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Does Individual IT Experience Affect Shadow IT Usage? Empirical Evidence from Universities with Legal Entities in Indonesia

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Background and purpose: Employee dissatisfaction with extant technology is one of the causes of shadow IT use. The selection of alternative technologies is determined by individual IT knowledge. In this study, we intend to examine the relationship between individual IT experience and the use of shadow IT in Indonesian higher education through two job characteristics, namely task identity and autonomy.
Methods: This study collects and analyses data from 301 respondents at Indonesian universities with legal status using a quantitative methodology. The direct relationship in the research model was investigated using Smart-PLS data analysis.
Results: The results of the study indicate that individual IT experience strongly supports the use of shadow IT by tertiary institutions with legal entities employees in Indonesia, either through task identity or job autonomy.
Conclusion: In order for employees to feel satisfied, the organization must prioritize employee IT experience and the information technology requirements they require to complete their work. This can be accomplished by involving employees in the development of information technology.

Keywords: *Individual IT Experience, Task Identity, Autonomy, Shadow IT*

1 Introduction

"Shadow IT" (SIT) refers to the growing practice of using IT resources outside of the official company infrastructure to get work done (S Haag & Eckhardt, 2014; Kopper, 2017; Silic, Barlow, & Back, 2017). Excel spreadsheets, apps that are integrated into organizational systems (SIT can be on company-owned devices, personal devices, or in the cloud), and apps used to complete daily work are all examples of SIT (Orr et al., 2022), or software used for routine tasks (Raković, Sakal, Dakić, & Đurković, 2022; Raković, Sakal, Matković, & Marić, 2020).

The majority of prior SIT research has focused on the "negative" side of SIT, such as security issues, undermining legitimate systems, and compromising organizational data flows (Silic, Silic, & Oblakovic, 2016), whereas the positive side of SIT is increasing productivity when used properly (Steffi Haag, Eckhardt, & Bozoyan, 2015). The advantages of SIT can be viewed from two perspectives: the end user and the IT industry. End users are frequently constrained by the limitations of the organization's existing software solutions. Therefore, in order to complete the mission, the user develops his own application and employs SIT. This allows end users to complete their tasks more swiftly and efficiently. On the other hand, the use of SIT by employees provides the IT department with factual information regarding the employees' requirements

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(Đorđević Milutinović, Raković, & Antić, 2023).

Employee dissatisfaction with the organization's information system (IS) led to the widespread adoption of SIT (de Vargas Pinto, Beerepoot, & Maçada, 2022). According to Hauff, Richter, and Tressin (2015), job satisfaction is influenced by job characteristics, which are skill variation, task significance, task identity, autonomy, and feedback, according to Hackman and Oldham (1976). These characteristics can be used as predictors for the use of technology and alternative solutions; these factors influence the use of workarounds and SIT (De Vargas Pinto, Carlos, & Maçada, 2020).

In addition to dissatisfaction, employee expectations regarding the organization's technology also influence the use of SIT. According to Ortbach, Walter, and Oksuz (2015), employees' expectations of technology used in the workplace are influenced by their daily experiences; consequently, it encourages them to use technology that is familiar, easy to use, and friendlier, even if the organization does not recognize the technology as valid (Mallmann & Maçada, 2016).

Based on this, job characteristics influence the use of SIT (de Vargas Pinto et al., 2022); employee satisfaction at work, according to Vaezi, is the primary determinant of usage habits and behavior; dissatisfaction with existing IS aspects can influence changes in habits and user behavior; the more satisfied users are with the available IS, the less likely they are to use SIT (Vaezi, Mills, Chin, & Zafar, 2016). Specifically, task identity and autonomy are two characteristics that contribute positively to employee job satisfaction because they encourage employees' development at work (Jiang, Di Milia, Jiang, & Jiang, 2020). However, we believe that there are additional variables that influence the use of SIT, namely individual IT experience, which, according to Zhou (2015), is the employee's personal experience in the field of information technology, which also affects the success or failure of the performed duties (Zhou, Li, & Lam, 2009). This is due to the fact that employee experience with IS affects the successful use of IS and influences employee intentions and behavior (Benlian, 2015; Taylor & Todd, 1995).

This study is predicated on the premise that individual IT experience influences or contributes to the organization's extensive use of SIT. This occurs due to employee dissatisfaction with SI or the technology supplied by the organization; the selection of alternative IT resources is based on the individual's IT experience. Therefore, empirical evidence is required to demonstrate that individual experience influences the use of SIT, which is mediated by the task's identity and autonomy. This appears to be one of the few empirical studies indicating the intrinsic factor of individuals with a role.

This research was conducted at tertiary institutions with legal entities in Indonesia. The higher education organizations were chosen because they functioned as warehouses for the most diverse data sets, including intellectual property, personal information, finances, donors, students, and employees, etc. Moreover, the use of SIT in tertiary institutions exhibits distinct trends and patterns relating to its shape, function, and security risk. (Orr et al., 2022), In addition to the requirement that universities in Indonesia disclose academic and non-academic data on both individuals and institutions, this allows employees to utilize IT resources not provided by the university. Whether they are aware of it or not, the academic environment, particularly higher education, has the potential to use SIT in their daily activities. Orr et al. (2022) stated that the use of SIT in an academic setting is concealed, occasionally conceals actual problems, and creates security issues.(Orr et al., 2022). This was confirmed by Rakovic et al. (2020), who stated that the lack of user awareness made the use of SIT problematic for organizations (Rakovic, Duc, & Vukovic, 2020).

2 Literature Review

This paper presents a systematic literature review process based on the "input-processing-output" approach proposed by Yair Levy and Timothy J. Ellis (2006). These actions are taken: (1) Literature Review: Inputs; (2). Literature Review: Processing; (3) Literature Review: Outputs (Levy & Ellis, 2006). A keyword-based search strategy was carried out using online scientific databases Scopus, with the keywords Individual "IT Experience", "Task Identity"+"job characteristics", "Task Autonomy"+"job characteristics", and "Shadow IT" in the last 10 years. The table 1 shows the search results.

Table 1 displays the total number of keyword queries at each input-process-output stage. At the intake stage, there are 341 articles discussing related research. Individual "IT Experience" (59), "Task Identity"+"job characteristics"(68), "Task Autonomy"+"job characteristics" (14), and "Shadow IT"(200). At the process stage, articles that have been screened are further reviewed according to the steps in literature review processing (1) Know the literature (2) comprehend the literature (3) cognitive construct level (4) theory: definition and use IS literature (5) Analyze the literature (6) Synthesize the literature (7) Evaluate the literature. At this point, it has produced 92 articles pertaining to the issues addressed in this study. In the literature: output phase, it was determined after a more in-depth analysis that 40 documents, the attached catalog of journals, were reviewed (Appendix A).

In addition, forward and backward analysis is conducted to ensure that all needs and criteria are met. Forward analysis consists of reviewing the references enumerated in the article, whereas backward analysis consists of reviewing the article references resulting from the keyword

Table 1: Search result from database scopus

Keywords	Input	Process	Output
Individual "IT Experience"	59	5	4
"Task Identity"+"job characteristics"	68	28	7
"Task Autonomy"+"job characteristics"	14	7	2
"Shadow IT"	200	52	27
Total	**341**	**92**	**40**

searches described previously (Levy & Ellis, 2006), The search yielded thirteen articles. We attach the title of the article search results to in Appendix B.

2.1 Individual IT Experience, Task Identity, and Autonomy

Since previous expertise with computers has been linked to success or failure in computer-related tasks, it is acceptable to assume that employees are capable of judging technology's fit based on their own experience because they utilize technology as a tool in their jobs. (Zhou et al., 2009). The IT experience effects the behaviour and control of users (Liu & Wang, 2014), According to IS studies, prior experience is crucial for acquiring the requisite skills and knowledge. According to Walsh et al., the use of IT is a social phenomenon resulting from an acculturation process, which is a cultural learning process resulting from IT experience. The more requirements are met, the more independent IT usage becomes. (Abubakre, Zhou, & Zhou, 2022).

The IT experience, training, and user participation had nearly double the impact on technology acceptance as cognitive style or personality characteristics (Marler & Dulebohn, 2015). When a person is required to participate in activities that test or push the limits of his talents and abilities, that activity nearly always results in the individual having the perception that the task is meaningful to him or her (Avgerinos & Gokpinar, 2018). In addition, there is now a substantial body of research demonstrating that the experience individuals have with their day-to-day work has a direct impact on their engagement levels and personal performance (Krishnan et al., 2015).

According to Hofmans et al., it is believed that task identity determines the degree to which an individual considers his work as meaningful, which has significant implications for the level of intrinsic drive, i.e., experience (Hofmans, Gelens, & Theuns, 2014). Coelho and Augusto assert that task identity inspires employees to work wisely by fostering the perception that their job is relevant and worthwhile. So, the degree of identification with the task and the work as a whole may influence the propensity to depart from practice (de Vargas Pinto et al., 2022). A professional may be able to swiftly and instinctively identify a solution to a new challenge if he or she has years of expertise solving comparable difficulties. Common graphical user interfaces across software packages assist the intuitive testing or 'playing' of new software packages by a user (Deng, Doll, & Truong, 2004). These factors led to the formulation of the following hypotheses:

H1 : Individual IT experience is positively related to Task Identity

Autonomy is "the extent to which work affords significant independence, interdependence, and discretion to individuals in scheduling work and determining the processes to be employed to carry it out."(Karimikia, Singh, & Joseph, 2021). It is crucial to comprehend how varying amounts of task autonomy affect the performance of individuals. Depending on the sequence and prior experiences with the task, task autonomy may create diverse interpretations, leading to a variety of creative outcomes (Chang, Huang, & Choi, 2012). Moon et all. explain The manner in which preceding tasks were completed influences the behavior and strategy employed for subsequent activities (Moon et al., 2004). Previous work experience, as well as creative context and task features, influence the employee's habitual or automatic processes. Individuals must have relevant work experience or skills to profit from task autonomy. To profit from task autonomy, individuals require work experience or pertinent abilities. People who are given task autonomy at the outset demonstrate much lower levels of creativity than those who are given explicit instructions given the same amount of time (Chang et al., 2012). According to this explanation, the accomplishment of past tasks influences the task autonomy of employees.

H2: Individual IT experience is positively related to Autonomy.

2.2 Task Identity, Autonomy, and Shadow IT Usage

From the user's perspective, one of the factors contributing to the rise of SIT is the disparity between user expectations and the technology available to complete the

work. (de Vargas Pinto et al., 2022). According to Rakovic et al. (2020), SIT should not be viewed as deviant within an organization; employees' use of SIT is motivated by a desire to increase work efficacy; in other words, SIT is a need felt by employees (Đorđević Milutinović et al., 2023).Technology can create uncertainty in the workplace, particularly if it substantially deviates from employee habits (Venkatesh, Bala, & Sykes, 2010). Job happiness rises when individuals can identify their task and have greater autonomy in accomplishing it. Both of these factors contribute to greater job satisfaction (Jiang et al., 2020).

The characteristics of task identity and autonomy can predict job happiness. Task identity motivates people to perform efficiently, and employees perceive their work to be important and valuable. Also, task identification involves the completion of work from beginning to end and the development of work results (De Vargas Pinto et al., 2020). This is confirmed by Jiang, who demonstrates that persons who accurately define their jobs and obtain autonomy in accomplishing tasks are more satisfied with their work and develop more effectively at work. The motivational role of job features, particularly task identity and autonomy, has afforded employees opportunities to meet their psychological demand for professional development and job pleasure (Jiang et al., 2020). On this basis, we propose the hypothesis that task identity has a favourable impact on shadow IT usage.

H3: Task Identity is positively related to Shadow IT Usage.

De Vargas argued that the behaviour of using shadow IT is closely related to employee decisions in adapting and carrying out tasks differently than planned by the organization, and this decision is related to aspects of autonomy in decision-making that are influenced by various organizational conditions; therefore, the use of a workaround or shadow IT is dependent on the degree of autonomy in the assigned job (de Vargas Pinto et al., 2022).

Similarly, subpar employee performance is influenced by the degree of job autonomy and the technology employed; for instance, employees who have greater autonomy in completing their work have the option to use alternative technologies to complete their tasks. (Karimikia et al., 2021). Hence, we provide the following hypotheses

H4: Autonomy is positively related to Shadow IT Usage.

2.3 Individual IT Experience and Shadow IT Usage

The phenomenon of SIT usage is a result of employee routines and behavior; they prefer to utilize familiar technology. The disparity between the technologies provided by the IT department and the tasks of the employees prompts them to seek out alternative technologies; the selection of these technologies is influenced by the employees' personal experiences; consequently, the technologies selected tend to be more familiar, user-friendly, and intuitive. (Mallmann & Maçada, 2016).

Harrison and Rainer argued that training has an impact on the acceptability and utilization of IT, but that the experience and age of users are more critical determinants. An employee's perception of his or her own IT skills influences the efficacy of training and the frequency of IT use (Gallivan, Spitler, & Koufaris, 2005), This view aligns with Wang's, which states that the nature of our occupations and the work experiences of our employees are substantially influenced by ICT use (Wang, Liu, & Parker, 2020).

Benlian claimed that the level of expertise in using IT applications has varying effects on the efficacy of using IT features; users with more experience have a deeper understanding of the applications utilized and benefit from experience when doing tasks. Capabilities in the area of information systems are developed when people increase their knowledge and proficiency in the subject through practice and experience. (Benlian, 2015).

Workers who have utilized information and communication technologies for personal purposes may anticipate a similar experience at work. IT department-unrecognized personal devices and applications are utilized as a result of dissatisfaction with the organization's infrastructure (Weiß & Leimeister, 2012). Consequently, the following hypotheses were developed:

H5: Individual IT experience is positively related to Shadow IT Usage.

On the basis of the preceding discussion, a conceptual model was created to determine the relationship between Individual IT Experience and SIT Use, as well as whether Task identity and autonomy serve as mediating variables between Individual IT Experience and SIT Use. Figure 1 depicts the conceptual model that governed this study and the relationship between the research hypotheses and the conceptual model.

3 Methodology

The purpose of this exploratory study is to investigate the relationship between individual IT experience and the use of SIT via task identity and autonomy. The investigation was conducted in the education sector at Indonesian tertiary institutions, particularly those with legal entities. Higher education institutions with legal status are state universities in Indonesia that have autonomy in their management, according to the mandate of Law Number 12 of 2012 concerning higher education in Indonesia. Higher education institutions with legal entities are expected to become financially independent higher education institutions and become world class universities, and are expected to be able to implement their research results for use in society. Universities with legal entities are considered higher quality universities than other universities in Indo-

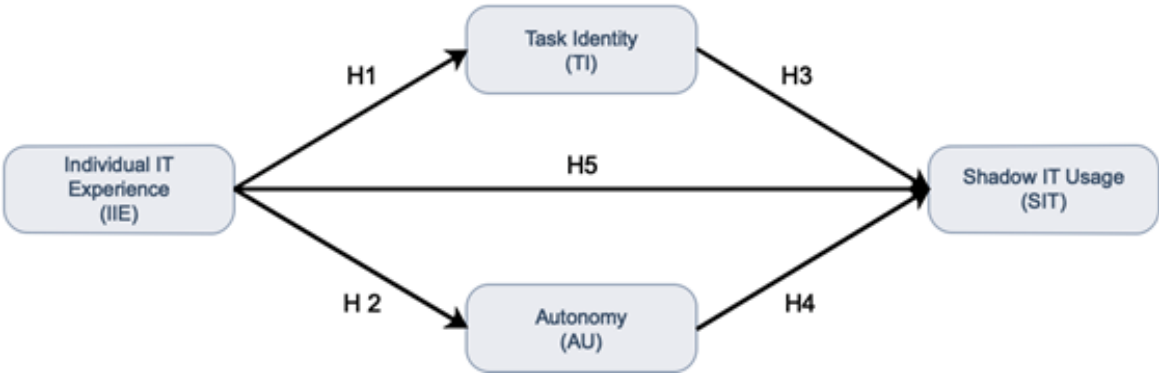


Figure 1: Conceptual research model

Table 2: Participant Demographics

Education Background	Employment Experience							Grand Total
	0-5 years	5-10 years	10 - 15 years	15-20 years	20-25 years	25-30 years	> 30 years	
High School	15	37	26	14	9	21	9	131
Under Graduate	6	17	16	17	9	15	6	86
Master Degree		3	10	4	2	2	4	25
Doctoral degree	4	14	10	15	5	8	3	59
Grand Total	**25**	**71**	**62**	**50**	**25**	**46**	**22**	**301**

nesia (Frymaruwah, Dewata, Nadzri, & Periansya, 2022; Hardiyanto, Siregar, & Wijayanto, 2017). There are currently 21 universities in Indonesia with legal status as tertiary institutions[1].

Using convenience sampling, the survey was disseminated to employees of tertiary institutions with legal entities. As its name implies, convenience sampling is a technique for collecting data from consenting participants (Sekaran & Bougie, 2016) Convenience sampling is employed when budgetary and time constraints are taken into account (Saunders, Mark; Lewis, Philip; Thornhill, 2019). This study's sample characteristics are geared toward respondents with prior work experience, particularly experience working with IS.

The SMART PLS program was chosen to analyze the collected data, Because of its capability to perform structural equation model (SEM) analysis (Joseph F. Hair, Hult, Ringle, & Marko Sarstedt, 2017).

3.1 Questionnaire Design

The questionnaire is utilized to collect data for assessing the model developed for this study. It is presented in electronic format and utilizes the questionnaire from previous research. The questionnaire consists of four sections: the first section addresses individual IT experience and is adopted from Garland and Noyes (2004) (Garland & Noyes, 2004); the other three sections, namely task identity, autonomy, and use of SIT, are adopted from de Vargas Pinto's research (de Vargas Pinto et al., 2022), all questionnaires were modified to their original version.

Due to the questionnaire's initial English construction, it was translated into Indonesian.

Before distributing the questionnaire to the respondents, we conducted a pilot test with 34 participants to determine the instrument's reliability. The results of the pilot test were analyzed with SPSS v25 software. Using Cron-

[1] University of Indonesia (UI), Bandung Institute of Technology (ITB), IPB University (IPB), Gadjah Mada University (UGM), Sepuluh Nopember Institute of Technology (ITS), Padjadjaran University (Unpad), Diponegoro University (Undip), Universitas Airlangga (Unair), Universitas Brawijaya (UB), University of Sumatera Utara (USU), Hasanuddin University (Unhas), Sebelas Maret University (UNS), Indonesia University of Education (UPI), Universitas Negeri Malang (UM), Andalas University (Unand), Universitas Negeri Padang (UNP), Universitas Negeri Semarang (Unnes), Universitas Negeri Surabaya (Unesa), Universitas Syiah Kuala(Unsyiah), Indonesia Open University (UT), Universitas Negeri Yogyakarta (UNY).

bach's alpha coefficient, an if-item-deleted test was conducted to determine how closely the questionnaire items were arranged. Cronbach's alpha coefficient is one of the most widely used methods for measuring the internal consistency of a multi-item scale. Each item is correlated with every other item in the sample of related constructs, and the average of these correlations is used as an indicator of reliability. And it was determined that the Cronbach alpha values of all questionnaire questions exceeded the minimum acceptable level of 0.70. Consequently, the instrument and each group of queries pertaining to a single variable demonstrated adequate internal consistency (Collis & Hussey, 2014).

This study's questionnaire contained a total of 21 question items, including 7 individual IT experience variables, 5 task identity items, 5 autonomy items, and 4 SIT use items. All items use a five-point Likert scale, with 1 indicating strongly disagree and 5 indicating strongly agree.

3.2 Data Collection

November and December of 2022 were spent collecting data in Indonesia. Employees at universities with legal entities in Indonesia were the focus of the survey because they are the ones who interact with the use of IS and, as specified, manage data to be reported to the government. Using our own network, we directly contact employees and ask them to participate in this study.

Google Forms-distributed questionnaires were disseminated to 301 respondents from 20 colleges and universities with legal entities. Participating in this research were educators and educational personnel. In this study, the majority of respondents were between the ages of 41 and 50 (40%); the majority of respondents came from the Indonesia University of Education (42.5%), Universitas Brawijaya (11.6%), and IPB University (7%). 44% of respondents with a bachelor's degree as their most recent degree were followed by 29% with a master's degree as their most recent degree.

In the first section of the questionnaire, demographic questions including university of origin, age, gender, occupation at work, last education, employment status, and length of service were addressed. Table 1 presents the demographic information of our respondents.

3.3 Data Analysis

In this study, we followed Hair's recommendation and evaluated two separate aspects of the study: the model itself and the methods used to estimate and test hypotheses based on the structural model (Joseph F. Hair et al., 2017). SmartPLS 3.2.7.9 was then utilized to conduct the Confirmatory Factor Analysis and SEM.

Convergent validity was evaluated by calculating the AVE, CR, and Item Factor Loadings, all of which are displayed in Table 2. Twenty-two such markers were used in this investigation. Research into factor loadings is the first order of business; these must be greater than 0.70 (Joseph F. Hair et al., 2017). Two indicators, TI 1 (0.677) and SIU 4 (0.308), failed to meet the parameters established by the measures and are therefore banned. All CR values were above 0.500, and most were close to 0.700, indicating high levels of internal consistency in the reflective design.

All values greater than 0.5 are displayed in the measurement results, as the AVE is used as a reference in convergent validity assessments. This demonstrates that the model's convergent validity conditions are met across all constructs.

Discriminant validity is another type of test that is performed. The goal is to determine whether a given construct is sufficiently distinct from others to account for occurrences that are not adequately captured by existing constructs (Joseph F. Hair et al., 2017). The cross-loading value shown in Table 3 is used in the test that combines the Fornell and Lackers tests. Each construct correlates most strongly with itself, and to a lesser extent with the other constructions. As a result, we have obtained discriminant validity.

Measurement results showed that each construct had a value less than 0.85 (see table 4), passing both the Fornell-Larcker criterion test and the heterotrait-monotrait ratio test (HTMT), which tests discriminant validity. This study provides sufficient evidence of convergent and discriminant validity.

The path coefficient is then used to assess the research hypothesis, which completes the structural model evaluation process. Figure 2 shows the result of the subsequent computation; in particular, it shows the result of the calculation conducted by SmartPLS utilizing bootstrapping.

Results from testing the model indicate that it is able to estimate 18.6% of the variance in autonomy, 28% of the variance in task identity, and 50.8% of the variance in shadow IT usage. All of the path coefficients are statistically significant, as shown above.

Based on the findings of the calculations of the five submitted hypotheses, all five were supported. To conclude that the link under investigation is significant at a 5% level, the p value must be less than 0.05 when a 5% significance threshold is used as illustrated in Table 5.

The first hypothesis demonstrates that autonomy at work has a favourable impact on the usage of shadow IT, while the second hypothesis, which evaluates the relationship between individual IT experience and job autonomy, also demonstrates positive and significant outcomes. Individual IT experience has a beneficial influence on the usage of shadow IT, as confirmed by Hypothesis 3. Individual IT experience influences the adoption of shadow IT positively, as supported by Hypothesis 4. The fifth and

Table 3: Result of The Measurement Model

Construct	Code	Items	Item loading	CR	AVE
Individual IT Experience	IIE1	I am able to utilize e-mail	0,823	0,938	0,687
	IIE2	I am able to browse numerous websites on the internet.	0,757		
	IIE3	I am proficient in word processing software (word processor) (e.g., Microsoft Word, Open Office, Writer).	0,893		
	IIE4	I am proficient with worksheet programs (e.g., Microsoft Excel, Calc Spreadsheet, etc.).	0,885		
	IIE5	I am proficient with presentation software (e.g., Microsoft Power Point, Impress Libre Office).	0,835		
	IIE6	I can locate files on the computer.	0,879		
	IIE7	I understand how the organization's information system operates.	0,710		
Task Identity	TI1	Based on the outcomes of the task, I am able to recognize the efforts made to complete it	*	*	*
	TI2	I finish work from beginning to end.	0,794	0,906	0,707
	TI3	I am accustomed to doing my work in an organized and neat manner	0,846		
	TI4	The outcomes of the work I perform are a reflection of the work's process	0,856		
	TI5	I approach my work in a methodical and structured manner	0,865		
Autonomy	AU1	I have the freedom to schedule my job	0,758	0,893	0,625
	AU2	I can determine when and how work is completed	0,709		
	AU3	I am authorized to make plans to fulfil the allocated assignment.	0,839		
	AU4	I can choose the best approach to take to complete the task.	0,814		
	AU5	I am permitted to pick how to finish the assignment.	0,827		
Shadow IT usage	SIU1	I use internet-based application services such as Google Drive, Dropbox, OneDrive, WhatsApp, Skype, and Zoom	0,860	0,911	0,772
	SIU2	I use internet-based application services such as Google Drive, Dropbox, OneDrive, WhatsApp, Skype, Zoom, and others to share work and interact with co-workers, clients, and colleagues from other firms.	0,900		
	SIU3	I communicate with co-workers, clients, and colleagues from other firms using internet-based application services like Google Drive, OneDrive, WhatsApp, Skype, and Dropbox.	0,876		
	SIU 4	I use a non-IT-approved personal device for work.	*	*	*

final hypothesis, Hypothesis 5, demonstrates a favourable correlation between task identity and the usage of shadow IT. On the basis of the calculated results of the five offered hypotheses, they were supported.

Following the hypothesis test, the analysis of the Coefficient of Determination (R2) is conducted. The Coefficient of Determination (R2) indicates the quality of the updated model by reflecting the extent to which the dependent variable is explained by the independent variables. The R2 values for endogenous idea autonomy, usage of shadow IT, and task identity are 18.5%, 50.8%, and 28.0%, respectively. Cohen advises evaluating the R2 values for endogenous latent variables in the social and behavioural sciences as follows: 26% for a considerable effect, 13% for a moderate effect, and 2% for a weak effect. Hence, the R2 values are good, despite the modest effect size (Cohen, 1988). According to Cohen, the construct of autonomy has a small impact, whereas the notions of using shadow IT and task identity have a substantial impact. We comment on the significance of these findings in the following section.

Table 4: Fornell-Larcker Criterion

	Autonomy	Individual IT Experience	Shadow IT usage	Task Identity
Autonomy	0,791			
Individual IT Experience	0,431	0,829		
Shadow IT usage	0,476	0,665	0,879	
Task Identity	0,536	0,529	0,537	0,841

Table 5 : Heterotrait-Monotrait Ratio (HTMT)

	Autonomy	Individual IT Experience	Shadow IT usage	Task Identity
Autonomy				
Individual IT Experience	0,472			
Shadow IT usage	0,539	0,749		
Task Identity	0,611	0,583	0,619	

Table 6 : Results of Hypothesis Testing

Hypothesis	Relation	t-statistics	p-values	Decision
H1	Individual IT Experience ➔ Task Identity	7,131	0,000	supported
H2	Individual IT Experience ➔ Autonomy	5,738	0,000	supported
H3	Task Identity ➔ Shadow IT usage	3,398	0,001	supported
H4	Autonomy ➔ Shadow IT usage	2,662	0,008	supported
H5	Individual IT Experience ➔ Shadow IT usage	9,433	0,000	supported

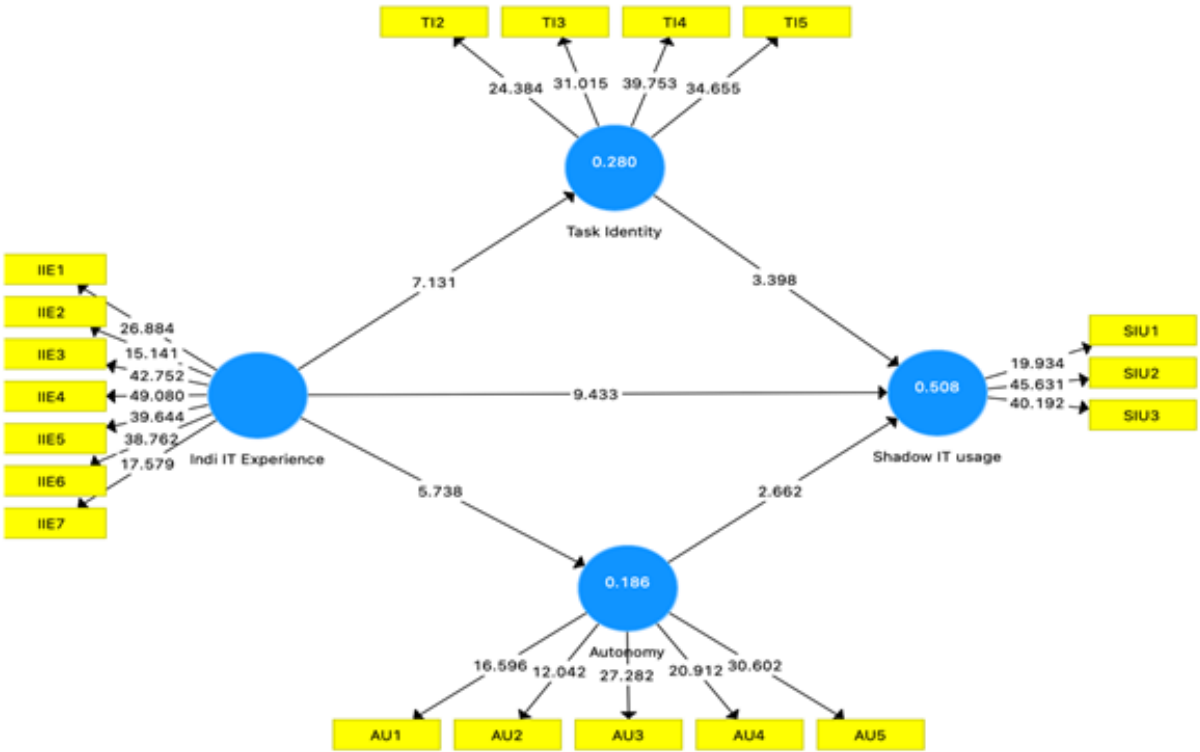


Figure 2 :Measurement model

4 Discussion

This research aims to obtain a better understanding of the individual IT experience factors that influence the use of SIT in the workplace. Individual IT experience has a direct effect on the use of SIT, according to the conclusion test's findings. Based on the findings of the analysis, we discovered the following:

First, the findings indicate that individual IT experiences have a favourable impact on job autonomy and task identity. This verifies the opinion of Kahn and Robertson, who assert that training and experience will have a direct effect on the qualities of the work despite the absence of a causal relationship between the two variables (Kahn & Robertson, 1992). The importance of experience, according to Kahya, is dependent on the complexity of the task; an increase in work experience leads to greater employee knowledge and performance, and vice versa (Kahya, 2007) and Motowidlo and Van Scotter (1994) also argue that employee task performance is significantly related to experience and competence (Johari & Yahya, 2009). People with expertise will have trust in how technology is used to their profession, whereas those with little experience will have less confidence. On the basis of this, Thompson et al. suggested that experience positively affects its application through task adjustments. And it is predicted that experienced users would be able to incorporate technology into their work so that it has a greater impact (Thompson, Higgins, & Howell, 1994). This is consistent with the findings of Thomas et al., who found that experience with earlier activities provides mental support for the current activity (Thomas, Newstead, & Handley, 2003). In the field of education, Karsten's research indicates that prior experience with computers is required for effective use of computers while attending lectures in tertiary institutions; lack of experience in the computer field discourages students and even causes them to avoid using computers. (Karsten & Roth, 1998). This is supported by Thomson, who asserts that experience is an essential construct in attitude and behaviour research, and whose research demonstrates that experience influences the use of computers, despite the fact that it is not a predictor of computer use (Thompson et al., 1994).

Second, the findings of testing the third hypothesis which is Task Identity is positively related to Shadow IT Usage reveal that task identity influences SIT usage positively. This contradicts the findings of De Pinto's research, which indicated that work characteristics, task identification, and skill diversity have no significant effect on completion problems or the usage of SIT. This is due to the

fact that when work is completed from beginning to end, it does not require staff to seek other alternatives.(de Vargas Pinto et al., 2022; De Vargas Pinto et al., 2020).

Third, in accordance with De Vargas Pinto's research, which states that the characteristic of "autonomy" has a positive influence on the completion of work and the methods used, so that employees tend to look for alternative solutions by using SIT, the study's findings indicate that employees who are given autonomy at work provide opportunities for employees to use SIT to complete their work. (De Vargas Pinto et al., 2020).

Fourth, the findings demonstrate that individual employee experience has a favourable effect on SIT usage. These results support de Vargas Pinto's assertion in his research that technology adoption is frequently carried out by employees, particularly when the organization cannot provide a system or technology that feels right in completing their tasks, so that employees prefer to use alternative technologies in completing the tasks they have been assigned (De Vargas Pinto et al., 2020). This is supported by Scalabrin's research, which indicates that employees perform daily tasks based on their own knowledge and experience, as well as what they perceive to be correct and their own needs.(Scalabrin Bianchi, Vaquina, Pereira, Dinis Sousa, & Dávila, 2022). In contrast to Zhou's et al. research, which indicates that the IT experience of employees does not have a substantial impact on the suitability of activities supported by IT, this study's findings indicate that IT experience does not affect the suitability of tasks supported by IT (Zhou et al., 2009).

This study examines the research model intended to substantiate the role of individual IT experience in the use of SIT in Indonesian universities with legal entity status. The results of the calculations indicate that all hypotheses are accepted. This research was conducted at tertiary institutions with legal entities in Indonesia; despite its limitations, it is applicable to other tertiary institutions with the same characteristics, namely higher education institutions with autonomy in academic and non-academic fields.

5 Conclusion

The model presented in this study provides a comprehensive conceptual framework with a solid theoretical foundation that contributes to a better comprehension of the effect of individual IT experience on SIT usage via task identity and autonomy. The results of the study indicate that employee experience, particularly in the areas of task identity and job autonomy, substantially influences the use of SIT. Despite the fact that our research focuses on individual IT experiences and their influence on the use of SIT in tertiary institutions with legal entities environment, we hope that it can be generalized to university employees at other institutions, given that the process and work conducted are typical.

In order for employees to feel facilitated, the organization must consider a lacking link between the IT department's application offerings and the employees' preferences for completing tasks with familiar IT resources. Understanding that employee experience influences job characteristics can help organizations design and investigate the IT resources required by employees from a practical standpoint. Changes in employee technology have the potential to impact job characteristics and employee performance.

When constructing organizational IT resources, organizations must take into account employee suggestions based on their experience providing IT resources. We believe that the time employees spend performing routine tasks has characteristics that influence their routines. The practice of employees completing work without meeting their requirements strengthens the practice of utilizing SIT. Organizations implementing IT resources, such as information systems, should not only rely on organizational policies, but also consider employees' routines and past experiences.

6 Research Originality/value

This research provides valuable insights for organizations, particularly in finding out the factors that cause the use of SIT in the daily work of employees at tertiary institutions with legal entities in Indonesia. Thus, the results of this study are not only valuable for researchers but also provide information for organizations regarding the use of SIT in the work environment. There is a possibility of differences in data or findings when applied in other environments or countries, which therefore needs to be proven.

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