Ilyas, I. (2022). Optimalisasi peran petani milenial dan digitalisasi pertanian dalam pengembangan pertanian di Indonesia. *Forum Ekonomi*, *24*(2), 259–266. https://doi.org/10.30872/jfor.v24i2.10364

Lejap, H. H. T., Amaral, M. A. L., Watu, E. G. C., Goetha, S., & Fallo, A. (2021). Determinant Factors of Mobile Banking Usage: Case Study in Kupang, East Nusa Tenggara. *Jurnal REP (Riset Ekonomi Pembangunan)*, *6*(2), 232–250. https://doi.org/10.31002/rep.v6i2.5457

Lestari, P. M., Irawati, R. P., & Mujimin, M. (2019). Transformasi Alat Pertanian Tradisional Ke Alat

Pertanian Modern Berdasarkan Kearifan Lokal Masyarakat Jawa Tengah. *Widyaparwa*, *47*(1), 1–10. https://doi.org/10.26499/wdprw.v47i1.312

Mahendra, D. (2021). Leksikon Pertanian Tradisional Suku Sasak Di Pulau Lombok: Kajian Etnolinguistik. *Jurnal Penelitian Sejarah Dan Budaya*, *7*(2), 164–193. https://doi.org/10.36424/jpsb.v7i2.243

Manafe, D., Tisu, R., Augustin, M., & Amaral, L. (2022). The Relationship Between Motivation and Organizational Culture on The Performance Employees Department of Tourism Kupang City Mediated by Job Satisfaction. *Instiute of Computer Science (IOCS) Enrichment:*, *12*(239), 1511–1516.

Mushoddaq, A. A., Sumekar, W., & Nurfadillah, S. (2023). Tingkat Kepuasan Petani Terhadap Kinerja Penyuluh Di Desa Purwosari Kecamatan Mijen Kota Semarang. *Jurnal Litbang Provinsi Jawa Tengah*, *20*(2), 239–253. https://doi.org/10.36762/jurnaljateng.v20i2.981

Ndun, A. A., Murtilaksono, K., Baskoro, D. P. T., & Hidayat, Y. (2021). Perencanaan Pertanian Konservasi pada Pengelolaan Lahan Tradisional di Kecamatan Amarasi Barat, Nusa Tenggara Timur. *Jurnal Ilmu Tanah Dan Lingkungan*, *23*(1), 7–17. https://doi.org/10.29244/jitl.23.1.7-17

Sanaky, M. M. (2021). Analisis Faktor-Faktor Keterlambatan Pada Proyek Pembangunan Gedung Asrama Man 1 Tulehu Maluku Tengah. *Jurnal Simetrik*, *11*(1), 432–439. https://doi.org/10.31959/js.v11i1.615

Sepriani, W., & Yuliawati. (2022). Penyerapan Tenaga Kerja Oleh Sektor Pertanian Tahun 2016-2021. *Jurnal Samudra Ekonomika*, *6*(1), 10–19.

Silvano, A. B. (2018). Analisis Pengaruh Motivasi, Kesejahteraan Dan Fasilitas Kerja Dalam Meningkatkan Kinerja Pegawai Pada Dinas Pekerjaan Umum Dan Penataan Ruang Kabupaten Blitar. *Jurnal Ilmu Manajemen Revitalisasi*, *07*(03), 199–208.

Sugeng. (2014). Metode Penelitian Pendidikan Matematika. In *Metode Penelitian Pendidikan Matematika*.

Sugiyono. (2019). *Metodelogi Penelitian Kuantitatif dan Kualitatif dan R&D*. Alfabeta.

Suranny, L. E. (2017). ALAT PERTANIAN TRADISIONAL SEBAGAI WARISAN KEKAYAAN BUDAYA BANGSA (Traditional of Agricultural Equipment as Nation Cultural Heritage Property). *Jurnal Penelitian Arkeologi Papua Dan Papua Barat*, *6*(1), 45–55. https://doi.org/10.24832/papua.v6i1.42

Syardiansah, S., Zati, M. R., & Tefu, A. F. (2021). Pengaruh Motivasi Eksternal, Pengembangan Karir, Kesehatan dan Keselamatan Kerja Terhadap Kinerja Karyawan. *Jurnal Manajemen Motivasi*, *17*(2), 46. https://doi.org/10.29406/jmm.v17i2.3425

Tahlim Sudaryanto, Sawit, M. H., Suyamto, Marwoto, B., Bahagiawati, Bahri, S., & Supriyadi. (2018). *Dinamika Kebijakan Pertanian*.

Tisu, R. (2020). Pengaruh Pelatihan, Fasilitas Kerja Dan Produktivitas Kerja Terhadap Kesejahteraan Anggota Sanggar "Bliran Sina" Watublapi, Kabupaten Sikka the Influence of Training, Work Facilities and Work Productivity on the Welfare of Sanggar Members "Bliran Sina" Wa. *Jurnal Inspirasi Ekonomi*, *2*(3), 2503–3123.