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# THE INFLUENCE OF THE HUMAN ORGANIZATION TECHNOLOGY FIT MODEL ON THE UTILIZATION OF MARINE OPERATION SYSTEM AT PT PELABUHAN INDONESIA (PERSERO) REGIONAL II

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**ABSTRACT**

*The Marine Operating System (MOS) is an application that facilitates the planning, recording, and reporting of internal ship service information. The implementation of MOS at Tanjung Priok Port has shortened service times, reduced operational costs, and increased logistics productivity. However, the implementation of MOS faces various technical and non-technical challenges, including a lack of capacity in selecting or developing suitable information systems. PT Pelabuhan Indonesia (Persero) has made significant investments in the implementation of information systems but still faces challenges in system adoption. This study aims to investigate the use of the Human Organization Technology FIT (HOT FIT) analysis on the level of MOS utilization at PT Pelabuhan Indonesia (Persero) Regional II. The research objectives include testing and analyzing the quality of systems, information, and services regarding user satisfaction with MOS and its influence on net benefits. This research is expected to contribute theoretically to the development of business administration management science and serve as a reference for further research in the same field.*

**KEYWORDS** *Marine Operating System, Human Organization Technology FIT, User Satisfaction, System Quality*



## INTRODUCTION

The Marine Operating System (MOS) is an application that facilitates the planning, recording, and reporting of internal ship service information. MOS integrates all aspects of pilotage and ship delay services automatically, from service requests to proof of realization. The implementation of MOS at Tanjung Priok Port

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has shortened service times, reduced operational costs, and increased logistics productivity. The Ministry of Transportation seeks to enhance port services to compete globally by providing fast, affordable, and transparent services supported by information technology. The digitalization of port services has been undertaken to enhance national competitiveness, with the hope that processes at ports become faster, more efficient, and transparent.

The use of MOS can enhance efficiency and effectiveness in company services, but there are technical and non-technical constraints such as a lack of capacity in selecting or developing suitable information systems. PT Pelabuhan Indonesia (Persero) has made significant investments in implementing information systems but still faces challenges in system adoption. Rapidly evolving information technology influences global trade systems, including the port sector. Improving the quality of ship pilotage services is important for continuous improvement.

The maritime industry is a strategic economic sector for Indonesia, with Pelindo as one of its main players. Pelindo continues to strive to reduce ship waiting times and service costs while utilizing digital technology to enhance operational efficiency. The COVID-19 pandemic has had a significant impact on the economy, including port operations. PT Pelabuhan Indonesia (Persero) has felt these impacts, particularly in pilotage and delays businesses. To survive, strategies to reduce operational costs and improve operational efficiency are being implemented. The development of digital technology in ports accelerates cargo and document movements, increases the speed of goods movement in ports, and enhances port capacity.

Pelindo Regional 2 has recorded positive performance in ship traffic, container traffic, and passenger traffic, as well as improved operational performance throughout 2023. The process of providing MOS services sometimes encounters obstacles, but they are addressed by providing 24/7 call center services and on-site engineers, as well as a disruption handling center to ensure the availability of services maximally. User satisfaction with the information system is a measure of the success of system adoption. The implementation of information systems has been proven to improve the performance of employees and workers in several studies.

This study aims to investigate the use of the Human Organization Technology FIT (HOT FIT) analysis on the level of Marine Operation System (MOS) utilization at PT Pelabuhan Indonesia (Persero) Regional II. The research objectives include testing and analyzing the quality of systems, information, and services regarding user satisfaction with MOS and its influence on net benefits. The benefits can be felt practically by PT Pelabuhan Indonesia II (Persero) in increasing user system revenue in the future, providing information for terminal management for better time compression or allocation, and providing insights for stakeholders to improve services and process efficiency. Theoretically, this research is expected to contribute to the development of business administration management science and serve as a reference for further research in the same field.

Based on the above description, researchers see many obstacles experienced in the implementation of management information systems such as system quality, information quality, and service quality that impact user satisfaction with the Marine Operating System (MOS). Based on this, the researcher is interested in conducting research on "The Influence of the Human Organization Technology Fit

Model on the Utilization of the Marine Operation System at PT Pelabuhan Indonesia (Persero) Regional II".

**Research Hypotheses**

Based on the variables in the conceptual framework assuming significant relationships, the research hypotheses are formulated as follows:

H1: The quality of the Marine Operation System affects user satisfaction at PT Pelabuhan Indonesia (Persero) Regional II.

H2: The quality of information in the Marine Operation System affects user satisfaction at PT Pelabuhan Indonesia (Persero) Regional II.

H3: The quality of services in the Marine Operation System affects user satisfaction at PT Pelabuhan Indonesia (Persero) Regional II.

H4: The quality of the Marine Operation System affects net benefits, mediated by user satisfaction at PT Pelabuhan Indonesia (Persero) Regional II.

H5: The quality of information in the Marine Operation System affects net benefits, mediated by user satisfaction at PT Pelabuhan Indonesia (Persero) Regional II.

H6: The quality of services in the Marine Operation System affects net benefits, mediated by user satisfaction at PT Pelabuhan Indonesia (Persero) Regional II.

H7: User satisfaction with the Marine Operation System affects net benefits at PT Pelabuhan Indonesia (Persero) Regional II.

H8: Organizational Structure affects user satisfaction at PT Pelabuhan Indonesia (Persero) Regional II.

H9: Organizational Structure affects net benefit mediated by user satisfaction at PT Pelabuhan Indonesia (Persero) Regional II.

H10: The variables of technology and user satisfaction simultaneously affect the net benefit of users at PT Pelabuhan Indonesia (Persero) Regional II.

H11: All variables simultaneously affect the net benefit of users at PT Pelabuhan Indonesia (Persero) Regional II.

## RESEARCH METHOD

This research method employs a quantitative approach based on positivist philosophy, utilizing questionnaire techniques for data collection. The study is structured from planning, discussion, to results and conclusions. Research steps include determining variables, composing and distributing questionnaires, and tabulating data for acceptance level testing through acceptance factor analysis.

Primary data is obtained from users of the Marine Operation System (MOS) at PT Pelabuhan Indonesia (Persero) Regional II through online questionnaires. Data sources also include observation, document review, and literature study to support the research. Operational definitions of variables are used to understand the meaning of research variables before data analysis.

The research population includes all MOS users at PT Pelabuhan Indonesia (Persero) Regional II. A sample of 100 people is chosen to ensure data sufficiency. Hypothesis testing is conducted using the Structural Equation Model (SEM) approach based on Partial Least Square (PLS), with a significance level of 0.05.

Data analysis involves outer model and inner model analysis stages. In the outer model analysis, convergent validity, discriminant validity, Average Variance

Extracted (AVE), and composite reliability are examined. Meanwhile, in the inner model analysis, R-square value, predictive relevance (Q2), effect size (f2), and path coefficient are examined.

Hypothesis testing is conducted by comparing the T-statistic value with the T-table value and observing the p-value obtained from path analysis between variables. Research hypotheses are considered supported if the T-statistic value is higher than the T-table value and the p-value is less than 0.05.

## RESULT AND DISCUSSION

### Overview of the Research

#### *Respondent Characteristics*

In this study, the population consists of all users of the Marine Operation System (MOS) at PT Pelabuhan Indonesia (Persero) Regional II. Hypothesis testing is conducted using the Structural Equation Model (SEM) approach based on Partial Least Square (PLS). PLS is a structural equation model (SEM) based on components or variants. Structural Equation Model (SEM) is one of the statistical study fields that can simultaneously test a series of relatively difficult-to-measure relationships. As the initial process of analysis in this research outcome, an analysis of respondent characteristics is conducted, grouped based on Gender, Age of Respondents, Status, and Highest Education Attained.

**Table 4.1 Gender**

| Gender | Number | Percentage |
|---|---|---|
| Male | 175 | 92% |
| Female | 15 | 8% |
| **Total** | **190** | **100%** |

Source: Processed Data (2024)

From the table above, it can be seen that out of 190 respondents who filled out the questionnaire, the majority of respondents are Male, total 175 individuals (92%), followed by Female respondents, total 15 individuals (8%).

**Table 4.2 Age**

| Age | Number | Percentage |
|---|---|---|
| 17 - 22 year | 6 | 3% |
| 23 - 28 year | 36 | 19% |
| 29 - 34 year | 34 | 18% |
| 35 - 40 year | 39 | 21% |
| ≥ 40 year | 75 | 39% |
| **Total** | **190** | **100%** |

Source: Processed Data (2024)

From the table above, it can be seen that out of 190 respondents who filled out the questionnaire, the majority of respondents are ≥ 40 Years old, total 75 individuals (39%), followed by respondents aged 35 - 40 Years, total 39 individuals (21%), respondents aged 23 - 28 Years, total 36 individuals (19%), respondents aged 29 - 34 Years, total 34 individuals (18%), and respondents aged 17 - 22 Years, total 6 individuals (3%).

**Tabel 4.3 Status**

| Status | Number | Percentage |
|---|---|---|
| Single | 46 | 24% |
| Married | 143 | 75% |
| Others | 1 | 1% |
| **Total** | **190** | **100%** |

Source: Processed Data (2024)

From the table above, it can be seen that out of 190 respondents who filled out the questionnaire, the majority of respondents are Married, total 143 individuals (75%), followed by Single respondents, total 46 individuals (24%), while respondents with Other Status, total 1 individual (1%).

**Table 4.4 Highest Education Attained**

| Highest Education Attained | Number | Percentage |
|---|---|---|
| High School or Equivalent | 57 | 30% |
| Diploma III | 15 | 8% |
| Bachelor's Degree or Diploma IV | 99 | 52% |
| Master's Degree or Doctorate | 19 | 10% |
| **Total** | **190** | **100%** |

Source: Processed Data (2024)

From the table above, it can be seen that out of 190 respondents who filled out the questionnaire, the majority of respondents have a Bachelor's Degree or Diploma IV as their highest education attained, total 99 individuals (52%), followed by respondents with a High School or Equivalent education, total 57 individuals (30%), respondents with a Master's Degree or Doctorate, total 19 individuals (10%), and respondents with a Diploma III as their highest education attained, total 15 individuals (8%).

***Descriptive Statistical Analysis of Variables***

The results of descriptive statistical analysis depict respondents' answers for each statement of each research variable based on the interpretation of the average score of each indicator accompanied by the frequency of respondents' score answers for each instrument. Based on the average scores, an interpretation of respondents' answers is conducted using a 5 (five)-point Likert scale. Each scale has levels of assessment from very negative to very positive, which are available in the questionnaire response options.

This research evaluates several variables, including System Quality, Information Quality, Service Quality, User Satisfaction, and Net Benefit. The System Quality variable, measured through 8 indicators, received a good rating with an average score of 3.797, indicating a positive response from 190 respondents. One of the highest indicators is about simple display, with an average score of 3.942. Furthermore, the Information Quality variable was also rated good with an average of 3.727, indicating that respondents gave positive ratings for language consistency in the application. Service Quality, measured through 2 indicators, also received positive ratings with an average of 3.534, with excellent service being the highest indicator (3.547). The User Satisfaction variable, measured through 3 indicators, received a good rating with an average of 3.811, indicating that respondents gave positive ratings for a good application interface. Lastly, the Net Benefit variable, measured through 6 indicators, also received positive ratings with an average of 3.726, indicating that the integrated ship service system is deemed beneficial by respondents.

**Research Findings**

Hypothesis testing was conducted using the Structural Equation Model (SEM) approach based on Partial Least Square (PLS). PLS is a structural equation model (SEM) based on components or variants. Structural Equation Model (SEM) is one of the statistical study fields that can test a series of relatively difficult-to-measure relationships simultaneously. According to Latan and Ghozali (2015), PLS is an alternative approach that shifts from covariance-based SEM approach to variance-based. Covariance-based SEM generally tests causality or theory while PLS is more of a predictive model. However, there is a difference between covariance-based SEM and component-based PLS in the use of structural equation models to test theories for predictive purposes.

***Outer Model Evaluation***

The measurement model or outer model evaluation is conducted to assess the validity and reliability of the model. The outer model with reflexive indicators is evaluated through convergent validity and discriminant validity of its indicators and composite reliability for indicator blocks (Ghozali and Latan, 2015). In this step, a SEM model diagram is developed to facilitate the visualization of causal relationships to be tested. In this diagram, relationships between constructs are expressed through arrows.

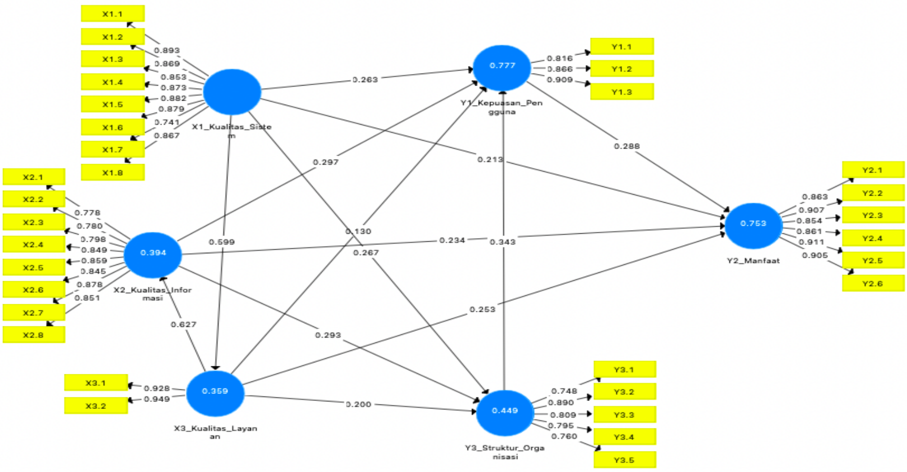


**Figure 4.1 *Outer Model***

**Validity Testing**

Convergent Validity testing of each construct indicator according to Chin in Ghozali and Latan (2015), an indicator is said to have validity if the value is greater > 0.7. Here are the outer loadings values for each construct indicator in the following table:

**Table 4.5 Validity Test Results**

| Variable | Item Code | Outer Loadings | Information |
|---|---|---|---|
| **System Quality** | X1.1 | 0,893 | Valid |
| | X1.2 | 0,869 | Valid |
| | X1.3 | 0,853 | Valid |
| | X1.4 | 0,873 | Valid |
| | X1.5 | 0,882 | Valid |
| | X1.6 | 0,879 | Valid |
| | X1.7 | 0,741 | Valid |
| | X1.8 | 0,867 | Valid |
| **Quality of Information** | X2.1 | 0,778 | Valid |
| | X2.2 | 0,780 | Valid |
| | X2.3 | 0,798 | Valid |
| | X2.4 | 0,849 | Valid |
| | X2.5 | 0,859 | Valid |
| | X2.6 | 0,845 | Valid |
| | X2.7 | 0,878 | Valid |
| | X2.8 | 0,851 | Valid |
| **Quality of Service** | X3.1 | 0.928 | Valid |
| | X3.2 | 0.949 | Valid |
| **User Satisfaction** | Y1.1 | 0,816 | Valid |
| | Y1.2 | 0,866 | Valid |
| | Y1.3 | 0,909 | Valid |
| ***Net Benefit*** | Y2.1 | 0,863 | Valid |

| | | | |
|---|---|---|---|
| | Y2.2 | 0,907 | Valid |
| | Y2.3 | 0,854 | Valid |
| | Y2.4 | 0,861 | Valid |
| | Y2.5 | 0,911 | Valid |
| | Y2.6 | 0,905 | Valid |
| ***Organization Structure*** | Y3.1 | 0,748 | Valid |
| | Y3.2 | 0,890 | Valid |
| | Y3.3 | 0,809 | Valid |
| | Y3.4 | 0,795 | Valid |
| | Y3.5 | 0,760 | Valid |

Source: SmartPLS data processing version 3.0, 2024

Convergent validity can be seen from the *loading* factor for each construct indicator. *The rule of thumb* used to judge convergent validity is that the *loading factor* value must be greater than 0.7. Based on table 4.10 it can be seen that all indicator items have a *loading factor* value above 0.7, thus all question items used in this study are valid.

***Average Variance Extracted* (AVE) Test**

Another way that can be used to assess *discriminant validity* is to compare the AVE square for each construct with the correlation value between the constructs in the model. Acceptable AVE values should be greater than 0.5 (Ghozali and Latan, 2015). Here are the AVE values for each variable in the table below:

**Table 4.6 Avarage Variance Extracted (AVE) Test Result**

| Variable | Average Variance Extracted (AVE) | Information |
|---|---|---|
| System Quality | 0.737 | Valid |
| Quality of Information | 0.690 | Valid |
| Quality of Service | 0.881 | Valid |
| User Satisfaction | 0.748 | Valid |
| Organization Structure | 0,643 | Valid |
| Net Benefit | 0.781 | Valid |

Source: Questionnaire Test Results with SmartPLS version 3.0,2024

From table 4.6, it can be seen that the AVE value for all variables meets the condition value, which is above 0.5. The lowest AVE value is found in the Information Quality variable with a value of 0.690 > 0.5. By taking into account the *loading factor value* in table 4.10 and the AVE value in table 4.10, the data from this study can be declared to have met the requirements of the convergent validity test.

**Discriminant Validity Testing**

*Discriminant validity* shows the extent to which a construct is completely different from other variables. *The discriminant validity* of the measurement model with reflective indicators is assessed based on crossloading the measurement with the construct. It is expected that each latent variable measured is compared with indicators for other latent variables (Ghozali and Latan, 2015). Table 4.7 shows the value of *crossloading* for each construct.

**Table 4.7 Discriminant Validity Test Results**

| | **System Quality** | **Quality of Information** | **Quality of Service** | **User Satisfaction** | **Net Bene-fit** | **Organization Structure** |
|---|---|---|---|---|---|---|
| **X1.1** | **0.894** | 0.674 | 0.557 | 0.717 | 0.724 | 0,572 |
| **X1.2** | **0.868** | 0.651 | 0.531 | 0.678 | 0.658 | 0,567 |
| **X1.3** | **0.852** | 0.639 | 0.557 | 0.658 | 0.696 | 0,554 |
| **X1.4** | **0.873** | 0.610 | 0.546 | 0.644 | 0.671 | 0,513 |
| **X1.5** | **0.884** | 0.636 | 0.466 | 0.700 | 0.668 | 0,489 |
| **X1.6** | **0.880** | 0.626 | 0.494 | 0.652 | 0.611 | 0,454 |
| **X1.7** | **0.739** | 0.541 | 0.464 | 0.562 | 0.506 | 0,427 |
| **X1.8** | **0.866** | 0.580 | 0.488 | 0.613 | 0.612 | 0,52 |
| **X2.1** | 0.626 | **0.777** | 0.517 | 0.575 | 0.545 | 0,404 |
| **X2.2** | 0.560 | **0.780** | 0.440 | 0.541 | 0.566 | 0,425 |
| **X2.3** | 0.575 | **0.799** | 0.439 | 0.577 | 0.573 | 0,441 |
| **X2.4** | 0.571 | **0.848** | 0.517 | 0.654 | 0.676 | 0,572 |
| **X2.5** | 0.620 | **0.858** | 0.580 | 0.692 | 0.656 | 0,518 |
| **X2.6** | 0.563 | **0.846** | 0.487 | 0.694 | 0.689 | 0,517 |
| **X2.7** | 0.618 | **0.879** | 0.589 | 0.738 | 0.706 | 0,579 |
| **X2.8** | 0.683 | **0.850** | 0.577 | 0.679 | 0.687 | 0,575 |
| **X3.1** | 0.515 | 0.546 | **0.928** | 0.555 | 0.625 | 0,454 |
| **X3.2** | 0.603 | 0.625 | **0.949** | 0.675 | 0.717 | 0,56 |
| **Y1.1** | 0.513 | 0.591 | 0.640 | **0.813** | 0.711 | 0,66 |
| **Y1.2** | 0.733 | 0.691 | 0.533 | **0.867** | 0.654 | 0,658 |
| **Y1.3** | 0.726 | 0.737 | 0.545 | **0.911** | 0.710 | 0,639 |
| **Y2.1** | 0.588 | 0.659 | 0.562 | 0.685 | **0.863** | 0,645 |
| **Y2.2** | 0.649 | 0.690 | 0.615 | 0.724 | **0.907** | 0,603 |
| **Y2.3** | 0.668 | 0.670 | 0.706 | 0.683 | **0.854** | 0,615 |
| **Y2.4** | 0.709 | 0.664 | 0.684 | 0.689 | **0.861** | 0,605 |
| **Y2.5** | 0.649 | 0.715 | 0.609 | 0.738 | **0.911** | 0,645 |
| **Y2.6** | 0.725 | 0.692 | 0.624 | 0.719 | **0.905** | 0,623 |
| **Y3.1** | 0,491 | 0,489 | 0,468 | 0,56 | 0,532 | **0,748** |
| **Y3.2** | 0,56 | 0,553 | 0,467 | 0,658 | 0,644 | **0,89** |
| **Y3.3** | 0,493 | 0,53 | 0,408 | 0,636 | 0,599 | **0,809** |
| **Y3.4** | 0,418 | 0,47 | 0,426 | 0,604 | 0,56 | **0,795** |
| **Y3.5** | 0,432 | 0,401 | 0,413 | 0,56 | 0,474 | **0,76** |

Source: SmartPLS Test Results version 3.0, (2024)

Table 4.7 shows that the cross loading value of each item against its construct is greater than the loading value with other constructs. From these results, it can be concluded that there are no problems with discriminant validity.

The discriminant validity test can also be done by looking at the AVE root for each construct which must be greater than the correlation value with other constructs in the model so that it can be said to have a good discriminant validity value (Fornell & Larcker, 1981 in Ghozali and Latan, 2013), which can be seen in Table 4.8.

**Table 4.8 Discriminant Validity Test (Fornell-Larcker Criterion)**

| | **System Quality** | **Quality of Information** | **Quality of Service** | **User Satisfaction** | **Net Benefit** | **Org Structure** |
|---|---|---|---|---|---|---|
| System Quality | **0.858** | | | | | |
| Quality of Information | 0.724 | **0.831** | | | | |
| Quality of Service | 0.599 | 0.627 | **0.939** | | | |
| User Satisfaction | 0.764 | 0.780 | 0.660 | **0.865** | | |
| Net Benefit | 0.754 | 0.772 | 0.718 | 0.800 | **0.884** | |
| Org. Structure | 0,600 | 0,612 | 0,544 | 0,754 | 0,704 | **0,802** |

Source: Data processed by Author with SmartPLS version 3.0, (2024)

In addition, Henseler et al. (2016) argue that there is a new criterion to test discriminant validity , namely by looking at the results of the Heterotrait-Monotrait Ratio (HTMT) matrix in PLS. Where the recommended measurement value should be smaller than 0.85 and although values above 0.85 to a maximum of 0.90 are still considered sufficient, the HTMT matrix can be seen in Table 4.9.

**Table 4.9 Discriminant Validity test (Heterotrait-Monotrait Ratio)**

| | **System Quality** | **Quality of Information** | **Quality of Service** | **User Satisfaction** | **Net Bene-fit** | **Org Structure** |
|---|---|---|---|---|---|---|
| System Quality | | | | | | |
| Quality of Information | 0.769 | | | | | |
| Quality of Service | 0.656 | 0.690 | | | | |
| User Satisfaction | 0.856 | 0.878 | 0.776 | | | |
| Net Benefit | 0.792 | 0.816 | 0.789 | 0.905 | | |
| Org Structure | 0,660 | 0,674 | 0,627 | 0,893 | 0,780 | |

Source: Data processed by Author with SmartPLS version 3.0, (2024)

***Reliability Testing***

According to Ghozali and Latan (2015), composite reliability testing aims to assess the reliability of instruments in a research model. If all latent variable values have composite reliability > 0.7 and Cronbach's alpha > 0.7, it means that the constructs have good reliability or the questionnaire used as a tool in this study is reliable or consistent.

**Table 4.10 Results of Composite Reliability Testing**

| Variable | Composite Reliability | Information |
|---|---|---|
| System Quality | 0.957 | Reliable |
| Quality of Information | 0.947 | Reliable |
| Quality of Service | 0.937 | Reliable |
| User Satisfaction | 0.899 | Reliable |
| Organization Structure | 0,900 | Reliable |
| Net Benefit | 0.955 | Reliable |

Source: Questionnaire Testing Results with SmartPLS version 3.0, 2024

Based on Table 4.10, it can be seen that all variables in this research model are reliable because composite reliability > 0.7.

**Table 4.11 Results of Cronbach's Alpha Testing**

| Variable | *Cronbach's Alpha* | Information |
|---|---|---|
| System Quality | 0,948 | Reliable |
| Quality of Information | 0,936 | Reliable |
| Quality of Service | 0,866 | |
| User Satisfaction | 0,830 | Reliable |
| Organization Structure | 0,860 | |
| Net Benefit | 0,944 | Reliable |

Source: Questionnaire Testing Results with SmartPLS version 3.0, 2024

Based on the above Table 4.11, all variables in this research model are reliable because Cronbach's alpha > 0.7 (Ghozali dan Latan, 2015).

**Inner Model (Structural Model)**

Inner model testing involves developing a concept-based and theory-based model to analyze the relationships between exogenous and endogenous variables as outlined in the conceptual framework (Ghozali and Latan, 2016). Structural model testing is conducted to assess the determination coefficients (R2), Effect Size (f2), Predictive Relevance Values (Q2), and T-statistics.

***R Square ($R^2$)***

According to Ghozali and Latan (2015), changes in R-square values can be used to assess the influence of certain independent latent variables on dependent latent variables, whether they have substantive effects. R2 results of 0.67, 0.33, and 0.19 for endogenous latent variables in the structural model indicate that the model is "strong," "moderate," and "weak" (Ghozali and Latan, 2015).

**Table 4.12 R2 Values for Each Variable**

| | R Square | R Square Adjusted |
|---|---|---|
| Quality of Information | 0,394 | 0,390 |

| | | |
|---|---|---|
| Quality of Service | 0,359 | 0,356 |
| User Satisfaction | 0,777 | 0,772 |
| Net Benefit | 0,753 | 0,748 |
| Organization Structure | 0,449 | 0,440 |

Source: Testing Results with SmartPLS version 3.0, 2024

Based on Table 4.12, the R2 value for User Satisfaction is 0.709, indicating that it falls into the Strong category. Thus, it can be concluded that System Quality, Information Quality, and Service Quality have a significant impact on User Satisfaction. Based on Table 4.17, the R2 value for Net Benefit is 0.753, indicating that it falls into the Strong category. Thus, it can be concluded that System Quality, Information Quality, Service Quality, and User Satisfaction have a significant impact on Net Benefit.

***Effect Size ($F^2$)***

Effect Size (f2) values are also used to evaluate whether removing exogenous variables has a substantive impact on endogenous variables. F2 values of 0.02, 0.15, and 0.35 can be interpreted as small, medium, and large effects of predictor latent variables on structural levels according to Chin (1998) in Ghozali and Latan (2015). Table 4.18 shows the Effect Size (f2) values for each exogenous variable on the endogenous variable.

**Tabel 4.13 Nilai *Effect Size* ($F^2$)**

| | User Satisfaction | Org Structure | Net Benefit |
|---|---|---|---|
| System Quality | 0,129 | 0,057 | 0,068 |
| Quality of Information | 0,155 | 0,065 | 0,075 |
| Quality of Service | 0,041 | 0,041 | 0,136 |

Source: SmartPLS version 3.0, 2024

Based on Table 4.13, it can be concluded that the variables of system quality, information quality, and service quality have effect size values of 0.129, 0.155, and 0.041, respectively, indicating small to medium influence on user satisfaction. For the variables of system quality, information quality, and service quality, the effect size values are 0.068, 0.076, and 0.136, respectively, indicating a small influence on net benefit. The variables of system quality, information quality, and service quality have effect size values of 0.057, 0.065, and 0.041, respectively, indicating a small influence on organizational structure.

***Predictive Relevance Value ($Q^2$)***

Q-square measures how well the observation values are generated by the model and also its parameter estimations. The Q2 value ranges from 0 < Q2 < 1, where the closer it is to 1, the better the model. This Q2 value is equivalent to the total coefficient of determination in path analysis. A Q2 value > 0 indicates that the model has predictive relevance, while if the Q2 value ≤ 0, it indicates that the model lacks predictive relevance

**Table 4.14 Predictive Relevance Value ($Q^2$)**

| | SSO | SSE | $Q^2$ (=1-SSE/SSO) |
|---|---|---|---|
| System Quality | 1,520.000 | 1,520.000 | |
| Quality of Information | 1,520.000 | 1,180.000 | 0,264 |
| Quality of Service | 380.000 | 265.700 | 0,301 |
| User Satisfaction | 570.000 | 246.900 | 0,567 |
| Net Benefit | 1,140.000 | 478.900 | 0,580 |

Source: Testing Results with version 3.0, (2024)

Based on the above calculation results, it can be observed that the Q2 value ranges from 0 < Q2 < 1, where the closer it is to 1, the better the model. Since all variables have Q2 > 0, it can be concluded that the model has predictive relevance.

**Hypothesis Testing**

Hypothesis testing for this research uses the t-statistic coefficient. The output from the bootstrapping command generates t-statistic values. Indicators with t-statistic > 1.96 are considered significant (Ghozali and Latan, 2015). An indicator can also be considered significant if it has a p-value < 0.05 (Haryono, 2017).

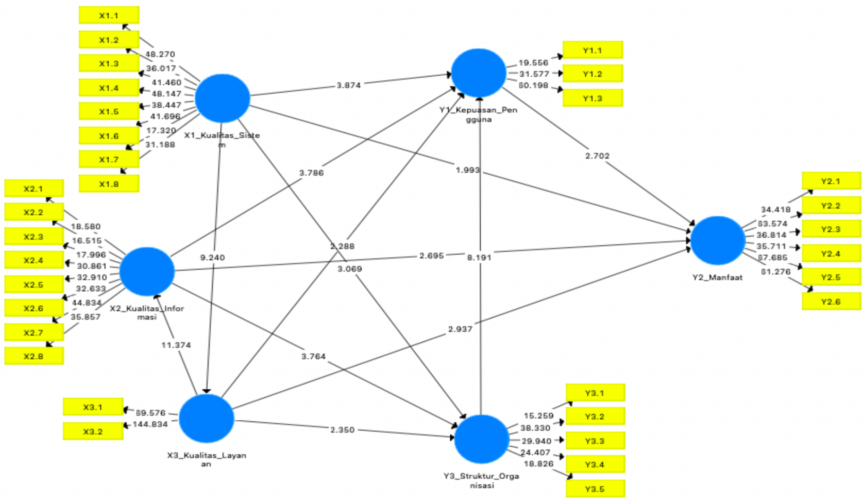


**Figure 4.2 *Inner Model***

The stages of testing the structural model (hypothesis test) are carried out with the following steps:

**Table 4.15 Hypothesis Testing for Direct Effects**

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (\|O/STDEV\|) | P Values |
|---|---|---|---|---|---|
| System Quality -> Quality of Service | 0,599 | 0,599 | 0,065 | 9,240 | 0,000 |

| | | | | | |
|---|---|---|---|---|---|
| System Quality -> User Satisfaction | 0,263 | 0,263 | 0,068 | 3,874 | 0,000 |
| System Quality -> Net Benefit | 0,213 | 0,212 | 0,107 | 1,993 | 0,046 |
| System Quality -> Organization Structure | 0,267 | 0,268 | 0,087 | 3,069 | 0,002 |
| Quality of Information -> User Satisfaction | 0,297 | 0,301 | 0,079 | 3,786 | 0,000 |
| Quality of Information -> Net Benefit | 0,234 | 0,230 | 0,087 | 2,695 | 0,007 |
| Quality of Information -> Organization Structure | 0,293 | 0,295 | 0,078 | 3,764 | 0,000 |
| Quality of Service -> Quality of Information | 0,627 | 0,628 | 0,055 | 11,374 | 0,000 |
| Quality of Service -> User Satisfaction | 0,130 | 0,127 | 0,057 | 2,288 | 0,022 |
| Quality of Service -> Net Benefit | 0,253 | 0,251 | 0,086 | 2,937 | 0,003 |
| Quality of Service -> Organization Structure | 0,200 | 0,199 | 0,085 | 2,350 | 0,019 |
| User Satisfaction -> Net Benefit | 0,288 | 0,294 | 0,107 | 2,702 | 0,007 |
| Organization Structure -> User Satisfaction | 0,343 | 0,342 | 0,042 | 8,191 | 0,000 |

Source: Testing Results using SmartPLS version 3.0, 2024

Based on Table 4.15, it can be concluded that the results of the hypothesis testing are acceptable. This means that all variables have a direct, positive, and significant influence on the targeted constructs. User satisfaction (Y2) is directly influenced by three technology constructs. The construct with the greatest influence from technology is Information Quality (0.293), followed by System Quality (0.263).

**Table 4.16 Hypothesis Testing of Indirectly Effect**

| | **Original Sample (O)** | **Sample Mean (M)** | **Standard Deviation (STDEV)** | **T Statistics (\|O/STDEV\|)** | **P Values** |
|---|---|---|---|---|---|
| ***Specific Indirect Effect*** | | | | | |
| Organization Structure -> User Satisfaction -> Net Benefit | 0,099 | 0,103 | 0,043 | 2,291 | 0,022 |
| Quality of Service -> Organization Structure -> User Satisfaction | 0,069 | 0,068 | 0,029 | 2,354 | 0,019 |
| Quality of Service -> User Satisfaction -> Net Benefit | 0,037 | 0,038 | 0,023 | 1,606 | 0,108 |

| | | | | | |
|---|---|---|---|---|---|
| Quality of Information -> Organization Structure -> User Satisfaction | 0,101 | 0,101 | 0,029 | 3,443 | 0,001 |
| Quality of Information -> User Satisfaction -> Net Benefit | 0,086 | 0,086 | 0,034 | 2,517 | 0,012 |
| System Quality -> Organization Structure -> User Satisfaction | 0,092 | 0,092 | 0,033 | 2,780 | 0,005 |
| System Quality -> User Satisfaction -> Net Benefit | 0,076 | 0,079 | 0,038 | 1,996 | 0,046 |
| System Quality -> Quality of Service -> Quality of Information -> User Satisfaction -> Net Benefit | 0,032 | 0,033 | 0,015 | 2,083 | 0,032 |
| System Quality -> Quality of Service -> Quality of Information -> Organization Structure -> User Satisfaction -> Net Benefit | 0,011 | 0,012 | 0,007 | 1,564 | 0,118 |
| ***Total Indirect Effect*** | | | | | |
| System Quality -> User Net Benefit | 0,419 | 0,422 | 0,074 | 5,698 | 0,000 |
| Quality of Information -> Net Benefit | 0,115 | 0,116 | 0,046 | 2,488 | 0,013 |
| Quality of Service -> Net Benefit | 0,276 | 0,276 | 0,064 | 4,293 | 0,000 |

Source: Testing Results using SmartPLS version 3.0, 2024

In Table 4.16, it is specifically shown that almost all constructs have an indirect influence (p-value < 0.005) between system quality, information quality, and service quality on net benefit through user satisfaction and organizational structure. However, in the relationship between service quality and net benefit through user satisfaction, it can be seen that the indirect influence of this variable is positive but not significant (p-value 0.108).

This is suspected because the indirect influence of service quality specifically mediated through user satisfaction does not have a significant impact on net benefit, with an influence coefficient of 0.037. However, the overall indirect influence of service quality on net benefit shows a positive and significant effect (p-value < 0.005), and even the coefficient value of service quality (β = 0.276) is higher than that of information quality (β = 0.115) on net benefit.

These findings are consistent with research conducted by Darwin & Umam (2020), which shows that the results of smartPLS bootstrapping on specific indirect effects indicate that the hypothesis of construct influence on the dependent variable through the intervening variable is rejected, as the t-statistic is 0.902 and the p-value is 0.368. This means that this hypothesis is positive but not significant.

The simultaneous influence of all latent variables on benefit is 0.011, indicating a positive influence but not significantly different (p-value = 0.118). The insignificance of the simultaneous influence of all latent variables is due to the substantial impact already provided by indirect and other direct influences. The greatest influence is from the direct influence of information quality, service quality, system quality, and user satisfaction. Additionally, there is a substantial indirect influence from the technology variable moderated by user satisfaction. Furthermore, there is a simultaneous influence between the technology variable and user satisfaction on benefit, which has a positive and significant influence. Thus, the simultaneous influence of the technology variable and user satisfaction still has a significant impact, whereas the overall simultaneous influence has a negligible value, making it not significantly different in the t-statistic test.

**Discussion of Research Results**

***The Influence of System Quality on User Satisfaction***

Based on the calculation results, a t-statistic value of 3.874 was obtained, which is > 1.96, and a sig. value of 0.000 below 0.05, so H1 is accepted, meaning that System Quality has a positive and significant influence on User Satisfaction. This implies that an increase in System Quality will lead to an increase in User Satisfaction levels and statistically has a significant impact. Based on data processing results with SmartPLS version 3.0, the path coefficient value of System Quality on User Satisfaction is 0.263, indicating that System Quality has a positive and significant influence on User Satisfaction in using the Marine Operation System (MOS) at PT Pelabuhan Indonesia (Persero) Regional II.

These research findings are consistent with the study conducted by Irfan (2019), which shows that better system quality leads to increased user satisfaction. Users find the application system easy to learn, easy to access, fast, and reliable, so they do not need to put in much effort to use it.

***The Influence of Information Quality on User Satisfaction***

Based on the calculation results, a t-statistic value of 3.876 was obtained, which is > 1.96, and a sig. value of 0.000 below 0.05, so H2 is accepted, meaning that Information Quality has a positive and significant influence on User Satisfaction. This implies that an increase in Information Quality will lead to an increase in User Satisfaction levels and statistically has a significant impact. Based on data processing results with SmartPLS version 3.0, the path coefficient value of Information Quality on User Satisfaction is 0.297, indicating that Information Quality has a positive and significant influence on User Satisfaction in using the Marine Operation System (MOS) at PT Pelabuhan Indonesia (Persero) Regional II.

These research findings are consistent with the study conducted by Irfan (2019), which states that the more complete the information, the easier it is to understand, and the more relevant and accurate the information provided by the application, the higher the user satisfaction in using the system. Users feel that the quality of information produced by the system is comprehensive, easy to understand, relevant, and accurate, thereby minimizing the problems they face.

***The Influence of Service Quality on User Satisfaction***

Based on the calculation results, a t-statistic value of 2.288 was obtained, which is > 1.96, and a sig. value of 0.001 below 0.05, so H3 is accepted, meaning that Service Quality has a positive and significant influence on User Satisfaction. This implies that an increase in Service Quality will lead to an increase in User Satisfaction levels and statistically has a significant impact. Based on data processing results with SmartPLS version 3.0, the path coefficient value of Service Quality on User Satisfaction is 0.130, indicating that Service Quality has a positive and significant influence on User Satisfaction in using the Marine Operation System (MOS) at PT Pelabuhan Indonesia (Persero) Regional II.

This research is consistent with previous research conducted by Dewi Lusiana (2020), stating that Quality of Services gives positive value to User Comfort (use satisfaction) and User Comfort (use satisfaction) does not provide positive things to fundamental benefits.

***The Influence of System Quality on Net Benefit Moderated by User Satisfaction***

Based on the calculation results, a t-statistic value of 1.996 was obtained, which is > 1.96, and a p-value of 0.046 below 0.05, so H4 is accepted, meaning that system quality has a positive and significant influence on net benefit moderated by user satisfaction. In other words, if system quality improves, there will be an indirect increase in net benefit mediated by user satisfaction, and this influence is statistically significant.

This research is consistent with previous research conducted by Mulyadi & Choliq (2019), which stated that the system quality variable has a positive and significant influence on net benefit. The higher the system quality, the greater the increase in system usage, user satisfaction, and the role of organizational structure, which will impact net benefits.

***The Influence of Information Quality on Net Benefit Moderated by User Satisfaction***

Based on the calculation results, a t-statistic value of 2.517 was obtained, which is > 1.96, and a p-value of 0.012 below 0.05, so H5 is accepted, meaning that information quality has a positive and significant influence on net benefit moderated by user satisfaction. Therefore, if information quality improves, there will be an indirect increase in net benefit moderated by user satisfaction for the Marine Operating System (MOS) at PT Pelabuhan Indonesia (Persero) Regional II.

This research aligns with previous studies conducted by Sabran et al. (2020), which stated that system quality has a positive and significant influence on user satisfaction. The better the system quality in terms of utilization of the information system implementation, the higher the benefits or advantages obtained from its application.

***The Influence of Service Quality on Net Benefit Moderated by User Satisfaction***

Based on the calculation results, a t-statistic value of 1.606 was obtained, which is > 1.96, and a p-value of 0.108 below 0.05, so H6 is not accepted, indicating that service quality has a positive but not significant influence on net benefit moderated by user satisfaction. Thus, if service quality improves, there will be an increase in the level of net benefit, but statistically, it does not have a significant influence.

At first glance, this contradicts research conducted by Utomo (2017), where improving service quality leads to a higher indirect impact on net benefit through increased user satisfaction. However, based on the total indirect effect of service quality on net benefit, service quality shows a positive and significant total indirect effect (p-value = 0.000). Therefore, specifically, the influence of service quality on benefits mediated by user satisfaction does not have a significant effect, but the influence of service quality mediated by other latent variables on benefits has a positive and significant effect.

This research is consistent with previous studies conducted by Kawadha et al. (2020), who found that among the three human, organizational, and technological assessment components, overall information system impact is the one that achieves net benefits. The performance budget of information systems is assessed using decision-making quality, efficiency, and effectiveness. Better service quality will lead to increased user satisfaction because users perceive the benefits of using services provided by the application (Utomo et al., 2017).

### *The Influence of User Satisfaction on Net Benefit*

Based on the calculation results, a t-statistic value of 2.702 was obtained, which is > 1.96, and p-value of 0.005 below 0.05, so H7 is accepted, meaning that User Satisfaction has a positive and significant influence on Net Benefit. This implies that an increase in User Satisfaction will lead to an increase in Net Benefit levels and statistically has a significant impact. Based on data processing results with SmartPLS version 3.0, the path coefficient value of User Satisfaction on Net Benefit is 0.285, indicating that User Satisfaction has a positive and significant influence on Net Benefit at PT Pelabuhan Indonesia (Persero).

The results of this study are in line with research conducted by Dewi Lusiana (2020), which found a positive and significant influence between User Satisfaction and Net Benefit. User satisfaction is an assessment of whether the performance of an information system is relatively good or not, and also whether the presented information system is suitable or not suitable for the user's goals. The findings of this study also in line with Mulyadi & Choliq (2019), indicating that higher user satisfaction with the application leads to increased system usage and the benefits (net benefits) derived from the application.

### *The Influence of System Quality, Information Quality, and Service Quality on Organizational Structure*

Based on the calculation results, the t-statistic values for the influence of system quality, information quality, and service quality on organizational structure are 3.069, 3.764, and 2.350, respectively, which are > 1.96. The p-values are 0.002, 0.000, and 0.019, all below 0.05. Therefore, system quality, information quality, and service quality have a significant influence on organizational structure.

From the calculation results, it can be stated that an increase in system quality, information quality, and service quality leads to improved operational systems within the organization. Based on data processing using SmartPLS version 3.0, the path coefficient values for system quality, information quality, and service quality on organizational structure are 0.267, 0.293, and 0.200, respectively. This indicates that system quality, information quality, and service quality positively influence organizational structure for the Marine Operating System (MOS) at PT Pelabuhan Indonesia (Persero) Regional II.

In a study conducted by Amalia & Ferdianto (2022), it was found that improved system usage can enhance organizational strategy and empowerment. Organizational structure supports the effective implementation of company management information systems. The implementation of port management system applications with high system quality, information quality, and service quality can affect organizational structure in terms of workforce restructuring, decision-making, and workflow optimization (Erwin et al., 2024).

***The Influence of Organizational Structure as a Moderator Variable on User Satisfaction***

Based on the calculation results, a t-statistic value of 2.780 was obtained, which is > 1.96, and a p-value of 0.005 below 0.05, so H9 is accepted, meaning that system quality has a positive and significant influence on user satisfaction moderated by organizational structure. Therefore, if system quality improves, there will be an indirect increase in user satisfaction moderated by organization structure for the Marine Operating System (MOS) at PT Pelabuhan Indonesia (Persero) Regional II.

This research is consistent with previous studies conducted by Akbar (2018), the size of the organizational structure affects the complexity of the information systems obtained. Control within the organizational structure also impacts information systems. The purpose of forming an organizational structure is fulfilled when employees are grouped according to their tasks and responsibilities. With the use of flexible, effective, easily accessible, and timely information systems, good coordination patterns, communication, workflow, and proper formal authority can produce good information outputs.

***The Influence of Organization Structure on User Satisfaction***

Based on the calculation results, a t-statistic value of 8.191 was obtained, which is > 1.96, and p-value of 0.000 below 0.05, so H8 is accepted, meaning that organizational structure has a significant influence on user satisfaction. If the operational management system used by the organization improves, there will be an increase in user satisfaction for the Marine Operating System (MOS) at PT Pelabuhan Indonesia (Persero) Regional II.

In research conducted by Krisnaldy et al. (2019), the role of organizational structure is crucial for every organization because it facilitates leaders in communicating with employees to achieve organizational goals effectively. Therefore, focusing on user feedback and needs, allocating adequate resources, and having an organizational structure that supports good communication can enhance user satisfaction with port management system applications. Organizational structure is related to user satisfaction, indicating that the higher the role of organizational structure, the higher the user satisfaction with the application (Mulyadi & Choliq, 2019).

***The Influence of Organizational Structure on Net Benefit Moderated by User Satisfaction***

In this study, the influence of organizational structure on net benefit is moderated by user satisfaction, as observed in the hypothesis testing results indirectly through the t-statistic value of the effect of organizational structure on net benefit via user satisfaction, which is 2.291 (> 1.96), with a p-value of 0.022, below 0.05. Therefore, H9 is accepted, indicating that organizational structure has a significant influence on net benefit. When the operational management system used by the organization improves, there will be an increase in benefits perceived by users.

Based on data processing using SmartPLS version 3.0, the path coefficient value of organizational structure on net benefit via user satisfaction is 0.099, indicating that organizational structure positively influences net benefit through user satisfaction for the Marine Operating System (MOS) at PT Pelabuhan Indonesia (Persero) Regional II.

The influence of system quality, information quality, and service quality on system usage and user satisfaction is evident. In other words, if system quality, information quality, and service quality are better, system usage and user satisfaction will increase. User satisfaction can affect net benefit, meaning higher user satisfaction leads to greater net benefits or success from application use (Krisbiantoro et al., 2015). These research findings contrast with those of Mulyadi & Choliq (2019), who found that system usage and organizational structure do not affect net benefits. This suggests that system usage and organizational structure do not influence net benefit.

***The Simultaneous Influence of Latent Variables: System Quality, Information Quality, Service Quality, User Satisfaction, and Organizational Structure on Net Benefit.***

System quality, information quality, service quality, and user satisfaction simultaneously have a positive and significant influence on net benefit (p-value = 0.032), thus H10 is accepted. Improvements in the values of these four variables within the MOS presented will impact the net benefit or benefits perceived by users.

However, the influence of the latent variable technology, including information quality, service quality, and information quality with user satisfaction and organizational structure on net benefit shows a positive but not significant influence (p-value = 0.118), therefore H11 is not accepted. This indicates that simultaneously, all variables do not have a sufficiently large influence to be considered significant or have a notable effect. Therefore, even if there are improvements in system quality, information, services, user satisfaction, and organizational structure, the benefits may not necessarily be significantly perceived by users.

Generally, system quality, information, and services can collectively influence user satisfaction, which in turn impacts net benefit. Users who perceive their systems as high quality, providing relevant and accurate information, and supported by good services will be more satisfied. Furthermore, user satisfaction mediates this relationship; satisfied users are more likely to use the system effectively and derive greater benefits from it. This effect is moderated by organizational structure; for instance, organizations with good communication and efficient procedures enhance user satisfaction and net benefits because they can quickly address issues or implement received feedback. Conversely, inadequate communication among employees and inefficient procedures may result in low or insignificant levels of user satisfaction and net benefits.

According to Utomo et al. (2017), user satisfaction is influenced by information quality, system quality, and service quality, which also impact network benefits or net benefits. Dharmawan & Pratomo (2018) found that simultaneously, user satisfaction with information systems is highly influenced by information quality, system quality, and service quality. A well-implemented management system can meet all user needs related to the system in use, thereby achieving user goals. Additionally, system providers must understand the effectiveness level of the system in operation to use as evaluation criteria in frequently occurring problem cases.

The intention and interest of target users in using the application are crucial factors for users to perceive the benefits provided by the system and achieve maximum results. User interest will arise if the system significantly satisfies users. Simultaneously, significant influences of system quality, information quality, and service quality can significantly impact user satisfaction (Suhendro, 2017).

## CONCLUSION

This study evaluates the influence of the Human Organization Technology Fit Model on the utilization of the Marine Operation System at PT Pelabuhan Indonesia (Persero) Regional II. Through Structural Equation Model (SEM) analysis based on Partial Least Square (PLS), this research draws several significant conclusions from 190 respondents who are users of MOS at PT Pelabuhan Indonesia (Persero) Regional II.

This research study conclude that system quality, information quality, service quality, and user satisfaction collectively have significant positive impacts on both user satisfaction and net benefit when using the Marine Operating System (MOS) at PT. Pelabuhan Indonesia (Persero) Regional II. Enhancements in these aspects lead to increased satisfaction among users and consequently improve the perceived benefits of the system. Additionally, organizational structure plays a crucial role as it indirectly moderates the influence of user satisfaction on net benefit, highlighting the importance of effective organizational frameworks in maximizing system effectiveness and user satisfaction.

Based on these conclusions, several recommendations can be made. First, MOS developers need to improve users' understanding of information so that system and service quality can be enhanced. Second, improving MOS quality can be achieved through the development of better systems, information, and services.

Third, further research is needed to evaluate other dimensions of system quality, information, and services as well as user satisfaction to gain a deeper understanding of the benefits of using MOS.

Additionally, it is important to consider the limitations of this study, such as the limited number of respondents and the use of questionnaires as a measurement tool. This can serve as a basis for further research to gain a more comprehensive understanding of MOS usage at PT Pelabuhan Indonesia (Persero) Regional II.

## REFERENCES

Abdillah, Willy dan Jogiyanto. (2014). Konsep & Aplikasi PLS (Partial Least. Square) untuk Penelitian Empiris. Yogyakarta: BPFE.

Agustina, G. R., Susilani, A. T., & Supatman. (2018). Evaluasi Sistem Informasi Manajemen Rumah Sakit (SIMRS) pada Bagian Pendaftaran Rawat Jalan dengan Metode HOT-FIT. Prosiding Seminar Nasional Multimedia & Artificial Intelligence 2018 , 75-80.

Ahmad. (2019). Terapkan Aplikasi MOS, Pelindo II Bisa Efesiensi Hingga Rp2,1 Miliar. Beritatrans.Com.

Andalia, Fanny., dan Eko Budi Setiawan. (2015). Pengembangan Sistem Informasi Penglolahan Data Pencarian Kerja Pada Dinas Sosial dan Tenaga Kerja Kota Padang. Jurnal Ilmiah Komputer dan Informatika. Volume 4, No. 2.

Antasari, K., & Yaniartha Sukartha, P. (2015). Pengaruh Efektivitas Sistem Informasi Akuntansi Dan Penggunaan Teknologi Informasi Pada Kinerja Individual Dengan Kepuasan Kerja Sebagai Variabel Pemoderasi. E-Jurnal Akuntansi, 10(2), 354–369.

Askuba, A. D. (2018). Pengukuran atas Penerapan Sistem Informasi Perhotelan Bluefish menggunakan Extended Human Organization Technology (HOT) Fit Model (Studi Kasus: PT Karmanta Wijaya Sakti) .

Augusty, Ferdinand. (2006). Metode Penelitian Manajemen: Pedoman Penelitian untuk skripsi, Tesis dan Disertai Ilmu Manajemen. Semarang: Universitas Diponegoro.

Bayu, A., & Muhimmah, I. (2013). Evaluasi Faktor-Faktor Kesuksesan Implementasi Sistem Informasi manajemen Rumah Sakit di PKU Muhammadiyah Sruweng dengan Menggunakan Metode Hot-Fit.

Crosby, lawrence, evans, Kenneth 7 Cowles, Deborah. (1990). Relationships quality in services selling : an interoersonal influence perspective. Journal of Marketing, 54 (July) 68-81

"Delone, W.H., McLean, E.R. 1992. Information system success: the quest for the dependent variable, information system research 3, 60 -95.

Edy Hidayat, (2009). Perencanaan, Perancangan dan Pembangunan Pelabuhan. Referensi Kepelabuhanan Seri 03 Edisi II. Jakarta: PT. Pelabuhan Indonesia I, II, III, IV.

Erlirianto, L. M., Ali, A. H. N., & Herdiyanti, A. (2015). The Implementation of the Human, Organization, and Technology-Fit (HOT-Fit) Framework to Evaluate the Electronic Medical Record (EMR) System in a Hospital. Procedia Computer Science, 72, 580–587. https://doi.org/10.1016/j.procs.2015.12.166

Fandy Tjiptono dan Gregorius chandra. (2016). Service, Quality & satisfaction.

Yogyakarta. Andi.

Ghozali, Imam, Hengky Latan. (2015). Konsep, Teknik, Aplikasi Menggunakan Smart PLS 3.0 Untuk Penelitian Empiris. BP Undip. Semarang

Hair, et al, (2014). Multivariate Data Analysis, New International Edition., New. Jersey : Pearson.

Hussein, A.S. (2015). Penelitian Bisnis dan Manajemen Menggunakan Partial Least Square (PLS) dengan smartPLS 3.0. Fakultas Ekonomi dan Bisnis Universitas Brawijaya.

Iivari, J. (2005). An Empirical Test of the Model of Information System Success. Data Base Adv. Inf. Syst. Vol. 36(2): 8–27

Ikhza, M., Keke, Y., & Karsafman, T. (2020). Performansi Waiting Time di Pelabuhan Tanjung Priok. Jurnal Manajemen Transportasi & Logistik, 07(03), 238– 252.

Irfiani, E. (2015). Pengaruh Penggunaan Sistem Informasi Terhadap Kinerja Karyawan (Studi Kasus : PT. Indosat Jakarta). PARADIGMA, XVII(2), 27–33.

Jeperson Hutahaean. (2015). Konsep Sistem Informasi. In Jurnal Administrasi Pendidikan UPI.

Kim, S., Cha, J., Knutson, B. ., & Beck, J. A. (2011). Development and testing of the consumer experience index (CEI). Managing Service Quality, 21(2), 112–132.

Kotler, P. & Keller, K.L. (2012), Manajemen Pemasaran Jilid I Edisi ke 12. Jakarta: Erlangga.

Lasse.D.A.(2014).Manajemen Kepelabuhanan. Jakarta; Raja Grafindo Persada.

Lovelock.C dan Lauren K. Wright. (2007). Manajemen Pemasaran Jasa, Alih bahasa. Agus Widyantoro, Cetakan Kedua, Jakarta; PT. Indeks

Ningrum, Ika Rosita dan Heru Susilo. (2017). Pengaruh Kualitas Sistem Informasi dan Lingkungan Kerja Terhadap Kinerja Karyawan (Studi pada PT Pembangkitan Jawa Bali Unit Pembangkitan Paiton). Jurnal Administrasi Bisnis (JAB). Vol.47, No.1.

Ringle, C.M., Sarstedt, M., Mitchell. R., Siegfried P., & Gudergan (2018). Partial least squares structural equation modeling in HRM research. The International Journal of Human Resource Management, DOI: 10.1080/09585192.2017.1416655

Sari, Ika Citra, Ruddy Suwandi, Arif Satria, and Deni Achmad Soeboer. (2016). Peran Approaching Time Dalam Peningkatan Pelayanan Jasa Pemanduan Kapal Di Pelabuhan Utama Tanjung Priok. Jurnal Teknologi Perikanan dan Kelautan 7(2): 191–98.

Setyowati, Elisabeth Octaviana Tri & Agustini Dyah Respati. (2017). Persepsi Kemudahan Penggunaan, Persepsi Manfaat, Computer Self Efficacy, dan Kepuasan Pengguna Sistem Informasi Akuntansi. JRAK, Volume 13, No 1

Sujarweni, V. Wiratna. (2014). Metode Penelitian: Lengkap, Praktis, dan Mudah. Dipahami. Yogyakarta: Pustaka Baru Press.