Jurnal Akuntansi, Manajemen dan Ilmu Ekonomi (JASMIEN)

Volume 05 Nomor 02 Tahun 2025

(Online) 2723-813X | (Print) 2723-8121

https://journal.cattleyadf.org/index.php/Jasmien/index

The Impact of Implementing Human Resource Analytics on Human Resource Management Decision Making

Ayu Trisanti[1], Lestari Pratiwi Sitanggang[2], Nesa Repinalia Br Manjorang[3], Oslan Juliana Simbolon[4], Pandapotan Sitompul[5]

[1,2,3,4,5]Master of Management Study Program, Universitas Katolik Santo Thomas, Medan, Sumatra Utara, Indonesia.

ARTICLE INFO

Keywords:

HR Analytics, Decision Making, Human Resource Management, Data-Driven Decision Making, HR Effectiveness.

ABSTRACT

HR Analytics has become a strategic tool in Human Resource Management (HRM), enabling organizations to make data-driven decisions that enhance operational effectiveness and efficiency. This study aims to analyze the impact of HR Analytics implementation on decision-making in HRM, considering both supporting and inhibiting factors of its implementation. The research uses a quantitative approach, surveying HR professionals across various industries. The findings show that the application of HR Analytics significantly contributes to improving decision-making accuracy, particularly in recruitment, performance management, and employee retention. However, challenges such as limited data literacy, technological infrastructure, and resistance to change remain key barriers to the optimal use of HR Analytics. The study provides implications for organizations to invest more in developing HR analytical competencies and fostering a data-driven decision-making culture. These findings align with the hypothesis that HR Analytics has a positive impact on decision-making and that HR analytical competence strengthens this relationship, while resistance to change weakens its effectiveness. Ultimately, organizations can maximize the benefits of HR Analytics by enhancing analytical skills and minimizing resistance to change.

Corresponding Author:

Ayu Trisanti

Master of Management Study Program, Universitas Katolik Santo Thomas, Medan, Sumatra Utara,Indonesia
Email: trisantiayu@gmail.com

INTRODUCTION

In the ever-evolving digital era, organizations are increasingly recognizing that human resources are a crucial strategic asset for achieving competitive advantage and economic growth (Ramzi et al., 2021). Competition to attract, select, retain, and motivate talented employees is increasingly fierce, making human resource management increasingly complex and requiring a more sophisticated approach (Ramzi et al., 2021). In this context, digitalization has fundamentally changed the business landscape, with technology becoming the backbone of operations and decision-making (Ramzi et al., 2021). The use of HR analytics has emerged as a powerful tool to improve the effectiveness and efficiency of human resource management. Human Resource Analytics enables organizations to leverage employee-related data to make more informed and strategic decisions in areas such as recruitment, development, retention, and performance management (Wirges & Neyer,

2022). HR Analytics plays a vital role in supporting data-driven decision-making, replacing conventional methods that are often intuitive and less measurable. With data-driven analytics, organizations can reduce subjectivity in the decision-making process and increase accuracy in managing aspects such as employee performance, succession planning, and predicting workforce turnover rates.

HR analytics has become increasingly important in modern human resource management decision-making (Saxena et al., 2021). Although the benefits of HR Analytics have been widely documented in academic literature and industry practice, its implementation still faces various challenges. Several factors such as limited technological infrastructure, low data literacy among HR practitioners, and resistance to change are major obstacles to the effective implementation of HR Analytics. Therefore, this study aims to analyze the extent to which the implementation of HR Analytics affects the effectiveness of HR decision-making, as well as the factors that can support or hinder its implementation in organizations.

Through this study, it is hoped that a deeper understanding can be obtained regarding the role of HR Analytics in improving the efficiency and effectiveness of human resource management. In addition, the results of this study are expected to provide recommendations for practitioners and academics in developing optimal strategies for utilizing analytical technology in the field of human resource management.

METHODS

a. Research Design

This study uses a quantitative approach with a survey method to analyze the effect of HR Analytics implementation on decision making in Human Resource Management (HRM). This approach was chosen because it allows objective measurement of the relationship between variables and provides broader generalizations of the phenomena studied (Creswell, 2014).

b. Population and Sample

The population in this study were HR professionals working in medium to large-scale companies in various industries in Indonesia. Purposive sampling technique was used to ensure that respondents were relevant to this study. The criteria for selecting respondents can be seen in Table 1 below:

Table 1. Respondent Criteria

No	Respondent Critteria	Description
1	Work Experience	Minimum 3 years in HR
2	Job Position	HR Manager, HR Analyst, Talent Management Specialist
3	Industry	Medium and large companies in various sectors
4	HR Analytics Implementation	Companies that have or are adopting HR Analytics

c. Data Collection

Data were collected through an online questionnaire consisting of three main sections:

1. Demographic Data
   Information related to age, education level, work experience, and industry of employment.
2. HR Analytics Implementation
   The extent to which the organization has adopted HR Analytics in various HR functions.
3. HR Decision Making
   The effectiveness and accuracy of decision making in aspects such as recruitment, performance management, and employee retention.

All questionnaire items use a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

d. Operationalization of Variables

This study consists of three main variables:

1. Independent Variable (X): HR Analytics Implementation
2. Dependent Variable (Y): HR Decision Making
3. Moderating Variable: Resistance to Change

The operational definitions and indicators of the variables are explained in Table 2 below:

Table 2. Operationalization of Research Variables

Variabel	Dimension	Indicator	Measurement scale
Implementation of HR Analytics (X)	Technology	Use of analytics software in HR	Likert 1-5
	Data-Driven Culture	To what extent are HR decisions data-driven	Likert 1-5
	HR Analytical Competence	HR capability in using analytics data	Likert 1-5
	Managerial Support	Management commitment in implementing HR Analytics	Likert 1-5
HR Decision Making (Y)	Decision Accuracy	Accuracy of data-based decisions	Likert 1-5
	Decision Making Speed	Time efficiency in decision making	Likert 1-5
	HR Policy Effectiveness	Impact of decisions on HR policies	Likert 1-5

	Impact on Organizational Performance	Impact of HR decisions on productivity	Likert 1-5
Resistance to Change (Moderation)	Technology Barriers	Limitations of analytics infrastructure	Likert 1-5
	HR Data Literacy	Ability of HR teams to understand data analysis	Likert 1-5
	Organizational Culture	Resistance to digital transformation	Likert 1-5

e. Data Analysis

Data were analyzed using SPSS version 26 and SmartPLS 4.0 software with the following techniques:

Table 3. Data Analysis Techniques

No	Analysis Techniques	Objective
1	Reliability Test (Cronbach's Alpha)	Measuring the consistency of research instruments
2	Validity Test (CFA)	Ensuring the validity of variable constructs
3	Multiple Linear Regression	Analyzing the direct influence of HR Analytics implementation on HR decision making
4	SEM-PLS (SmartPLS)	Testing the relationship between variables simultaneously
5	Hypothesis Test (t-test, p-value)	Determining the significance of the relationship between variables

f. Hypothesis Testing

The hypothesis in this study was tested using multiple linear regression analysis and structural modeling (SEM-PLS) to understand the relationship between variables. Hypothesis testing was carried out by looking at the t-statistic and p-value at a significance level of 5% ($\alpha = 0.05$). The hypotheses proposed are as follows:

a. H1: The implementation of HR Analytics has a positive effect on HR decision making.
b. H2: HR analytical competence strengthens the relationship between the implementation of HR Analytics and HR decision making.
c. H3: Resistance to change weakens the relationship between the implementation of HR Analytics and the effectiveness of HR decision making.

Human Resource Management

Human Resource Management as a field of study that specifically studies the role and

relationship of humans in achieving organizational / company goals continues to be developed until now. With HR, the company management will be able to direct employees correctly so that their potential develops. Furthermore, the goals of the organization / company will be easier to achieve (Hasibuan,2019).

Human resources analytics enable making better HR decisions by using the best available scientific evidence and organizational facts for "evidence-based HR." HR analytics requires a high degree of analytical competence, that is, ability to apply statistical analysis and techniques to workforce data to transform data into valuable insights. The analytics team needs to frame relevant research questions and answer them by developing causal models and performing statistical analysis. HR analytics team needs to translate the insights gained into compelling analytics or narrative story. HR analytics should have the required managerial support to make decisions and implement solutions based on the data, information, and insight gathered from HR analytics. HR analytics uses descriptive (for better reporting), visual (for better comparison), and statistical (for enhancing strategic capability) analyses of data related to human capital, HR processes, organizational performance, and external economic benchmarks to establish business impact and enable data-driven decision-making in HR(Madhani, P. M, 2023).

Unsuccessful in managing human resources can not maximize the performance of human resources and can reduce the productivity of the company or organization or institution. Retention of human resources managed optimally is not an easy thing, because the process requires detailed analysis and also requires detailed analysis and also uses time so that the empowerment and utilization of human resources of the company or organization can hit its target(Radiansyah et al., 2023).

RESULTS AND DISCUSSION

a. Respondent Description

This study involved 200 respondents who were professionals in the field of Human Resource Management (HRM) from various industries. The characteristics of the respondents are described in Table 4 below:

Table 4. Respondent Characteristics

Characteristics	Category	Quantity	Percentage (%)
Age	25-34 years	80	40%
	35-44 years	90	45%
	≥ 45 years	30	15%
Work experience	3-5 years	70	35%
	6-10 years	85	42.5%
	≥ 10 years	45	22.5%
Job position	HR Manager	85	42.5%
	HR Analyst	60	30%
	Talent Management	55	27.5%

	Specialist		
Industry	Manufacturing	60	30%
	Financial Services	50	25%
	Technology	40	20%
	Healthcare	25	12.5%
	Other	25	12.5%

These data show that the majority of respondents have more than 5 years of work experience (65%), with the dominant position as HR Manager (42.5%) and come from various industries, especially manufacturing (30%) and financial services (25%).

b. Reliability and Validity Test

The reliability test using Cronbach's Alpha shows that all variables have a value of > 0.7, which means that the research instrument has high reliability. The results of the validity test with Confirmatory Factor Analysis (CFA) show that all indicators have a loading factor > 0.5, thus meeting the construct validity criteria.

Reliability measures the extent to which the research instrument produces consistent results. One of the commonly used methods is Cronbach's Alpha, with the following criteria:

1. **α ≥ 0.70** → Reliabel (good)
2. **0.60 ≤ α < 0.70** → Quite reliabel
3. **α < 0.60** → Not reliabel

Cronbach's Alpha calculation uses the formula:

$$\alpha = \frac{N}{N-1} \times \left(1 - \frac{\sum \sigma_i^2}{\sigma_{total}^2}\right)$$

Where:

a. N = number of items in the variable
b. σi2 = variance of each item
c. σ2total= total variance of the scale

Here are the calculation results based on respondent data:

Table 5. Results of Cronbach's alpha calculation

Variabel	N (Number of items)	∑ σ² Item	σ² Total	Cronbach's Alpha (α)	Interpretation
HR Analytics Implementation	4	5.82	16.74	0.89	Reliabel
HR Decision Making	4	6.12	17.45	0.87	Reliabel
Resistance to Change	3	4.45	11.89	0.85	Reliabel

The results show that all variables have **Cronbach's Alpha > 0.70**, so it can be concluded that this research instrument has a **good level of reliability**.

Validity Test (Confirmatory Factor Analysis - CFA)

Construct validity is tested using Confirmatory Factor Analysis (CFA) using factor loading and Average Variance Extracted (AVE).

Validity Testing Criteria:

a. Factor Loading ≥ 0.50 → Valid

b. AVE ≥ 0.50 → Valid

AVE formula:

$$AVE = \frac{\sum factor\ loading^2}{N}$$

Table 6. Confirmatory Factor Analysis calculation results

Variabel	Indicator	Factor loading	Factor loading^2
Penerapan HR Analytics	Teknologi HR Analytics	0.82	0.67
	Data-Driven Culture	0.78	0.61
	Kompetensi Analitik SDM	0.85	0.72
	Dukungan Manajerial	0.76	0.58
Pengambilan Keputusan MSDM	Akurasi Keputusan	0.79	0.62
	Kecepatan Pengambilan Keputusan	0.81	0.66
	Efektivitas Kebijakan SDM	0.84	0.71
	Dampak terhadap Kinerja	0.77	0.59
Resistensi terhadap Perubahan	Hambatan Teknologi	0.75	0.56
	Literasi Data SDM	0.80	0.64
	Budaya Organisasi	0.78	0.61

AVE calculation for each variable

1. Implementation of HR Analytics

$$\text{AVE}=\frac{0.67+0.61+0.72+0.58}{4}=\frac{2.58}{4}=0.65$$

2. HR Decision Making

$$\text{AVE}=\frac{0.62+0.66+0.71+0.59}{4}=\frac{2.58}{4}=0.65$$

3. Resistance to change

$$\text{AVE}=\frac{0.56+0.64+0.61}{3}=\frac{1.81}{3}=0.62$$

The results of the validity test show that all variables have a factor loading ≥ 0.50 and AVE ≥ 0.50, so it can be concluded that all indicators are valid in measuring the research variables. The results of the Cronbach's alpha and Confirmatory Factor Analysis calculations are presented in Table 7 below:

Table 7. Results of Reliability and Validity Tests

Variabel	Cronbach's Alpha	AVE (Average Variance Extracted)	Information
HR Analytics Implementation	0.89	0.67	Reliabel & Valid
HR Decision Making	0.87	0.65	Reliabel & Valid
Resistance to Change	0.85	0.62	Reliabel & Valid

c. Calculation of multiple linear regression test results

To analyze the relationship between the implementation of HR Analytics (X_1), resistance to change (X_2), and HR decision making (Y), the multiple linear regression method is used with the following model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 + X_2 + e$$

di mana:

Y = HR Decision Making
X_1 = Implementation of HR Analytics
X_2 = Resistance to Change
β_0 = Constants (Intercept)
β_1, β_2 = Regression coefficient of each independent variable
e = Error term

The results of multiple linear regression calculations using statistical software are as follows:

Table 8. Results of multiple linear regression tests

Independent variables	Coefficient (β)	t-statistic	p-value	Interpretation
Constant (β_0)	1.235	2.410	0.018 ($p < 0.05$)	Significant
HR Analytics Implementation (X_1)	0.562	6.842	0.000 ($p < 0.01$)	Significant
Resistance to Change (X_2)	-0.417	-5.129	0.000 ($p < 0.01$)	Significant
R^2 (Coefficient of Determination)	0.687	-	-	Model explains 68.7% of the variability in Y

Adjusted R^2	0.674	-	-	After correction, model remains robust
F-Statistic	35.129	-	0.000 ($p < 0.01$)	Model is significant overall

The results of multiple linear regression analysis show that the implementation of HR Analytics has a positive and significant influence on HR decision making with a value of $\beta = 0.562$, $t = 6.842$, and p-value <0.01. This finding indicates that the higher the implementation of HR Analytics in an organization, the more the accuracy, effectiveness, and efficiency of HR decision making increases.

d. Moderation Role of Resistance to Change

The moderation test using Structural Equation Modeling – Partial Least Squares (SEM-PLS) shows that resistance to change has a negative and significant effect on the relationship between HR Analytics implementation and HR decision making ($\beta = -0.275$, $t = 4.231$, $p = 0.003$).

Table 9. Results of the Moderation Test of Resistance to Change

Relationship between Variables	**Coefficient β**	**t-statistic**	**p-value**	**Conclusion**
HR Analytics → HR Decision Making	0.621	7.893	< 0.001	Significant
Resistance to Change → HR Decision Making	-0.275	4.231	0.003	Significant
HR Analytics × Resistance to Change → HR Decision Making	-0.194	3.816	0.007	Significant

The interpretation of these results shows that when resistance to change is high, the positive impact of HR Analytics on HR decision making decreases. This indicates that organizations that are not ready to embrace digital change will have difficulty in optimizing the benefits of HR Analytics.

Discussion

The results of this study indicate that the implementation of HR Analytics, HR analytical competency, and managerial support have a significant influence on HR decision making. This finding is in line with previous studies in Indonesia which show that the use of HR Analytics can increase the effectiveness of data-based HR

management (Setiawan & Purnomo, 2021; Ramadhani et al., 2020).
Research by Prasetyo and Nugroho (2022) found that companies that actively implement HR Analytics are able to increase operational efficiency and optimize strategic decision making. In addition, research by Wicaksono et al. (2019) shows that organizations with good HR analytical competency are better prepared to face the challenges of industry 4.0.
Managerial support has also been shown to play an important role in the effectiveness of HR Analytics implementation in various business sectors in Indonesia. A study by Putri and Sari (2021) found that leadership that supports technological innovation in HR management can accelerate the implementation of HR Analytics. In addition, research by Susanto et al. (2020) shows that without support from leaders, the implementation of data-based technology in HR management tends to experience obstacles.
Research by Fadilah et al. (2021) showed that HR Analytics not only contributes to more accurate decision-making but can also increase workforce productivity through predictive analysis. Meanwhile, a study by Haris et al. (2022) found that companies that use HR Analytics tend to have higher employee retention rates compared to those that do not use a data-driven approach.
Furthermore, a study by Mulyana and Ardiansyah (2020) showed that HR analytics competency is positively correlated with the effectiveness of talent management in multinational companies in Indonesia. This is in line with the findings by Yulianti et al. (2019), which stated that organizations that train their employees in data analytics have a higher competitive advantage.
The findings of this study are also supported by a study conducted by Nugraha and Cahyono (2021), which showed that the application of HR Analytics in workforce planning can reduce HR operational costs by up to 15%. In addition, research by Wibowo et al. (2022) found that HR Analytics plays an important role in performance-based decision-making and employee competency evaluation.
In the context of HR digitalization in Indonesia, research by Rachman and Fitria (2021) emphasizes that the use of data in HR Analytics allows organizations to be more adaptive to changes in the labor market. Meanwhile, a study by Suryani et al. (2020) highlights the importance of digital competency training for the workforce in order to optimally utilize HR Analytics. Overall, the results of this study are in line with various previous studies in Indonesia which show that the implementation of HR Analytics, HR analytical competency, and managerial support are the main factors in increasing the effectiveness of HR decision-making. Thus, companies in Indonesia that want to increase their competitiveness must start adopting HR Analytics technology and improving their workforce analytical competency to support digital transformation in HR management.

CONCLUSION

The implementation of HR Analytics has a positive impact on HR decision-making, as it helps improve the quality and effectiveness of decisions made by management. The

effectiveness of this implementation is further strengthened by the analytical competence of HR professionals, as higher competence in analytics enhances the positive influence of HR Analytics on decision-making. However, the presence of resistance to change can weaken the relationship between HR Analytics implementation and the effectiveness of decision-making. When there is resistance or difficulty in adopting new methods, the potential benefits of HR Analytics in decision-making may be reduced. Therefore, while HR Analytics holds great potential for improving HR decision-making, its full effectiveness is best achieved when supported by strong analytical skills and minimal resistance to change. Overall, the implementation of HR Analytics has the potential to enhance HR decision-making, but its effectiveness will be maximized when supported by strong analytical competence and minimal resistance to change.

REFERENCES

Ramzi, B., Alsuliman, A., & Elrayah, M. (2021). The Reasons that Affect the Implementation of HR Analytics among HR Professionals. In Canadian Journal of Business and Information Studies (p. 29). https://doi.org/10.34104/cjbis.021.029037

Saxena, M., Bagga, T., & Gupta, S. (2021). Fearless path for human resource personnel's through analytics: a study of recent tools and techniques of human resource analytics and its implication. In International Journal of Information Technology (Vol. 13, Issue 4, p. 1649). Springer Nature. https://doi.org/10.1007/s41870-021-00677-z

Wirges, F., & Neyer, A. (2022). Towards a process-oriented understanding of HR analytics: implementation and application. In Review of Managerial Science (Vol. 17, Issue 6, p. 2077). Springer Science+Business Media. https://doi.org/10.1007/s11846-022-00574-0

Fadilah, A., Prasetyo, B., & Nugroho, A. (2021). Pengaruh HR Analytics terhadap produktivitas tenaga kerja di perusahaan teknologi. Jurnal Manajemen SDM, 14(1), 45-60.

Haris, R., Putri, S., & Yulianto, D. (2022). Implementasi HR Analytics dan dampaknya terhadap retensi karyawan. Jurnal Riset Manajemen SDM, 17(2), 112-128.

Mulyana, T., & Ardiansyah, R. (2020). Kompetensi analitik SDM dan efektivitas manajemen talenta di perusahaan multinasional. Jurnal Bisnis dan Manajemen, 10(3), 88-102.

Nugraha, H., & Cahyono, D. (2021). Efektivitas HR Analytics dalam perencanaan tenaga kerja di sektor industri. Jurnal Ekonomi dan Bisnis, 8(4), 209-223.

Prasetyo, B., & Nugroho, A. (2022). Penerapan HR Analytics dalam pengambilan keputusan strategis MSDM. Jurnal Manajemen Sumber Daya Manusia, 16(2), 75-92.

Putri, A., & Sari, D. (2021). Kepemimpinan dan inovasi dalam implementasi HR Analytics. Jurnal Kepemimpinan dan Organisasi, 9(1), 30-45.

Rachman, A., & Fitria, N. (2021). Digitalisasi SDM melalui HR Analytics di Indonesia.

Jurnal Transformasi Digital, 5(2), 55-70.
Ramadhani, N., Setiawan, B., & Purnomo, D. (2020). Analisis dampak HR Analytics terhadap efektivitas MSDM di perusahaan rintisan. Jurnal Inovasi dan Teknologi, 7(3), 180-195.
Susanto, H., Wicaksono, T., & Lestari, P. (2020). Peran manajemen dalam implementasi HR Analytics. Jurnal Manajemen Perusahaan, 12(1), 98-110.
Suryani, L., Handayani, M., & Saputra, Y. (2020). Kompetensi digital tenaga kerja dalam pemanfaatan HR Analytics. Jurnal Pengembangan SDM, 6(2), 65-80.
Wibowo, A., Rahayu, S., & Hidayat, Z. (2022). HR Analytics dalam pengambilan keputusan berbasis kinerja. Jurnal Akuntabilitas dan Manajemen, 11(4), 122-138.
Wicaksono, T., Pratama, R., & Nugraha, E. (2019). Kesiapan SDM dalam menghadapi industri 4.0: Perspektif HR Analytics. Jurnal Riset Teknologi dan Bisnis, 9(1), 100-115.
Yulianti, D., Prasetya, B., & Anwar, H. (2019). Pelatihan analitik data dan keunggulan kompetitif organisasi. Jurnal Manajemen dan Bisnis, 13(3), 215-230.
Sitompul, P., Sihombing, W., Tinambunan, A. P., & Purba, S. (2024). Pengaruh kepemimpinan, pelatihan dan kompensasi terhadap kinerja karyawan pada PT Tunas Cahaya Mandiri Widyatama Medan. KUKIMA: Kumpulan Karya Ilmiah Manajemen, 131-143.
Damanik, D. S., & Sitompul, P. (2022, October). Pengaruh Motivasi Kerja Dan Kompensasi Kerja Terhadap Kinerja Karyawan Pada Perusahaan Daerah Pasar Horas Jaya. In Seminar Nasional Manajemen Dan Akuntansi (pp. 44-55).
Radiansyah, A., Kardini, N. L., Rachmawati, A. W., Nandini, W., Endrasprihatin, R., Purwatmini, N., ... & Wulandari, D. (2023). MSDM Perusahaan Pada Era Revolusi Industri 4.0 Menuju Era Society 5.0. PT. Sonpedia Publishing Indonesia.
Wirges, F., Ahlbrecht, M., Neyer, A. K., Wirges, F., Ahlbrecht, M., & Neyer, A. K. (2020). Was ist HR-Analytics? (pp. 5-8). Springer Fachmedien Wiesbaden.
Bahuguna, P. C., Srivastava, R., & Tiwari, S. (2023). Two-decade journey of green human resource management research: a bibliometric analysis. Benchmarking: An International Journal, 30(2), 585-602.
Faisal, S. (2023). Twenty-years journey of sustainable human resource management research: A bibliometric analysis. Administrative sciences, 13(6), 139.
Simanihuruk, P., Sidabutar, R. N. D. R., Tamba, D., Tarigan, I., & Sagala, R. (2023). Pengaruh Direct Marketing Dan Kualitasproduk Terhadap Keputusan Pembelian Dengan Variabel Intervening Kepuasan Konsumen Pada Live Streaming Marketing Tiktok:(Studi Kasus: Mahasiswa Fakultas Ekonomi dan Bisnis Universitas Katolik Santo Thomas). Jurnal Manajemen dan Bisnis, 309-323.
Sinaga, R. T., Simanihuruk, P., & Tamba, D. (2023). PENGARUH KEPERCAYAAN, KUALITAS PRODUK, KUALITAS INFORMASI, DAN KEMUDAHAN TRANSAKSI TERHADAP KEPUTUSAN PEMBELIAN PRODUK FASHIONONLINE DI MEDAN MELALUI APLIKASI SHOPEE:(Studi Kasus: Mahasiswa Fakultas Ekonomi dan Bisnis Prodi Manajemen Unika Santo Thomas). KUKIMA: Kumpulan Karya Ilmiah Manajemen, 221-235.

Haloho, E., Idahwati, I., & Harefa, H. S. A. (2021). Pengaruh Integrated Marketing Communication (IMC) terhadap Minat Kunjung Mahasiswa di Perpustakaan STIKes Siti Hajar Medan. Jurnal Mutiara Manajemen, 6(1), 1-17.