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## Cross Sectional Study on Information System Facilities on End-User Satisfaction: Study at Retail in Bandung

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Iwan Sidharta<sup>1</sup>, Rahmahwati<sup>2</sup>  
Sekolah Tinggi Ilmu Ekonomi Pasundan, Bandung<sup>1</sup>,  
Direktorat Repositori, Multimedia dan Penerbitan Ilmiah, BRIN<sup>2</sup>  
Email: i\_sidh@stiepas.ac.id<sup>1</sup>, rahm07@lipi.go.id<sup>2</sup>

### ABSTRACT

*This study explores the impact of information system facilities on end-user satisfaction in the retail sector in Bandung. The researchers adopted a survey approach and collected data from 93 employees working in the retail sector—the research instrument was distributed through a Google Form. The study's prediction model used structural equation modeling (SEM-PLS), and the results of validity and reliability tests of the research constructs met the criteria for validity and reliability.*

*The prediction results reveal that information system facilities significantly influence the perceived ease of use and usefulness. However, they have a different impact on end-user satisfaction. The study's implications indicate that the ease of use of the information system plays a crucial role. When the system is easy to use, with an intuitive user interface and clear operational procedures, employees will be satisfied with operating the system. However, satisfaction is limited to ease of use and is not directly linked to the perceived benefits of employees.*

*Keywords: Information System, Facilities, User Satisfaction.*

### INTRODUCTION

The retail industry plays a pivotal role in stimulating economic growth and development. All activities inside a corporation are interrelated and mutually influence each other. An activity must be effectively conducted to maintain operations within a department and the broader management of the firm. Hence, every organization must undertake significant endeavors to maintain seamless operations and mitigate financial setbacks (Mukonza & Swarts, 2020; Okwu & Tartibu, 2020).

An effective retail organization is characterized by its ability to effectively manage all operational operations to attain the company's predetermined objectives successfully. In order to accomplish this objective, the implementation of a proficient and streamlined information system is essential. An information system serves as a mechanism employed to gather, administer, and distribute the essential information required for the functioning of an organization (Chae, Koh & Park, 2018; Pantano & Vannucci, 2019; Pantano, Pedeliento & Christodoulides, 2022).

Implementing an efficient information system enables a corporation to enhance its operational control. The availability of precise, current, and readily available information empowers management to make informed and strategic decisions. An effective information system can enhance organizational resource utilization, minimize operational expenses, and enhance overall productivity (Chege, Wang & Suntu, 2020; Hutahayan, 2020; Mehmood, 2021).

The successful deployment of a proficient and streamlined information system inside retail organizations encompasses many crucial elements. Organizations must provide sufficient information technology infrastructure, encompassing dependable hardware, software, and communication networks. The presence of a robust infrastructure plays a crucial role in guaranteeing the accessibility and dependability of the information system (Jahantigh, Habibi & Sarafrazi, 2019; Aydiner, Tatoglu, Bayraktar & Zaim, 2019; Rainer & Prince, 2022).

Companies need to engage in the development and subsequent implementation of an integrated database. Employing a structured and centralized database enhances the efficiency of data administration and enables prompt and precise retrieval of information required by different stakeholders within the organization (Antoni, Jie & Abareshi, 2020; Kareem et al., 2021). Companies must have well-defined and effective protocols for using their information systems (Sidharta & Rahmahwati, 2014; Sidharta & Suzanto, 2015; Panigrahi et al., 2018). Using standardized business procedures and thorough documentation plays a crucial role in enhancing interdepartmental coordination and reducing system usage faults through the effective dissemination of information (Mirzaee & Ghaffari, 2018; Li, 2021).

It is imperative for companies to actively engage their personnel in the use of information systems and ensure the provision of sufficient training. According to Müller, Fay, and Vom Brocke (2018), the proficiency of workers in using the information system may significantly augment the efficacy and efficiency of organizational processes. By implementing a proficient and productive information system, retail enterprises may enhance their operational performance, engage in well-informed decision-making, and deliver high customer satisfaction. According to Okwu and Tartibu (2020), an effective information system plays a crucial role in assisting organizations to navigate market dynamics and sustain their competitive edge within a highly competitive sector. Hence, retail enterprises must allocate resources towards the advancement and execution of sufficient information systems in order to attain sustained prosperity (Chae, Koh & Park, 2018; Müller, Fay & Vom Brocke, 2018; Pantano, Pedeliento & Christodoulides, 2022).

According to Sebetci's (2018) study, there is evidence to suggest that technological compatibility, defined as the extent to which the accessible resources and facilities in a medical faculty align with the needs and preferences of its users, has a notable influence on the level of satisfaction experienced by end users. The present study utilized a sample of 543 individuals who were employed as participants. The concept of technology compatibility pertains to the degree to which the technology employed inside a medical institution corresponds with the requirements and inclinations of its users. The presence of compatible technical facilities facilitates the use and maximization of benefits derived from technology, thereby leading to heightened levels of end-user satisfaction.

The present study obtained data from 543 individuals employed inside a medical faculty. The potential participants in this study encompass teaching staff, administrative workers, and other support staff affiliated with the faculty. By using a substantial sample size, this study contributes to a more comprehensive comprehension of the correlation between technology compatibility and end-user satisfaction within a medical faculty setting.

Aldholay, Isaac, Abdullah, and Ramayah (2018) prove that information system facilities contribute to end-user happiness. The use of the Delone may achieve the mediation of transformational leadership intervention and the Mclean IS success model. According to Li et al. (2021), it has been demonstrated that sufficient information system infrastructure and an appropriate location may contribute to the improvement of Perceived Ease of Use, Perceived Usefulness, and user satisfaction within the context of online banking services. Raza, Umer, Qureshi, and Dahri (2020) claim that enhancing facility performance can positively impact customer satisfaction within the context of online banking services in Pakistan.

The findings of this research demonstrate that there is a favorable correlation between technological compatibility and end-user happiness. This result implies that user satisfaction and effective utilization of technology occur when the available technical resources align with the consumers' demands and preferences. This discovery underscores the need to consider users' requirements and preferences when building and implementing technological solutions within a medical faculty environment.

By offering technologically suitable facilities, the medical faculty has the potential to improve user happiness and enhance the entire user experience. This phenomenon can result in heightened levels of production, enhanced efficiency, and superior outcomes across many activities inside the academic institution. For instance, educators may find it more convenient to plan and present lectures by employing suitable technology, administrative professionals may optimize administrative duties, and support staff can efficiently utilize technology following their responsibilities.

In order to ensure the compatibility of technology, it is imperative for the medical faculty to do comprehensive requirements assessments and include users in the process of system design and deployment. It is essential to aggressively solicit and integrate user feedback and input into the decision-making process. Furthermore, it is vital to offer continuous training and assistance to users in order to guarantee that they possess the requisite skills and knowledge to employ the technology proficiently. The influence of technology compatibility on end-user satisfaction within a medical faculty context is of considerable importance. By aligning technology facilities with user wants and preferences, the faculty can boost user happiness, optimize overall performance, and attain superior outcomes.

The issue addressed in this study pertains to the scarcity of research on the effects of system information facilities on perceived ease of use, perceived utility, and user satisfaction within the retail industry.

## **METHOD**

This study is exploratory research aimed at investigating the extent to which the facilities within the company can provide ease and benefits that impact end-user satisfaction. The researcher surveyed students of STIE Pasundan who work in the retail sector using Google Forms to predict the constructed model. The researcher chose Google Forms to enhance time efficiency and reduce research costs. A total of 93 respondents completed the research instrument, with the majority of respondents being female and aged between 20-30 years old. Additionally, most respondents had been working for 1-3 years.

This information provides an overview of the sample characteristics used in the study. Most female respondents aged between 20-30 years old may reflect the demographic composition or employee profile in the retail sector or at STIE Pasundan. This result is essential to consider when interpreting the research results, as the demographic

characteristics of the respondents can influence their perceptions and experiences of the information system facilities.

Furthermore, knowing that most respondents have been working for 1-3 years provides information about their work experience. The length of work experience can influence users' perceptions and understanding of the information system in the workplace. Respondents with extended work experience may have a broader knowledge of the information system and higher expectations of the provided facilities.

The research instrument used by the researcher was structurally designed and adopted commonly used measurement tools to assess end-user satisfaction. (Ajzen, 1991; Davis, 1989; Doll & Torkzadeh's, 1988; Chin & Lee, 2000; Duplaga & Turosz, 2022) The research constructs include information system facilities, hardware, software, databases, and procedures. At the same time, the usage aspect includes perceived ease of use and perceived usefulness, which predict their influence on end-user satisfaction. Testing was conducted using the structural equation modeling (SEM-PLS) Partial Least Squares approach to examine the relationships among the tested constructs.

Before proceeding with the testing, the researcher tested the validity and reliability of the research instrument. The results of this research are expected to provide a deeper understanding of the impact of the facilities within the company on end-user satisfaction. By understanding the factors that influence end-user satisfaction, the company can take relevant improvement measures to enhance the quality of the provided information system.

## RESULTS AND DISCUSSION

The testing of the research instrument refers to the outer loading values of each research instrument, as well as the values of AVE, CR, and Composite reliability.

Tabel 1. Validity and reliability test

Item	Facility	Perceived of ease	Perceived of usefulness	User satisfaction
Faci1	0.593			
Faci2	0.823			
Faci3	0.735			
Faci4	0.747			
Faci5	0.625			
Faci6	0.793			
Faci7	0.739			
Poe1		0.721		
Poe2		0.825		
Poe3		0.852		
Pou1			0.877	
Pou2			0.838	
Pou3			0.674	
Pou4			0.756	
Use1				0.869
Use2				0.823
Use3				0.811
<b>Construct Reliability and Validity</b>				

Cronbach's Alpha	0.849	0.721	0.806	0.785
Composite Reliability	0.886	0.843	0.868	0.873
Average Variance Extracted (AVE)	0.528	0.643	0.624	0.697

The calculation of outer loading refers to the criteria of values greater than 0.5, and reliability with criteria greater than 0.7 (Kock, 2018). The test results show that the research instrument has met the validity and reliability requirements as shown in Table 1, with outer loading values greater than 0.5 and reliability values above 0.7. Next, the calculation examines the significance of the prediction results shown by the interrelationships of the constructs used.

**Table 2. Results of the research model predictions**

Path	Path Value	Std Deviation	Std Deviation T Stat	P Values	Significancy
Facility -> Perceived of ease	0.426	0.110	3.866	0.000	Significance
Facility -> Perceived of usefulness	0.475	0.083	5.726	0.000	Significance
Facility -> User satisfaction	0.442	0.112	3.945	0.000	Significance
Perceived of ease -> User satisfaction	0.263	0.096	2.747	0.006	Significance
Perceived of usefulness -> User satisfaction	-0.027	0.113	0.242	0.809	Not Significance

According to the findings shown in Table 2, it is evident that the facility has a notable and positive influence on the perceived ease of use. This value is supported by a path value of 0.426, demonstrating a statistically significant relationship (T Statistics = 3.866, P Values = 0.000, Conclusion = Significance). This result suggests that the facility's presence favorably impacts users' assessment of the technology's use. A smaller standard deviation value of 0.110 indicates a higher consistency across the replies concerning the observed impact.

The facility's influence on the perceived usefulness is notably favorable, as evidenced by a path value of 0.475 (T Statistics = 5.726, P Values = 0.000, Conclusion = Significance). This finding suggests that the provision of the facility has a favorable impact on users' impression of the technology's utility. The calculated standard deviation of 0.083 indicates that the answers exhibited a consistent pattern regarding their relationship to this impact.

The facility substantially impacts user satisfaction, as evidenced by a path value of 0.442 (T Statistics = 3.945, P Values = 0.000, Conclusion = significance). This result implies that the facility's presence favorably impacts user happiness. The calculated standard deviation of 0.112 suggests considerable heterogeneity in the responses pertaining to the impact being assessed.

The influence of perceived ease of use on user satisfaction is statistically significant, as indicated by a path value of 0.263 (T Statistics = 2.747, P Values = 0.006, Conclusion = Significance). This finding indicates that user satisfaction is positively impacted when individuals consider the system easy to use. The calculated standard deviation of 0.096 suggests moderate variability in the answers about this impact.

Nevertheless, the perceived utility does not substantially influence user happiness, as indicated by a path coefficient of -0.027 (T Statistics = 0.242, P Values = 0.809, Conclusion = Not Significant). This result suggests a limited correlation between the perceived usefulness of a product or service and the level of satisfaction experienced by the consumer. The calculated standard deviation of 0.113 indicates significant variability in the responses concerning the observed impact.

However, the perceived usefulness does not significantly impact user satisfaction, with a path value of -0.027 (T Statistics = 0.242, P Values = 0.809, Conclusion = Not Significance). This value implies no strong relationship between perceived usefulness and user satisfaction. The standard deviation (0.113) suggests that responses varied considerably concerning this impact.

Overall, the data analysis indicates the significance of the facility and perceived ease of use in influencing user satisfaction. However, the perceived usefulness only significantly impacts user satisfaction in this context. These findings provide insights into the factors contributing to user satisfaction and can assist in improving technology implementation and user experiences. Further explanation can be seen in Figure 1.

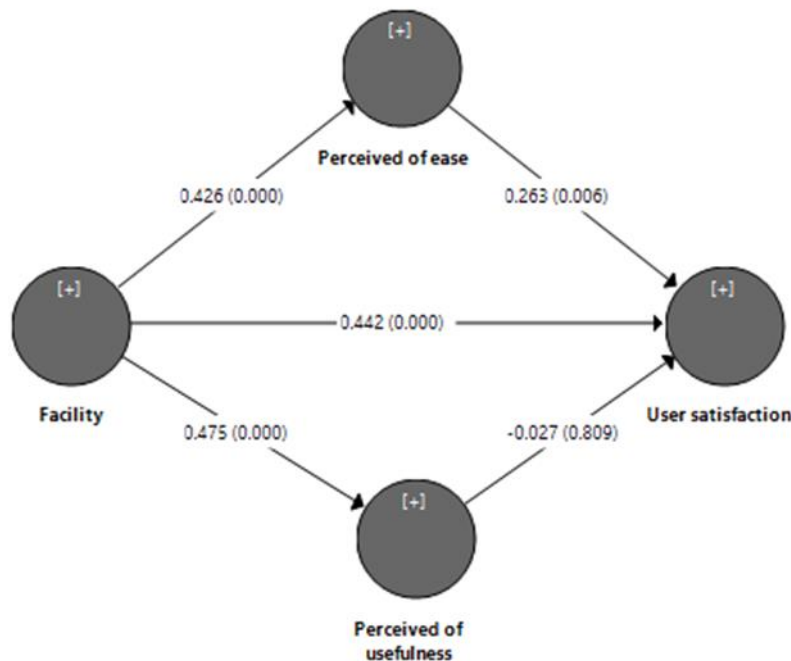


Figure 1. The result of information system facilities on end user satisfaction

The prediction results indicate that the system information facilities employees use, consisting of hardware, software, database, and procedures, impact Perceived Ease of Use and Perceived Usefulness. The prediction results demonstrate that the system information facilities, including hardware, software, database, and procedures used by employees, influence perceived ease of use and usefulness.

System information facilities are crucial in enhancing employees' perceived ease of use. With reliable and high-quality hardware, employees can easily access the necessary information systems to perform their tasks. Well-designed software provides an intuitive and user-friendly interface, allowing employees to grasp the system's usage quickly. A well-structured and organized database also enables fast and accurate access to the information employees need. Documented procedures also assist employees in efficiently operating the system.

Furthermore, besides perceived ease of use, system information facilities also contribute to employees' perceived usefulness. With comprehensive and integrated facilities, employees can leverage them to enhance their work productivity. Advanced hardware and high-quality software enable employees to complete tasks more effectively and efficiently. A database that stores important and relevant data allows employees to make decisions based on accurate and up-to-date information. Well-structured business processes also assist employees in performing their tasks more effectively.

Therefore, system information facilities, including hardware, software, databases, and procedures, significantly influence employees' perceived ease of use and usefulness. Hence, the company needs to ensure that the provided system information facilities meet high-quality standards to support employees in performing their tasks more effectively. As end users of the available workplace systems, employees experience different outcomes. They feel satisfaction through perceived ease of use but do not perceive significant benefits through perceived usefulness. This condition is likely because there is no direct connection between the perceived benefits and the facilities provided by the company's information system. As end users of the available systems in the workplace, employees experience differing perceived outcomes. They feel satisfaction through perceived ease but do not perceive significant benefits through perceived usefulness. This condition is caused by a lack of direct correlation between the perceived benefits of employees and the facilities provided in the company's information system. (Antoni, Jie & Abareshi, 2020)

Employees' perceived ease of use in the information system is essential to their satisfaction. If the system the company provides is easy to use, employees can quickly master its functionality and utilize it in performing their tasks. For example, if the user interface is intuitive and the operational procedures are clear, employees will feel more comfortable and satisfied in operating the system. However, this satisfaction is limited to ease of use and does not directly relate to the perceived benefits experienced by employees.

The perceived benefits experienced by employees are a more complex factor. Even though the provided information system may have great potential benefits, employees sometimes perceive them indirectly. This condition can happen if the available facilities cannot provide significant employee benefits in carrying out their tasks. For instance, although the information system can store and manage data effectively, employees may not see tangible benefits in improving productivity. Additionally, employees may need help making effective decisions if the information system provides relevant and timely information.

The mismatch between employees' perceived benefits and the company's information system facilities can be caused by several factors. There may be a gap between employees' expectations and what the information system delivers. Additionally, there may be areas for

improvement in developing and implementing the information system that does not directly consider employees' needs and desires. Prasetyo et al. (2021) also indicate that adequate information facilities may not satisfy end-users.

To address these differences, the company needs to conduct a comprehensive evaluation of the provided information system. It is essential to understand the needs and expectations of employees as end users and ensure that the available facilities can provide tangible and direct benefits for them. Improvements in user interface design, more efficient data management, and the provision of relevant information can enhance the perceived benefits experienced by employees. (Rainer & Prince, 2022) Additionally, involving employees in the development and implementation process of the information system can help ensure that the provided facilities better meet their needs. (Aldholay, Isaac, Abdullah & Ramayah, 2018)

In order to achieve optimal satisfaction and benefits for employees as end users of the information system, the company must proactively update and develop the system facilities. By considering employee input and feedback, the company can ensure that the provided information system delivers benefits that align with their expectations, ultimately enhancing overall productivity and performance.

## **CONCLUSION**

The investigation reveals perceived variations in outcomes among employees who serve as end users of workplace information systems. Users often derive satisfaction from their perception of the system's ease of use; however, they feel they need more substantial benefits from its perceived utility. There needs to be a clear link between the existing resources inside the information system and the perceived advantages by employees, which is the root cause of this issue. The level of user-friendliness exhibited by an information system is a significant determinant in shaping the overall satisfaction levels of employees. When the information system possesses user-friendly features such as an intuitive user interface and well-defined operational processes, it will likely enhance employee comfort and satisfaction throughout system operation. Nevertheless, this sense of pleasure is constrained to the realm of user-friendliness. It does not immediately correlate with the perceived advantages experienced by employees in the execution of their duties.

The perceived advantages encountered by employees exhibit a higher level of complexity. Despite the potential advantages of the information system, employees may only notice them after the existing facilities offer substantial benefits to them. The presence of limitations in data management, the inclusion of irrelevant information, and the disparity between employee expectations and the actual output of the information system can lead to a discrepancy between the perceived advantages and the available resources.

To attain maximum employee satisfaction and benefits, the organization must actively enhance and advance its information system infrastructure. The active engagement of workers in the information system's planning and implementation stages, together with the careful consideration of their comments, is crucial for ensuring that the given facilities effectively align with their specific requirements. Implementing this measure is expected to have a favorable outcome in terms of enhancing employees' overall efficiency and effectiveness within the work environment.

The findings of this study are limited in their applicability. They cannot be extrapolated to a broader population due to the restricted sample utilized in this research. Furthermore, it is essential to consider that the views and happiness of end users with information system facilities can be influenced by several factors, including but not limited to educational



background, employment position, and experience. In order to achieve a more thorough comprehension of the impact of information system facilities on end-user satisfaction, it is imperative to conduct additional research that encompasses a more representative sample and incorporates pertinent elements.

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