

5. HASIL CEK_60960140

by 60960140 Te

Submission date: 08-Aug-2022 11:07AM (UTC+0700)

Submission ID: 1880089201

File name: 5. TE-60960140-Application of Food Marketing Optimization using Analytical Hierarchy Process (AHP).pdf (787.94K)

Word count: 3209

Character count: 15983

PAPER · OPEN ACCESS

Application of Food Marketing Optimization using Analytical Hierarchy Process (AHP)

To cite this article: T Setiadi et al 2020 *J. Phys.: Conf. Ser.* **1566** 012127

View the [article online](#) for updates and enhancements.

You may also like

- 4 - [Research on the Multi-energy Management Strategy of Power Grid Enterprises in the New-type Electric Selling Market](#)
Ming Zeng, Yiqun Liu, Jiawen Ye et al.
- 6 - [Modeling ecohydrological dynamics of smallholder strategies for food production in dryland agricultural systems](#)
Drew B G, Jampel Dell'Angelo, Paul F McCord et al.
- 8 - [The influence of sustainable features on liquidity of houses in the Czech Republic](#)
T Jandaskova, T Hrdlicka and M Komosna



ECS Membership = Connection

ECS membership connects you to the electrochemical community:

- Facilitate your research and discovery through ECS meetings which convene scientists from around the world;
- Access professional support through your lifetime career;
- Open up mentorship opportunities across the stages of your career;
- Build relationships that nurture partnership, teamwork—and success!

Join ECS!

Visit electrochem.org/join



Application of Food Marketing Optimization using Analytical Hierarchy Process (AHP)

T Setiadi¹, Wasilah¹, A Tarmuji¹, A Fadlil² and F Noviyanto¹

¹ Informatics, Faculty of Industrial Technology, Universitas Ahmad Dahlan, Yogyakarta, Indonesia

² Electrical Engineering, Faculty of Industrial Technology, Universitas Ahmad Dahlan, Yogyakarta, Indonesia

Abstract. At present, the agricultural commodity marketing system in Indonesia is detrimental to farmers. Due to the low selling price due to its dependence on intermediaries. That dependency indicates the difficulty of farmers to obtain data or information related to the market. But now, the government has provided data on the commodity market for the public interest. This research seeks to provide alternative solutions by providing web-based decision support applications that can help farmers get optimum marketing in selling their commodities. The price and market location dataset and market conditions obtain by synchronizing data services for the Food Security & Counseling Agency (BKKP) in Yogyakarta. Application of decision models using AHP produces the best marketing decision recommendations in the form of market location and price, based on the location of the farmer's house and the condition of the commodity. System usability test results with 30 farmer respondents resulted in an average value of SUS 70.0, and SUPER-Q scored 79%. The application can be accepted by farmers to use.

1. Introduction

The market is the place where commodity trading (goods and services) transactions take place between the main players in the market, namely between the seller and the buyer. The seller and the buyer become the determinant of the price according to the bargaining power of each party. Other parties, such as the government, only provide facilities that play a role in facilitating efficient and effective transactions so that trading activities take place safely and in a controlled manner. Besides, the government stated that the marketing system for agricultural commodities in Indonesia tends to be weaker than marketing other commodities in the Indonesian economic chain (Martius, 2012).

The majority of farmers experience the same problem, which is always selling crops, especially rice, only to intermediaries or markets, which according to the farmers have become customers. These farmers are still very rare and have never even checked the price of their crops on the web or other internet sites. The problem of the lack of up to date market price information makes many farmers depend on intermediaries whose prices are much lower than the actual market

Based on these problems, this study provides an alternative solution utilizing market price data services provided by BKKP for the application of food crop marketing decision making with optimal market prices.

2. Literature review

Akinola, et al. (2014) Tumoka, N. (2013) analyzed the income of tomato farmers in Awangkoan Barat sub-district, Minahasa district. This study shows the amount of production and price of tomatoes has a



Content from this work may be used under the terms of the Creative Commons Attribution 3.0 licence. Any further distribution of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI.

15

significant effect both partially and simultaneously on the level of income of t₂₁ to farmers in Kawangkoan Barat District, Minahasa Regency. Hosang, et al. (2013) examined the impact of climate change on rice production in North Sulawesi province in 2013-2030. This research was conducted to calculate the rice needs of North Sulawesi Province in 2013-2030 and to conduct climate change scenarios to see the development of rice production in North Sulawesi Province. Ulfa, F. (2015) analyzed agricultural fluctuations in Bangkalan Regency. Zulus, et al. (2013) developed a Basic Food Price Information System at the Lubuk Linggau City Food Security Office, to produce fast, accurate, accurate and efficient information. The results obtained are by the hypothesis that is producing information that is fast and accurate.

3. Methods

The research method uses the Prototyping model. The stages include collecting food crop market price data through data services provided by BPKP. Making business processes, Making use case diagrams to illustrate system requirements, making activity diagrams to illustrate system workflows, Designing system architecture related to web services, Designing Entity Relationship Diagrams to manage data, Designing AHP models for decision models. After that, implement the system with PHP programming language, Black box Testing to test functional applications, and SUS testing for user acceptance.

4. Result and Discussion

4.1. Requirements Analysis

4.1.1.1. *User Requirements.* In the web-based crop selling price optimization system from the BKPP service data, there are two users, namely farmers and administrators. Users that include farmers who will access this system for the need to find or determine markets with optimal selling prices, administrators are users who give special authority to manage this system as a whole. In this case the relevant body is the Food and Retirement Agency (BKPP) in Yogyakarta.

4.1.1.2. *System Requirements.* In developing the optimization system for the selling price of food crops, the data needed is data on the price of food crops in the form of rice and secondary crops. Sample data taken are from provincial data, while the markets contained in BKPP data services are Beringharjo Market, Bantul Market, Sleman Market, Wates Market, and Argosari Market.

4.2. System Design

4.2.1.1. *Architectural Design.* In Figure 1. BKKPP Officers are seen renewing the sale price of food crops, market conditions, and current dates stored in the database. Farmers can access the optimization system of selling crop prices wherever and whenever they are connected to the internet network.

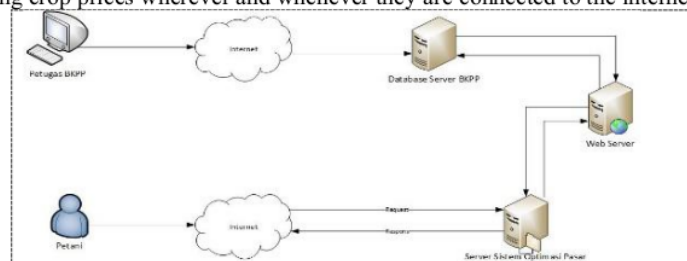


Figure 1. Web service architecture based web market optimization system.

4.2.1.2. Business Process Market Price Optimization for Harvesting of Food Crops

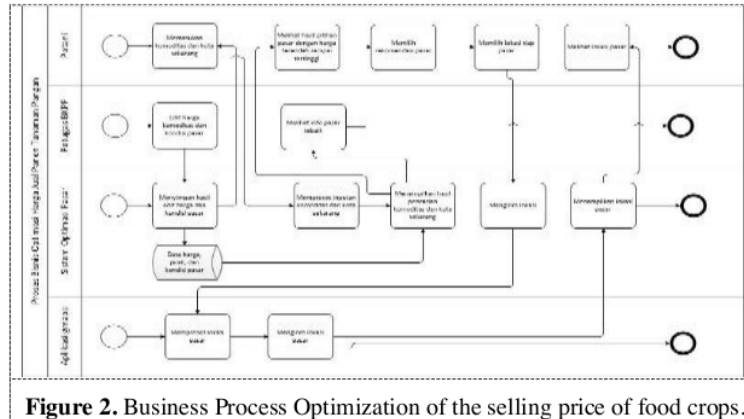


Figure 2. Business Process Optimization of the selling price of food crops.

BKPP officers update/edit commodity price data based on service data from BKPP, then stored in a database. Then with the data on the selling prices of food crops in the database, farmers can pass a market check by entering the commodity and the current city. Furthermore, the system processes the input of commodities entered by farmers, which will then display the results of the current commodity and city search. Farmers can see the results of market recommendations with the highest to lowest market ranking. Furthermore, farmers can see the location of each market.

4.2.1.3. Database Design. In the Entity-Relationship Diagram (ERD) in Figure 3, it can be explained that there are two entities namely market and market prices. Besides, there are multivalue attributes, namely location. Multivalue attributes are attributes that have multiple values. Commodities related to market prices. In a market entity there are multivalue attributes, namely location, in which there are attributes of each market's location.

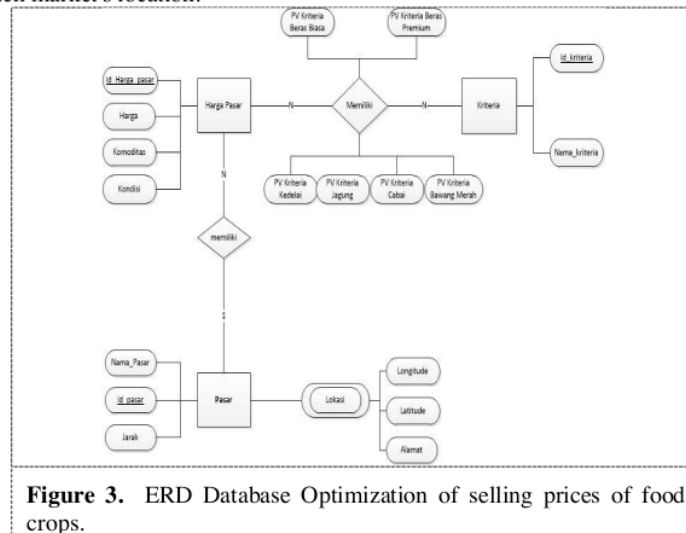


Figure 3. ERD Database Optimization of selling prices of food crops.

4.3. Implementation

The criteria, in this case, there are three criteria, namely selling price, distance traveled and market conditions.

4.3.1.1. Hierarchy Diagram



Figure 4. Diagram Hierarki Keputusan Pemilihan Pasar

4.3.1.2. AHP Calculation. AHP calculation in this study uses a comparison of criteria and sub-criteria, where each commodity has the value of the results of the comparison of criteria and sub-criteria. Here is one calculation for ordinary rice commodities. The following is a comparison table obtained from data processing based on the results of the questionnaire filled out by respondents.

Table 1. Criteria Comparison Table.

Criteria	Selling price	Mileage	Market Conditions
Selling price	1	5	3
Mileage	0,2	1	0,25
Market Conditions	0,33333333	4	1
amount	1,53333333	10	4,25

The criteria comparison table obtain, the next step is to measure the level of importance for each sub-criteria.

Table 2. Sale Price Sub Criteria Comparison Table.

Sub-Criteria	High	Medium	Low	Very Low
High	1	3	2	2
Medium	0,33	1	0,25	0,33
Low	0,5	4	1	2
Very low	0,5	3	0,5	1
amount	2,33	11	3,75	5,33

Table 3. Comparison Table for Mileage Sub Criteria.

Sub-Criteria	Far	Medium	Close	Very close
Far	1	3	2	2
Medium	0,33	1	0,2	0,5
Close	0,5	5	1	3
Very close	0,5	2	0,33	1
Amount	2,33	11	3,53	6,5

Table 4. Comparison Table Sub Criteria Market Conditions.

Sub-Criteria	Crowded	Normal	Quiet	Seldom
Crowded	1	3	2	3
Normal	0,33	1	0,25	0,33
Quiet	0,5	4	1	2

The next step is to normalize and so that we get weight from each sub-criteria and normalization criteria. Normalization is done by dividing the elements of each column with the total addition of these columns. They wrote on equations 1.

$$n_{ij} = \frac{a_{ij}}{\sum_{k=1}^n a_{kj}} \tag{1}$$

For $i = 1,2,3,\dots,n$ and $j = 1,2,\dots,n$

For example, to get n_{11} for the sub-criteria matrix of market conditions in table 5 is as follows:

$$n_{11} = \frac{a_{11}}{\sum_{k=1}^{10} a_{k1}} = \frac{1}{1 + 0,33 + 0,5 + 0,33} = 0,462$$

Table 5. Criteria Normalization Table.

Criteria	Selling price	Mileage	Market conditions
Selling price	0,65	0,5	0,70
Mileage	0,13	0,1	0,05
Market conditions	0,22	0,4	0,23

After the criteria comparison table obtains, the next step is to measure the level of importance for each sub-criteria.

Table 6. Normalization Table Sub Sale Price Criteria.

	High	Medium	Low	Very low
High	0,42	0,27	0,53	0,37
Medium	0,14	0,09	0,06	0,06
Low	0,21	0,36	0,26	0,37
Very low	0,21	0,27	0,13	0,18

Table 7. Normalization Table of Mileage Sub Criteria

	Far	Medium	Close	Very close
Far	0,42	0,27	0,56	0,30
Medium	0,14	0,09	0,05	0,07
Close	0,21	0,45	0,28	0,46
Very close	0,21	0,18	0,09	0,15

Table 8. Normalization Table of Market Conditions Sub Criteria

Sub Criteria	Crowded	Normal	Low	Sparse
Crowded	0,46	0,27	0,53	0,47
Normal	0,15	0,09	0,07	0,05
Quiet	0,23	0,36	0,27	0,3
Rarely	0,15	0,27	0,13	0,16

The next step is to determine the average of each row, which will later indicate the priority vector for each criterion — written by equation 2.

$$w_i = \frac{\sum_{h=1}^n a_{ih}}{n} \tag{2}$$

Table 9. Normalization Table Sub Sale Price Criteria.

Sub Criteria	High	Medium	Low	Very Low
High	1	3	2	2
Is	0,33	1	0,25	0,33
Low	0,5	4	1	2
Very low	0,5	3	0,5	1
Sum	2,33	11	3,75	5,33

For example, for market criteria P1 in Table 10.

$$w_1 = \frac{\sum_{h=1}^4 a_{1h}}{4} = \frac{0,46+0,27+0,53+0,47}{4} = 0,43$$

Then get the priority vector or weight of each competency as follows.

Table 10. Recapitulation Table of Criteria and Sub Criteria.

Criteria	Weight	Sub-criteria selling price	Weight	Sub-criteria mileage	Weight	Sub-criteria market conditions	Weight
Selling price	0.61	High	0.40	Far	0.39	Crowded	0.43
Mileage	0.96	Is	0.09	Is	0.91	Normal	0.09
Market Conditions	0.28	Low	0.30	Close	0.35	Quiet	0.29
		Very low	0.20	Very close	0.16	Rarely	0.17

In addition to the criteria and sub-criteria, weights are also needed to assess each alternative market based on each sub-criterion. Using the same method as the sub-criteria and criteria, here are the weights for each alternative for each criterion.

22

Table 11. Recapitulation Table of Criteria and Sub Criteria.

KRITERIA	BOBOT					BOBOT TERNORMALISASI					
	Sub-Kriteria	Pasar Beringharjo	Pasar Sleman	Pasar Wates	Pasar Bantul	Pasar Argosari	Pasar Beringharjo	Pasar Sleman	Pasar Wates	Pasar Bantul	Pasar Argosari
HARGA JUAL	Tinggi	2.00	2.00	1.00	2.00	1.00	0.27	0.19	0.20	0.12	0.20
	Sedang	2.00	2.00	3.00	2.00	1.00	0.25	0.17	0.21	0.19	0.15
	Rendah	2.00	2.00	2.00	2.00	1.00	0.31	0.22	0.16	0.16	0.12
JARAK TEMPUH	Sangat Rendah	2.00	1.00	2.00	2.00	2.00	0.31	0.16	0.22	0.13	0.15
	Jauh	2.00	1.00	3.00	2.00	2.00	0.31	0.16	0.22	0.13	0.15
	Sedang	3.00	2.00	1.00	2.00	1.00	0.21	0.28	0.15	0.16	0.17
KONDISI PASAR (NILAI BELU)	Dekat	2.00	2.00	1.00	2.00	2.00	0.30	0.20	0.16	0.16	0.15
	Sangat Dekat	2.00	4.00	2.00	2.00	1.00	0.30	0.25	0.17	0.13	0.12
	Ramai	2.00	1.00	2.00	1.00	2.00	0.27	0.17	0.20	0.14	0.20
	Normal	2.00	2.00	2.00	2.00	1.00	0.34	0.20	0.16	0.15	0.14
	Sepi	2.00	3.00	1.00	2.00	2.00	0.3	0.19	0.15	0.16	0.17
	Jarang	2.00	2.00	1.00	2.00	2.00	0.24	0.17	0.21	0.17	0.17

In Table 12, that is the recapitulation table of criteria weights and sub-criteria. It can explain that in rows I column II, III, IV, V, VI and column VII are the weights of the comparison questionnaire results of each market for each sub-criteria. Meanwhile, in columns VIII, IX, XI, and XII are normalized weights.

Table 12. Final Assessment Recap Table for Ordinary Rice Commodities.

KRITERIA	BOBOT	SUB-KRITERIA	BOBOT	BOBOT AKHIR	PASAR BERINGHARJO	PASAR SLEMAN	PASAR WATES	PASAR BANTUL	PASAR ARGOSARI
1	II	III	IV	V	VI	VII	VIII	X	XI
HARGA JUAL	0.61	Tinggi	0.40	0.24	0.27	0.19	0.20	0.12	0.20
		Sedang	0.09	0.05	0.25	0.17	0.21	0.19	0.15
		Rendah	0.30	0.18	0.31	0.22	0.16	0.16	0.12
		Sangat rendah	0.20	0.12	0.31	0.16	0.22	0.13	0.15
JARAK TEMPUH	0.96	Lama	0.39	0.37	0.31	0.16	0.22	0.13	0.15
		Sedang	0.91	0.87	0.21	0.28	0.15	0.16	0.17
		Singkat	0.35	0.33	0.30	0.20	0.16	0.16	0.15
		Sangat Singkat	0.16	0.15	0.30	0.25	0.17	0.13	0.12
KONDISI PASAR(NILAI BELU)	0.28	Ramai	0.30	0.08	0.27	0.17	0.20	0.14	0.20
		Normal	0.09	0.02	0.34	0.20	0.16	0.15	0.14
		Sepi	0.14	0.03	0.30	0.19	0.15	0.16	0.17
		Jarang	0.46	0.12	0.24	0.17	0.21	0.17	0.17
				nilai akhir	0.293	0.193	0.194	0.148	0.169
				Prioritas	1	3	2	5	4
					Pasar Beringharjo	Pasar Kranggan	Pasar Wates	Pasar Bantul	Pasar Argosari

These results are the opinions of the respondents, which could be inconsistencies in priority order. Therefore the results of calculations need to be tested for consistency. Consistency is the effect of the

coherence of the judgment made by the decision-maker using pairwise comparison matrix. Then we can make that statement with w as a vector which shows the relative weights $w_i, i = 1, 2, \dots, n$, and then A will be consistent if

$$Aw = nw \tag{3}$$

If w is a computed average vector, it can show that

$$Aw = n_{max} w \tag{4}$$

Then we can calculate n_{max} is the average of the vector Aw where each element is divided by w . For example, Vector Aw for the Criteria matrix is as follows.

Table 13. The results of the matrix criteria.

1,945621
0,319658
0,790082

The vector is the product of Table 5, column 2. Each vector element divide by vector w (table 5 column 2). Based on observations and research, Analytical Hierarchy Process (AHP), written with equation 5.

$$CR = CI/RI \tag{5}$$

CI = consistency index for A

$$= (n_{max} - n) / (n - 1) = (3.055 - 4) / (4 - 1) = 0.027681$$

And RI = random consistency of A

$$= (1.98 (n - 2)) / n = (1.98 (4 - 2)) / 4 = 0.66$$

Therefore the consistency value of matrix A is

$$CR = CI/RI$$

$$CR = 0.027681 / 0.99 = 0.0419405$$

If the value of $CR \leq 0.1$, it can be explain that matrix A has been made consistently. This is done for the five comparison matrices. The recapitulation of the values of CI, RI, CR is as follows:

Table 14. Consistency Test Results Table.

	CI	RI	CR	Status
Criteria	0.02	0.66	0.04	Consistent
Selling Price sub criteria	0.05	0.99	0.05	Consistent
Mileage Sub criteria	0.07	0.99	0.07	Consistent
Market Conditions Sub Criteria	0.06	0.99	0.06	Consistent

4.4. Testing

The test used is Usability Testing. There are two techniques, SUS and SUPER-Q.

4.4.1.1. *SUS Testing.* That is, based on the respondents' SUS evaluation score of 70.0, the system was declared to have met the needs of farmers and declared good, and easy to use because it has a score above 68 as an average SUS score.

4.4.1.2. *SUPER-Q Testing.* Based on the results of system testing from the usability aspect with SUPER-Q, get a percentage of 79%, meaning that the level of ease and satisfaction of the system reaches 79% (good), and the system is acceptable and can already recommend.

5. Conclusion

An optimization system has made for the sale price of food crops by selecting market locations using the AHP method that can help farmers to choose markets by providing the best alternative locations. Based on the respondents' SUS evaluation score of 70.0, the system is declared marginally high because

it has a score above 68 as the average SUS score and ¹²Based on the results of the system testing from the usability aspect with SUPR-Q get a percentage of 79% meaning the level of ease and satisfaction of the system reaches 79% (good). But further research can add features to display transportation costs to market locations.

⁵6. Acknowledgments

The research was funded by the directorate general of higher education, the Ministry ¹¹ technology research, and higher education Indonesia through Competitive Research Grant scheme 2019. Contract number 111/SP2H/LT/DRPM/2019 and PT-004/SKPP.TT/LPPM UAD/III/2019.

References

- [1] Bintoro, R. W., & Dinamika, J. (n.d.). Aspek Hukum Zonasi Pasar Tradisional dan Pasar Modern, *10*(3), 1–31.
- [2] Capryani, A., Nugroho, A. W., Hersy, V., & Saputri, L. (2016). Pemilihan Lokasi Kantor Menggunakan Metode Analytical Hierarchy Process (AHP) (Studi Kasus : PT . Monang Sianipar Abadi Surakarta), *15*(1), 26–34.
- [3] Hosang, P. R., Tatum, J., & Rogi, J. E. X. (2013). Analisis Dampak Perubahan Iklim Terhadap Produksi Beras Provinsi Sulawesi Utara Tahun 2013, *18*(3).
- [4] Huda, A. M., Choiruddin, A., Budiarto, O., & Sutikno. (2012). Peramalan Data Curah Hujan Dengan Seasonal Autoregressive Integrated Moving Average (SARIMA) Dengan Deteksi Outlier Sebagai Upaya Optimalisasi Produksi Pertanian di Kabupaten Mojokerto.
- [5] Martius, E. (2012). Kemitraan Agribisnis untuk Memberdayakan Ekonomi Rakyat. *Agribisnis Kerakyatan Fakultas Pertanian Universitas Andalas*.
- [6] Nuraeni, D., & Anindita, R. (2016). Analisis Variasi Harga Dan Integrasi Pasar Bawang Merah Di Jawa Barat *Analysis*, *26*(3), 163–172.
- [7] Owombo, P. T., Koledoye, G. F., Ogunjimi, S. I., Akinola, a a, Deji, O. F., & Bolarinwa, O. (2014). Farmer's adaptation to climate change in Ondo State, Nigeria: A gender analysis. *Journal of Geography and Regional Planning*, *7*(April), 30–35. <https://doi.org/http://dx.doi.org/10.5897/JGRP12.071>
- [8] Rusydiana, A. S. (2013). Krisis ekonomi dalam perspektif ekonomi islam, *V*(1).
- [9] Suryani, E., Erwidodo, & Anugerah, I. S. (2003). Sistem Resi Gudang di Indonesia: Antara Harapan dan Kenyataan Penulis:, 2003.
- [10] Susandi, A., Tamamadin, M., Las, I., & Jamal, E. (2014). Pengembangan Sistem Informasi Iklim Skala Dasarian Untuk Perencanaan Tanam Padi Di Indramayu, 103–114.
- [11] Tominato. (2012). Sistem pendukung keputusan dengan metode Analytical Hierarchy Proses (AHP) Untuk Penentuan Prestasi Kinerja Dokter Pada RSUD.Sukoharjo, *2*(1), 1–15.
- [12] Tumoka, N. (2013). Analisis Pendapatan Usaha Tani Tomat di Kecamatan Kawangkoan Barat Kabupaten Minahasa, *1*(3), 345–355.
- [13] Ulfa, F. (2015). Fluktuasi Pertanian di Kabupaten Bangkalan Tahun 2004-2009. *Avatara*, *3*(3), 354–369.
- [14] Zulus, A., Informasi, S., Pangan, H., Zulus, A., Stmik, D., & Lubuklinggau, M. (2013). Kota Lubuklinggau, *5*(2).

5. HASIL CEK_60960140

ORIGINALITY REPORT

19%

SIMILARITY INDEX

16%

INTERNET SOURCES

13%

PUBLICATIONS

10%

STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Universitas Sumatera Utara Student Paper	6%
2	istina.ipmnet.ru Internet Source	2%
3	lib.unisayogya.ac.id Internet Source	1%
4	Peng Ye, Zheng bin Zhang, Huan Wang, Duo jiao Guan, Ming li Zhang, Na Zhang. "Current Status And Prospects Of Research On New Urban User-side Energy Interconnection System Planning", Journal of Physics: Conference Series, 2022 Publication	1%
5	T Setiadi, A Tarmuji, B Suhendra, F Noviyanto, S L Khasbullah. "Planting time determination for food crops using decision tree", IOP Conference Series: Materials Science and Engineering, 2018 Publication	1%
6	china.iopscience.iop.org Internet Source	1%

7	staff.uad.ac.id Internet Source	1 %
8	T Jandaskova, T Hrdlicka, M Komosna. "The influence of sustainable features on liquidity of houses in the Czech Republic", IOP Conference Series: Earth and Environmental Science, 2021 Publication	1 %
9	journal2.uad.ac.id Internet Source	1 %
10	futureluton.llal.org.uk Internet Source	1 %
11	www.ijstr.org Internet Source	1 %
12	consult.environment-agency.gov.uk Internet Source	1 %
13	hdl.handle.net Internet Source	1 %
14	Submitted to University of Surrey Student Paper	<1 %
15	usnsj.com Internet Source	<1 %
16	Submitted to Institute of Graduate Studies, UiTM Student Paper	<1 %

17	a100.gov.bc.ca Internet Source	<1 %
18	Bo Hu, Jianhong Wang, Ying Yang, Chengjie Mao, Ying Li. "Research on the Construction of Post Competency Model of Informatization Talents Based on Bimodal IT Mode Under the Background of Digital Transformation——Take a Power Grid Company as an Example", <i>Journal of Physics: Conference Series</i> , 2020 Publication	<1 %
19	"Proceedings of the Second International Conference on the Future of ASEAN (ICoFA) 2017 – Volume 2", Springer Science and Business Media LLC, 2018 Publication	<1 %
20	Hsu, P.-F.. "Optimizing resource-based allocation for senior citizen housing to ensure a competitive advantage using the analytic hierarchy process", <i>Building and Environment</i> , 200801 Publication	<1 %
21	dspace.stir.ac.uk Internet Source	<1 %
22	Jun Fei. "Fuzzy Analytic Hierarchy Process Application to E-government Performance Evaluation", 2008 Fifth International	<1 %

Conference on Fuzzy Systems and Knowledge Discovery, 10/2008

Publication

Exclude quotes On

Exclude matches Off

Exclude bibliography On