Assessing User Perceptions of Tax Audit Desktop Applications: A Technology Acceptance Model (TAM) Perspective

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ABSTRACT

The Directorate General of Taxes (DGT) has undertaken a digital transformation initiative by introducing the Desktop Pemeriksaan (Derik) application to enhance the effectiveness and efficiency of tax audits. This study aims to evaluate the performance of the Derik application from the perspective of its users, utilizing the Technology Acceptance Model (TAM) as the theoretical framework. A mixed-methods approach was employed, adopting a concurrent triangulation design to integrate qualitative and quantitative data, thereby providing a comprehensive understanding of user perceptions. The quantitative data were collected through a survey involving 1,859 respondents, while qualitative insights were gathered through in-depth interviews with eight informants. The interviews explored key aspects such as ease of use, perceived benefits, and challenges encountered by users. Data analysis was conducted using descriptive statistical methods for the quantitative findings and thematic analysis for the qualitative data. The results indicate that while the Derik application meets the criteria for perceived ease of use and perceived usefulness, several constraints hinder its optimal utilization. Based on user feedback, this study offers practical recommendations for improving the application's functionality in future iterations. The findings contribute to the literature by providing actionable insights and serve as a valuable reference for DGT in advancing the development of the Derik application.

Keywords: Audit Software; TAM; Directorate General of Taxes; Tax Audit; Digitalisation.

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Evaluasi Aplikasi Desktop Pemeriksaan Pajak Menurut Persepsi Pengguna dengan Technology Acceptance Model (TAM)

ABSTRAK

Direktorat Jenderal Pajak (DJP) telah melakukan transformasi digital dengan menciptakan aplikasi Desktop Pemeriksaan (Derik) untuk meningkatkan efektivitas dan efisiensi pemeriksaan pajak. Tujuan penelitian ini adalah mengevaluasi kinerja aplikasi Derik berdasarkan persepsi penggunanya melalui Technology Acceptance Model (TAM). Penelitian ini menggunakan pendekatan mixed methods dengan desain concurrent triangulation yang memungkinkan integrasi data kualitatif dan kuantitatif untuk memberikan gambaran yang lebih komprehensif. Metode kuantitatif dilakukan melalui survei kepada 1.859 responden, sementara metode kualitatif dilakukan dengan in-depth interview kepada 8 informan untuk menggali lebih dalam mengenai kemudahan, manfaat, dan kendala yang dihadapi pengguna. Teknik analisis data yang digunakan adalah analisis deskriptif statistik untuk data kuantitatif dan analisis tematik untuk data kualitatif. Hasil penelitian menunjukkan bahwa meskipun aplikasi Derik telah memenuhi unsur perceived ease of use dan perceived usefulness, namun pengguna masih menghadapi beberapa kendala dalam penggunaannya. Hasil penelitian ini mengusulkan beberapa saran perbaikan berdasarkan umpan balik pengguna untuk pengembangan aplikasi di masa mendatang. Kontribusi utama penelitian ini diharapkan dapat menjadi referensi praktis bagi DJP dalam mengembangkan aplikasi Derik.

Kata Kunci: Software Audit; TAM; Direktorat Jenderal Pajak; Pemeriksaan Pajak; Digitalisasi.

INTRODUCTION

The Directorate General of Taxes (DGT) has undertaken significant efforts to transform its tax audit business processes, aiming to enhance effectiveness and efficiency (DGT, 2022). A core component of this transformation is the implementation of an integrated and interconnected information system, leveraging advanced technology to support tax audits (DGT, 2020). Central to these efforts is the introduction of the Desktop Pemeriksaan (Derik) application.

The Derik application is designed to automate, digitize, and integrate tax audit processes within an information system framework to ensure accountability and transparency in tax audits (DGT, 2020). Before its introduction, many stages of the tax audit process were conducted manually without systematic information system support. The application was officially implemented in 2020, as mandated by DGT Director Circular Letter No. 10/PJ/2020. However, no comprehensive evaluation has yet been conducted to assess user acceptance of this application, particularly regarding its perceived ease of use and usefulness.

Existing research on the Derik application is limited. One notable study by Arihatsu et al. (2022) identified perceived ease of use and perceived usefulness as key factors influencing tax auditors' adoption of the application. However, a research gap remains: no evaluation-focused case study has explored the application's implementation in depth, particularly from the perspective of user acceptance based on perceived ease of use and perceived usefulness. This study addresses this gap by employing the Technology Acceptance Model (TAM), a well-established framework widely used to evaluate new information system adoption (Nuryanah et al., 2024).

The primary contribution of this research lies in its novelty. It evaluates user acceptance of the Derik application, focusing on a technology-based tax audit tool in Indonesia—a domain with limited prior research. This study not only examines the application's effectiveness in terms of functionality but also identifies challenges and constraints experienced by users. Moreover, it provides insights into how information technology adoption in critical government sectors, such as the DGT, impacts the broader success of e-Government initiatives.

To ensure a comprehensive evaluation, this research adopts a triangulated data collection approach. Triangulation involves gathering data from multiple sources—documentation, questionnaires, and interviews—to capture diverse perspectives and validate findings (Winahyu & Nuryanah, 2024). This methodology enables a deeper and broader understanding of user perceptions and facilitates the integration of qualitative and quantitative data.

The evaluation framework focuses on two key constructs: perceived usefulness, which reflects users' beliefs that the application enhances their performance, and perceived ease of use, which gauges the ease with which users can effectively interact with the application. These constructs provide insights into areas requiring improvement, guiding application developers in enhancing functionality, performance, and user experience.

Based on this background, the research question is formulated as follows: How does the Derik application perform in supporting the tax audit function at DGT, as perceived by users, based on the Technology Acceptance Model (TAM)?

Figure 1 illustrates the research framework for evaluating the Derik application using TAM criteria.

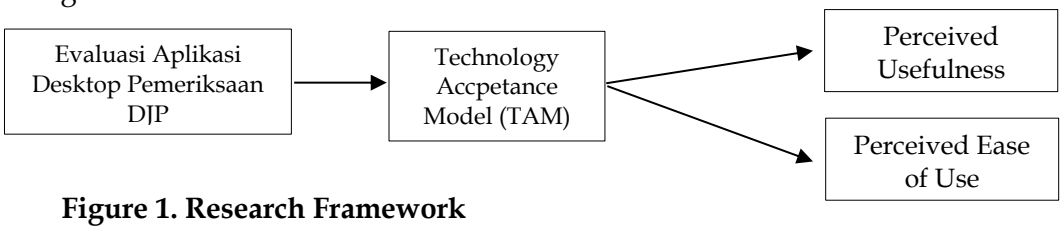


Figure 1. Research Framework

Source: Research Data, 2024

A tax audit is a systematic process involving the collection and analysis of data, information, and evidence conducted professionally and objectively, in accordance with established audit standards. The purpose is to evaluate compliance with tax obligations and/or achieve other objectives as stipulated in tax laws and regulations (UU KUP, 2007). Tax audit activities generally encompass three main stages: preparation, implementation, and reporting.

Currently, tax audit activities are facilitated by the Desktop Pemeriksaan (Derik) application. Prior to its implementation, all stages of the tax audit process were conducted manually, with limited support from information systems. The introduction of the Derik application represents a significant advancement, enabling the digitization, automation, and integration of tax audit processes within a unified platform.

Digital transformation has profoundly reshaped various aspects of human life over recent decades (Nuryanah et al., 2024). Both public and private sector organizations worldwide are leveraging digital technologies to enhance engagement, improve performance, elevate service quality, and deliver greater value to stakeholders (Hesami et al., 2024). The successful adoption and implementation of such transformations are often analyzed through theoretical frameworks, including the widely recognized Technology Acceptance Model (TAM) (Davis, 1986).

The TAM framework is designed to explain the factors influencing technology acceptance, predict user behavior, and provide theoretical insights into the success of technology implementation (Davis, 1989). The model focuses on user motivation as a critical determinant of successful adoption. Motivation is evaluated through two primary constructs: perceived usefulness, which reflects the extent to which users believe the technology enhances their job performance, and perceived ease of use, which measures the degree to which users find the technology straightforward and effortless to use (Perangin-angin et al., 2016).

Figure 2 illustrates the TAM model, which provides a framework for understanding user motivation and behavior in adopting and utilizing information systems. This framework serves as the theoretical foundation for assessing the effectiveness and acceptance of the Derik application in supporting tax audit activities.

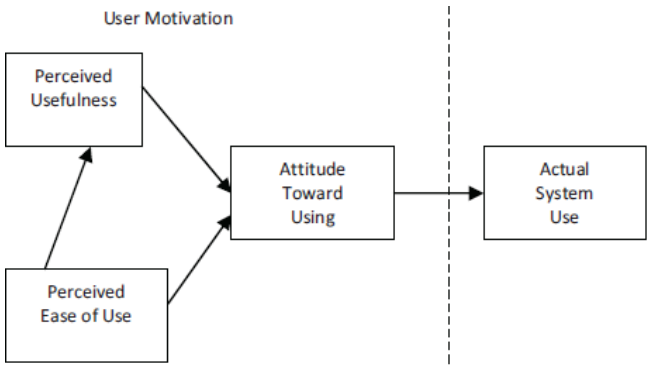


Figure 2. ***Technology Acceptance Model*** **(TAM)**

Source: Davis, 1986

Perceived ease of use explains why a system is easy to use and how it can be accepted by users (Rahmawati et al., 2022). This includes the system's ease of use according to user needs and expectations. If users believe that technology will make their work easier, they are more likely to adopt it. Conversely, if users do not believe the technology will simplify their tasks, they are less likely to use it.

Perceived usefulness reflects how users believe a system can improve their performance (Munawara & Ramlah, 2021). This perception encompasses how the benefits of a system relate to all aspects of user needs (Putra et al., 2021). Perceived usefulness fosters trust, influencing users' decisions to continue using information systems or not.

Previous research on the Derik application by Arihatsu et al. (2022) aimed to identify the variables that influence its use by tax auditors. The findings revealed that perceived ease of use and perceived usefulness significantly impacted the application's adoption within the Directorate General of Taxes (DGT). The study recommended conducting periodic evaluations and user satisfaction surveys to support ongoing evaluation and development of the application.

Several studies highlight the importance of technology in enhancing audit performance (Chalu & Mzee, 2018). Research exploring the impact of information technology on audit quality in Indonesia (Sabriady et al., 2023) found that technology adoption, particularly the e-audit system, plays a pivotal role in improving audit quality. These studies indicate that technology enhances audit efficiency, effectiveness, and reliability, all of which contribute to improved audit quality (Ripol-Saragosi & Gomeleva, 2021). Overall, technology is recognized as a critical factor in increasing audit effectiveness, efficiency, and quality (Atayah & Alshater, 2021).

Research on DGT audit performance has also explored variables influencing the Audit Coverage Ratio (ACR) in Indonesia (Marlisza & Yulianti, 2022). The study revealed that audit performance, as measured by the ACR, is influenced by the integration of rules with supporting artifacts, such as the availability and accessibility of data and the integration of information technology systems. On the human resource side, factors such as the number of auditors, their motivation, and their competence were also significant. This research underscores the importance of system integration and human resource development in enhancing audit performance.

RESEARCH METHODS

This study employs an evaluation-type case study approach using mixed methods (Saunders et al., 2019). Specifically, it utilizes a concurrent triangulation design, which facilitates a comprehensive understanding of the research problem by integrating qualitative and quantitative data simultaneously (Saunders et al., 2019). Mixed methods research with this design allows for a holistic analysis of the phenomenon under study.

The research applies data source triangulation to enhance validity. Quantitative data were collected through a survey of 1,859 respondents to measure user perceptions of perceived ease of use and perceived usefulness. Qualitative data were obtained from in-depth interviews with eight informants to explore the conveniences, benefits, and challenges experienced by users. Secondary data sources included Derik application implementation reports, performance reports, and the DGT annual reports. Data analysis was conducted using descriptive statistical methods for quantitative data and thematic analysis for qualitative data.

The questionnaire data were analyzed using descriptive statistical techniques, categorizing the survey results based on the average value intervals calculated with a Likert scale. To ensure the accuracy and consistency of the measurement tools, validity and reliability tests were conducted using the calculated r-value and Cronbach's Alpha. For interview data, descriptive qualitative and thematic analysis approaches were employed to identify patterns and themes from the semi-structured responses. These methods were selected for their flexibility and rigor in examining complex phenomena, enabling a richer and more diverse perspective while validating findings across three data sources.

The combination of descriptive qualitative analysis and thematic analysis provided a robust framework for understanding the qualitative data in depth. These methods enabled the generation of evidence-based solutions that could be implemented. Interview findings were subsequently verified to complement the questionnaire data, as depicted in Figure 4, offering a comprehensive understanding of the phenomenon under study.

The object of this research is the Directorate General of Taxes (DGT). The DGT manages extensive and complex taxpayer data encompassing various tax types (e.g., income tax, VAT) and diverse economic sectors. The Derik application, evaluated in this study, is designed to process large volumes of data for tax audits, including both historical and continuously growing transaction data.

Quantitative data collection began with a survey aimed at measuring user perceptions based on TAM (Technology Acceptance Model) criteria. Survey implementation was preceded by obtaining permission from the DGT. Once approved, an online survey link was distributed to all functional personnel involved in the Derik application (FPPs) within the DGT. The survey was conducted via an online questionnaire.

The TAM indicators were measured through variables such as the ability to show results, job relevance, output quality, ease of use, and objective usability, as outlined in Table 1. The survey consisted of 52 closed-ended questions, scored using a six-point Likert scale (1 = Strongly Disagree, 6 = Strongly Agree), and four open-ended questions. Respondents' answers were scored on a scale ranging from 1 (lowest) to 6 (highest), ensuring clarity in assessing their perceptions.

Table 1: Evaluation Instrument for the Use of Derik Application

Measuremen Criteria	Measurement Dimensions	Collection Data
Percceived Usefullness	Job relevance Ability to show results Output quality	Questionnaire and Interview
Perceived Ease of Use	Ease of use Objective usability	

Source: Research Data, 2024

The questionnaire instrument used in this study underwent a pilot testing phase to ensure it was clear, easy to understand, and free from ambiguity. The survey was conducted between 10 September 2024 and 27 September 2023 through an online form distributed to respondents, specifically functional personnel (FPP) at the Directorate General of Taxes (DGT). The population of tax auditors using the Derik application consists of 5,574 individuals across 386 DGT work units throughout Indonesia.

The final sample comprised 1,859 survey respondents from 291 work units and eight interview informants from seven work units. A nonprobability sampling technique, specifically convenience sampling, was used to select respondents for the questionnaire survey. Table 2 indicates that of the 5,574 total users, 1,859 completed the questionnaire, yielding a response rate of 33.70%.

Table 2. Summary of Questionnaire Distribution Results

Details	Total	
Total Derik App Users		5,517
PUsers did not complete the questionnaire		3,658
Not willing to be a respondent		14
Returned questionnaire and did not use Derik app		58
Questionnaire returned and used Derik app		1,787
Number of returned questionnaires		1,859
Valid questionnaires		1,859
Percentage of returned questionnaires (returned questionnaires/total users)	33.70%	
Percentage of valid questionnaires	100%	

Source: Research Data, 2024

In-depth interviews were conducted to validate the findings obtained from the questionnaire data. A total of nine informants participated in the semi-structured interviews, including seven functional personnel (FPPs) from seven Tax Offices (KPP), one Derik application administrator and developer, and one DGT Audit Support Section Head.

The selected interviewees provided sufficient data to address the research questions, offering rich, varied, and informative insights. The interviews were conducted between 11 September 2024 and 19 October 2024, using a combination of offline (face-to-face) and online methods, including virtual meeting platforms and telephone calls. This mixed approach to data collection enabled the researcher to gather diverse perspectives and validate the research findings through triangulation with multiple data sources (Saunders et al., 2019).

RESULTS AND DISCUSSION

The total population of Derik application users is 5,517, with 1,859 completed questionnaires available for analysis. This corresponds to a response rate of 33.70%, which meets the sample criteria for this study, as outlined in Table 2. A response rate of 30% is generally considered acceptable and, in many cases, exceptional for research purposes (Sekaran & Bougie, 2019).

From the questionnaire responses (Table 2), it was observed that not all respondents actively use the Derik application for inspection activities. Specifically, 58 respondents (3.81%) reported not using the application, citing various reasons, including technical issues, hardware incompatibility, high workloads, a perception that the application increases workload, and the availability of alternative examination support tools.

As shown in Table 3, 96.9% of respondents use the application, indicating a high level of user acceptance. According to the Technology Acceptance Model (TAM), high usage rates suggest that users perceive the technology as both useful and easy to use. The diverse educational backgrounds of users further demonstrate the application's user-friendliness. The majority of respondents reported using the application five days a week, with 2.6% using it six to seven days a week, highlighting its utility even outside regular workdays.

Table 3 also reveals that 87.8% of respondents who use the Derik application are male, while 3.1% are female. Interviews with male and female respondents indicated no significant differences in ease of use by gender. However, respondents over the age of 55, predominantly in supervisory positions, reported difficulties in using the application. This challenge is attributed to limited familiarity with application technology, often requiring these users to seek assistance from team members.

The educational profile of respondents shows that 65.1% hold undergraduate degrees or equivalent qualifications, making this the largest educational demographic. Interviews with informants at this education level, most of whom are junior employees in team member roles, revealed a high level of proficiency in using the application. Furthermore, the majority of respondents (51.2%) reported a working period of 6–15 years. Interview results suggest that longer work experience, particularly with general audit software (GAS), has facilitated users' adaptation to the Derik application, enabling them to integrate the system effectively into their workflows.

Table 3. Summary of Respondent Demographics

No	Indicator	Number of Respondents	Percentage (%)
Users of the Derik Application			
1	Yes	1,787	96.9%
2	No	58	3.1%
Respondent Gender			
1	Male	1,620	87.8%
2	Female	225	12.2%
Age of Respondents			
1	< 30 Years	115	6.2%
2	31 - 35 Years	479	26.0%
3	36 - 40 Years	297	16.1%
4	41 - 45 Years	228	12.4%
5	46 - 50 Years	326	17.7%
5	51 - 55 Years	381	20.7%
6	>55 Years	19	1.0%
Respondent Education Level			
1	Associate Degree	219	11.9%
2	Undergraduate Degree	1,201	65.1%
3	Graduate Degree	422	22.9%
4	Postgraduate degree	3	0.2%
Educational Background			
1	Taxation	507	27.5%
2	Accounting Economics	1,046	56.7%
3	Non-accounting Economic	215	11.7%
4	Law	35	1.9%
5	Public Policy	6	0.3%
6	IT	3	0.2%
7	Management	25	1.4%
8	Business Administration	5	0.3%
9	Statistics	3	0.2%
Work Experience as Functional Tax Auditor			
1	< 5 Years	241	13.1%
2	6 - 15 Years	945	51.2%
3	16 - 25 Years	419	22.7%
4	26 - 35 Years	221	12.0%
5	> 35 Years	19	1.0%

No	Indicator	Number of Respondents	Percentage (%)
Functional Position of Tax Auditor			
1	Pemeriksa Pajak Pelaksana	414	22.4%
2	Pemeriksa Pajak Pelaksana Lanjutan	113	6.1%
3	Pemeriksa Pajak Penyelia	119	6.4%
4	Pemeriksa Pajak Pertama	328	17.8%
5	Pemeriksa Pajak Muda	542	29.4%
6	Pemeriksa Pajak Madya	329	17.8%
Position in The Composition of The Tax Audit Team			
1	Supervisor	386	20.9%
2	Team Leader	585	31.7%
3	Team Member	874	47.4%
Experience in Using the Derik Application			
1	1 Years	84	4.7%
2	2 Years	309	17.3%
3	3 Years	676	37.8%
4	4 Years	403	22.6%
5	5 Years	160	9.0%
6	> 5 Years	155	8.7%
Average Usage of The Derik Application in One Week			
1	0 days	27	1.5%
2	1 days	343	19.2%
3	2 days	394	22.0%
4	3 days	392	21.9%
5	4 days	157	8.8%
6	5 days	428	24.0%
7	6 days	7	0.4%
8	7 days	39	2.2%
Unit of Analysis / Work Unit			
1	Primary Tax Office	1,210	65.6%
2	Medium Tax Office	363	19.7%
3	Large Taxpayer Tax Office	30	1.6%
4	Foreign Investment Tax Office	89	1.2%
5	Tax office for Listed Companies	22	0.5%
6	Oil and Gas Tax Office	10	0.5%
7	DGT Regional Office	121	6.6%

Source: Research Data, 2024

To ensure the validity and reliability of the research instruments, validity and reliability tests were conducted, as summarized in Table 4. By comparing the calculated r-values with the critical r-value from the r-table, it is evident that all calculated r-values for the research instruments exceed the r-table values. This confirms that the instruments used in this study are valid. Similarly, the reliability of the instruments was assessed using Cronbach's Alpha. As shown in Table 4, the Cronbach's Alpha values for each criterion exceed the threshold of 0.60, indicating that the instruments are reliable. This demonstrates that the criteria used yield consistent and dependable results, even when applied at different points in time (Kalpande & Toke, 2023).

Table 4. Results of Validity Test and Reliability Test

Criteria	Validity (Pearson Correlation)		Number of Items		Reliabitias (*Croncbach's Alpha*)
	r Count	r Table	Valid	Invalid	
Perceived Usefulness	0,820 - 0,893	0.0464	14	-	0,969
Perceived Ease of Use	0,822 - 0,935	0.0464	10	-	0,969

Source: Research Data, 2024

Based on the descriptive statistics presented in Table 5, the two primary components of the Technology Acceptance Model (TAM), namely Perceived Usefulness (PU) and Perceived Ease of Use (PEU), were analyzed using data from 1,787 respondents who use the Derik application. The average PU score of 4.88 indicates that most respondents perceive the technology as being quite useful in enhancing their performance. The standard deviation of 0.89 reflects relatively low variation, suggesting a high degree of consensus among respondents regarding the usefulness of the technology.

In comparison, the mean PEU score of 4.73 suggests that respondents generally find the technology easy to use, though this score is slightly lower than the PU score. The standard deviation of 1.01 indicates slightly higher variability in respondents' perceptions of ease of use, reflecting a broader range of opinions on this aspect.

Table 5. Descriptive Statistics

Criteria	N	Minimum	Maximum	Mean	Std. Deviation
A. Perceived Usefulness	1787	1,14	6,00	4,8798	0,88983
B. Perceived Ease of Use	1787	1,00	6,00	4,7278	1.01030

Source: Research Data, 2024

The findings indicate that while the Derik application meets the elements of perceived ease of use and perceived usefulness, as demonstrated by the average results of the questionnaire survey in Table 5, interviews reveal that users still encounter several challenges in its use. These challenges stem from certain weaknesses in the application, which some users perceive as making it less convenient and limiting its effectiveness in fully supporting tax audits. The strengths and weaknesses identified through this evaluation will be further analyzed based on the interview findings.

Table 6 presents respondents' perceptions of perceived usefulness, measured using a Likert scale. The average Likert score of 4.88, categorized as "Agree," indicates that the majority of respondents find the Derik application useful in supporting tax inspection activities. Furthermore, the questionnaire results suggest that most respondents agree the application is relevant to their duties and responsibilities, enhancing their overall work performance.

Table 6. Average Results of Likert Scale Questionnaire TAM Criteria

No	Questions	Average Likert Scale (1-6)	Results
1	*Perceived Usefulness*	4.88	Agree
2	*Perceived Ease of Use*	4.73	Agree

Source: Research Data, 2024

Perceived usefulness in this study reflects how users evaluate the Derik application's ability to enhance effectiveness and efficiency in supporting tax audit activities. The criteria for perceived usefulness include job relevance, defined as the extent to which a system is perceived as relevant to a user's job responsibilities (Venkatesh & Davis, 2000). Based on the questionnaire results, the majority of respondents agreed that the Derik application is useful for supporting tax audit activities and aligns well with their professional duties and responsibilities.

The interview findings corroborate the questionnaire results, indicating that users perceive the application as beneficial in facilitating tax audit processes. This suggests that several objectives of the application's development have been achieved. High average Likert scale scores were observed for questions assessing whether the application ensures all stages of tax audit activities are managed within the information system (5.08), produces accountable audit administration (5.05), and enables the automatic retrieval of audit data (4.96).

However, discrepancies between the survey and interview results highlight areas for improvement. While survey responses generally fell within the "Agree" category, interviews revealed certain limitations of the application that hinder the achievement of its intended goals. These limitations were reflected in lower ratings for questions related to the application's ability to expedite the completion of tax audit tasks (4.62) and increase the number of completed audits (4.52). According to users, these shortcomings stem from incomplete digitization and the persistence of manual input processes, which prevent the application from fully achieving its objectives of increased effectiveness and efficiency.

Despite these challenges, users broadly agree that the Derik application is relevant and useful. Its relevance lies in ensuring that all stages of tax audit activities are systematically administered within the information system, improving the management of audit documents. The application's usefulness is demonstrated through its ability to produce accountable audit administration by fulfilling the formal requirements of tax audits.

The Derik application ensures that all stages of audit activities are recorded and managed within the system, enabling tax auditors to systematically execute and document each phase of the audit. This functionality improves document administration, ensures compliance with formal tax audit requirements, and supports the creation of accountable audit records.

The aforementioned benefits were also highlighted by interview participants. For instance, FPP resource person 2 (N2) stated:

> *"[...] for the benefits felt [...] the document supervision feature in the testing process helps manage audit activities, so supervision of all stages of the inspection can be through the application system, previously each of them made their own manual supervision, now there is a list of stages, so that if the previous stage has not been carried out, it cannot proceed to the next stage, a notification will appear."– FPP2*

The recording of each audit stage in the Derik application is highly relevant and beneficial for tax audit activities, particularly in addressing the formal aspects of tax audits. This feature ensures that tax auditors comply with all formal requirements of the audit process. Any failure to execute required procedures could potentially result in tax disputes, such as lawsuits filed by taxpayers (Tax

Court Law, 2002), which would negatively impact the Directorate General of Taxes (DGT), especially its audit function.

The findings of this study align with the Technology Acceptance Model (TAM) and corroborate previous research by Arihatsu et al. (2022), which concluded that perceived usefulness positively influences attitudes toward and interest in using the Derik application among tax auditors. The perceived benefits of the application have contributed to its widespread adoption, with the majority of DGT work units (81.6%) having fully implemented it.

Despite these strengths, several areas for improvement remain in the performance of the Derik application. While its use has been mandated, some auditors still do not use the application to support their audit activities. Additionally, 18.4% of work units have not fully implemented it. Analysis of implementation report documents and interview findings reveals several weaknesses in the application. These include redundancies in work processes, as users still need to produce printed documents due to the application's lack of full digitization.

The incomplete implementation of the Derik application is also evident from survey results. Specifically, 3.1% (58 respondents) of tax auditors reported not using the application in their audit activities, citing a perceived lack of utility or benefit. Reasons provided include the application prolonging audit processes, frequent errors, impracticality, excessive procedural requirements, and redundant tasks, which reduce its effectiveness and efficiency for work units with a high volume of audit assignments.

The perception that the application prolongs audit activities stems from remaining manual processes that users find impractical and inefficient. Survey results further highlight this issue, with low scores on perceived usefulness statements such as "Increasing the realization of my audit completion" (4.52) and "Making the completion of tax audit tasks faster" (4.61). These weaknesses directly impact the efficiency of audit activities, requiring tax auditors to allocate additional time for manual tasks, ultimately reducing audit completion rates. The diminished realization of audit completions could adversely affect the DGT's Audit Coverage Ratio (ACR).

As primary users of the Derik application, tax auditors expect it to enhance the effectiveness and efficiency of audit activities. The automation features for data retrieval and audit analysis are particularly valued and should be preserved and continuously improved. These features significantly assist auditors in managing the extensive taxpayer data required during audits, such as tax returns, financial statements, withholding receipts, tax invoices, and payment data.

The automation capabilities of the Derik application reduce the need for manual data collection and compilation, as highlighted by FPP Supervisor 3 (N3), who stated:

> *"[...] regarding the benefits of Derik [...] yes, the automation and analysis features are very helpful for Supervisors and FPPs to pull inspection data. In the past, we had to pull data manually from each data source application, but now we just need to go through Derik. The results of the analysis have also been presented, so it's just a matter of exploring what the focus of the audit is, where the risks are." - FPP3*

Users also expect the Derik application to further enhance the digitalization of examination activities by eliminating manual processes that increase workload. The application is anticipated to become fully electronic-based, including features such as digital signatures, which would eliminate the need for scanning and manually uploading printed documents.

Continuous development of the application is essential to improving the functionality and performance of tax audits. Leveraging technology is crucial, especially given the limited number of tax auditors (5,517, or 0.001% of the total taxpayers) compared to the large number of taxpayers required to file tax returns (5,232,310). Furthermore, the Directorate General of Taxes (DGT) must address the challenges posed by big data by designing an audit system capable of acquiring, processing, and analyzing audit evidence in big data formats (Darono & Pratama, 2022). Effective development of the Derik application could enhance audit efficiency and effectiveness, contributing to a more optimal audit coverage ratio (ACR) (Shavitri & Darma, 2020).

The primary goal of the Derik application is to provide significant benefits to its users. However, achieving this goal requires an information system that is not only reliable but also user-friendly to maximize its utility. Table 6 shows the average responses regarding perceived ease of use, with a Likert scale mean of 4.73, categorized as "Agree." This indicates that the majority of respondents perceive the Derik application as convenient to use.

The interview findings on the theme of perceived ease of use align with the survey results. Users reported that the application provides significant convenience in supporting inspection activities, suggesting that some of the application's development objectives have been achieved. This is reflected in high Likert scale averages for specific tasks, such as ease of preparing Nota Perhitungan (4.98), withdrawing examination data (4.91), and preparing work papers for inspection preparation (e.g., Problem Identification, Audit Plan, and Audit Program) (4.88).

However, discrepancies between the survey and interview results highlight areas for improvement. Although all survey questions were rated as "Agree," interview findings revealed weaknesses in the application that hinder the ease of completing tax audit activities. These weaknesses are reflected in lower scores for questions on tasks such as expediting tax audit completion (4.62) and increasing the realization of audit completions (4.52). According to user feedback, these limitations stem from inefficiencies in the testing and reporting stages, which prevent the application from fully achieving its objectives of increased effectiveness and efficiency.

Perceived ease of use is closely related to the effort required to perform tasks (Venkatesh & Bala, 2008). In this study, perceived ease of use encompasses users' ability to interact with the system effortlessly and their perception of how the system facilitates task completion. Specifically, the Derik application is evaluated based on its ability to simplify processes without requiring significant effort or creating access barriers.

The Likert scale mean for perceived ease of use is 4.73, reaffirming that most respondents find the Derik application convenient. Users agree that it provides several benefits, including ease in compiling notes, withdrawing examination

data, issuing examination documents, and preparing preparatory work papers (e.g., audit plans). Additionally, respondents found it relatively easy to become proficient in using the application.

The ease of withdrawing data and preparing preparatory work papers, such as audit plans, was particularly emphasized by interview participants. For example, FPP Supervisor 3 (N3) noted:

> *"With Derik, data retrieval and audit plan preparation is easy. [...] I tried this directly [...] so just click pull data, all taxpayer data is automatically pulled." - N3*

In fact, based on direct observation during the interview with informant N3, the informant practiced smoothly and without experiencing difficulties in using the Derik application. FPP informant 5 (N5) also reinforced that the Derik application has been easy to use, as the following interview excerpt shows:

> *"[...] regarding ease of use [...] so far it has been easy, I have also followed developments from the beginning. I have used it from the beginning, the application is already old, from 2020. [...] if there are new features/menus or difficulties, asking friends in the office can also be resolved, there are no significant obstacles. [...] The appearance is also user friendly, the menu is in order according to the stages of examination." - N5*

The interview findings suggest that ease of use is influenced by users' experience and the frequency of application usage. The Derik application has been in use for at least five years since its official launch in 2020. A summary of the questionnaire survey results on user experience and frequency of use is presented in Table 4. The majority of users (38%) reported using the application for 3–4 years, with 24% indicating they use it an average of five days per week.

Table 3 further illustrates that perceived ease of use positively impacts tax auditors' attitudes toward using the Derik application. Most tax auditors reported using the application five days a week, corresponding to every working day. This finding aligns with Arihatsu et al. (2022), who demonstrated that perceptions of usefulness and convenience positively influence tax auditors' attitudes toward adopting the Derik application.

However, evaluations of ease of use reveal lower scores during the implementation and reporting stages of the audit process. These stages include tasks such as preparing Examination Working Papers (KKP), conducting tests during the examination, preparing Notification of Examination Results (SPHP), reporting examination results (LHP), and supporting examination activities. These activities are predominantly performed by team members and the heads of tax audit teams, who have noted challenges at these stages.

The constraints experienced during the testing and reporting stages were also widely noted in the questionnaire survey responses. Several respondents highlighted these challenges in the open-ended questionnaire, providing insights into the specific difficulties faced. Excerpts from these responses include:

> *"[...] 1. For KKP creation, we are more familiar with manual creation via excel. Making KKP via Derik has limitations, for example in making tables and naming KKP [...]" - R95*
>
> *"[...] Increasing the volume of work requires scanning and uploading documents first before obtaining SPHP or LHP numbers [...]." - R869*

The complaints raised by respondents regarding the implementation and reporting stages of the examination process, including the preparation of KKP, SPHP, and LHP, underscore the need for improvements and further development of the Derik application. These stages constitute a significant portion of the examination process, making it critical for the application to function seamlessly. Challenges at these stages could discourage users from continuing to use the application if they perceive it as difficult or ineffective.

Enhancements and updates are essential to ensure that the application fulfills its intended purpose of improving effectiveness, efficiency, and the integration of all examination stages into a unified system, as outlined in SE-10/PJ/2020. Developers should involve users across various roles to provide suggestions and feedback during the development process. Additionally, periodic satisfaction surveys and evaluations are necessary to assess the application's performance and alignment with user needs and expectations.

To further enhance the system, satisfaction surveys and application ratings could be integrated into the assignment completion process. This approach would provide real-time data on user feedback, ensuring that suggestions and input remain current and relevant to ongoing application development efforts.

CONCLUSIONS

The findings of this study indicate that the evaluation of the Derik application, measured using the Technology Acceptance Model (TAM) criteria based on user perceptions—specifically Functional Tax Auditors (FPP)—has yielded generally positive results. The application has largely met the criteria for perceived usefulness and perceived ease of use. However, some weaknesses persist, including the presence of manual processes and incomplete digitization, particularly at the implementation and reporting stages of tax audits.

The primary contribution of this study lies in its evaluation of the strengths and weaknesses of the Derik application. These findings provide valuable insights for the Directorate General of Taxes (DGT) and other institutions with audit or inspection functions, serving as a foundation for future application development.

This study, however, is subject to certain limitations, as it primarily reflects the perceptions of FPP users, despite incorporating interviews as part of the research methodology. Future research should consider including other stakeholders, such as Heads of Audit Sections and Heads of Tax Offices, to obtain a more comprehensive "helicopter view" of the net benefits of the Derik application.

The results of this study are expected to serve as a reference for DGT in guiding the continued development of the Derik application. Such development should focus on aligning the application with user needs, thereby enhancing the effectiveness and efficiency of tax audit activities. Ultimately, these improvements will contribute to strengthening the performance of the DGT's audit function.

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