

## Researchers' self-archiving behavior towards open-access institutional repositories

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### Abstract

The success of open-access repositories depends heavily on researchers' willingness to disseminate their research through self-archiving. Previous studies indicated that lack of self-archiving was a major obstacle to the success of institutional open-access repositories. This study aimed to identify factors influencing researchers' behavior in self-archiving. The analysis examined the influence of repository performance expectations, effort expectations, social influence, and facilitating conditions on researchers' self-archiving intentions and behavior. The study also explored the moderating role of demographic factors such as gender, age, and experience in the relationship between the analyzed factors and self-archiving intentions and behavior. Furthermore, this study also revealed the direct impact of regulatory awareness and research discipline on self-archiving intentions and behavior. The research findings showed that social influence significantly affected researchers' intentions to self-archive while facilitating conditions had a substantial impact on self-archiving behavior. Additionally, demographic variables, such as gender, age, and experience, were found to moderate the effects of social influence on behavioral intention, while awareness of regulations contributed directly to self-archiving behavior. These findings highlight the importance of strengthening social influence, providing adequate supporting conditions, and implementing supportive policies and regulations to enhance researchers' self-archiving behavior in open-access institutional repositories.

Keywords: Open-access repository; Researcher behavior; Self-archiving; Acceptance model

### *Perilaku peneliti dalam pengarsipan mandiri terhadap repositori institusional akses terbuka*

#### Abstrak

Keberhasilan repositori akses terbuka sangat bergantung pada kesediaan dari peneliti untuk menyebarluaskan penelitian mereka dengan melakukan pengarsipan mandiri. Penelitian sebelumnya menunjukkan bahwa kurangnya pengarsipan mandiri menjadi salah satu kendala utama dalam keberhasilan repositori institusi akses terbuka. Penelitian ini dilakukan untuk mengidentifikasi faktor-faktor yang memengaruhi perilaku peneliti dalam melakukan pengarsipan mandiri. Analisis dilakukan terhadap pengaruh ekspektasi kinerja repositori, ekspektasi usaha yang harus dikeluarkan, pengaruh sosial, dan kondisi pendukung terhadap niat serta perilaku pengarsipan mandiri para peneliti. Penelitian ini juga mengeksplorasi peran moderasi faktor demografis dari peneliti, seperti jenis kelamin, usia, dan pengalaman, terhadap hubungan antara faktor-faktor yang dianalisis dengan niat dan perilaku pengarsipan mandiri. Selain itu, penelitian ini juga mengungkap dampak langsung dari kesadaran terhadap regulasi dan rumpun penelitian terhadap niat dan perilaku pengarsipan mandiri. Hasil penelitian menunjukkan bahwa pengaruh sosial secara signifikan memengaruhi niat peneliti untuk melakukan pengarsipan mandiri, sedangkan kondisi fasilitas yang mendukung memiliki dampak signifikan terhadap kebiasaan pengarsipan mandiri. Lebih lanjut, variabel demografis seperti jenis kelamin, usia, dan pengalaman ditemukan memoderasi dampak pengaruh sosial terhadap niat perilaku, sementara kesadaran akan regulasi berkontribusi langsung terhadap perilaku pengarsipan mandiri. Temuan ini menyoroti pentingnya memperkuat pengaruh sosial, menyediakan kondisi pendukung yang memadai, serta menerapkan kebijakan dan regulasi yang mendukung untuk meningkatkan perilaku pengarsipan mandiri peneliti pada repositori institusi akses terbuka.

Kata Kunci: Repositori akses terbuka; Perilaku peneliti; Pengarsipan mandiri; Model penerimaan

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## INTRODUCTION

The increasing interest of authors in self-archiving their scientific works is essential in efforts to maximize the use of open-access repositories (Nazim & Ashar, 2023; Stieglitz et al., 2020). This is evidenced by previous studies that have identified the lack of self-archiving as one of the factors that can influence the failure to utilize open-access institutional repositories (Hadad & Aharony, 2024; Ntim & Fombad, 2021). Efforts to overcome this issue are by creating policies that can encourage authors, researchers, or related parties to actively carry out self-archiving of their scientific works (Hadad & Aharony, 2024; Nazim & Ashar, 2023).

As a government research institution established through Presidential Regulation Number 74 of 2019, the National Research and Innovation Agency is responsible for organizing the national research and development agenda. One of the main tasks of this institution is to manage the national science and technology information system, with the aim of facilitating the protection of intellectual property and managing the storage of all primary data and research outputs conducted within the institution (Presiden Republik Indonesia, 2019). Primary data and research outputs are important assets that must be available in the long term (Oberhiri-Orumah & Baro, 2023). To ensure the availability of primary data and research outputs, the institution issued regulation number 18 of 2022 concerning the mechanism of data submission and storage obligations so that data can be accessed and used by the public (Badan Riset dan Inovasi Nasional, 2022).

In fulfilling its responsibilities and recognizing the need for open-access scientific repositories, particularly for

students and researchers, the National Research and Innovation Agency has established the National Scientific Repository as a platform for sharing research data and promoting the accessibility of scientific resources. This National Scientific Repository enhances data availability for individuals, supports the replication of others' work, and protects intellectual property rights for researchers. To maximize the utilization of the platform and self-archiving intention, the National Research and Innovation Agency issued the latest regulation, number 12 of 2023, concerning the mandatory submission and storage of primary data and research outputs (Badan Riset dan Inovasi Nasional, 2023). It revises the previous regulation concerning the mandatory submission and storage of primary research data and outputs. This new regulation specifically highlights the provision of RIN-Dataverse, the National Scientific Repository.

The presence of open-access platforms in scientific publications cannot be separated from economic benefits (Ejikeme & Ezema, 2019; Stieglitz et al., 2020). Open-access journals have gained global popularity as they are considered a solution to the limitations inherent in fee-based journals, which charge authors a publication fee (Utulu & Ngwenyama, 2021). Although there are avenues for researchers to make their research results freely accessible, several factors have influenced the decision-making process regarding self-archiving, including personal choice, institutional mandates, awareness of repository systems, skepticism toward the repository concept, and technical skills required for self-archiving (Lee et al., 2019). Another interesting finding is that many researchers demonstrate a lack of concern for

institutional mandates related to self-archiving (Posigha & Eseivo, 2024). Previous studies have also highlighted challenges such as limited access to information about self-archiving and the burden of complicated and time-consuming administrative procedures (Ten Holter, 2020).

In addition, the adoption of technology is also closely related to demographic factors. Research conducted by Makinde et al. (2022) evaluated the influence of demographic factors, such as gender, age, education level, and field of study, on the use of electronic information sources. Furthermore, Onyebinama et al. (2022) conducted a study examining the influence of demographic factors such as type of institution, discipline of study, level of education, job position, and teaching experience on research output submission to institutional repositories.

The original Unified Theory of Acceptance and Use of Technology (UTAUT) model is a widely adopted framework in research on the factors influencing technology adoption. It comprises four exogenous and two endogenous constructs and also incorporates four moderating factors (Békés et al., 2022). Additionally, studies by Mbughuni (2023); Mutsvunguma (2019); Shivdas et al. (2020); Zia and Nazim (2023) have successfully adapted the UTAUT model to meet the specific needs of their respective case studies on institutional repository adoption factors. However, these studies generally focused on open-access repositories rather than on self-archiving specifically.

Mbughuni et al. (2024) and Wang (2022) have conducted studies evaluating self-archiving behavior in open-access repositories. Both studies have unique

limitations related to the role of demographic data in the models used. Mbughuni et al. (2024) used demographic data such as gender, age, work experience, and education level as moderating variables for self-archiving scientific publications. Meanwhile, Wang (2022) used demographic data such as gender, age, work experience, and voluntary use as moderating factors of the relationship between independent variables such as performance expectancy, effort expectancy, social influence and facilitating conditions with behavioral intention and usage behavior.

In Indonesia, Nurdin and Muchlis conducted research on open-access institutional repositories, focusing on the implementation of institutional repositories in universities. This study constructs a conceptual model that emphasizes institutional repositories as an infrastructure for scholarly communication (Nurdin & Mukhlis, 2019). This model includes several key elements that interact with each other, including scientific paper development, scientific document processing and recruitment, institutional repository promotion, and scientific paper distribution and dissemination. In this case, the self-archiving activity is only associated with the role of the library in providing training or assistance without discussing the factors that can encourage people's desire to archive their academic works (Nurdin & Mukhlis, 2019).

Based on the existing literature, there is still potential for empirical research on the use of open-access institutional repositories that specifically focus on self-archiving, particularly in relation to the role of demographic data. In addition, no study has examined the self-archiving behavior of researchers in the context of government

efforts to increase the use of national research repositories. This gap indicates the need for further research to understand the factors that influence researchers' participation in self-archiving in national repositories and to evaluate the impact of demographic factors and the effectiveness of government policies in encouraging the use of such repositories.

Therefore, this study aims to comprehensively examine the complex landscape of researchers' motivations to engage with open-access institutional repositories. The objective is to reveal the diverse factors that influence the decision-making process. RQ: "What factors influence researchers' decisions to engage in self-archiving of their research in open-access institutional repositories?"

## RESEARCH METHODS

This study used a research model that adapted the UTAUT concept with a quantitative assessment method, as the purpose of this study was to identify factors that influenced researchers' behavior towards self-archiving in open-access institutional repositories. The UTAUT model's comprehensive nature and its recognition in many studies in the context of technology adoption have caused the researcher to use this model as the primary analytical framework. Furthermore, this study integrated the UTAUT model with additional variables, particularly those related to demographic factors and Government regulations. This study followed the flow depicted in Figure 1, starting by identifying gaps in current understanding by reviewing existing literature. This understanding served as the basis for constructing a conceptual framework with several hypotheses.

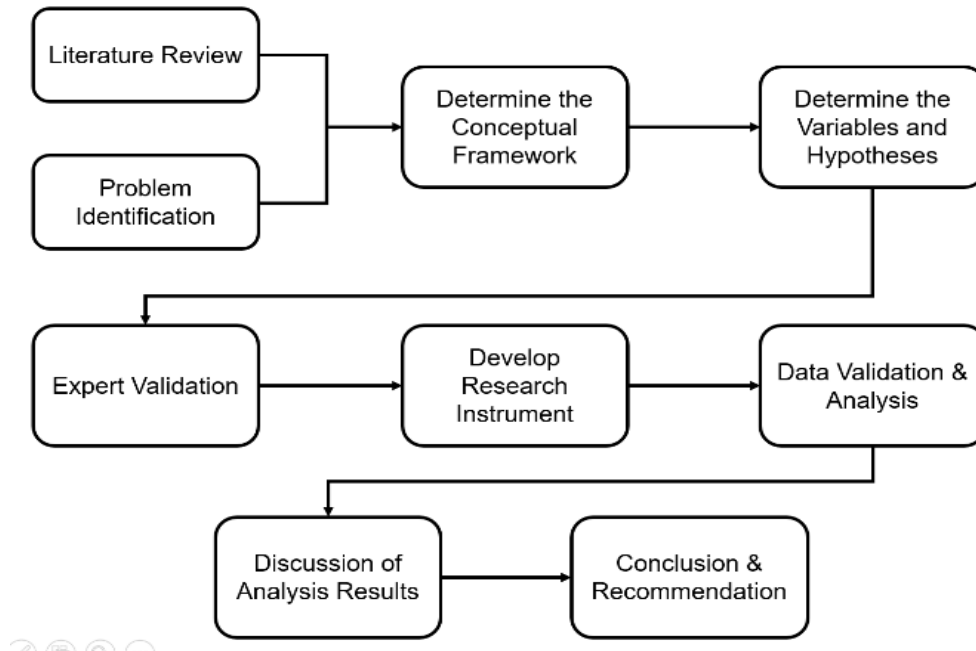


Figure 1. Research Methodology

Source: Original by author, 2023

The authors identified *Behavioral Intention* and *Use Behavior* as endogenous constructs and highlighted *Behavioral Intention* as a mediating factor. The

exogenous construct variables included four constructs of the original model, which incorporated 30 manifest variables and served as measurement indicators.

This study hypothesizes several significant correlations within the adapted UTAUT model regarding researchers' propensity to self-archive data in open-access institutional repositories. First,  $H_1$  hypothesizes a positive correlation between *Performance Expectancy* and *Behavioral Intention*.  $H_2$  hypothesizes a similar positive correlation between *Effort Expectancy* and *Behavioral Intention*.  $H_3$  hypothesizes a positive correlation between *Social Influence* and *Behavioral Intention*.  $H_4$  hypothesizes a positive correlation between *Facilitating Conditions* and *Usage Behavior*. Finally,  $H_5$  hypothesizes a positive correlation between *Behavioral Intention* and *Usage Behavior*. These hypotheses collectively form the basis for understanding the factors influencing researchers' self-archiving

behavior in open-access institutional repositories.

Additionally, this study includes demographic factors such as *Gender*, *Age*, and *Experience* as moderating variables, in line with the original model proposed by Venkatesh (Mutsvunguma, 2019). Furthermore, the authors include *Regulatory Awareness* and *Research Discipline* as control variables. A previous study by Mbughuni et al. (2024) supports the inclusion of these control variables, which highlights the use of regulatory awareness. In addition, Zia and Nazim (2023) employ research discipline. The researcher also validated the model used with experts, especially regarding the role of demographic factors. The model used in this study is shown in Figure 2.

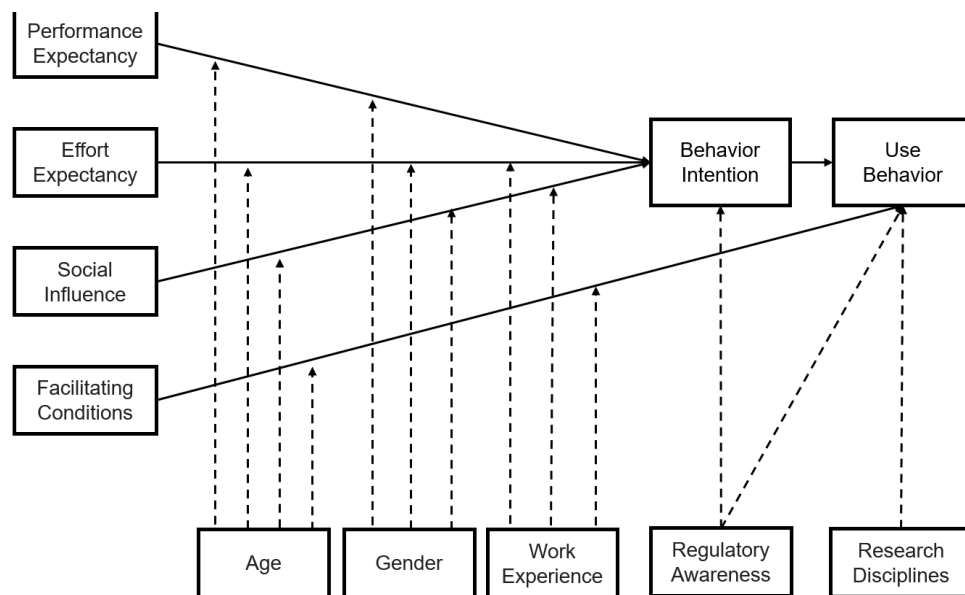


Figure 2. UTAUT Model Adoption

Source: Original by author, 2023

In addition to the hypotheses regarding the relationship between endogenous and exogenous factors, this study also tested hypotheses regarding significant differences caused by moderating and control variables. Hypotheses  $H_6$  to  $H_9$  examined the

differential impact of *Age* on all construct factors, while hypotheses  $H_{10}$  to  $H_{12}$  investigated the differential impact of *Gender* on *Performance Expectancy*, *Effort Expectancy*, and *Social Influence*. Similarly, hypotheses  $H_{13}$  to  $H_{15}$  examined the differential impact of work experience on

*Effort Expectancy*, *Social Influence*, and *Facilitating Conditions*. In addition, this study examined the influence of *Regulatory Awareness* on *Behavioral Intentions* and *Usage Behavior* (hypotheses H<sub>16</sub> and H<sub>17</sub>) and explored differences in *Usage Behavior* based on *Research Discipline* (hypothesis H<sub>18</sub>). These hypotheses collectively aimed to reveal insights into how various demographic and experiential factors influenced perceptions and behaviors within the studied platforms.

Data collection used an online questionnaire with *closed-ended* questions. The questionnaire was structured into two sections, and the data collection focused on respondents' details and their perspectives on the proposed model. In addition, the initial section aimed to collect basic information through five questions on the respondent's demographics, including *Gender*, *Age*, *Experience*, *Regulatory Awareness*, and *Research Discipline*. The subsequent section encompassed the 30 indicators used to appraise and evaluate the proposed model using a Likert scale. The list of measurement items and their relationship to the model used in this study are presented in Appendices I and II.

This study considered two minimum sample size rules for the Structural Equation Model (SEM) Partial Least Squares (PLS). The first rule is the 10-fold rule, where the minimum sample size is ten times the highest number of connections directed to a latent variable. The second is the Minimum R-squared method rule calculated using the least squares regression table (Hair et al., 2019).

The respondents targeted by this study were researchers who had used the RIN-Dataverse platform, resulting in a relatively limited population. Therefore, the researcher used the PLS-SEM method as

this method can be used to explore structural models with limited sample sizes (Hair et al., 2019). The stages in conducting PLS-SEM analysis begin with the *Measurement Model Assessment* to evaluate the reliability and validity of the model. This stage involved calculating *Indicator Loadings* (*Outer loads*), *Cronbach's Alpha* (CA), *Composite Reliability* (CR), and *Average Variance Extracted* (AVE). The next stage is the *Structural Model Assessment*, conducted to examine the relationship between latent variables, including the evaluation of *Path Coefficients*, *R-squared* (R<sup>2</sup>), and *Significance Testing* (Wibowo et al., 2023).

Previous studies have complemented the structural model analysis with other statistical analysis methods, one of which is the correlation test between variables (Savić & Pešterac, 2019). The correlation test is a basic statistical procedure commonly used in exploratory data analysis (Makowski et al., 2020). Thus, this study conducted additional statistical analysis to investigate whether demographic variables have a moderating effect on the relationship between independent and dependent variables and whether regulatory awareness and research discipline have a controlling effect on the dependent variable.

The t-test is performed to analyze the correlation significance of the moderating factor with two-level categorical variables, as it is commonly employed to compare the means of the two groups and ANOVA or F-test is used to analyze variables with more than two levels, such as age, work experience, and research discipline (Novak, 2022; Yu et al., 2022). This method is commonly used to compare means across multiple groups and detect significant differences among them (Yu et al., 2022).

## RESULTS AND DISCUSSION

Based on the determined research methodology, the next step was to collect data based on the research model and measurement indicators that had been prepared. Data collection was carried out on November 13 and 17, 2023, with a total

of 75 responses. Detailed demographic data of respondents are presented in Table 1. Referring to the minimum sample size guidelines for PLS-SEM analysis by Hair et al. (2019), this study required at least 70 respondents.

Table 1  
Respondent Demographics

Characteristic	Total	%
<i>Gender</i>		
Male	44	59%
Female	31	41%
<i>Age</i>		
< 30 years	32	43%
31 - 40 years	33	44%
41 - 50 years	10	13%
<i>Experience</i>		
< 3 years	16	21%
3 - 8 years	44	59%
9 - 13 years	13	17%
14 - 18 years	2	3%
<i>Research Discipline</i>		
Engineering	24	32%
Social Sciences	14	19%
Business and Management	11	15%
Computer & Information System	11	15%
Agricultural and Environmental	8	11%
Chemistry and Physics	7	9%
<i>Regulatory Awareness</i>		
Aware	29	39%
Unaware	46	61%

Source: Data processing result, 2023

Wibowo et al. (2023) recommend a measurement model assessment as the initial stage of analysis to validate the model used. Hair et al. (2019) and Wibowo et al. (2023) recommend that the Indicator Loading (outer loads) of each indicator exceed 0.708. From the results of

the initial analysis, it is evident that one latent variable recorded an outer loading of <0.708, UB2. In order to assess other indicators, the recommendation is to conduct a loading test by excluding UB2 and observing its impact on the path.

Table 2  
Measurement Model Assessment

Item	Loading	Alpha	CR	AVE
PE1	0,787	0,893	0,903	0,651
PE2	0,789			
PE3	0,806			
PE4	0,867			
PE5	0,834			
PE6	0,753			
EE1	0,751	0,867	0,874	0,654
EE2	0,796			
EE3	0,857			
EE4	0,884			
EE5	0,748			
SI1	0,777	0,805	0,817	0,631
SI2	0,797			
SI3	0,735			
SI4	0,863			
FC1	0,751			
FC2	0,837			
FC3	0,797	0,907	0,969	0,633
FC4	0,770			
FC5	0,794			
FC6	0,848			
FC7	0,769			
BI1	0,830	0,860	0,863	0,704
BI2	0,845			
BI3	0,880			
BI4	0,801			
UB1	0,960			
UB3	0,977	0,967	0,980	0,937
UB4	0,967			

Source: Data processing result, 2023

Table 2 presents the results of the outer loading and internal integrity assessments after the author decided to remove UB2 from the proposed model. This action resulted in outer loading values exceeding 0.700 for each indicator. Furthermore, based on the values shown in Cronbach's Alpha and Composite Reliability columns, these values indicate the strong validity and reliability of the variables used, with acceptable values ranging from 0.70 to 0.90 (Hair et al., 2019). In addition, the Average Variance Extracted (AVE) metric shows that each

indicator used can explain the variance of the related construct. AVE is determined by squaring the loading of each indicator on the construct and calculating its average value. An AVE of 0.50 or higher is considered to indicate that the construct explains at least 50 percent of the variance of its items (Hair et al., 2019).

The structural model assessment is a method to explain the significant influence of variations from exogenous to endogenous variables. Hair et al. (2019) and Wibowo et al. (2023) recommend using path coefficient values to determine the



direction of the hypothesis, with  $\beta > 0.1$  or  $\beta < -0.1$  indicating a significant influence and positive values reflecting a positive relationship.

Next, this method employed the t-statistic test to determine significance. Since this study uses a directional test (one-tailed), the t-statistic value must exceed 1.64. Conversely, if the study is non-directional (two-tailed), the t-statistic value would need to exceed 1.96. Finally, the p-values are used as another criterion to assess the significance of the results, with a threshold of less than 0.05 (Hair et al., 2019; Wibowo et al., 2023).

Table 3 shows the evaluation of the path coefficient test and reveals that three

attributes show “rejected” results. This means that there is no significant relationship between the variables. These attributes are PE → BI (Performance Expectancy to Intention Self-Archiving), EE → BI (Effort Expectancy to Intention Self-Archiving), and BI → UB (Intention Self-Archiving to Self-Archiving Behavior). This attribute has a p-value greater than 0.05 and can also be assessed from a t-statistic value greater than 1.64. These indicators indicate that the path does not have a statistically significant relationship, and there are only two attributes that meet the requirements of all indicators.

Table 3  
Structural Model Assessment

Attributes	Path Coeff	T-Stat value	P-value	Result
PE → BI	0,172	1,165	0,244	Rejected
EE → BI	0,194	1,642	0,101	Rejected
SI → BI	0,388	3,315	0,001	Accepted
FC → UB	0,218	2,156	0,031	Accepted
BI → UB	0,182	1,508	0,132	Rejected

Source: Data processing result, 2023

This study also applied the t-test method to the moderating factors and control variables with two levels and used ANOVA for moderating factors and control variables with more than two levels, with a significance criterion of p-value < 0.05. The results of the correlation tests are presented in Table 4. The t-test results show that

gender has a moderating effect on social influence, and regulatory awareness has a controlling effect on self-archiving behavior. Meanwhile, the results of the ANOVA test found that age and experience only had a moderating effect on the social influence factor.

Table 4

## Demographic Factor Test Results

Latent Var.	P-value (T-Test)			Result
	Gender	Awareness		
PE	0.1895			Not Significant
EE	0.0701			Not Significant
SI	0.0470			Significant
FC				Not Checked
BI		0.1842		Not Significant
UB		0.0000		Significant
Latent Var.	P-value (ANOVA)			Result
	Age	Exp.	Subject	
PE	0.0831			Not Significant
EE	0.2680	0.1680		Not Significant
SI	0.0018	0.0042		Significant
FC	0.0598	0.3570		Not Significant
BI				Not Checked
UB			0.6170	Not Significant

Source: Data processing result, 2023

To answer the research question (RQ) regarding Factors *Influencing Researchers' Decision to Participate in Self-Archiving for Open-Access Institutional Repositories*, the researcher employed five hypotheses ( $H_1 - H_5$ ) to explore the relationships among the latent variables in the conceptual research model. First, the researcher focused on the link between performance expectancy and behavioral intention ( $H_1$ ). Performance expectancy had no significant effect on Behavioral Intention ( $\beta=0.172$ ;  $t=1.165$ ,  $p\text{-value} = 0.244$ ). The researcher observed similar results in the relationship between Effort Expectancy and Behavioral Intention ( $H_2$ ). The impact of Effort Expectancy on Self-Archiving behavior did not significantly affect Behavioral Intention ( $\beta=0.194$ ;  $t=1.642$ ,  $p\text{-value} = 0.101$ ). This finding aligns with a study by Nazim and Ashar (2023), which indicates that Performance Expectancy and Effort Expectancy do not have a significant relationship with the intention to self-archive. Factors such as low-quality repositories, lack of adequate skills to

publish, and fear of openness contribute to this outcome.

Diverse outcomes emerged in the analysis of Social Influence ( $H_3$ ) significantly affects self-archiving behavior, demonstrating a significant impact on Behavioral Intention ( $\beta=0.388$ ;  $t=3.315$ ;  $p\text{-value} = 0.001$ ). However, this study is not in line with the findings of Nazim and Ashar (2023) & Shivdas et al. (2020), their findings showed no significant relationship between Social Influence and Behavioral Intention. This suggests that encouragement and support from colleagues and managers can help overcome issues related to incompetence and anxieties about self-archiving.

Similarly, Facilitating Conditions ( $H_4$ ) significantly affect self-archiving behavior, showing a significant effect on Usage Behavior ( $\beta=0.218$ ;  $t=2.156$ ;  $p\text{-value}= 0.031$ ). This is consistent with the study by Nazim and Ashar (2023), which also reported a significant positive relationship with publishing intention. However, it differs from the research results of Shivdas et al.

(2020). It indicates that adequate infrastructure, as well as training support or assistance in performing self-archiving, will have a positive impact.

On the other hand, Behavioral Intention (H<sub>5</sub>) showed no significant impact on Usage Behavior ( $\beta=0.182$ ;  $t=1.508$ ,  $p\text{-value}=0.132$ ). This divergence might be attributed to a lack of awareness among respondents regarding self-archiving features and regulations in open-access institutional repositories.

From a demographic factors perspective, the results of hypothesis testing indicated that gender had no moderating effect on performance expectations (H<sub>6</sub>) and efficiency expectations (H<sub>7</sub>). However, gender was found to have a moderating effect on social influence (H<sub>8</sub>). Regarding regulatory awareness, no significant difference was found between individuals who were aware of the regulation and those who were unaware in terms of behavioral intention (H<sub>9</sub>). On the other hand, there was a large difference in usage behavior (H<sub>10</sub>) between these groups, which was likely due to the large number of people who were not yet aware of the regulation regarding self-archiving. This finding aligns with research conducted by Mbughuni (2023) & Zia and Nazim (2023), which also found that awareness of regulations requiring self-archiving has a significant impact on self-archiving practices. In other hypothesis tests encompassing multiple levels of variable categories, Age and Work Experience did not show a significant moderating impact concerning Performance Expectation (H<sub>11</sub>), Effort Expectation (H<sub>12</sub>) (H<sub>15</sub>), and Facilitating Conditions (H<sub>14</sub>) (H<sub>17</sub>). This is consistent with studies of Nazim and Ashar (2023) & Zia and Nazim (2023), which also did not

find a significant positive relationship with usage intention. However, these two moderating factors showed a significant impact on Social Influence (H<sub>13</sub>) (H<sub>16</sub>).

## CONCLUSION

This study successfully found the hypothesis that social influence significantly impacts self-archiving intention, and facilitating conditions affect self-archiving behavior. In addition, this study revealed moderating factors that influence the relationship between the social influence variables and self-archiving intention, including gender, age, experience with social influence factors, and the direct impact of awareness on regulations related to self-archiving behavior. The theoretical contribution of this study is the extension of the application of the UTAUT model, particularly in the context of open-access repositories. The findings enrich the existing literature by demonstrating the importance of social influence and regulatory awareness in shaping self-archiving behavior in open-access repositories. Furthermore, the practical implications of these findings are the need for policymakers and repository managers to create an environment that can encourage positive social influence on researchers' engagement in self-archiving activities, improve facilities in open-access repositories, and use specific policy initiatives related to self-archiving. Further research should explore the most effective social influence strategies to increase self-archiving intentions by analyzing social influence factors based on existing theories. It may involve exploring the impact of mentoring programs or institutional incentives on self-archiving intentions. In addition, researchers should examine the role of technological advances in

facilitating self-archiving, such as the development of user-friendly repository interfaces or automated archiving tools.

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Appendix 1  
Indicator of latent variable

Dimension	Code	Item
Performance	PE1	I find self-archiving useful to disseminate my research output.
Expectancy	PE2	Self-archiving makes my work more visible to the society.
	PE3	Self-archiving will increase my profile and bring about more recognition for me.
	PE4	Self-archiving makes it easier for me to connect with other researchers worldwide.
	PE5	Self-archiving will bring about prestige to myself and my institution.
	PE6	Self-archiving is a very cheap means to make my work available to the world.
Effort	EE1	The features of the repository are user-friendly.
Expectancy	EE2	Learning to self-archive is quite an easy task for me.
	EE3	I am very skillful at self-archiving documents/articles.
	EE4	I find it easy to get the repository to do what I need to do.
	EE5	Self-archiving is not time-consuming.
Social Influence	SI1	Other researchers think I should self-archive my research work.
	SI2	My institution thinks I should self-archive my research work.
	SI3	Institutional repository administrators are very supportive of guarding me in self-archiving.
	SI4	Researchers who support and self-archive articles have more prestige than those who do not.
Facilitating Condition	FC1	The open-access repository is quite secure to use.
	FC2	I have the knowledge necessary to use the open-access repository.
	FC3	The features of the open-access repository are very easy to explore/navigate through.
	FC4	There is an administrator available for assistance with system difficulties.
	FC5	It is quite easy to access the repository.
	FC6	The repository has valid links and hyperlinks.
	FC7	It is very fast to upload documents/articles.
Behavioral Intention	BI1	I intend to perform self-archiving in the open-access institutional repository.
	BI2	I hope to engage in self-archiving in the open-access institutional repository in the future.
	BI3	I plan to perform self-archiving in the open-access institutional repository.
	BI4	I encourage my colleagues to engage in self-archiving in the open-access institutional repository.
Use Behaviour	UB1	I frequently perform self-archiving in the open-access institutional repository.
	UB2	I really want to engage in self-archiving in the open-access institutional repository.
	UB3	Most of my research data archiving is done through self-archiving in the open-access institutional repository.
	UB4	I routinely engage in self-archiving in the open-access institutional repository.

Appendix 2  
Proposed measurement model with 30 indicators

