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Perceived ease of use, usefulness, and task interdependence: impacts on employee performance in higher education

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ABSTRACT

This research aimed to investigate the relationship between perceived ease of use (PEU), perceived usefulness (PU), and task interdependence (TASKINT) on employees' work performance. Technology acceptance model (TAM) was used as a theoretical perspective to explore technology adoption in the context of employees in higher education using electronic asset management (EAM). Moreover, a quantitative method was used to explain the causality of the relationship between the variables, and a total of 380 respondents were determined as the sample. The results showed that PEU and usefulness had a significant effect on TASKINT. Even though PEU and TASKINT had a significant effect on employees' work performance, PU did not have a significant effect. In addition, the results showed TASKINT significantly mediated the relationship between perceived ease of use, usefulness, and employees' work performance. These findings imply that enhancing the ease of use and fostering TASKINT can lead to improved employee performance when adopting new technologies. For higher education institutions (HEI), focusing on user-friendly systems and promoting collaborative tasks can maximize the benefits of technology implementation on work performance.

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1. INTRODUCTION

Technological advancements are accepted by various organizations, including higher education institution (HEI), which can efficiently affect performance outcomes. In this situation, technology adoption in HEIs should be followed by employees as decided by managers [1], [2]. This is because the adoption can provide work-life balance, increased flexibility, benefits, and implications for work performance [3], [4]. However, the use of technological systems is not often commensurate with increased performance despite the investments in technology [5]. In the context of higher education, technology should be effectively adopted and utilized by employees to enhance the quality of institutional services, such as education delivery, research output, and administrative efficiency [6], [7]. Based on technology acceptance model (TAM), individuals' behavior toward adoption is affected by two main factors, namely perceived usefulness (PU) and ease of use [8], [9]. Moreover, task-technology fit (TTF) has become a developing theoretical perspective that links the use of TAM with work task [10], considering the effect of work activities on the use of technology [7]. Through TAM, a theoretical perspective for assessing the influence of the fit between task and technology characteristics, it is necessary to explore the acceptance of technology adoption.

The use of technology by HEIs has effectively changed procedures in the work environment. Combining technology adoption with work task can help employees interact, exchange information, and communicate with colleagues [11], [12]. This is in accordance with [13], who classified task structure as a form of autonomy and interdependence that affects technology adoption [14]. Moreover, task interdependence (TASKINT) requires coordination and communication to complete activities [15], [16]. The relationship between the use of technology and TASKINT is significantly needed in work productivity in institutions. This interdependence refers to the extent to which individual task correlates with others in HEIs [14], [17], [18]. In this context, technology adoption (collaborative software, database management systems, and other digital platforms) affects the level of TASKINT. Implementing technology that facilitates communication and interaction can increase interdependence. This corresponds with previous research where TASKINT is a crucial factor for addressing complex task, requiring collaboration between employees [15], [16], [19]. Technology adoption improves employees and institutional performance by providing coordination and communication to complete related task.

TAM was used as a theoretical perspective in this research, emphasizing that technology usage is influenced by perceived ease of use (PEU) and PU. Moreover, employees tend to accept and apply technology when there are benefits such as facilitating task and communication with colleagues. Technology adoption facilitated communication and collaboration between employees, as well as improved performance [11], [12]. In addition, using the right technology can increase task efficiency. In this regard, implementing an integrated information system speeds up information transfer between departments and minimizes workflow bottlenecks. This research focused on the electronic management of state property in a HEI in Indonesia, where technology adoption significantly impacts management efficiency. Technology integration simplifies monitoring, administration, and reporting processes related to state property, thereby increasing accountability and transparency. Electronic systems can automate procurement, inventory, transfer, and monitoring processes for state property. Similarly, using electronic asset management (EAM) or warehouse management systems helps the government track and manage the inventory of state-owned goods more effectively.

Technology has been used in various sectors and fields to increase efficiency and effectiveness of performance. TAM associates PU with perceived technology-task suitability [20]. Therefore, institutions need to strengthen the relationships between individual task and fields through the use of technology, with implications for employees' work performance [12]. Although various research used TAM for enterprise resource planning (ERP) and enterprise social media (ESM) [21], [22], there is limited investigation on EAM that fits the context of this research. Moreover, EAM emphasizes the usefulness of technology for managing state-owned asset databases, which can help in efficient and systemized inventory in the platform. Specifically in a theoretical perspective, TAM has been analyzed in various types of technology with unique characteristics, such as ERP and ESM [12], [14], [23]. The use of technology aims to integrate with work, which always involves a group of users. Therefore, system implementation depends on collective decision-making [24]. TTF, an extension of TAM, has been emphasized by previous research [7], [10], but is primarily used to investigate actual use and intentions. Both TAM and TTF show the importance of fit between technology and task in influencing individual use and performance. However, the models have not fully explored the interaction between perceived usefulness, ease of use, TASKINT, and employees' work performance. To address the gap, this research examined the complex relationships between technology adoption, TASKINT, and performance. It also focused on two questions, namely to what extent do perceived ease of use, perceived usefulness, and TASKINT affect employees' work performance? and to what extent does TASKINT mediate the relationship between technology adoption and employees' work performance?

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Technology acceptance model

A theoretical perspective used to explain technology adoption or acceptance is TAM [8]. It is an adaptation of theory of reason action (TRA). This perspective assumes that users' attitudes toward technology adoption are determined by two main beliefs, namely PU and ease of use [25]. These perspectives can drive behavioral intentions to use or accept the adopted technology and produce actual usage behavior [26]. Previous research discussed TAM through the perspective of user-perceived technology adoption [27], [28]. Most recently, it has been used to address the extent to which technology adoption helps employees complete task [25], [29], [30]. While TAM emphasizes that the use of technology is based on users' willingness [31], modern organizations often require technology adoption to complete task [7]. This differentiates the spectrum of TTF theory from TAM. In addition, TTF to be more relevant in investigating task, technology, and employees' involvement [19].

TAM is determined based on cognitive beliefs that can be generalized to all technologies in explaining attitudes and intentions [8], estimating difficulties in using technology through PU and ease of use [25].

Although this model was used by previous research to investigate behavioral intentions in using technology as an endogenous variable [7], [29], investigations on ERP or ESM have focused on attitudes as indicators of technology acceptance [21], [22]. Therefore, this research emphasized that technology adoption could affect TASKINT and employees' work performance. This is because technology could facilitate the completion of task according to organizational procedures, affecting efficiency and effectiveness, which are benchmarks for performance. The characteristics of technology determine usefulness in completing task by employees [19]. Therefore, technology adoption has strong relevance to TASKINT and employees' work performance.

2.2. Perceived ease of use on task interdependence

Psychosocial factors tend to play an important role for employees in accepting technology, which is driven by cognitive beliefs [32]. Moreover, employees' perspectives on using technology systems affect the comfort factor of complex and efficient system interfaces in supporting routine task [33]. In this context, technology systems can simplify integrated business processes to increase the overall level of convenience, having a direct effect on attitudes toward using technology-based systems [29], [34]. Using technology systems helps employees complete task, creating perceived TASKINT [22], [35]. It also reflects the extent to which employees require materials, information, and expertise from coworkers to complete task affecting the use of technological systems [36]. In addition, the use of ERP on perceived ease of use, emphasizing that knowledge and skills in operating technological systems affected PEU [29].

In line with ERP, EAM is used to record inventory withdrawals for the state property management process, ensuring the accurate monitoring and managing of stock as well as maintenance of assets. This is important because the integration of adopted technology systems enables strong task dependencies, where timely and accurate information about inventory draws can have a direct effect on resource planning, maintenance scheduling, and general supply chain management [25], [37]. Therefore, the use of EAM not only increases operational efficiency but also minimizes the risk of errors and loss of assets, which can disrupt the smooth management of state property processes. Technology adoption factors also affect PEU in the context of TASKINT. When these systems are well connected, users tend to perceive that the inventory and asset management process becomes easier because the necessary information is available in an integrated manner. High PEU can strengthen the relationship between various task in the supply chain because users feel more confident and helped in completing related task [25], [29], [33].

– H1: PEU positively and significantly affects TASKINT.

2.3. Effect of perceived usefulness on task interdependence

PU is one of the important controlling psychosocial factors that has been explored in TAM to explain the acceptance, use, and adoption of technology [38]. PU is based on the extent to which individuals believe the application of a particular technological system will improve work performance. Therefore, it can result in behavioral intentions to use technology based on controlling factors that can accept the presence of technology and produce actual usage behavior [19], [38]. PU reflects individuals' subjective evaluation of a technological system to help in completing task [10]. Previous research explored the adoption of technology systems, including technology attributes and task characteristics [19], as well as supporting the completion of work task in organizations. Technology adoption is effective in coordinating employees, cutting the bureaucratic flow of traditional systems [35], [39].

The benefits of technology adoption have strong relevance to TASKINT, as shown through the function of technology adoption which can facilitate task dependency of employees to interact and coordinate in completing task [35]. Therefore, organizations can facilitate task performance by providing information, assistance, and resources to each other through technology adoption. Technology systems are particularly useful for work efficiency and effectiveness among employees when a difficult job requires a long time [18], [40], [41]. In addition, TASKINT increases as work becomes more difficult, with employees requiring higher levels of mutual assistance in terms of materials, information, or expertise [42]. Technology adoption could be affected by various factors, such as individuals, the nature of technology, factors at the organizational level, contextual and environmental factors, task characteristics and the effect on information use are important determining factors in ICT adoption [19]. Therefore, task considered as work carried out by employees to achieve certain objectives [37], requires various levels of interdependence that are coordinated across organizational teams. PU from the acceptance of adopted technology can provide significant assistance to employees in completing interdependent task.

– H2: PU positively and significantly affects TASKINT.

2.4. Effect of perceived ease of use on employees' work performance

Davis [8] first proposed PEU as a key concept in technology acceptance theory. It refers to the extent individuals consider that using technology will require effective effort in completing task. In the

context of technology adoption for work environment, PEU is an important factor that affects employees' work performance. Employees tend to accept and apply technology when the usage is perceived to be easy and not confusing. This is useful for improving work performance. Therefore, PEU and employees' work performance have a significant relationship in technology application. Employees tend to feel more comfortable and motivated to try new technology when it is relatively easy. A high level of PEU can facilitate the intensive use of technology. Employees may be more motivated to take advantage of available features and use technology more often in daily task. The efficient use of technology can increase work productivity and significantly reduce the time for carrying out task that was previously difficult without technology. Therefore, PEU has a significant effect on employees' work performance in technology adoption. The easier the use of technology, the more the adoption to improve overall work performance.

– H3: PEU positively and significantly affects employees' work performance.

2.5. Effect of perceived usefulness on employees' work performance

PU as a cognitive factor is integrated into TAM, which interplays with employees' confidence in using technology to improve performance [43], [44]. In addition, it shows perceived use of technology in completing task and improving work productivity [45]. Organizational facilitation for employees can be in the form of information systems useful for performance. Therefore, PU of systems can affect users' satisfaction, resulting in increased employees' work performance [45]. On the other hand, technology can have a negative effect on employees' work performance [43], [46]. It can create a paradox where information systems of organizations provide connectivity and exchange of information that makes things easier, improving employees' work performance [47]. Therefore, performance improvements from new technology adopted by organizations should be followed by users' acceptance at employees' level [25]. Therefore, employees can properly understand usefulness and utilitarian function of technology for performance [2], [48]. Employees' acceptance is key in the transition between adoption decisions at the organizational level, potentially affecting performance [25]. Therefore, high levels of employees' confidence in technology adoption can affect the success of technology in promoting performance [44]. Based on an in-depth literature review, the following hypothesis was formulated:

– H4: PU positively and significantly affects employees' work performance.

2.6. Effect of task interdependence on employees' work performance

In task characteristics literature, TASKINT generates a work environment that is supported by coordination between employees and characterized by teamwork [12], [18], not entirely under the control of performance [49]. Therefore, TASKINT is often associated with effects resulting from usefulness of group settings which has implications for employees' motivation [17] and increases employees' productivity [22]. TASKINT is rooted in literature related to team effectiveness, because the absence of positive interdependence can affect team dynamics, including employees' attitudes and motivation [50], [51]. It is an important factor in employees' motivation toward work performance [12], as also mentioned by [18], [52]. Even though some research found that TASKINT reduced performance [53], [54], others have shown an increase [12], [52], [55]. In this context, in-depth analyses of the relationship between TASKINT and employees' work performance have shown that employees without TASKINT may not be capable of completing task. Involvement with other employees to process and resources may be required with collaborative action [19], [55].

– H5: PU positively and significantly affects employees' work performance.

2.7. The mediating role of task interdependence

In achieving predetermined objectives, organizations strive to increase productivity, reduce costs, and improve organizational performance. Technology is often adopted at the top management level to facilitate the completion of task for low-level management. Therefore, workplace coordination between fields and employees requires technology adoption to complete task, coordinate, and share information [19]. Technology adoption facilitates ease and usability which functions in integrating task between systemized employees [56]. Task that previously took a long time to complete and negatively impacted the performance of other employees can be handled more effectively due to the utilitarian nature of technology [52], [57]. This efficiency is directly associated with improved employees' work performance [12]. According to Pitafi *et al.* [12], in organizations, employees connect with colleagues to exchange information, materials, and resources, increasing work performance.

TAM perspective is closely related to task characteristics and employees' work performance. Even though several research emphasized direct relationship, indirect relationship, such as TASKINT which played a mediating role have not been investigated. The relationship between PEU and usefulness on employees' work performance, mediated by TASKINT, allows for in-depth investigation as illustrated in

Figure 1. The mediating role of TASKINT presents a complex dynamic in the context of modern work environment. Therefore, coordination and cooperation are required to achieve optimal work performance [29], [42]. [41] attributed this to the influence of PEU on employees' collaboration with colleagues, thereby affecting work performance. In the context of benefits, technology is a major factor in providing an efficient platform for coordinating between employees [2], [18], [36]. The more useful the technology, the higher the application and the resulting work performance. The influence of PU and ease of use on employees' work performance is related to the role of TASKINT. Therefore, technology needs to provide a more significant platform for coordination between individuals, specifically when several tasks are interrelated [12]. TASKINT can act as a mediator, strengthening the relationship between PU and ease of use as well as employees' work performance.

- H6: TASKINT significantly mediates between PEU and employees' work performance
- H7: TASKINT significantly mediates between PU and employees' work performance.

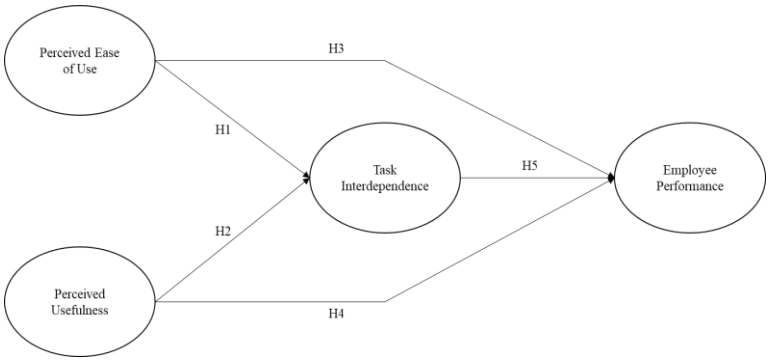

Figure 1. Research model

3. METHOD

This research used a quantitative method, which objectively tested theories by analyzing the relationships between variables [58]. Questionnaires are important instruments for collecting empirical data through representative samples in specific populations [58]. According to Sekaran and Bougie [59], population refers to the entire group of individuals, events, or phenomena of interest to be investigated. Therefore, this research investigated behavioral analysis and determined the criteria set, namely Sriwijaya University employees using applications to manage state property. Non-probability sampling was used, where elements did not have a probability of being selected as samples. Furthermore, respondents were selected based on convenience and availability [58]. The determination of the number of respondents in behavioral analysis adhered to [60], stating that in behavioral research, the sample size can range from 30 to 500 to utilize the central limit theorem [59]. However, strengthening the determination of the total respondents by using structural equation modeling (SEM), the recommended sample size is between 100 and 400 respondents [61]. Out of the 400 questionnaires distributed to employees across each faculty and university level, 380 were collected and met eligibility. Therefore, the response rate from the total number of respondents was 95%.

This research used statistical analysis as an investigative tool, including descriptive and inferential statistics. In inferential analysis, partial least squares structural equation modeling (PLS-SEM) was applied. PLS-SEM is a very powerful statistical tool applicable to all types of data, does not require many assumptions, and can confirm relationships without requiring a strong theoretical foundation [61]. It also excels at estimating structural models, specifically when some model assumptions are not met. [62] showed that PLS-SEM was more effective in modeling composite variables, while covariance-based structural equation modeling (CB-SEM) was more effective in modeling factors. Moreover, previous research showed that results from both models were often consistent and similar to each other [63]. PLS-SEM was used in this research to develop or build hypotheses, predict complex situations, and facilitate multivariate data analysis. It was important to ensure that parametric assumptions were met before applying PLS-SEM in data analysis [62].

This research adopted three items for each construct of the PEU and usefulness variables [29], [56]. Meanwhile, six items are used to measure the TASKINT variable construct, and five items in employees' work performance construct [12]. All the selected constructs underwent an adoption process, as the context of both respondents and variables were similar, eliminating the need for any adjustments or modifications.

The survey instrument was developed based on the objectives and a thorough literature review. In addition, a five-point Likert scale ranging from (strongly disagree 1) to (strongly agree 5) was utilized for the survey instrument.

4. RESULTS AND DISCUSSION

Questionnaires were distributed to educational staff at Sriwijaya University, Palembang City, South Sumatra, Indonesia, at both faculty and university levels. Table 1 presents the demographic profile of respondents, which includes gender, age, working experience, and department.

Table 1. Demography respondent (n=380)

Demographic		Frequency	Percent (%)
Gender	Male	184	48.42
	Female	196	51.58
Age	<25	47	12.37
	26–30	127	33.42
	31–35	82	21.58
	36–40	76	20.00
	>40	48	12.63
Working experience	< 3 years	47	12.37
	4–5 years	118	31.05
	6–7 years	170	44.74
	> 8 years	45	11.84
Department	Administration	67	17.63
	Academics and students affairs	168	44.21
	General and financial	89	23.42
	Planning and community relations	56	14.74

Table 2 presents the result of using PLS-SEM to confirm the validity and reliability of the measurements, which are the basis of quantitative method. According to Hair *et al*. [61], PLS-SEM is recommended because composite reliability and Cronbach's alpha determine reliability. All items should have composite reliability and Cronbach's alpha greater than 0.70. This research showed that all variables had a value greater than 0.7. Therefore, both values were considered acceptable to ensure adequate reliability. Average variance extracted (AVE) value and correlation coefficients between variables were calculated to ensure validity [62]. Based on this current research, all variables had AVE value of > 0.5 [55] stated that AVE is an adequate measure of the similarity of each latent variable when all variants show a value of >0.50. The construct in this analysis had strong validity.

Table 2. Construct measurement

Variable	Item	Mean	Outer loading	Cronbachs' alpha	Composite reliability	AVE
PEU	PEU1	5.620	0.954			
	PEU2	5.632	0.963			
	PEU3	5.580	0.879			
				0.924	0.953	0.870
PU	PU1	4.983	0.946			
	PU2	5.006	0.946			
	PU3	5.183	0.751			
				0.856	0.915	0.785
TASKINT	TASKINT1	5.522	0.744			
	TASKINT2	5.217	0.784			
	TASKINT3	4.809	0.798			
	TASKINT4	5.041	0.830			
	TASKINT5	4.600	0.869			
	TASKINT6	4.614	0.867			
				0.900	0.923	0.667
Employees' work performance	EWP1	5.012	0.740			
	EWP2	4.884	0.760			
	EWP3	4.693	0.821			
	EWP4	5.261	0.844			
	EWP5	4.751	0.731			
				0.839	0.886	0.610

According to heterotrait-monotrait ratio of correlations (HTMT) is a new method to evaluate discriminant validity in variance-based PLS-SEM [64]. This method has a specific threshold, with a construct's HTMT value below the threshold confirming absence of discriminant validity problem. Stated that HTMT value should be <0.9 to meet discriminant validity standards. Based on Table 3, all HTMT values were <0.9, confirming that all constructs met discriminant validity standards. Good discriminant validity shows that the constructs in the model are more highly correlated with the indicators than others, necessitating the accurate measurement of each construct [64].

Table 3. Discriminant validity

	Employees' work performance	PEU	PU	TASKINT
Employees' work performance				
PEU	0.546			
PU	0.487	0.380		
TASKINT	0.568	0.414	0.884	

In the bootstrapping stage using PLS-SEM (Figure 2), model-fit and path coefficients were calculated to determine the general effect of the relationships in the model, which were appropriate to the hypotheses formulated. Statistical analysis was carried out using a partial sequential model, confirming that the hypothesis had a coefficient of determination (R^2), such as task dependency (0.628) and employees' work performance (0.352), as presented in Table 4. Hypothesis testing showed that PEU (ß = 0.135; $p - value < 0.05$) and usefulness (ß = 0.737; $p - value < 0.05$) had a positive and significant effect on task dependency, confirming the acceptance of H1 and H2. Moreover, PEU (ß = 0.340; $p - value < 0.05$) had a positive and significant effect on employees' work performance, while PU (ß = 0.037; $p - value > 0.05$) was not significant, confirming the acceptance of H3 and rejection of H4. Task dependency had a positive and significant effect on employees' work performance (ß = 0.342; $p - value < 0.05$), confirming the acceptance of H5. In testing the effect of mediation, task dependency mediated positively and significantly between PEU (ß = 0.046; $p - value < 0.05$) and PU (ß = 0.252; $p - value < 0.05$) on employees' work performance, confirming the acceptance of H6 and H7.

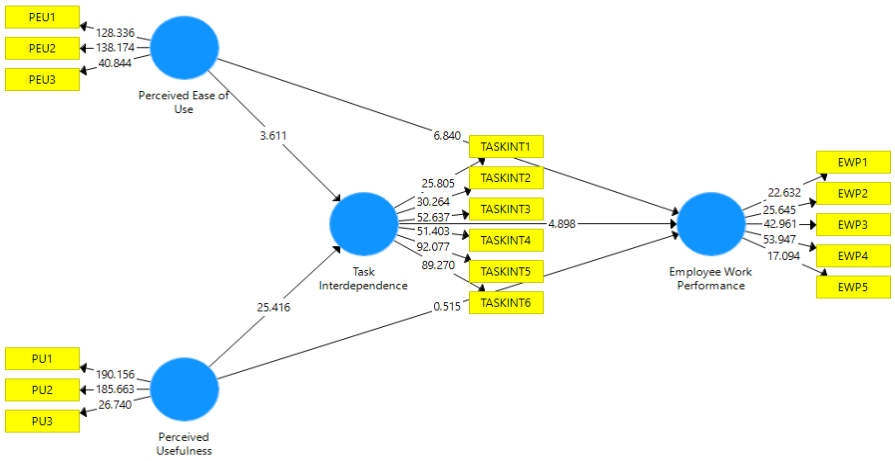

Figure 2. Research model output

Table 4. Hypotheses testing

Hypotheses	Direct effect (ß)	Indirect effect (ß)	T score	P values	Conclusion
PEU → TASKINT	0.135		3.611	0.000	Accepted
PU → TASKINT	0.737		25.416	0.000	Accepted
PEU → EWP	0.340		6.840	0.000	Accepted
PU → EWP	0.037		0.515	0.607	Rejected
TASKINT → EWP	0.342		4.898	0.000	Accepted
PEU → TASKINT → EWP		0.046	3.001	0.003	Accepted
PU → TASKINT → EWP		0.252	4.749	0.000	Accepted
N= 380					
R^2= TASKINT (0.628); EWP (0.352)					

Technology adoption has been recognized in various behavioral literature that focus on outcomes, as well as organizational contexts affecting performance. Since technological advances have proven useful in helping organizational performance, managers have decided to adopt technology for employees [2]. However, employees are forced to adopt this technology [1], [2], emphasizing an in-depth investigation into the extent of employees' acceptance of technology. This research aimed to investigate the extent perceived ease of use, perceived usefulness, and TASKINT affected employees' work performance. TAM served as a theoretical perspective in associating the PU with those perceived by technology users. While previous research was based on TTF [7], [10], only actual use and behavioral intention were analyzed. TAM model fully explores controlling factors that are centered on user psychology based on the usability and usefulness of technology [8], affecting technology dependence in the workplace. Therefore, TASKINT plays a role as a mediating variable, with this current research investigating the full or partial mediation.

Based on the analysis, PEU had a positive and significant effect on TASKINT ($ß = 0.135$; $p - value < 0.05$) and employees' work performance ($ß = 0.340$; $p - value < 0.05$). This confirmed perceived ease of use, as one of the main components of TAM, was important in employees' technology adoption. PEU refers to the extent individuals believe that using a particular technology will be effortless. In this context, ease of use of technology allows employees to easily complete task and coordinate with coworkers, increasing TASKINT. According to previous research, the convenience of the system interface facilitates work routines. In other words, technology that is easy to use can increase effectiveness and collaboration between employees [33]. This was supported by [12], [14], [29], where the successful application of technology required adequate psychosocial factors such as comfort. Furthermore, perspectives of ease of use had a direct effect on employees' work performance as significant energy was not required, facilitating employees' productivity and ability to achieve targets more quickly. This was in accordance with [22], [35], where PEU of technology increased task dependency and had an effect on better performance. This current research emphasized the importance of psychosocial and comfort aspects in the design and application of technology in the work environment.

Based on the analysis, PU had a positive and significant effect on TASKINT ($ß = 0.737$; $p - value < 0.05$), but was not significant on employees' work performance ($ß = 0.037$; $p - value > 0.05$). Therefore, the analysis is semantic, in that PU (the extent technology use can improve performance) may increase TASKINT among employees rather than directly affecting individual performance. PU increased the ability to interact and coordinate in task completion, contributing to TASKINT. This was supported by [40] and [41], where application of technology as a means of effective task coordination was an important factor for employees. Therefore, useful technology can strengthen work networks, ensuring employees work collectively to complete task. The results also reflected the view of [42], where the application of technology required a high level of interdependence to facilitate the completion of task between individuals in institutions. In completing task to achieve certain objectives [37], good time coordination is required. In this case, the application of technology helps employees work on task with colleagues collaboratively [18]. Although the benefits do not have a significant effect on performance directly, based on the role in increasing task dependency, the benefits of technology at the time level are more visible than at the individual level. In other words, to maximize the benefits of technology in the workplace, companies should focus on how technology can improve collaboration and interaction between employees, not just on improving individual performance [43]. Also, PU of technology adoption contributes to completing interdependent task, improving general team performance [25], [48].

Based on the analysis, TASKINT had a positive and significant effect on employees' work performance ($ß = 0.342$; $p - value < 0.05$). Furthermore, this research investigated the mediating role of TASKINT linking PEU ($ß = 0.046$; $p - value < 0.05$) and PU ($ß = 0.252$; $p - value < 0.05$) to employees' work performance both positively and significantly. TASKINT played a role in fully mediating the relationship between PEU and usefulness on employees' work performance. In other words, technology adoption had an interplay with TASKINT, with employees confirming utilitarian and psychosocial factors in completing task [12]. TAM is closely related to task characteristics linking TASKINT, facilitating collaboration and coordination in achieving optimal work performance [29], [42]. While various research have intensively explored the context of business organizations that use ERP and ESM [12], [14], [23], the context of employees in higher education is still rarely investigated. This research showed that technology adoption in higher education had helped employees in completing administrative, monitoring, and reporting process task related to state-owned goods. Therefore, the role of technology is very supportive in increasing transparency and accountability in the management of state property carried out by HEI through EAM. This refers to TAM model, emphasizing users' technology adoption is determined by two main belief factors, driving the behavior to use or accept technology adoption and producing actual usage behavior [8].

The results provided several important theoretical implications referring to TAM. First, PEU had a significant effect on TASKINT and employees' work performance, confirming that easy-to-use technology increased individuals' efficiency and team coordination. This reinforced the understanding that ease of use

was a key factor in technology adoption. Second, although PU did not have a direct effect on performance, there was a significant effect on TASKINT. Therefore, the benefits of technology were more visible at the team level, confirming the view that technology adoption should be focused on increasing collaboration between employees, not individuals. Third, TASKINT was a full mediator between PEU and usefulness on employees' work performance, emphasizing the importance of collaboration and interaction in achieving optimal work performance. TAM should be intensively explored to include the role of TASKINT as a crucial mediating variable. This research enriched TAM literature by emphasizing the psychosocial and utilitarian aspects of technology adoption. Therefore, institutions should address these factors in technology design and implementation to maximize benefits [8], [12], [29]. Technology acceptance was driven by perceived usefulness, ease of use, as well as how technology increased collaboration and TASKINT among employees.

The results offered several useful practical implications for policyholders at the higher education level, individuals, and teams, based on TAM. For policyholders in higher education, the results emphasized the importance of ensuring the ease usage of technology adoption (perceived ease of use). Policies and training programs should be designed to minimize barriers to technology use, by providing adequate support and training for employees. In addition, policyholders should focus on the benefits of technology that increased collaboration between employees TASKINT, proven to improve general work performance. The results also showed that PEU could improve employees' work performance and help in effectively achieving work targets. Therefore, employees should be encouraged to adopt new technology and take advantage of features that make jobs easier. It was also important to create awareness that perceived usefulness, despite not always having a direct effect on individual performance, could increase coordination and collaboration in team and improve team performance. For teams, this research emphasized that easy-to-use and useful technology could increase TASKINT between team members, important for achieving shared goals. Teams also needed to focus on how technology could be used to strengthen networking and collaboration, ensuring that each member understood and optimally used technology.

5. CONCLUSION

Based on the discussion of behavioral theory, changes have occurred due to technological advances adopted by various organizations. Therefore, the behavioral theory adapted from TRA was developed from the effect of technological progress into TAM, TAM is centered on the attitude toward using technology, which is determined by two belief factors, namely PU and ease of use. Based on these two factors, beliefs had been widely associated with TASKINT and employees' work performance in the scope of discussing employees' behavior in adopting technology at the institutional level. Even though TAM had been widely emphasized in business organizations, it was still very rare in the context of employees in higher education. Therefore, this research aimed to investigate the extent perceived ease of use, perceived usefulness, and TASKINT affected employees' work performance. The results showed that PEU and usefulness had a significant effect on TASKINT. While PEU and TASKINT had a significant effect on employees' work performance, PU did not have a significant effect. Moreover, TASKINT fully mediated the relationship between PEU and usefulness on employees' work performance.

This research had several limitations despite using a theoretical perspective of TAM in the context of employees in higher education. Firstly, it only investigated TAM at one university in Indonesia, namely Sriwijaya University. Due to the inability to generalize results across higher education in Indonesia, the readiness to adopt technology at other higher education might produce different results. Secondly, this research only focused on one technology, namely EAM, while higher education also adopted technology systems used for academic purposes, resulting in different results. Finally, it was important to investigate the fit between technology and task influencing the use and employees' work performance, such as PU having an insignificant effect on employees' work performance. The differences between TAM and TTF could provide valuable insights for future investigations on relevant differences in employees' technology use behavior. This could also provide a comprehensive view and contribute to the development of behavioral theory.

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