

Examining the Employees' Acceptance of Human Resource Information Systems: An Empirical Study with UTAUT Model

Aditya Nur Hakim¹, Evaristus Didik Madyatmadja²

¹Information Systems Management Department, BINUS Graduate Program-Master of Information Systems Management, Bina Nusantara University, Jakarta, 11480, Indonesia

²Information Systems Department, School of Information Systems Bina Nusantara University Jakarta, 11480, Indonesia

Aditya.hakim@binus.ac.id, emadyatmadja@binus.edu

Abstract. Human Resource Information Systems (HRIS) play a vital role in the smooth functioning of an organization's human resource management processes. This study aimed to assess the acceptance and usage of a Human Resource Information System (HRIS) by employees in a manufacturing company located in Indonesia. To this end, the Unified Theory of Acceptance and Use of Technology (UTAUT) was utilized to evaluate the employees' acceptance of the system. A survey was conducted among employees who had already begun using the system. The study found that the HRIS was well-received by the employees, who found it easy to use. The study also identified four main factors that influenced their acceptance of the system, namely performance expectancy, social influence, facilitating condition, and behavioural intention. It appears that employees are more likely to use the HRIS system to carry out their job activity with the necessary guidance and encouragement from their coworkers without worrying about the effort they had to put forth. Nevertheless, the effort expectancy does not significantly affect the user's intention to use the system. This study contributes to the body of knowledge by disclosing results that show HRIS can be effectively implemented in a manufacturing company under the right circumstances, and that the identified factors can be helpful in directing future HRIS implementation and adoption efforts.

Keywords: Human Resource Information Systems (HRIS), System Acceptance, Unified Theory of Acceptance and Use of Technology

1. Introduction

In recent years, technological advancements have led to significant transformations in individuals' daily lives, particularly through the use of information systems to support business processes. Companies are increasingly adopting information systems to enhance employee efficiency, which involves ensuring smooth operations and managing rapid changes (Rainer & Prince, 2021). One such system widely used in many companies to support human resources in their business processes is the Human Resource Information System (HRIS). HRIS is a digital system that assists organizations in managing HR processes and comprises several features, such as recruitment, training, and performance management. The implementation of HRIS has been found to enhance HR process efficiency and reduce operational costs (Gabcanova, 2012). However, the success of HRIS implementation depends on employees' willingness to effectively use the system (Ainsworth, 2016), as businesses and organizations seek to improve their HR processes in the 21st century, with advancements in information technology and management (Wandhe, 2020).

Since the implementation of a new system, one of which is HRIS, not many companies are analyzing the acceptance of their system (Oehlhorn et al., 2020). It resulted in the company management not knowing the size or acceptance level of the HRIS and what factors can affect its acceptance rate (Kent et al., 2023; Nagendra & Deshpande, 2014). Structured and standardized evaluation is necessary to determine the quality of the system from a user perspective, allowing for necessary improvements to be made. It is crucial to measure the benefit of every system implementation, whether tangible or intangible (Anam & Haque, 2023; Bhattacharjee & Premkumar, 2004). Evaluating the effectiveness of a system is an ongoing process that can identify strengths and weaknesses and guide improvement efforts to ensure it meets the changing needs and expectations of users and the organization (Tambovcevs & Tambovceva, 2022).

Therefore, our research aims to evaluate the adoption of HRIS in a manufacturing company and determine the factors that influence its acceptance, using the Unified Theory of Acceptance and Use of Technology (UTAUT) model as it has been widely recognized and commonly used model for studying the adoption and usage of technology in various contexts with several advantages over other models (Dwivedi et al., 2020; Venkatesh et al., 2003), including its comprehensiveness, simplicity, and applicability to a wide range of technology adoption scenarios. Literature studies show that the use of UTAUT on finding acceptance of a system has been widely applied in various contexts and industries such as healthcare (Akinuwesi et al., 2022; al Aufa et al., 2020), education (Alyoussef, 2022; Parhamnia, 2022; Raffaghelli et al., 2022; Zhang et al., 2021), e-commerce (Chen et al., 2021; Dongsheng LI, 2021; Min et al., 2008), finance (Mansyur & Ali, 2022; Wismantoro & Susilowati, 2021; Yohanes et al., 2020), even general administration including human resource management (Adiratna & Wulansari, 2021; Alkhwaldi et al., 2022; Dey & Saha, 2020; Permatasari et al., 2022), while has been found to be effective in explaining user behavior (Dwivedi et al., 2020). Numerous studies have been done on workplace settings like offices, schools, or other locations where the same kind of people congregate (Almaiah et al., 2019; Angusamy et al., 2022; Chao, 2019; Dey & Saha, 2020; Raffaghelli et al., 2022). Research on the adoption of technology in workplaces with wide age gaps, a clear career triangle, and workplaces with a predominately male workforce and wide gaps in employment position, such as factories, is less likely to be found.

The study aims to investigate the effectiveness of HRIS in a particular manufacturing company in Indonesia using a quantitative research approach. Data will be collected through a survey questionnaire, which will be distributed to all 146 eligible employees with access to HRIS. The questionnaire will be designed based on the constructs of the UTAUT model, which incorporates all relevant factors that could influence the system's adoption and utilization. Structural Equation Modeling (SEM) will be utilized to

analyze the relationship between the various UTAUT constructs. The study's results will provide valuable insights into the factors that impact the adoption and utilization of HRIS, which will help to enhance the system. This study's contribution to the literature on HRIS adoption and utilization will be of interest to scholars, practitioners, and managers in the field of human resource management.

This study is structured as follows; Section 2 provides the literature on human resource information systems, technology acceptance, and how UTAUT can support our research for HRIS acceptance. Following this, Section 3 presents the design, instruments, and methods followed in the research. The result is explained in Section 4. Furthermore, Section 5 shows a discussion of this study and Section 6 concludes and suggests further research opportunities.

2. Literature Review

To conduct the research, we collect some theoretical information that we use for supporting our findings.

2.1. Human Resource Information System (HRIS)

The area of Human Resource Management is continually evolving, and HR is now more than just an emotionally supportive network. The Human Resources work primarily manages the representatives, businesses, and other individuals associated with the organization. It is meant to increase representative profitability, execution, and workforce adaptation to the business (Anupa, 2021). Over the past three decades, a consensus has emerged in the strategic human resource (HR) management literature that the emphasis should be on HR systems rather than individual HR practices because the impacts of HR practices are probably dependent on the other practices within the system (Boon et al., 2019).

Human Resource Information System (HRIS) is used to collect and maintain HR information, convert it into data, and then distribute it to clients. HRIS expedites the viable description and application of HRM exercises (Maamari & Osta, 2021). The applications of HRIS can be separated into modules: 1. Recruitment and Selection, 2. Training and Development, 3. Payroll Administration, 4. Benefits and Compensation Management, 5. Performance Appraisal, 6. HR Planning, 7. Internal and External Communication, and 8. Employee Self Service System (ESS) (Ali Quaosar & Rahman, 2021) that can accelerate the business process of Human Resources to be more responsive and beneficial for the employees.

2.2. Human Technology Acceptance

Research related to technology acceptance is formed due to the need to assess the social changes from a system that has relation to many users (such as health, public services, education, companies, and others) to show if the services and efforts provided are in line with expectations (Albers & Still, 2011). Evaluation of the system will create a standard, determination of standards, determination of comparison categories, and conclusions related to the level of success of the object in meeting previously agreed-upon objectives (Liu et al., 2012).

With a technological advantage, there are several approaches and models for investigating and clarifying the quality of information systems, therefore enabling the researcher to use general methods for achieving the evaluation of the target system. In this case, we can use the Technology Acceptance Model (TAM) that has a purpose to explain the behaviour of information systems users toward the intensity of the usage (Marangunić & Granić, 2015). CCP Framework (Content, Context, and Process) has the purpose to understand the needs from stakeholder perspective toward the context of the system's process (Jaafar & Rezaeian, 2019). IS Success Model that has the purpose to identify factors that are related to the success of the implementation of information systems based on user satisfaction (DeLone & McLean, 2016). The

Unified Theory of Acceptance and Use of Technology (UTAUT) is a technique used by stakeholders to assess the degree to which innovative technology has been successfully adopted as well as to comprehend the elements that influence users to adopt new technology (Williams et al., 2015).

2.3. Human Unified Theory of Acceptance and Use of Technology (UTAUT)

The Unified Theory of Acceptance and Use of Technology (UTAUT) is one of the technology acceptance models developed by (Venkatesh et al., 2012) in which UTAUT combines the successful features of eight leading technology acceptance theories. This method is shown to be evolved and tested by several researchers to make use of existing models in conjunction with UTAUT while exploring the possibilities of other variables by needs, which makes UTAUT to be flexible and clear opportunities to be used as an evaluation model (Williams et al., 2015). In longitudinal field studies of employee technology acceptance, the model explained about 70% of the variance in behavioral intention and 50% of the variance in actual usage by using more generalized constructs and moderators to accommodate for a wider range of applications(Li, 2020).

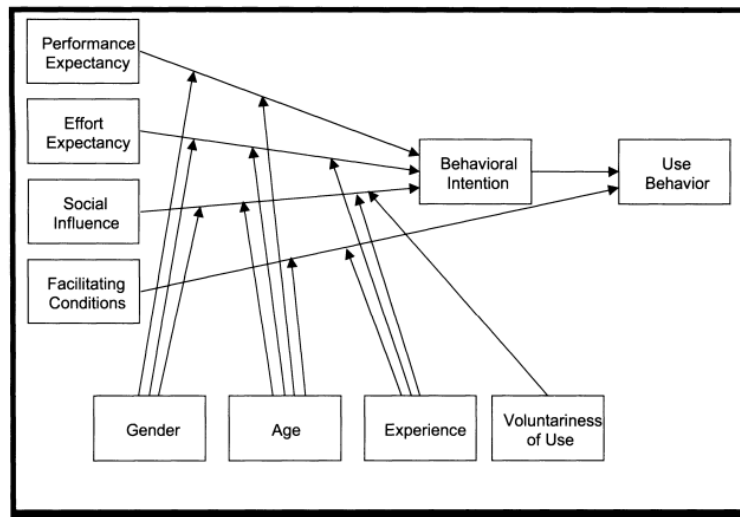


Fig.1: The unified theory of acceptance and use of technology (UTAUT) model

With the variables on UTAUT having a significant connection to each other, it can be used for predicting the intention to use IS/IT and the effective use of a system based on the usage of the system evaluation (Khechine et al., 2016). The UTAUT model consists of six main constructs, namely Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), Behavioral Intention (BI), and Use Behavior (UB). This model contains four determining components for BI which are PE, EE, SI, and FC. While BI is determining component FC. It also included gender, age, experience, and willingness to be a moderator component that might affect the acceptance of technology. Additionally, although the UTAUT model offers practical approaches to understanding technology adoption, the majority of earlier studies either emphasized the importance of age, gender, and experience or concentrated primarily on higher education (Abdou & Jasimuddin, 2020; Chauhan & Jaiswal, 2016; Hsu, 2012; Šumak et al., 2010) or public sector(Alkhwaldi et al., 2022). The subsequent step, which includes the frequency of use and time commitment linked to HRIS, has received very little attention thus far. Therefore, it must be determined whether the UTAUT model still holds true in the business environment and whether behavioral purpose serves as a mediator to encourage employee to use HRIS more actively(Quaosar, 2018).

3. Research Methods

This research was conducted with several steps, the following is the explanation of the research methodology.

3.1. Research Design

The UTAUT was used to explore employees' acceptance of HRIS with the factors that being explored as determinants were performance expectancy, social influence, effort expectancy, facilitating conditions, behavioural intention, and use behaviour. Based on research by (Dwivedi et al., 2019) stated that most studies only used main constructs as they found out that previous research may not have used moderators since the difference in the adoption and usage context is none to be found. The following modified UTAUT model used for this study as follows:

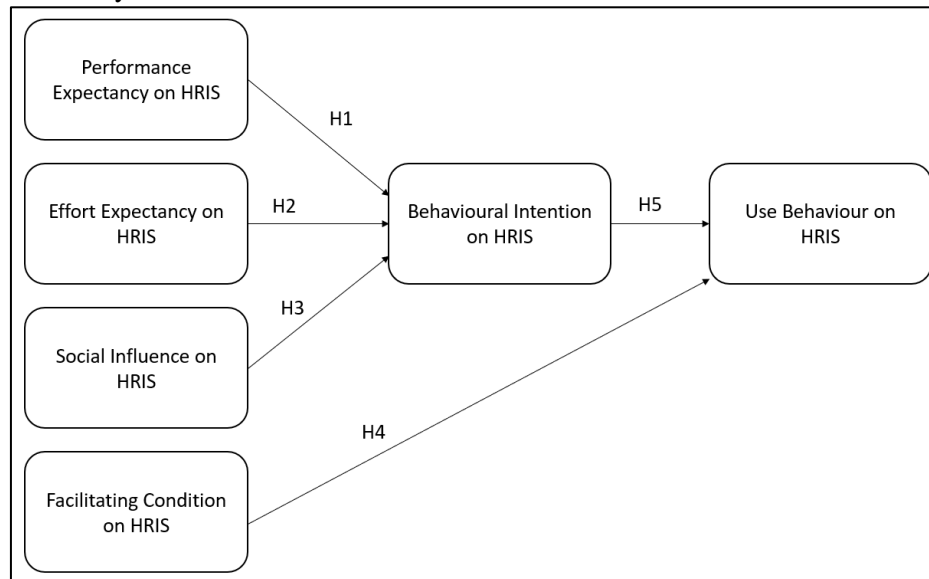


Fig.2: UTAUT model for the research

Based on the UTAUT model, the following five hypotheses were formulated and tested for the research (H1-H5):

H1: Performance Expectancy (PE) has a significant influence effect on Behavioral Intention (BI).

H2: Effort Expectancy (EE) has a significant influence effect on Behavioral Intention (BI).

H3: Social Influence (SI) has a significant influence effect on Behavioral Intention (BI).

H4: Facilitating Condition (FC) a has significant influence effect on Use Behaviour (UB).

H5: Behavioural Intention (BI) a has significant influence effect on Use Behaviour (UB).

The instrument was developed after a thorough review of studies related to the UTAUT model. This study develops the main constructs of the UTAUT model which are adopted from measurement constructs in the related studies (Almaiah et al., 2019; Ayaz & Yanartaş, 2020; Jaya et al., 2017; M et al., 2016; Priyadi et al., 2017; Putra, 2020; Venkatesh et al., 2003, 2012; Wirahaditenaya, 2020). Use behaviour (UB) contained three measurements that are affected by facilitating conditions (FC) which are measured by three items that became direct determinants with performance expectancy (PE) which is measured by five items, effort expectancy (EE) which is measured by four items, social influence (SI) which measured by three items and facilitating conditions (FC) which measured by three items. PE refers to employees' benefits that will be achieved for their activity of appraising their colleagues using HRIS. EE refers to the ease of using HRIS. BI refers to the perceived importance of the HRIS related to employees' manager with the acceptance

of the new system, and FC refers to employees' belief that organizational resource and facility was able to fulfill the use of the HRIS.

3.2. Instruments

A modified version of the UTAUT questionnaire was adopted in this research. All of the moderators are omitted from the determinant, focusing on the main determinant of the acceptance of HRIS. The questionnaire had a total of 28 questions; with seven questions to profile and filter the participant (year of experience) and 21 questions based on the UTAUT model, adopted from the previous studies to achieve the validity of the instrument's measurement as described in Table 1. Each question had a Likert scale with six possible responses, from Strongly Disagree (1) to Strongly Agree (6).

Table 1: Measurement Items

Constructs	Items		Sources
Performance Expectancy (PE)	PE1	HRIS is useful for any HR-related activity	(Chakraborty & Mansor, 2013; Maier et al., 2013; Venkatesh et al., 2003, 2012)
	PE2	HRIS increases operational significantly	
	PE3	HRIS can support tasks productively	
	PE4	HRIS is better than the previous system	
	PE5	HRIS is more reliable than previous business process	
Effort Expectancy (EE)	EE1	The menus and functions implemented in HRIS are easy to use	(Chakraborty & Mansor, 2013; Venkatesh et al., 2003, 2012)
	EE2	HRIS is easy to understand	
	EE3	Learning to use HRIS is effortless	
	EE4	HRIS can be accessed with ease	
Social Influence (SI)	SI1	Direct superiors are promoting to use HRIS to conduct HR activity	(Chakraborty & Mansor, 2013; Nagendra & Deshpande, 2014; Wandhe, 2020)
	SI2	Colleagues among employees support each other to use HRIS	
	SI3	The use of HRIS is supported by Administration Section	
Facilitating Condition (FC)	FC1	We have the necessary resources to access HRIS	(Dey & Saha, 2020; Maamari & Osta, 2021; Venkatesh et al., 2003)
	FC2	There is an available guide for accessing HRIS for complex operation	
	FC3	Overall, the use of HRIS is compatible with all aspects of our work	
Behavioural Intention (BI)	BI1	We have high intention to use HRIS	(Anam & Haque, 2023; Maier et al., 2013; Oliveira & Fraga Martins, 2011; Venkatesh et al., 2003)
	BI2	We feel satisfied with HRIS	
	BI3	We recommend our colleagues to use HRIS	
Use Behaviour (UB)	UB1	Using HRIS is a good idea	(Alkhwaldi et al., 2022; Dey & Saha, 2020; Venkatesh et al., 2012)
	UB2	Using HRIS can be fun	
	UB3	HRIS makes HR-related activity more interesting	

This study will be conducted on one of a manufacturing company in Indonesia, with total employees of 445 people, only involving management-level employees that meet the criteria of being a permanent employee for more than 1 year. In total, 146 responses were meet the criteria and 146 responses were received. The response rate for this study is 100% for the fulfillment of gathering responses on HRIS acceptance on the company. As shown in Figure 2, the employees received the invitation to answer the question related to their experience after using the HRIS. Answering the questionnaire was voluntary, although employees were kindly reminded to complete the data by approaching their manager to support the submission of the survey.

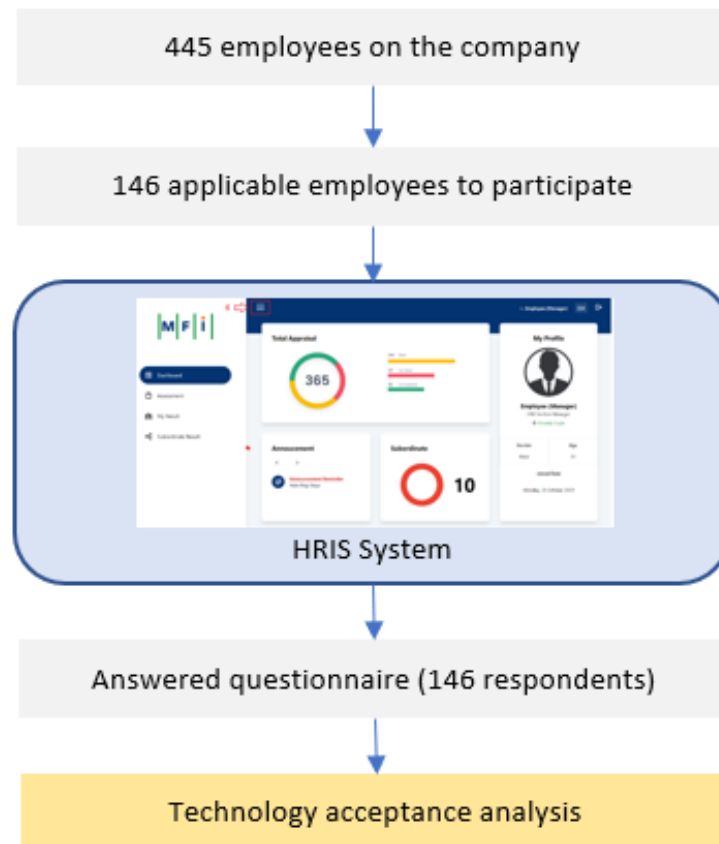


Fig.3: Experiment Methods

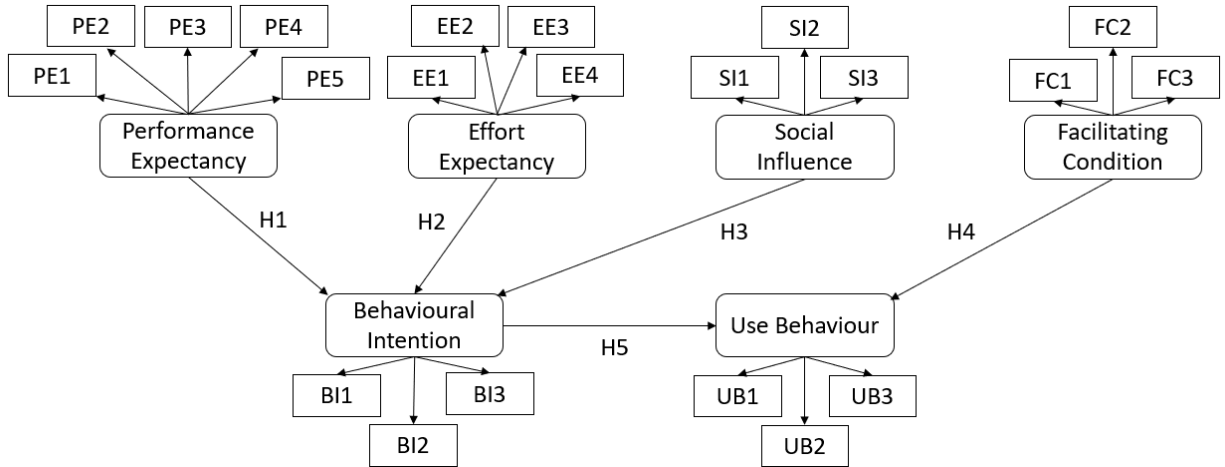


Fig.4: HRIS acceptance

The data was collected by using an online poll based on a structured questionnaire following the survey methods, which provided a responsive version and instant access to the datasets while aiming to gather quantitative data as the survey method is considered one of the most appropriate tools (Wallwey & Kajfez, 2023). The study was conducted from January to March of 2023, during the third fiscal quarter of 2022 with each response from employees managed anonymously. The collected data is then summarized and analyzed to provide the final research result by cleaning the profile data and processing the question based on the UTAUT model.

3.3. Data analysis: structural equation modeling

This study used SEM to analyze the relationship between each determinant on the UTAUT scale. SEM was widely used since it can be used for the outer model and structural model simultaneously, providing the possibility of offering the chance to fit a theoretical model and assess its fit using empirical data (Ali Memon et al., 2021; Syahrir et al., 2020; Tarka, 2018). This method was considered suitable for measuring our assumptions about change over time (disconfirmation) in employees' acceptance of emerging technologies such as HRIS. Furthermore, the HRIS literature emphasizes the importance of using different approaches according to the type of study, the normality, and the number of participants. Using Cronbach's Alpha Reliability Test and Composite Reliability Test, the data collected are examined for reliability. To evaluate the validity of the constructs, convergent validity was determined using Average Variance Extracted (AVE). As it is favored for procedures involving theory testing, theory confirmation, or comparison of alternative theories based on a recommendation, covariance-based SEM was subsequently employed in our instance (J. Hair et al., 2017; J. F. Hair et al., 2014). The indicators serve as the foundation for the reflective latent construct, but they are not the only source of information. The former is substitutable, and their withdrawal does not imply the latent variables. As a result, the required clarification aims to reduce overlaps between basic indicators (statements) assisted by the conceptual framework that compels the statements.

4. Results

The results of this study indicate that the UTAUT model is a useful framework for analyzing the acceptance of HRIS among employees of a manufacturing company. The following are the detail we found on conducting the research.

4.1. Demographic Characteristics of the Respondents

The company divides the status of employment by management and non-management. All management employees were selected as they have access to all functions on the HRIS, with the usage of HRIS on daily basis for their daily work. The demographic information can be found in Table 2, which can be interpreted that most respondents are mainly male with 80,14% in portion. A majority of respondents are within the age group of 21-30 years (32,88%) with work experience of 1-5 years (58,9%). The respondent's work location is mainly in factory (84,25%) since the target of the respondent is a manufacturing company. This research was able to reach all levels of management, including top management such as directors, division managers, and all strategic managerial positions.

Table 2: Demographic Data

Variable Type	Variable	Frequency	Percentage
Gender	Male	117	80,14%
	Female	29	19,86%
Age	21-30 Years	48	32,88%
	31-40 Years	37	25,34%
	41-50 Years	37	25,34%
	51-60 Years	23	15,75%
	61-70 Years	1	0,68%
Work Experience	1 - 5 years	86	58,90%
	6 - 10 years	14	9,59%
	11 - 15 years	10	6,85%
	16 - 20 years	2	1,37%
	20 - 25 years	11	7,53%
	> 26 years	23	15,75%
Work Location	Factory	123	84,25%
	Head Office	23	15,75%
Grade	Officer (Grade 6)	90	61,64%
	Supervisor (Grade 7)	23	15,75%
	Asst. Sect. Manager (Grade 8)	13	8,90%
	Sect. Manager (Grade 9)	10	6,85%
	Division Manager (Grade 10)	5	3,42%
	Board of Directors (Grade 11)	5	3,42%

4.2. Measurement Model

The descriptive statistic was used for supporting the assumption of the normal distribution as shown in Table 3 by considering the mean scores and standard deviations.

Table 3: Descriptive statistics and scales reliability

Items	PE1	PE2	PE3	PE4	PE5	EE1	EE2	EE3	EE4	SS1	SS2	SS3	FC1	FC2	FC3	BI1	BI2	BI3	UB1	UB2	UB3
Min = 1 (Strongly Disagree) Max = 6 (Strongly Agree)																					
Valid N	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
Mean	5,363	5,349	5,397	5,356	5,384	5,37	5,342	5,336	5,479	5,377	5,384	5,322	5,308	5,37	5,342	5,445	5,432	5,425	5,438	5,322	5,322
Median	5	5	5	5	5	5	5	5	6	5	5	5	5	5	5	5,5	5,5	5	6	5	5
St. Dev	0,653	0,827	0,729	0,662	0,624	0,752	0,719	0,781	0,667	0,735	0,677	0,77	0,729	0,752	0,699	0,633	0,674	0,652	0,704	0,846	0,761
Variance	0,426	0,684	0,531	0,438	0,39	0,566	0,516	0,611	0,444	0,54	0,459	0,592	0,532	0,566	0,489	0,4	0,454	0,425	0,496	0,716	0,578
Mean Score x Construct	5,37					5,382				5,361			5,34			5,434			5,361		
Cronbach Alpha	0,808					0,819				0,774			0,731			0,802			0,771		
Composite Reliability	0,825					0,806				0,776			0,746			0,805			0,801		
Average Variance Extracted	0,564					0,63				0,689			0,662			0,716			0,710		

The Cronbach Alpha and the Composite Reliability were measured to test the reliability of each of the constructs. As the result, the Cronbach Alpha can be categorized as good or acceptable for PE, EE, SS, BI, and UB while FC has a lower value of 0,746(Gavidia & Mariño, 2021). However, following the rule of thumbs of Cronbach Alpha, it still can be accepted as the values are between 0,7 and 0,8(Cronbach, 1951; Jr et al., 2014). As for Composite Reliability, all of the construct values were above the threshold level of 0,60 and can be categorized as acceptable(Fornell & Larcker, 1981). Furthermore, all of the AVE values are above 0,5 which indicates an acceptance of convergent validity, meaning that the latent variable describes more than half of its indicator's variance(Jr et al., 2014).

4.3. Hypothesis Testing

The causal relationship of each construct was evaluated by a structural model by using *path coefficient* (β), *t-statistics*, and *p-values* to test the relationship between dependent and independent variables.

Table 4: Structured model result

Hypothesis	Path	β	t-statistics	p-value	Result
H1	PE -> BI	0,357	2,685	0,007	Significant
H2	EE -> BI	0,005	0,036	0,971	Not Significant
H3	SI -> BI	0,335	2,927	0,003	Significant
H4	FC -> UB	0,621	7,729	0,000	Significant
H5	BI -> UB	0,29	3,691	0,000	Significant

Table 4 shows the result of the structural model, it can be observed that Performance Expectancy (PE), Social Influence (SI), and Behavioural Intention (BI) are all positively related. Relationships between PE to BI and SI to BI are significant ($t > 1,96$, $p < 0.01$), indicating that higher levels of PE and SI lead to higher levels of BI. However, the result shows that Effort Expectancy (EE) is not significantly related to BI, as the relationship between EE to BI is not significant ($t = 0,036$, $p = 0,971$). Furthermore, Facilitating Conditions (FC) and Behavioural Intention (BI) are positively related to Use Behaviour (UB). The relationship between FC to UB and EE to BI is significant ($t > 1,96$, $p < 0.001$). Therefore, hypotheses H1, H3, H4, and H5 are supported by this study while hypothesis H2 is not supported as the relationship between EE and BI turns out to be insignificant. The lack of a substantial relationship may indicate that the effort expectancy is not directly influencing the intention of behavior, making it less important in dynamically altering the behaviour intention that directly affects the outcome of use behavior according to the analysis of the result.

Figure 5 describe the relationship between each construct with the outer loadings and t values result for each question (for example, PE1 <- PE has outer loading value of 0,620 with t value of 3,419). Based on the result, all results shows that each question given has a significant relationship with each construct ($t > 1,96$) and can be concluded that all questions explain the construct well. Each construct has Cronbach Alpha shown and connected to related construct that are being analyzed to have a significant or not significant result, by showing the path coefficients and t values (for example, PE -> BI has path coefficients of 0,357 and t values of 2,685).

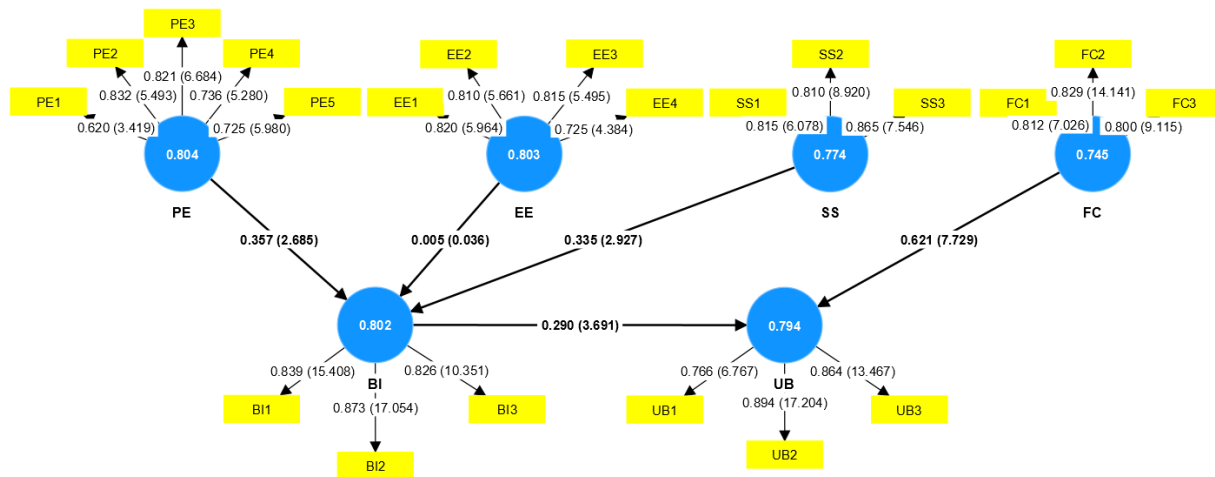


Fig.5: Graphical result

5. Discussion

As a company that continuedly to need to grow, it makes sense that the need for continuous improvement of their business process was predicted to be done. From SMEs to large corporations, there are plenty of opportunities available for development with huge socio-economic influences. If technology can be integrated with every business process that people need at an acceptance rate, then every people that have access to technology can make their lives easier to do. One of which is an integrated system to manage the human resource as the main assets of every company in the world, it is necessary to expect a system that would be useful for fulfilling the needs of HR activity. This study is an attempt to highlight the challenges of implementing HRIS in a manufacturing company, that mainly focuses on manufacturing goods.

The results of this study indicate that the UTAUT model is a useful framework for analyzing the acceptance of HRIS among employees of a manufacturing company. Based on the result, many organizations can seek the acceptance level of their implemented system by analyzing some variables related to the acceptance model that is used. The findings suggest that the six constructs of the UTAUT model; namely, performance expectancy, effort expectancy, social influence, facilitating conditions, behaviour intention, and use behaviour, have varying degrees of impact on the intention to use HRIS. This study demonstrates that performance expectancy, social influence, and behavioral intention have a significant positive impact on the intention to use HRIS, which explains why employees are more likely to be satisfied with the HRIS when their duties are made simpler by a new HRIS, management acts as a change agent to encourage all employees to use the new system, and the company provides the resources needed to access and use the system. According to the study, employees are not concerned about putting in extra time to learn and use the new HRIS, and the relationship between effort expectations and behavioral intentions is not particularly significant based on the result shown on the study.

6. Conclusion

The findings imply that in order to promote employee's acceptance and adoption of HRIS implementation, companies should concentrate on enhancing performance expectancy, effort expectancy, and facilitating conditions. By giving workers clear information about the advantages of HRIS and how it can enhance their job performance, performance expectancy can be raised. By making HRIS use simpler, offering workers training and support, and making sure that the necessary infrastructure and resources are available to support the adoption and use of HRIS, it is possible to increase effort expectancy. As a result of their requirements being met, this may lead to a spike in the company's HRIS acceptance results. Although prior research has indicated that perceived ease of use is a key predictor of technology adoption, the absence of a significant relationship between Effort Expectancy and Behavioral Intention is somewhat unexpected (Boon et al., 2019). It is possible that the measures used in this study did not capture the full range of factors that influence perceived ease of use.

7. Limitation and Recommendation

The study's findings demonstrate that the acceptance of HRIS is influenced by several factors, and these factors should be addressed by the company to increase the likelihood of the successful adoption of the system. The results can be used as a baseline for evaluating and improving the current HRIS system and guiding the future development of the system. By considering these factors, the company can improve its overall organizational performance and achieve its goals more effectively.

The UTAUT model used in this study's assessment of HRIS heavily depends on self-reported measures like user perceptions and attitudes, which can have biases and inaccuracies. This model has several limitations that should be taken into account. Additionally, the UTAUT model does not take into consideration how user acceptance and use behavior are affected by external variables like organization culture, market trends, and regulatory environments. Finally, the UTAUT model focuses on user acceptance and use behavior rather than explicitly assessing how HRIS affects organizational performance and results. Future research can mitigate this limitation by consider complementing self-reported measures with objective measures to tackle biases and data inaccuracies, such as system usage and performance metrics. It also could be improved with exploring the interaction between internal and external factors and how they influence the effectiveness of HRIS systems while link it to various performance measures, such as productivity, employee satisfaction, and financial performance.

Another promising research direction is the use of advanced analytics and machine learning techniques to analyze HRIS data and generate insights that can inform decision-making and improve HRM practices. Finally, as technology continues to evolve, there is a need to keep pace with the latest developments and explore the potential of emerging technologies, such as artificial intelligence and blockchain, in enhancing the effectiveness of HRIS.

Reference

Abdou, D., & Jasimuddin, S. M. (2020). The Use of the UTAUT Model in the Adoption of E-Learning Technologies. *Journal of Global Information Management*, 28(4), 38–51. <https://doi.org/10.4018/JGIM.2020100103>

Adiratna, H. D., & Wulansari, A. (2021). Factors Influencing Purchase Intention of Elancing Using UTAUT Model: A Case Study of Mahajasa. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 6(9), 563–564. <https://doi.org/10.47405/mjssh.v6i9.1056>

Ainsworth, E. R. (2016). *360 Degree Feedback: A Transformational Approach*. Panorama Press.

Akinuwesi, B. A., Uzoka, F.-M. E., Fashoto, S. G., Mbunge, E., Odumabo, A., Amusa, O. O., Okpeku, M., & Owolabi, O. (2022). A modified UTAUT model for the acceptance and use of digital technology for tackling COVID-19. *Sustainable Operations and Computers*, 3, 118–135. <https://doi.org/10.1016/j.susoc.2021.12.001>

al Aufa, B., Renindra, I. S., Putri, J. S., & Nurmansyah, M. I. (2020). An application of the Unified Theory of Acceptance and Use of Technology (UTAUT) model for understanding patient perceptions on using hospital mobile application. *Enfermería Clínica*, 30, 110–113. <https://doi.org/10.1016/j.enfcli.2020.06.025>

Albers, M. J., & Still, B. (2011). *Usability of Complex Information System - Evaluation of User Interaction* (1st ed.). CRC Press.

Ali Memon, M., Ramayah, T., Cheah, J.-H., Ting, H., Chuah, F., & Huei Cham, T. (2021). PLS-SEM STATISTICAL PROGRAMS: A REVIEW. *Journal of Applied Structural Equation Modeling*, 5(1), 2590–4221. [https://doi.org/10.47263/JASEM.5\(1\)06](https://doi.org/10.47263/JASEM.5(1)06)

Ali Quaasar, G. M. A., & Rahman, Md. S. (2021). Human Resource Information Systems (HRIS) of Developing Countries in 21st Century: Review and Prospects. *Journal of Human Resource and Sustainability Studies*, 09(03), 470–483. <https://doi.org/10.4236/jhrss.2021.93030>

- Alkhwaldi, A. F., Alobidyeen, B., Abdulmuhsin, A. A., & Al-Okaily, M. (2022). Investigating the antecedents of HRIS adoption in public sector organizations: integration of UTAUT and TTF. *International Journal of Organizational Analysis*. <https://doi.org/10.1108/IJOA-04-2022-3228>
- Almaiah, M. A., Alamri, M. M., & Al-Rahmi, W. (2019). Applying the UTAUT Model to Explain the Students' Acceptance of Mobile Learning System in Higher Education. *IEEE Access*, 7, 174673–174686. <https://doi.org/10.1109/ACCESS.2019.2957206>
- Alyoussef, I. Y. (2022). Acceptance of a flipped classroom to improve university students' learning: An empirical study on the TAM model and the unified theory of acceptance and use of technology (UTAUT). *Heliyon*, 8(12), e12529. <https://doi.org/10.1016/j.heliyon.2022.e12529>
- Anam, N. A., & Haque, M. I. (2023). Behavioural intention of HR professionals to use HR analytics in the Indian context: an analysis using the UTAUT model. *International Journal of Indian Culture and Business Management*, 28(1), 101. <https://doi.org/10.1504/IJICBM.2023.128486>
- Angusamy, A., Yee, C. J., & Kuppusamy, J. (2022). E-Banking: An Empirical Study on Customer Satisfaction. *Journal of System and Management Sciences*, 12(4), 27–38.
- Anupa, M. (2021). Role of Human Resources Information System (Hris) in Accelerating Organizational Effectiveness – It Companies Perspective. *International Journal of Management and Humanities*, 5(6), 22–25. <https://doi.org/10.35940/ijmh.F1245.025621>
- Ayaz, A., & Yanartaş, M. (2020). An analysis on the unified theory of acceptance and use of technology theory (UTAUT): Acceptance of electronic document management system (EDMS). *Computers in Human Behavior Reports*, 2, 100032. <https://doi.org/10.1016/j.chbr.2020.100032>
- Bhattacharjee, & Premkumar. (2004). Understanding Changes in Belief and Attitude toward Information Technology Usage: A Theoretical Model and Longitudinal Test. *MIS Quarterly*, 28(2), 229. <https://doi.org/10.2307/25148634>
- Boon, C., den Hartog, D. N., & Lepak, D. P. (2019). A Systematic Review of Human Resource Management Systems and Their Measurement. *Journal of Management*, 45(6), 2498–2537. <https://doi.org/10.1177/0149206318818718>
- Chakraborty, A. R., & Mansor, N. N. A. (2013). Adoption of Human Resource Information System: A Theoretical Analysis. *Procedia - Social and Behavioral Sciences*, 75, 473–478. <https://doi.org/10.1016/j.sbspro.2013.04.051>
- Chao, C.-M. (2019). Factors Determining the Behavioral Intention to Use Mobile Learning: An Application and Extension of the UTAUT Model. *Frontiers in Psychology*, 10. <https://doi.org/10.3389/fpsyg.2019.01652>
- Chauhan, S., & Jaiswal, M. (2016). Determinants of acceptance of ERP software training in business schools: Empirical investigation using UTAUT model. *The International Journal of Management Education*, 14(3), 248–262. <https://doi.org/10.1016/j.ijme.2016.05.005>
- Chen, L., Rashidin, Md. S., Song, F., Wang, Y., Javed, S., & Wang, J. (2021). Determinants of Consumer's Purchase Intention on Fresh E-Commerce Platform: Perspective of UTAUT Model. *SAGE Open*, 11(2), 215824402110278. <https://doi.org/10.1177/21582440211027875>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334.

- DeLone, W. H., & McLean, E. R. (2016). Information Systems Success Measurement. *Foundations and Trends® in Information Systems*, 2(1), 1–116. <https://doi.org/10.1561/29000000005>
- Dey, T., & Saha, T. (2020). Implementation of HRIS by Hospitals in Bangladesh: An Analysis using the UTAUT Model. *International Research Journal of Engineering and Technology (IRJET)*, 07(01), 1921–1927.
- Dongsheng LI, Y. Y. (2021). Research on Farmers' Adoption Intention to E-Commerce of Agricultural Products Based on UTAUT Model. *CONVERTER*, 2021(7), 947–957. <http://converter-magazine.info/index.php/converter/article/view/583>
- Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M., & Williams, M. D. (2019). Re-examining the Unified Theory of Acceptance and Use of Technology (UTAUT): Towards a Revised Theoretical Model. *Information Systems Frontiers*, 21(3), 719–734. <https://doi.org/10.1007/s10796-017-9774-y>
- Dwivedi, Y. K., Rana, N. P., Tamilmani, K., & Raman, R. (2020). A meta-analysis based modified unified theory of acceptance and use of technology (meta-UTAUT): a review of emerging literature. *Current Opinion in Psychology*, 36, 13–18. <https://doi.org/10.1016/j.copsyc.2020.03.008>
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39. <https://doi.org/10.2307/3151312>
- Gabcanova, I. (2012). Human Resources Key Performance Indicators. *Journal of Competitiveness*, 4(1), 117–128. <https://doi.org/10.7441/joc.2012.01.09>
- Gavidia, J. L., & Mariño, C. J. (2021). RELIABILITY OF THE INSTRUMENT WITH CRONBACH'S ALPHA AND VALIDATION OF THE HYPOTHESIS BY ANOVA. In *Turkish Journal of Computer and Mathematics Education* (Vol. 12, Issue 14). <https://orcid.org/0000-0002-4077-9288>
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2014). PLS-SEM: Indeed a Silver Bullet. <https://doi.org/10.2753/MTP1069-6679190202>, 19(2), 139–152. <https://doi.org/10.2753/MTP1069-6679190202>
- Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management and Data Systems*, 117(3), 442–458. <https://doi.org/10.1108/IMDS-04-2016-0130/FULL/XML>
- Hsu, H. (2012). The Acceptance of Moodle: An Empirical Study Based on UTAUT. *Creative Education*, 03(08), 44–46. <https://doi.org/10.4236/ce.2012.38B010>
- Jaafar, M. A., & Rezaeian, A. (2019). The CCP Framework to Multi-Level Open Innovation: Toward a New Paradigm and Research Agenda. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3469153>
- Jaya, St. N., Anshari Nur, Muh. N., Faslih, A., & Anshari Nur, Muh. N. (2017). Analysis of Behaviour of E-learning Users by Unified Theory of Acceptance and Use of Technology (UTAUT) Model A Case Study of Vocational Education in Halu Oleo University. *Jurnal Vokasi Indonesia*, 5(2). <https://doi.org/10.7454/jvi.v5i2.109>
- Jr, J. F. H., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate Data Analysis* (1st ed.). Pearson Education Limited.
- Kent, S. (Stace), Houghton, L., & Licorish, S. (2023). Towards an understanding of the relationship between institutional theory, affective events theory, negative discrete emotions, and the development of

- feral systems when using human resource information systems. *Computers in Human Behavior Reports*, 9, 100264. <https://doi.org/10.1016/j.chbr.2022.100264>
- Khechine, H., Lakhal, S., & Ndjambou, P. (2016). A meta-analysis of the UTAUT model: Eleven years later. *Canadian Journal of Administrative Sciences / Revue Canadienne Des Sciences de l'Administration*, 33(2), 138–152. <https://doi.org/10.1002/cjas.1381>
- Li, Jerry. C. F. (2020). Roles of Individual Perception in Technology Adoption at Organization Level: Behavioral Model versus TOE Framework. *Journal of System and Management Sciences*. <https://doi.org/10.33168/JSMS.2020.0308>
- Liu, S., Xie, N., Yuan, C., & Fang, Z. (2012). *System Evaluation - Methods, Models, and Application*. CRC Press.
- M, C., M, M. B., & P, T. (2016). Analyzing Older Users' Home Telehealth Services Acceptance Behavior-Applying an Extended UTAUT Model. *Int J Med Inform*, 90, 22–31.
- Maamari, B. E., & Osta, A. (2021). The effect of HRIS implementation success on job involvement, job satisfaction and work engagement in SMEs. *International Journal of Organizational Analysis*, 29(5), 1269–1286. <https://doi.org/10.1108/IJOA-07-2020-2298>
- Maier, C., Laumer, S., Eckhardt, A., & Weitzel, T. (2013). Analyzing the impact of HRIS implementations on HR personnel's job satisfaction and turnover intention. *The Journal of Strategic Information Systems*, 22(3), 193–207. <https://doi.org/10.1016/j.jsis.2012.09.001>
- Mansyur, A., & Ali, E. M. T. bin E. (2022). The Adoption of Sharia Fintech Among Millennial in Indonesia: Moderating Effect of Islamic Financial Literacy on UTAUT 2. *International Journal of Academic Research in Business and Social Sciences*, 12(4). <https://doi.org/10.6007/IJARBS/v12-i4/13035>
- Marangunić, N., & Granić, A. (2015). Technology acceptance model: a literature review from 1986 to 2013. *Universal Access in the Information Society*, 14(1), 81–95. <https://doi.org/10.1007/s10209-014-0348-1>
- Min, Q., Ji, S., & Qu, G. (2008). Mobile commerce user acceptance study in China: A revised UTAUT model. *Tsinghua Science and Technology*, 13(3), 257–264. [https://doi.org/10.1016/S1007-0214\(08\)70042-7](https://doi.org/10.1016/S1007-0214(08)70042-7)
- Nagendra, A., & Deshpande, M. (2014). Human Resource Information Systems (HRIS) in HR Planning and Development in Mid to Large Sized Organizations. *Procedia - Social and Behavioral Sciences*, 133, 61–67. <https://doi.org/10.1016/j.sbspro.2014.04.169>
- Oehlhorn, C. E., Maier, C., Laumer, S., & Weitzel, T. (2020). Human resource management and its impact on strategic business-IT alignment: A literature review and avenues for future research. *The Journal of Strategic Information Systems*, 29(4), 101641. <https://doi.org/10.1016/j.jsis.2020.101641>
- Oliveira, T., & Fraga Martins, M. (2011). Literature Review of Information Technology Adoption Models at Firm Level. *The Electronic Journal Information Systems Evaluation*, 14, 110.
- Parhamnia, F. (2022). Investigating mobile acceptance in academic library services based on Unified Theory of Acceptance and Use of Technology Model (UTAUT-2). *The Journal of Academic Librarianship*, 48(5), 102570. <https://doi.org/10.1016/j.acalib.2022.102570>

- Permatasari, Y., Tricahyono, D., & Indiyati, D. (2022). Acceptance analysis of e-HRM for employees using UTAUT-1 model. In S. Noviaristanti & O. H. Boon (Eds.), *Sustainable Future: Trends, Strategies and Development* (1st ed.). Taylor Francis.
- Priyadi, R., Daryanto, A., & Hermadi, I. (2017). Perilaku Penggunaan Portal E-office di Bank XYZ Dengan Pendekatan Model UTAUT. *Jurnal Aplikasi Bisnis Dan Manajemen*. <https://doi.org/10.17358/jabm.3.2.185>
- Putra, Y. (2020). *Evaluasi Aplikasi Mobile Banking Menggunakan Modifikasi Model UTAUT (Studi Kasus pada PT Bank KEB HANA Indonesia)*. Bina Nusantara University.
- Quasar, G. M. A. A. (2018). Adoption of Human Resource Information Systems in Developing Countries: An Empirical Study. *International Business Research*, 11(4), 133. <https://doi.org/10.5539/ibr.v11n4p133>
- Raffaghelli, J. E., Rodríguez, M. E., Guerrero-Roldán, A.-E., & Bañeres, D. (2022). Applying the UTAUT model to explain the students' acceptance of an early warning system in Higher Education. *Computers & Education*, 182, 104468. <https://doi.org/10.1016/j.compedu.2022.104468>
- Rainer, R. K., & Prince, B. (2021). *Introduction to Information Systems* (9th ed.). Wiley.
- Syahrir, Danial, Yulianda, E., & Yusuf, M. (2020). *Aplikasi Metode SEM-PLS dalam Pengelolaan Sumberdaya Pesisir dan Laitan* (1st ed.). PT Penerbit IPB Press.
- Tambovcevs, A., & Tambovceva, T. (2022). ERP System Implementation: Benefits and Economic Effectiveness. *International Journal of Systems Applications, Engineering & Development*, 16, 14–20. <https://doi.org/10.46300/91015.2022.16.3>
- Tarka, P. (2018). An overview of structural equation modeling: its beginnings, historical development, usefulness and controversies in the social sciences. *Quality & Quantity*, 52(1), 313–354. <https://doi.org/10.1007/s11135-017-0469-8>
- Šumak, B., Polancic, G., & Hericko, M. (2010). An Empirical Study of Virtual Learning Environment Adoption Using UTAUT. *2010 Second International Conference on Mobile, Hybrid, and On-Line Learning*, 17–22. <https://doi.org/10.1109/eLmL.2010.11>
- Venkatesh, Morris, Davis, & Davis. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27(3), 425. <https://doi.org/10.2307/30036540>
- Venkatesh, Thong, & Xu. (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. *MIS Quarterly*, 36(1), 157. <https://doi.org/10.2307/41410412>
- Wallwey, C., & Kajfez, R. (2023). Quantitative research artifacts as qualitative data collection techniques in a mixed methods research study. *Methods in Psychology*, 100115. <https://doi.org/10.1016/j.metip.2023.100115>
- Wandhe, P. (2020). A Role of Effectiveness of Human Resource Information System (HRIS) in 21st Century. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3718247>
- Williams, M. D., Rana, N. P., & Dwivedi, Y. K. (2015). The unified theory of acceptance and use of technology (UTAUT): a literature review. *Journal of Enterprise Information Management*, 28(3), 443–488. <https://doi.org/10.1108/JEIM-09-2014-0088>

Wirahaditenaya, Z. A. (2020). *ANALISIS FAKTOR PENERIMAAN SISTEM LAYANAN ELECTRONIC MONEY (E-MONEY) PADA MOBILE BANKING DENGAN METODE UTAUT Studi Kasus: PT. Bank Sinarmas*. Bina Nusantara University.

Wismantoro, Y., & Susilowati, M. W. K. S. (2021). How does Unified Theory of Acceptance and Use of Technology (UTAUT) Work on Adopting Financial Technology (FinTech) by MSMEs? *Jurnal Penelitian Ekonomi Dan Bisnis*, 6(2), 90–99. <https://doi.org/10.33633/JPEB.V6I2.4826>

Yohanes, K., Junius, K., Saputra, Y., Sari, R., Lisanti, Y., & Luhukay, D. (2020). Unified Theory of Acceptance and Use of Technology (UTAUT) Model Perspective to Enhance User Acceptance of Fintech Application. *2020 International Conference on Information Management and Technology (ICIMTech)*, 643–648. <https://doi.org/10.1109/ICIMTech50083.2020.9211250>

Zhang, Y.-B., Zhang, L., & Kim, H. (2021). The Effect of UTAUT2 on Use Intention and Use Behavior in Online Learning Platform. *Journal of Logistics, Informatics and Service Science*, 8(1), 67–81.