
EVALUATION OF THE PERSONNEL INFORMATION SYSTEM OF THE HUMAN RESOURCES DEVELOPMENT AGENCY FOR TRANSPORTATION USING THE HOT FIT-MODEL

Citra Handayani¹, Prihandoko²

Universitas Gunadarma, Indonesia

citrahandayani.chi@gmail.com¹, prihandoko@gmail.com²

ABSTRACT

In this modern era, it is undeniable that information technology is one of the main resources in an organization that plays an important role in increasing competitiveness and providing optimal service. Every government organization tries to apply information technology to increase service effectiveness and efficiency. This study aims to prove the extent to which the BPSDMP (Human Resources Development Agency for Transportation) staffing information system uses the HOT-FIT Model approach. This study uses a research approach with model evaluation methods. The research involved 62 employees at the Ministry of Transportation's BPSDMP. The data analysis technique used in this study is to use validity test, reliability test, classic assumption test and research hypothesis test. The results show that the BPSDMP Personnel Information System is dominated by human factors with a correlation coefficient value of 0.636, then an organizational correlation coefficient of 0.619 and a technology correlation coefficient of 0.589. In this study, the components of human, organizational and technological factors, together with net benefits, have a coefficient of determination of 56.4%.

Keywords: hot-fit model, human, organization, technology, net benefit.

Corresponding Author: Citra Handayani

E-mail: Citrahandayani.chi@gmail.com



INTRODUCTION

BPSDMP (Human Resource Development Agency of Transportation) is under the Ministry of Transportation of the Republic of Indonesia with the Vision "The Realization of Professional and Ethical Human Resources and Transportation Counseling in Organizing Reliable and " zero accident " oriented transportation in order to realize this vision BPSDMP has several missions in including:

- a) Manage Professional Transportation Education, Training and Counseling to create the capacity and quality of Transportation Human Resources as needed.
- b) Build an effective organization with competent human resources and a reliable information system to meet the needs of stakeholders.

In this modern era, it cannot be denied that information technology is one of the main resources in an organization that plays an important role in increasing competitiveness and optimal service. (Mirabolghasemi et al., 2019). Therefore, every government organization tries to apply information technology to increase service effectiveness and efficiency (García-Juan et al., 2018). This is intended to provide added value, namely in the form of competitive advantage to BPSDMP, which developments in information technology that occur in the modern era play a very important role in the administration of government organizations.

In the future, information technology and telecommunications will be the most dominant sectors (Mujahid & Sukmadewi, 2021). Technology has many roles in fields including education, and

health, especially in the field of government that serves the wider community (Abdillah et al., 2020). Information technology will easily remove the limitations of space and time, which have been an obstacle to growth in the world of government (Dalimunthe & Azhari, 2019).

In essence, information technology is a facility that improves the quality of information services that are easier for everyone (Iswanaji, 2019). Information systems, which are part of information technology, are very important in using information technology (Naibaho, 2017). Utilizing the personnel information system at BPSDMP can provide convenience for the work units under its auspices in carrying out services.

The evaluation of information systems is simply a test of controlling information system infrastructure (Mulyadi & Choliq, 2019). With this evaluation, the achievement of activities or activities for the implementation of an information system can be immediately known, and further actions can be planned to improve the performance of its implementation (Sallehudin et al., 2019). Evaluation is also carried out to determine whether the information system is running well to support the process of improving the quality of service within the organization (Ulfa Syafitri Bulegalangi, 2021). Measuring the success of the personnel information system application at the BPSDMP (Human Resources Development Agency for Transportation) can use the Human Organization Technology (HOT-Fit Model) method. This model was chosen because it can explain evaluation comprehensively using the core components of an information system approach. The HOT-Fit model components used in this scientific research are human (System Use, User Satisfaction), organization (Organizational Structure), Technology (System Quality, Information Quality, Service Quality) and the suitability of these three factors affect the benefits (Net benefits).

Based on the above, the purpose of this study was to find and analyze information technology using the Human Organization Technology (HOT) fit model of the personnel information system at BPSDMP (Human Resource Development Agency for Transportation).

METHODS

This research was conducted in all work units under the auspices of BPSDM from the main level to the work unit level. This research takes about three months, from October 2020 to January 2021. This research uses a research approach with a model evaluation method (Divayana, 2017). The population of this study is employees who manage the staffing of the Ministry of Transportation's BPSDMP. The data collection method was carried out by distributing questionnaires to employees in each work unit. The distribution of the questionnaire was carried out using the Google Form tool. Dissemination using Google form tools and electronic mail is done by sending an e-mail to each respondent's e-mail address. The e-mail contains a link to the questionnaire that was created. The data analysis technique used in this study is to use validity test, reliability test, classic assumption test and research hypothesis test.

RESULTS AND DISCUSSION

A. Instrument Test

1. Test the Validity and Reliability of Net Benefit Variables

The results of testing the validity of the reliability of the net benefit variable can be seen in table 1. below.

Table 1. Validity Test Y (Net Benefit)

Statement	r _{count}	Information	Cronbach's Alpha	Reliability
NB1	0.577	Valid	0.727	Reliable
NB2	0.769	Valid		
NB3	0.606	Valid		
NB4	0.604	Valid		
NB5	0.726	Valid		
NB6	0.556	Valid		
NB7	0.516	Valid		

The seven statements above from the net benefit variable (Y) are declared valid because all r_{counts} obtained using SPSS show greater than the r_{table}, namely 0.250, and can be continued in the next test. The statistical reliability test data processing results showed a Cronbach's alpha value of 0.727, meaning that all statement items for the net benefit variable were reliable because Cronbach's alpha value was 0.727 > 0.70, according to what was required in this study.

2. Test the Validity and Reliability of Human Factor Variables

The results of testing the reliability validity of the human factor variable can be seen in table 2. below.

Table 2. Validity Test X₁ (Human Factor)

Statement	r _{count}	Information	Cronbach's Alpha	Reliability
SU1	0.499	Valid	0.731	Reliable
SU2	0.562	Valid		
SU3	0.491	Valid		
SU4	0.582	Valid		
SU5	0.533	Valid		
SU6	0.720	Valid		
US1	0.717	Valid		
US2	0.682	Valid		
US3	0.335	Valid		

The nine statements above from the human factor variable (X₁) are valid because all r_{counts} obtained using SPSS are greater than the r_{table}, namely 0.250, and can be continued in the next test. The statistical reliability test data processing results showed a Cronbach's alpha value of 0.731, meaning that all statement items for the human factor variable were reliable because Cronbach's alpha value was 0.731 > 0.70, according to what was required in this study.

3. Test the Validity and Reliability of Organizational Factor Variables

The results of testing the reliability validity of the organizational factor variables can be seen in Table 3 below.

Table 3. Validity Test X_2 (Organizational Factors)

Statement	r_{count}	Information	Cronbach's Alpha	Reliability
STR1	0.626	Valid	0.701	Reliable
STR2	0.534	Valid		
STR3	0.634	Valid		
STR4	0.459	Valid		
STR5	0.505	Valid		
STR6	0.528	Valid		
EVR1	0.633	Valid		
EVR2	0.418	Valid		
EVR3	0.551	Valid		

The nine statements above from organizational factor variables (X_2) are declared valid because all r_{counts} obtained using SPSS show greater than the r_{table} , namely 0.250, and can be continued in the next test. The statistical reliability test data processing results showed a Cronbach's alpha value of 0.701, meaning that all item statement items for organizational factor variables were reliable because Cronbach's alpha value was $0.701 > 0.70$, according to what was required in this study.

4. Test the Validity and Reliability of Technology Factor Variables

The results of testing the reliability validity of the technology factor variables can be seen in Table 4 below.

Table 4. Validity Test X_3 (Technology Factor)

Statement	r_{count}	Information	Cronbach's Alpha	Reliability
SQ1	0.632	Valid	0.859	Reliable
SQ2	0.642	Valid		
SQ3	0.601	Valid		
SQ4	0.547	Valid		
SQ5	0.515	Valid		
SQ6	0.513	Valid		
IQ1	0.594	Valid		
IQ2	0.653	Valid		
IQ3	0.575	Valid		
IQ4	0.568	Valid	0.859	Reliable
IQ5	0.571	Valid		
SEQ1	0.472	Valid		
SEQ2	0.553	Valid		
SEQ3	0.607	Valid		
SD1	0.418	Valid		
SD2	0.331	Valid		
SD3	0.475	Valid		
SD4	0.498	Valid		

The eighteen statements above from the technological factor variable (X_3) are declared valid because all r_{counts} obtained using SPSS are greater than the r_{table} , 0.250, and can be continued in the next test. The statistical reliability test data processing results showed a Cronbach's alpha value of 0.859, meaning that all statement items for the technological factor variable were reliable because Cronbach's alpha value was $0.859 > 0.70$, according to what was required in this study.

B. Classical Assumption Testing

1. Normality test

Table 5. Normality Test Results for Multiple Regression Estimation Errors

	Tests of Normality					
	Statistics	df	Sig.	Statistics	df	Sig.
Unstandardized Residuals	,077	62	,200 *	,934	62	,002

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

Table 5 shows that the multiple regression estimates error's probability values (Sig.) are 0.200. The probability value is greater than the significant level (α) of 0.05, so the estimated error data for multiple regression is normally distributed.

2. Multicollinearity Test

Table 6. Multicollinearity test results

Model	Coefficients ^a		Collinearity Statistics	
			tolerance	VIF
1 Human Factors (X1)			,678	1,474
Organizational Factors (X2)			,642	1,557
Technology Factor (X3)			,640	1,563

a. Dependent Variable: Net benefit (Y)

The results of all multicollinearity tests in table 4.25 show that all regression models have a tolerance value of > 0.10 and a VIF value of < 10 . So, there are no symptoms of multicollinearity in the regression model used.

3. Autocorrelation Test

Table 7. Autocorrelation Test Results

Summary Model ^b					
Model	R	R Square	Adjusted R Square	std. The error in the Estimate	Durbin-Watson
1	,751 ^a	,564	,542	2,300	1,712

a. Predictors: (Constant), Technology Factors (X3), Human Factors (X1), Organizational Factors (X2)
b. Dependent Variable: Net benefit (Y)

Based on table 7, the Durbin-Watson value is 1.712. This value lies between dU (1.692) and 4-dU (2.308), so it can be concluded that there are no autocorrelation symptoms in the regression model used.

4. Heteroscedasticity Test

Table 8. Heteroscedasticity Test Results

Model	Coefficients ^a				
	Unstandardized Coefficients		Standardized Coefficients		
	B	std. Error	Betas	t	Sig.
(Constant)	2,794	2,512		1.112	,271
1 Human Factors (X1)	-.036	,068	-.084	-.532	,597
Organizational Factors (X2)	.066	.065	,165	1.020	,312
Technology Factor (X3)	-.031	.033	-,151	-,933	,355

a. Dependent Variable: RESIDUAL Y

The results of the heteroscedasticity test with the Glejser test in table 8 show that the regression model has a significant value of more than 0.05. So, there is no heteroscedasticity problem in the regression model used.

C. Research Hypothesis Testing

1. First Hypothesis

Table 9. Simple Correlation Coefficient Between X1 and Y

Correlations			
		Net Benefits (Y)	Human Factors (X1)
Net Benefits (Y)	Pearson Correlation	1	,636 **
	Sig. (2-tailed)		,000
	N	62	62
Human Factors (X1)	Pearson Correlation	,636 **	1
	Sig. (2-tailed)	,000	
	N	62	62

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the calculation results, the product-moment correlation coefficient between the human factor and the net benefit (r_{1y}) is 0.636 with a probability value of Sig. (0.000) < significant level (0.05).

Table 10. The coefficient of determination between X₁ and Y

Summary models				
Model	R	R Square	Adjusted R Square	std. The error in the Estimate
1	,636 ^a	,404	,394	2,645

a. Predictors: (Constant), Human Factors (X1)

Based on the results in table 10. it can be concluded that H₀ is rejected and H₁ is accepted. In other words, there is a significant positive influence between the human factor and the net benefit. The coefficient of determination (r_{1y}^2) is 0.404, which means that human factors can explain 40.4% of the proportion of the net benefit variance. The results of this study are supported by previous research (Mawarni & Dharminto, 2021), which states that whether or not the human factor is good in using the SKIP application has a relationship with the SIKP net benefits.

When other variables are controlled, the relationship between human factors and net benefits is done by partial correlation analysis. The partial correlation coefficient obtained and the test results are presented in Table 11.

Table 11. The partial correlation coefficient between X_1 and Y

et al.	Partial Correlation Coefficient	Sig.	α	Information
59	$r_{1y,2} = 0.482$	0.000	0.05	Significant
59	$r_{1y,3} = 0.488$	0.000	0.05	Significant

Based on the results of table 11. it can be concluded that the partial correlation coefficient between human factors and net benefits when organizational factors are controlled is very significant (significant), so it can be interpreted that if organizational factors are controlled consistently, human factors provide a stable, meaningful contribution to net benefits. The partial correlation coefficient between the human factor and the net benefit when the technological factor is controlled is very significant (significant), so it can be interpreted that if the technological factor is controlled consistently, the human factor provides a stable, meaningful contribution to the net benefit.

2. Second Hypothesis

Table 12. The simple correlation coefficient between X_2 and Y

Correlations			
		Net Benefits (Y)	Organizational Factors (X2)
Net Benefits (Y)	Pearson Correlation	1	,619 **
	Sig. (2-tailed)		,000
	N	62	62
Organizational Factors (X2)	Pearson Correlation	,619 **	1
	Sig. (2-tailed)	,000	
	N	62	62

** . Correlation is significant at the 0.01 level (2-tailed).

Based on the calculation results, the product-moment correlation coefficient between organizational factors and net benefits (r_{2y}) is 0.619 with a probability value of Sig. (0.000) < significant level (0.05).

Table 13. The coefficient of determination between X_2 and Y

Summary models				
Model	R	R Square	Adjusted R Square	std. The error in the Estimate
1	,619 ^a	,383	,373	2,691

a. Predictors: (Constant), Organizational Factors (X2)

Based on the results in table 13, it can be concluded that H_0 is rejected and H_1 is accepted. In other words, organizational factors have a significant positive influence on net benefits. The coefficient of determination (r_{2y}^2) is 0.383, which means that organizational factors can explain 38.3% of the proportion of net benefit variance.

When other variables are controlled, the relationship between organizational factors and net benefits is done by partial correlation analysis. The partial correlation coefficient obtained and the test results are presented in Table 14.

Table 14. The partial correlation coefficient between X_2 and Y

et al.	Partial Correlation Coefficient	Sig.	α	Information
59	$r_{2y,1} = 0.453$	0.000	0.05	Significant
59	$r_{2y,3} = 0.444$	0.000	0.05	Significant

Based on the results of table 14, it can be concluded that the partial correlation coefficient between organizational factors and net benefits when human factors are controlled is very significant (significant), so it can be interpreted that if human factors are controlled consistently, organizational factors provide a stable, meaningful contribution to net benefits. The partial correlation coefficient between organizational factors and net benefits when technological factors are controlled is significant (significant), so it can be interpreted that if technological factors are controlled consistently, they provide a stable, meaningful contribution to net benefits.

3. Third Hypothesis

Table 15. Simple Correlation Coefficient Between X_3 and Y

		correlations	
		Net Benefits (Y)	Technology Factor (X3)
Net Benefits (Y)	Pearson Correlation	1	,589 **
	Sig. (2-tailed)		,000
	N	62	62
Technology Factor (X3)	Pearson Correlation	,589 **	1
	Sig. (2-tailed)	,000	
	N	62	62

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the calculation results, the product-moment correlation coefficient between technological factors and net benefits (r_{3y}) is 0.589 with a probability value of Sig. (0.000) < significant level (0.05). Based on the results in table 4.34, it can be concluded that H_0 is rejected and H_1 is accepted. In other words, technological factors have a significant positive influence on net benefits.

Table 16. The coefficient of determination between X_3 and Y

Summary models				
Model	R	R Square	Adjusted R Square	std. The error in the Estimate
1	,589 ^a	,347	,336	2,769

a. Predictors: (Constant), Technology Factor (X3)

The coefficient of determination (r_{3y}^2) is 0.347, which means that technological factors can explain 34.7% of the proportion of the net benefit variance.

If other variables are controlled, the relationship between technological factors and net benefits is done by partial correlation analysis. The partial correlation coefficient obtained and the test results are presented in Table 17.

Table 17. Partial Correlation Coefficient Between X_3 and Y

et al.	Partial Correlation Coefficient	Sig.	α	Information
59	$r_{3y,1} = 0.407$	0.001	0.05	Significant
59	$r_{3y,2} = 0.387$	0.002	0.05	Significant

Based on the results of table 17, it can be concluded that the partial correlation coefficient between technological factors and net benefits when the human factor is controlled is very significant (significant), so it can be interpreted that if the human factor is controlled consistently, then the technological factor provides a stable, meaningful

contribution to the net benefit. When organizational factors are controlled, the partial correlation coefficient between technological factors and net benefits is very significant (significant), so it can be interpreted that if organizational factors are controlled consistently, then technological factors provide a stable, meaningful contribution to net benefits.

4. Fourth Hypothesis

Table 18. Multiple Correlation Coefficient

Summary models				
Model	R	R Square	Adjusted R Square	std. The error in the Estimate
1	,751 ^a	,564	,542	2,300
a. Predictors: (Constant), X3 intervals, X1 intervals, X2 intervals				

The coefficient of determination ($R_{y.123}$) of 0.564 can be interpreted that 56.4% of the net benefit variance can be explained jointly by human, organizational, and technological factors. Based on the results of advanced calculations, the contribution of the dependent variable to the human factor is 40.4%, the organizational factor is 38.3%, technology factor is 34.7%.

Table 19. Multiple Regression Significance Test Results

ANOVA ^a						
Model		Sum of Squares	df	MeanSquare	F	Sig. ^b
1	Regression	397,551	3	132,517	25,043	,000 ^b
	residual	306,917	58	5,292		
	Total	704,468	61			

a. Dependent Variable: Net Benefit (Y)

b. Predictors: (Constant), Technology Factors (X3), Human Factors (X1), Organizational Factors (X2)

The double correlation coefficient of the two independent variables on the net benefit ($R_{y.123}$) = 0.7581. The significance test results obtained an F_{count} of 25.043 and the probability value Sig. (0.000) < significant level (0.05). Based on these results, there is a positive influence on net benefits between human, organizational, and technological factors.

A summary of the correlational analysis model can be seen in Figure 1 as follows:

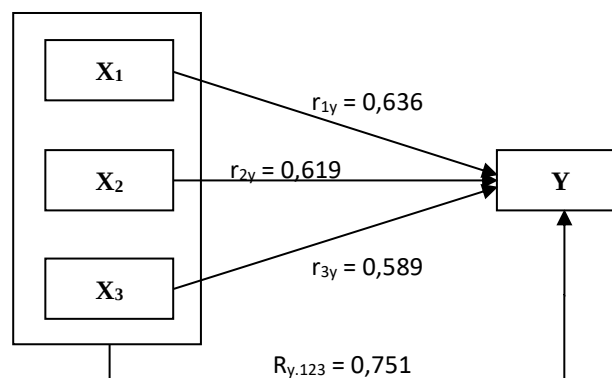


Figure 1. Empirical Model Between Variables

Several discussions and interpretations of the above research results are described in more detail below.

1. The Effect of Human Factors on Net Benefits

The results of testing the first hypothesis can be concluded that there is a positive influence between the human factor on the net benefit, where the correlation coefficient is 0.636 resulting in a probability of Sig. (0.000) < significant level (0.05). This conclusion shows that the higher the human factor, the higher the net benefit.

The correlation between human factors and net benefits shows its significance through product-moment and partial correlations. The results of this analysis indicate that the human factor is one of the variables contributing to the net benefit. From these results, an increase in human factors will significantly contribute to the net benefit of 40.4%.

In the formation of human factor variables consist of two dimensions, namely: (1) system use and (2) use satisfaction. The calculation results are as follows:

Table 20. Coefficient of Determination of Human Factor Dimensions

Summary models				
Model	R	R Square	Adjusted R Square	std. The error in the Estimate
1	1,000 ^{a,m}	1,000	1,000	,000

a. Predictors: (Constant), Use Satisfaction Dimensions, System Use Dimensions

Based on table 20 on the R Square column, which consists of two dimensions of 1,000. This means that these two dimensions form the human factor variable 100%, and no other dimensions form these variables. The calculation results for each dimension can be seen in table 21 below.

Table 21. The Dimensions of Human Factors

Coefficients ^a				
Model	Unstandardized Coefficients		Standardized Coefficients	
	B	std. Error	Betas	t Sig.
1 (Constant)	-3,553E-15	,000		. .
System Use Dimension	1,000	,000	,701	. .
The Use Satisfaction Dimension	1,000	,000	,467	. .

a. Dependent Variable: Human Factors (X1)

Based on the calculation results for each dimension in the formation of the human factor variable, the following values are obtained:

- The first dimension is the system use of 0.701;
- The second dimension is using satisfaction of 0.467.

So it can be found that the highest value is the first dimension, namely " system use ".

2. The Effect of Organizational Factors on Net Benefit

The results of testing the second hypothesis can be concluded that there is a positive influence between organizational factors on net benefits, where the correlation coefficient is 0.619 resulting in a probability of Sig. (0.000) < significant level (0.05). This conclusion shows that the higher the organizational factor, the higher the net benefit.

The correlation between organizational factors and net benefits shows its significance through product-moment and partial correlations. The results of this analysis provide clues that organizational factors are one of the variables contributing to net benefits. From these results, an increase in organizational factors will significantly contribute to the net benefit of 38.3%.

In the formation of organizational factors, variables consist of two dimensions: (1) organizational structure and (2) organizational environment. The calculation results are as follows:

Table 22. Coefficient of Determination of Organizational Factor Dimensions

Model	R	R Square	Summary models		std. The error in the Estimate
			Adjusted R Square		
1	1,000 ^{a.m}	1,000	1,000		,000

a. Predictors: (Constant), Organizational Environment Dimensions, Organization Structure Dimensions

Based on table 22 in the R Square column, which consists of two dimensions of 1,000. This means that these two dimensions form the organizational factor variable 100%, and no other dimensions form these variables. The calculation results for each dimension can be seen in table 23 below.

Table 23. Organizational Factor Dimensions

Model	Coefficients ^a				
	Unstandardized Coefficients		Standardized Coefficients		
	B	std. Error	Betas	t	Sig.
1 (Constant)	3.553E-15	,000		.	.
Organizational Structure Dimensions	1,000	,000	,729	.	.
Organizational Environment Dimensions	1,000	,000	,392	.	.

a. Dependent Variable: Organizational Factors (X2)

Based on the calculation results for each dimension in the formation of organizational factor variables, the following values are obtained:

- The first dimension is the organization structure of 0.729;
- The second dimension is the organizational environment of 0.392.

So it can be found that the highest value is the first dimension, "organization structure".

3. Effect of Technological Factors on Net Benefit

The results of testing the third hypothesis can be concluded that there is a positive influence between technological factors on net benefits, where the correlation coefficient is 0.589 resulting in a probability of Sig. (0.000) < significant level (0.05). This conclusion shows that the higher the technological factor, the higher the net benefit. The results of the research are in line with the results of research from (Kadarsih & Arafat, 2017), which states that there is a relationship between technological factors and the net benefit of the digital library AMIK AKMI Baturaja (p-value = 0.001, r = 0.751).

The correlation between technological factors and net benefits shows its significance through product-moment and partial correlations. The results of this analysis indicate that the technological factor is one of the variables contributing to the net benefit. From these results, an increase in technological factors will significantly contribute to the net benefit of 34.7%.

The formation of technological factor variables consists of four dimensions, namely: (1) system quality, (2) information quality, (3) service quality, and (4) system development (Medyawati & Hegarini, 2012). The calculation results are as follows:

Table 24. Coefficient of Determination of Technology Factor Dimensions

Model	R	R Square	Summary models	
			Adjusted R Square	std. The error in the Estimate
1	1,000 ^{a.m}	1,000	1,000	,000

a. Predictors: (Constant), System Development Dimensions, Service Quality Dimensions, System Quality Dimensions, Information Quality Dimensions

Based on table 24 in the R Square column, which consists of four dimensions of 1,000. It means that the four dimensions form the technology factor variable 100%, and no other dimensions form these variables. The calculation results for each dimension can be seen in table 25 below.

Table 25. The Dimensions of Technology Factors

Model	Coefficients ^a			
	Unstandardized Coefficients		Standardized Coefficients	
	B	std. Error	Betas	t Sig.
(Constant)	-3,553E-14	,000		. .
1 System Quality Dimensions	1,000	,000	,373	. .
Information Quality Dimensions	1,000	,000	,363	. .
Service Quality Dimension	1,000	,000	,359	. .
System Development Dimension	1,000	,000	,233	. .

a. Dependent Variable: Technology Factor (X3)

Based on the calculation results for each dimension in the formation of the human factor variable, the following values are obtained:

- The first dimension is system quality of 0.373;
- The second dimension is information quality of 0.363;
- The third dimension is service quality of 0.359;
- The fourth dimension is system development of 0.233.

So it can be found that the highest value is the first dimension, namely " system quality ".

4. The Influence of Human Factors, Organizational Factors, and Technological Factors Together on Net Benefit

The results of testing the fourth hypothesis can be concluded that human, organizational, and technological factors together positively influence net benefits. The multiple correlation coefficient between the three independent variables on the dependent variable $R_{y.123}$ is 0.751 resulting in a probability of Sig. (0.000) < significant level (0.05). Coefficient of determination $(R_{y.123})^2$ of 0.564 means that 56.4% of the net benefit variance can be explained jointly by human, organizational, and technological factors. This is in accordance with research from (Dewi & Syaifullah, 2017) which states that the Human, Organizational, and Technology variables together have a significant effect on Net Benefit by $F_{\text{count}} > F_{\text{table}}$ (6,203 > 2,947) and the value is significantly smaller than the error rate (0.002 < 0.05).

CONCLUSION

This study analyzed the factors that influence the net benefit of the personnel information system program at the Transportation Human Resources Development Agency (BPSDMP). The analysis was carried out using the HOT Fit Model, which found several things, including 1) The results of human factors research affected a net benefit of 63.6%, meaning that the staffing information

system model at the Human Resource Development Agency of Transportation (BPSDMP) was formed by the employees themselves who involved in this system in order to maximize the performance of the staffing system. 2) The results of research on organizational factors affect the net benefit by 61.9% such as organizational structure, leadership, teamwork, strategy, staffing, and staff turnover have a role in forming the Net benefit model of the personnel information system at the Human Resource Development Agency of Transportation (BPSDMP). 3) The research results on the technology factor affect the net benefit by 58.9%, such as the staffing information system model at the Human Resource Development Agency of Transportation (BPSDMP). 4) Human, organizational, and technological factors together for Net benefits have a determination coefficient value of 0.564, which means that humans, organizations, and technology can influence 56.4% of Net benefits, and there are still 43.6% of other factors that can affect information systems employment at the Human Resource Development Agency of Transportation (BPSDMP).

REFERENCES

- Abdillah, L. A., Alwi, M. H., Simarmata, J., Bisyri, M., Nasrullah, N., Asmeati, A., Gusty, S., Sakir, S., Affandy, N. A., & Bachtiar, E. (2020). *Aplikasi Teknologi Informasi: Konsep dan Penerapan*. Yayasan Kita Menulis.
- Dalimunthe, N., & Azhari, W. A. (2019). Analisa Sistem Informasi Perpustakaan Dengan Pendekatan Human Organization Technology (Hot) Fit Model (Studi Kasus: Perpustakaan UIN Suska Riau). *Seminar Nasional Teknologi Informasi Komunikasi Dan Industri*, 30–41.
- Dewi, N., & Syaifullah, S. (2017). Analisis Penerapan Fire Report Online System (Fros) Menggunakan Metode Hot-Fit (Studi Kasus: PT Arara Abadi). *Jurnal Ilmiah Rekayasa Dan Manajemen Sistem Informasi*, 3(2), 87–93. <http://dx.doi.org/10.24014/rmsi.v3i2.4481>
- Divayana, D. G. H. (2017). Evaluasi pemanfaatan e-learning menggunakan model CSE-UCLA. *Jurnal Cakrawala Pendidikan*, 36(2), 280–289. [10.21831/cp.v36i2.12853](https://doi.org/10.21831/cp.v36i2.12853)
- García-Juan, B., Escrig-Tena, A. B., & Roca-Puig, V. (2018). The empowerment–organizational performance link in local governments. *Personnel Review*.
- Iswanaji, C. (2019). Analysis of Accounting Information System Using Hot Fit Model Method in Indonesia Islamic Micro Financial Institutions. *Applied Finance and Accounting*, 5(2), 1.
- Kadarsih, K., & Arafat, M. (2017). Evaluasi Digital Library AMIK AKMI Baturaja Menggunakan HOT Fit Model. *Annual Research Seminar (ARS)*, 2(1), 414–418. <https://doi.org/10.33557/jurnalmatrik.v19i3.392>
- Mawarni, A., & Dharminto, D. (2021). Hubungan Faktor Manusia, Organisasi Dan Teknologi Terhadap Net-Benefit Dari Sikp Kabupaten Demak. *Jurnal Kesehatan Masyarakat (Undip)*, 9(3), 402–406. <https://doi.org/10.14710/jkm.v9i3.29611>
- Medyawati, H., & Hegarini, E. (2012). Model pengukuran kualitas layanan website e-banking di Indonesia. *Seminar Nasional Aplikasi Teknologi Informasi (SNATI)*.
- Mirabolghasemi, M., Choshaly, S. H., & Iahad, N. A. (2019). Using the HOT-fit model to predict the determinants of E-learning readiness in higher education: a developing Country's perspective. *Education and Information Technologies*, 24(6), 3555–3576.
- Mujahid, M., & Sukmadewi, F. (2021). Penerapan RAD pada Aplikasi E-Learning Lembaga Bimbingan Belajar Gold Generation. *Generation Journal*, 5(1), 35–47.
- Mulyadi, D., & Choliq, A. (2019). Penerapan Metode Human Organization Technology (HOT-Fit Model) untuk Evaluasi Implementasi Aplikasi Sistem Informasi Persediaan (SIDIA) di Lingkungan Pemerintah Kota Bogor. *Teknois: Jurnal Ilmiah Teknologi Informasi Dan Sains*, 7(2), 1–12.

- Naibaho, R. S. (2017). Peranan Dan Perencanaan Teknologi Informasi Dalam Perusahaan. Warta Dharmawangsa, 52.
- Sallehudin, H., Satar, N. S. M., Bakar, N. A. A., Baker, R., Yahya, F., & Fadzil, A. F. M. (2019). Modelling the enterprise architecture implementation in the public sector using HOT-Fit framework. International Journal of Advanced Computer Science and Applications, 10(8), 191–198.
- Ulfa Syafitri Bulegalangi, U. (2021). Evaluasi Penerapan SIKDA (Sistem Informasi Kesehatan Daerah) Generik Di Puskesmas Biau Kabupaten Buol. Politeknik STIA LAN Makassar.



© 2023 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY SA) license (<https://creativecommons.org/licenses/by-sa/4.0/>).