Executive Support System for Business and Employee Performance: Analysis of The Ease of Use of Information System, User Satisfaction and Transformational Leadership

Ronald Parulian1*, Hapzi Ali2, Ni Nyoman Sawitri3
1Universitas Bhayangkara Jakarta Raya, Jakarta, Indonesia, Sylvester.ronald@gmail.com
2Universitas Bhayangkara Jakarta Raya, Jakarta, Indonesia, hapzi@dsn.ubharajaya.ac.id
3Universitas Bhayangkara Jakarta Raya, Jakarta, Indonesia, nyoman.sawitri@dsn.ubharajaya.ac.id

*Corresponding Author: Ronald Parulian

Abstract: This article aims to examine the relationship between various variables in order to identify potential solutions. The research method used is qualitative, involving the analysis of published journals. Out of the five factors reviewed, three are independent variables, namely the ease of use of information systems, user satisfaction with information systems, and transformational leadership. The executive support system for business is considered the intervening variable, while employee performance is the dependent variable. The analysis of twenty published journals concludes that the independent variables have a positive and significant impact on employee performance. The literature review suggests that businesses should take all factors into account to improve employee performance.

Keywords: Ease of Use of Information System, User Satisfaction, Transformational Leadership, Executive Support System for Business, Employee Performance

INTRODUCTION

This article aims to investigate the impact of information systems on employee performance in companies. Information systems are crucial for managing data and information, conducting business analysis, and supporting decision-making processes that are more accurate and efficient. The ease of use of information systems, user satisfaction, and transformational leadership are important factors that can improve employee performance. Easy access to information helps to increase work efficiency, and employee satisfaction can increase motivation to use information systems in their work. Transformational leadership encourages employees to develop themselves and achieve targets that align with the company's vision and mission. Moreover, the use of executive support systems (ESS) for businesses can provide executives with the necessary information and business analysis for strategic decision-making, leading to a competitive advantage for the company. Therefore, this research aims to investigate the impact of ease of use of information systems, user satisfaction, and ESS on
employee performance, with the goal of identifying factors that can improve both employee performance and company profits. (Sistem Informasi Manajemen 2 (Ed.10) - Google Buku, n.d.)

**LITERATURE REVIEW**

**Employee Performance**

Performance is a term commonly used to describe some or all of the activities of an organization during a specific period. (Mulyadi, 2001). Employee performance refers to the degree of accomplishment in meeting the work goals or objectives that have been established by the organization or work unit in question. (Dessler, 2010). Employee performance can be defined as the outcome or result achieved through an employee's work in terms of quality and quantity, with the aim of attaining the goals of the organization. (Hasibuan, 2005). Employee performance reflects the degree to which employees have accomplished predetermined objectives, met the expectations of their superiors, and made a constructive contribution to the organization (Judge, 2015). Employee performance refers to the outcome of work and behavior that is demonstrated through work productivity, quality, contribution, efficiency, effectiveness, punctuality, cooperation, creativity, and innovation. (Prof. Dr. Sugiyono, 2016).

**Executive Support System for Business**

Executive Support Systems (ESS) are computer-based information systems created to aid senior managers in making strategic decisions. ESS offers high-level overviews of business performance and data visualizations that help executives identify trends and potential issues quickly. An Executive Information System (EIS), or an Executive Support System (ESS), is a kind of management support system that helps and supports senior executives' information and decision-making needs. It provides simple access to internal and external information relevant to organizational goals. (9. Executive Support Systems (ESS) - 9. Executive Support Systems (ESS) Definition of ESS An - Studocu, n.d.) At the executive level, a strategic information system designed for unstructured decision-making, utilizing advanced graphics and communications, is commonly known as an Executive Support System (ESS). ESS serves to support the informational roles of executives (Decision Support Systems & Executive Support Systems | PDF | Decision Support System | Information Science, n.d.)

**The Ease Of Use Of Information System**

Davis (1986) proposed the Technology Acceptance Model (TAM) theory, which explains that a user's perception determines their attitude towards the usefulness of using information technology. According to TAM, the acceptance of IT usage is influenced by both usefulness and ease of use. Usefulness and ease of use impact behavioral intentions, and technology users are more interested in using a system if they perceive it as useful and easy to use. Information system users will use the system more if it is easy to use, while a complicated system will discourage usage. Several studies including Davis et al. (1989), Szajna (1996), Venkatesh and Davis (2000), and Venkatesh and Morris (2000) (in Jogiyanto, 2007) have demonstrated that ease of use directly or indirectly affects the use of information systems.

**User Satisfaction Of Information System**

Satisfaction refers to the state experienced by consumers after encountering a performance or outcome that has met their expectations. According to Kotler (2003, p.89), satisfaction is the feeling of pleasure or disappointment a person experiences when comparing their impressions of a product's performance or results with their expectations. Ong et al. (2009:399) propose that the quality of information can be used as a measure to assess the quality of information systems. Information systems that can deliver information
in a timely, accurate, and relevant manner while also meeting other criteria and quality measures will have an impact on user satisfaction (Fendini et al., 2014).

**Transformational Leadership**

James MacGregor Burns introduced the theory of transformational leadership in 1978, which was later expanded upon by Bass in 1985. This theory emphasizes that a leader must positively influence, inspire, and motivate their followers. Numerous studies have demonstrated that transformational leadership can enhance both organizational performance and employee job satisfaction (Bass & Riggio, 2006; Walumbwa et al., 2008). The theory proposes that leaders should motivate employees by inspiring them to achieve more ambitious goals, altering their viewpoints, and encouraging them to take risks. Transformational leaders have the ability to persuade their employees to act outside their comfort zone.

**RESEARCH METHODS**

In this study, the researchers utilize qualitative research methods and literature review techniques to explore social problems, social phenomena, and individual behavior. According to Creswell (2016), qualitative research focuses on interpreting and analyzing the meanings and perspectives of individuals and communities. Qualitative methods are useful in examining the hidden meanings behind societal phenomena. Literature review is a data collection method that involves acquiring studies or reviews from books or other literary sources that are relevant to the research topic. As noted by Maelani (2015), literature review activities are conducted to obtain data, comprehension, and sources related to the researcher’s problem. In this study, the author conducts a literature review on the topic of Executive Support System (ESS) for Business and Employee Performance, using accredited journal articles sourced from Mendeley and Google Scholar. The journals studied are outlined in table 1.1 of the following journal metrics:

<table>
<thead>
<tr>
<th>Authors (years), Title</th>
<th>Main Used Variables</th>
<th>Research Result</th>
<th>Difference with this article</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yoon S, Kim M (2023)</td>
<td>X1: Information Quality&lt;br&gt;X2: Service Quality&lt;br&gt;X3: System Quality&lt;br&gt;X4: Perceived Quality</td>
<td>X1 has positive effect only to Y2.&lt;br&gt;X2 &amp; X3 = has positive effect only to Y1.&lt;br&gt;X3 &amp; X4 has positive effect to Y1 &amp; Y2.</td>
<td>Variables of X1, X2, X3, X4, Y2 and Z.</td>
</tr>
<tr>
<td>A Study on the Improvement Direction of Artificial Intelligence Speakers Applying DeLone and McElan’s Information System Success Model</td>
<td>Y1: User Satisfaction&lt;br&gt;Y2: Use&lt;br&gt;Z: Net Benefit</td>
<td>X1 has positive effect only to Y1.&lt;br&gt;X1, X2, &amp; X3 = has positive effect to Y1 &amp; Y2.</td>
<td>Variables of X1, X2, X3, X4, Y2 and Z.</td>
</tr>
<tr>
<td>Westerbeek, L., Ploegmakers, K., Bruijn, G., J. Linn, Weert, J., Daams, J., Van der Velde, N., Weert, H., Abu-Hanna, A., Medlock, S (2021) Barriers and facilitators influencing medication related CDSS acceptance according to clinicians: A systematic review</td>
<td>X1: Information Quality&lt;br&gt;X2: Service Quality&lt;br&gt;X3: System Quality&lt;br&gt;X4: Perceived Quality</td>
<td>X1 has positive effect only to Y1.&lt;br&gt;X1, X2, &amp; X3 = has positive effect to Y1 &amp; Y2.</td>
<td>Variables of X1, X2, X3, X4, Y2 and Z.</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Variables</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>
X2: Service Quality  
X3: System Quality  
X4: Perceived Quality  
Y1: User Satisfaction  
Y2: Use  
Z: Net Benefit                       |
| Factors influencing the success of information systems in flood    |                                                                                   | X1 has positive effect only to Y2.  
X2 & X3 = has positive effect only to Y1.  
X3 & X4 has positive effect to Y1 & Y2. |
| early warning and response systems context                          |                                                                                   |                                                                                  |
| Gunasekera, A (2020)                                               |                                                                                   | Variables of X1, X2, X3, and X4 affect Y2                                                                                             |
| Moderating role of user types and system usability On is success   |                                                                                   | Variables of X1, X3, Y1 and Y2.                                                                                                           |
| model: a meta-analysis of e-learning, User satisfaction             |                                                                                   |                                                                                  |
| Zuleha, A (2023)                                                   |                                                                                   | Variables of X3 and Y                                                                                                                     |
| The Effect of Information Technology, Single Sign On Information    | X1: Information System  
X2: Single Sign On Information System  
X3: Knowledge Management  
Y: Business Performance                                               |                                                                                  |
| System, Knowledge Management on Business Performance                |                                                                                   |                                                                                  |
| The Impact of Transformational Leadership in Micro, Small and       |                                                                                   |                                                                                  |
| Medium Enterprises (MSMEs)                                          |                                                                                   |                                                                                  |
| Setiyono, S (2022)                                                 | X1: The influence of HRIS (ESS)  
X2: Discipline  
X3: Work Motivation  
Y: Employee Performance                                 | Variables of X2 and X3                                                                                                                   |
| The Influence Of Manusia Resource Information Systems, Discipline  |                                                                                   |                                                                                  |
| And Work Motivation On Employee Performance                         |                                                                                   |                                                                                  |
| Siregar, M (2022)                                                  | X1: Information Technology  
X2: Human Resources  
X3: Computer Network  
Y: Marketing Information System (ESS)                             | Variables of X1, X2 and X3                                                                                                               |
| The Influence Of Information Technology, Human Resources And        |                                                                                   |                                                                                  |
| Computer Networks On The Marketing Information System (MSDM        |                                                                                   |                                                                                  |
| Literature Review)                                                 |                                                                                   |                                                                                  |
| L. Chuma, L (2020)                                                 | X1: Business Organization  
X2: Competitiveness  
X3: Strategic Advantages  
Y: Information System (ESS)                                      | Variables of X1, X2 and X3                                                                                                               |
| The Role of Information Systems in Business Firms Competitiveness:  |                                                                                   |                                                                                  |
| Integrated Review Paper from Business Perspective                   |                                                                                   |                                                                                  |
X2: Accessibility  
X3: Efficiency  
X4: Flexibility                                                | Variables of X2, X3, X4 and Y                                                                                                             |
The Impact Of Accounting Information Systems On Financial Performance And Decision Making

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sistem Pendukung Informasi Eksekutif Mobilitas Sivitas Akademika Dan Publikasi Ilmiah Institut Pertanian Bogor</td>
<td>X1: Siklus Hidup Pengembangan Sistem, X2: Mobilitas Dosen &amp; Mahasiswa, X3: Reputasi Ilmiah</td>
</tr>
</tbody>
</table>
FINDINGS AND DISCUSSION

This article discusses several variables related to information systems and executive support systems, such as user satisfaction, ease of use, and transformational leadership. The study found that the factors most frequently reported were related to the relevance and usefulness of information, as well as the efficiency and ease of use of the system. The study also aimed to identify barriers and facilitators to medication-related Clinical Decision Support System (CDSS) acceptance by clinicians, and found that these barriers and facilitators were often related to the technology component of the HOT-fit framework, specifically information quality and system quality. The article also highlights the importance of context and organization in the Executive Support System, where organizational dimensions such as internal state, human resources, and organizational structure can affect the dimensions of the Decision Support System. Finally, the article cites research from Robins (1996) that supports the idea that organizational structure is a tool of control that reflects the authority of top leaders in decision-making, which can be centralized or decentralized. The importance of human resource development in improving employee performance and effectiveness has been highlighted by several researchers, including Mahmudah, Price, and Ayuningtias (Mahmudah, 2007; Price, 2003:558; Ayuningtias, 2007:10). Lee and Bruvold (Lee and Bruvold, 2003) also emphasize the role of human resource development in directing, encouraging, and motivating employees to improve their skills and abilities. This can be achieved through various means such as self-development, training programs, and career advancement opportunities. Moreover, research by Kurniawan, Setiawan and Pratama, Dewi and Hoesada, and Gopay et al. (Kurniawan, AW., 2012), (Setiawan, A., & Pratama, S., 2019), (Dewi, R., & Hoesada, J., 2020), and (Gopay, Rangga C., Rumawas W., & Sambul, Sofia A.P., 2021) suggests that human resources can influence the Decision Support System. This highlights the importance of considering human resources in the development and implementation of decision support systems to ensure their effectiveness and efficiency in improving organizational performance. In summary, human resource development plays a crucial role in improving employee performance and effectiveness. Moreover, the influence of human resources on the Decision Support System underscores the importance of considering human resources in the development and implementation of decision support systems (Apriyansyah, n.d.).

Transformational leadership has an effect on improving employee performance at PT Federal International Finance - Medan, meaning that if the leader has good transformational leadership, the performance will also increase. From the statement above it can be said that work organizational culture has a role or influence on improving employee performance, whereby increasing employee organizational culture will increase employee performance. The results of this study support research conducted by (Nasution, 2018); (Jufrizen, 2017a); (Sukama & Sudiba, 2015); (Lukita, 2019) and (Jufrizen & Lubis, 2020) who conclude that transformational leadership has a positive effect on employee performance. In theory, transformational leadership is a leadership model for a leader who tends to motivate employees
or team member to work better by focusing on behavior to support the transformation between employees and organization (Rivai, 2020).

The statistical test results show that the regression coefficient score of the moderating variable ease of use of ESS for business = -0.008, the t value is -0.039 with significant value of 0.969, and it can be interpreted that no significant effect between the ease of use of SIKADU on the relationship between the use of ESS for business and performance employee. Utilization of ESS for business has a significant positive effect on employee performance. This indicates that using ESS for business with high intensity can help to improve employee performance. Ease of use of the information system doesn’t moderate the effect of using ESS for business on employee performance, and it can be concluded that the variable ease of use of ESS for business is not the variable moderating. It shows that the ease or difficulty of using ESS for business doesn’t affect the use of attitude towards employee performance (Agustiani, n.d.)

G. R. Terry: said that decision making is an election based on certain criteria of two or more possible alternatives. Robbin and Coulter (2012: 178) in the journal (Sugiyanto & Ruknan, 2020), with their Management Book, explains that the eight phase in decision making are, (1) problem identification, (2) identification of decision criteria, (3) allocation of weight criteria, (4) develop alternatives, (5) analyzing alternatives, (6) selecting alternative, (7) implementing alternative, (8) evaluating the effectiveness of decision, and (10) evaluating the effectiveness of decision. George and Jones (2012: 471) in the journal (Sugiyanto & Ruknan, 2020), said "The process by which members of an organization choose a specific course of action to respond to both opportunities and problems”. Decision making is a process by which members of the organization choose certain actions to respond to both opportunities and problems. Making good decisions on a particular activity will help individuals, groups or organizations to be effective. Hasan (Suradi, 2005: 16) in the journal (AHMAD FAUZI, 2009), says decision making is an alternative process from several alternatives systematically to be followed up to solve problems. According to Hapzi, Ali (2010: 157) in his book Business Information Systems (Ali, 2010), regarding the decision-making process, in Stage 7: Evaluation of the results of decision implementation decisions must be monitored continuously. Managers must evaluate whether implementation is proceeding smoothly, and decisions are producing the desired results. From the sources, the relationship between decision making and performance improvement can be seen from selecting the best alternative and evaluating whether the decision gives the desired results and with evaluation it will affect employee performance (Wahono et al., n.d.).

There are also other relevant studies to leadership that are used as research articles that researchers need to review. In addition to provide leadership, transformational leadership also exists within many organizations, and it is carried out by those who work in the organization. Transformational leadership has change many systems and people. (Llorens et al., 2018), Previous research has shown that organizational commitment mediates the relationship between transformative leadership styles and employee performance. (Almutairi, 2015), Research by Longshore and Bass (Longshore & Bass, 1987), transformational leaders encourage team member to embrace leadership with new perspectives because they are intellectually stimulating (Primadi Candra Susanto et al., 2023)

Transformational leadership has a significant positive effect on employee performance is accepted. Refer to the results of the analysis, the path coefficient of variable X1 (transformational leadership) to variable Y2 (employee performance) is 0.588 with a significance of 0.000. This conclude that the stronger the transformational leadership, the better the employee performance. Transformational Leadership has positive effect and significant effect on employee motivation was accepted. Obtained path coefficient variable X1 (transformational leadership) to variable Y1 (employee motivation) is 0.637 with a significant of 0.000. This conclude that the stronger the transformational leadership, the stronger the
employee motivation will be. Motivation has a significant positive effect on employee
performance was accepted. The results of the analysis obtained the path coefficient of variable
Y1 (employee motivation) to variable Y2 (employee performance) is 0.363 with a significance
of 0.000. This means that the stronger the employee's motivation, the better the employee's
performance (Johan et al., n.d.)

Conceptual Framework

Based on the theoretical study and the relationship between variables, the model or
Conceptual Framework of this article is as follows:

CONCLUSION AND RECOMMENDATION

Conclusion:

Based on the previous relevant research, the study conclude that Information system user
satisfaction affect executive support system for business and employee performance, the more
effective and have good quality or have good value of an information system, the more satisfy
the employee and can have positive influence on increasing employee performance.

Information system ease of use affect executive support system for business and
employee performance, the reason is many hired employees are not having computer
background, or not computer literate, to solve this issue, training, and recurring training to
ensure the ease of use of information system. If any update or deface of user interface, the
company need to give socialization, and must be smoother to use.

Transformational leadership affect executive support system for business and employee
performance, Information system ease of use affect executive support system for business and
employee performance, from previous relevant research, transformational leader must able to
motivate, support and improve employee performance to align with company’s vision and
mission, and relate to this research, transformational leader must able to train team member
regarding on the executive support system for business, and it will be used by the executive for
decision making, strategy and others.

Recommendation

Refer to previous relevant research, there are many other factors that affect employee
performance, apart from the information system user satisfaction, information system ease of
use, transformational leadership, and executive support system for business, therefore further
studies are needed to seek for other factors that can affect employee performance other than
the variables focused on this article. For example, of other factors such as competency,
employee academic, network availability and company culture.
BIBLIOGRAPHY


