

The Influence of Information Technology and Tax Knowledge on the Application of E-Filing and its Impact on Tax Reporting

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Keyword	Abstract
Information Technology, Tax Knowledge, Application of e-Filing, and Tax Reporting	This research was conducted at Public Health Centers (Puskesmas*) in Bandung Regency. Preliminary study results indicated that tax reporting optimization has not been achieved. This is suspected to be due to the low condition of Information Technology, Tax Knowledge, and the Application of e-Filing. The research aims to analyze the magnitude of the influence of Information Technology and Tax Knowledge on the Application of e-Filing, as well as its implications for Tax Reporting. Based on management theory, human resource management, information technology, and e-Filing theory, this quantitative research was conducted using a survey method. The population consisted of 62 people, with a sample of 36 people selected through Purposive Sampling. Data collection techniques employed questionnaires, interviews, observation, and documentation studies. The data analysis technique used was Path Analysis with the assistance of IBM SPSS 21.0 and Excel 2017. The results showed that partially, the influence of Information Technology on the Application of e-Filing was 31.03%, while the influence of Tax Knowledge was 30.86%. Simultaneously, both independent variables influenced the Application of e-Filing by 61.89%. As an implication, the Application of e-Filing was proven to have a significant and dominant influence on Tax Reporting, amounting to 86.31%. These findings confirm that a combination of technological support and human resource competence is key to driving the adoption of digital systems and improving the quality of tax reporting compliance in local government institutions
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INTRODUCTION

Revenue generated from the taxation sector in Indonesia plays a vital and fundamental role as the main contributor to the State Budget (APBN). In an effort to optimize revenue and enhance the effectiveness of taxpayer compliance within the context of the *digital era*, the Directorate General of Taxes (DGT) consistently implements administrative tax reforms (Wasistiono, 2019). One of the main innovations in this reform is the implementation of the *e-Filing* system, a mechanism for submitting Annual Tax Returns (SPT) electronically (Hastuti, 2024; Silaen, 2015; Wicaksono, 2022). This system is designed to provide ease, speed, and accuracy, which in turn is expected to improve *tax compliance* and reduce the administrative burden on taxpayers (Anugrah & Fitriandi, 2022; Uno & Lamatenggo, 2010).

The success of the adoption and *e-Filing Application* (Y) is demanded not only from the private sector but also from public entities, including local technical units such as Public Health Centers (*Puskesmas*) which function as tax withholders and collectors (Saufik, 2021; Subariah, 2024). In this context, the readiness of infrastructure and human resource capability

are major determining factors (Rianto & Dozan, 2020). Two variables that significantly influence this readiness are the availability and utilization of *Information Technology* (X₁) and the level of understanding of tax regulations among officers, referred to as *Tax Knowledge* (X₂). Both are substantive prerequisites that determine the smooth operation of *e-Filing* and influence its final result, which is the quality of *Tax Reporting* (Z) (Agustina, 2023; Setyaningsih, 2024; Sukmana, 2021).

Theoretically, the causal relationship between these variables can be understood through the framework of the Technology Acceptance Model (TAM) and the Theory of Planned Behaviour (TPB) (Agustiniingsih, 2016; Lubis et al., 2018). Information Technology and Tax Knowledge act as drivers that form perceived ease of use and perceived behavioral control, which ultimately trigger the intention and e-Filing Application (Wulandari, 2022). Nevertheless, empirical findings from previous studies regarding the influence of these two factors on the adoption of electronic tax systems show inconsistent results, indicating a significant research gap. Some studies in the private sector confirm a positive correlation (e.g., Setiawati et al., 2023; Wowor et al., 2014), while others report a weak or insignificant influence, particularly in public sector contexts which are often under-researched. This inconsistency highlights the need for further investigation (Maryani, 2016; Permatasari, 2013; Qalbi et al., 2020).

The disparity in findings necessitates closing the research gap, particularly within the specific and under-researched environment of public sector entities such as the Puskesmas in Bandung Regency. Therefore, the main objective of this study is to empirically test and analyze the causal model comprehensively. Specifically, this research focuses on testing: (1) the partial effect of *Information Technology* on *e-Filing Application*, (2) the partial effect of *Tax Knowledge* on *e-Filing Application*, (3) the simultaneous effect of *Information Technology* and *Tax Knowledge* on *e-Filing Application*, and (4) the direct impact of *e-Filing Application* on the quality of *Tax Reporting* at Puskesmas in Bandung Regency.

The results of this study are expected to provide a dual contribution. Theoretically, the study enriches the body of tax accounting literature by providing new empirical evidence specific to public sector entities, while simultaneously testing the validity of technology adoption behavior models (TAM/TPB) in a governmental *non-profit* organizational setting. Practically, the finding regarding the dominant influence of *e-Filing* on *Tax Reporting* (amounting to 86.31%) provides strategic implications (Ilmu Kesehatan Masyarakat.) This data can be utilized by the Bandung Regency Health Office and Puskesmas management as a basis for appropriately allocating resources, prioritizing *Information Technology* investment that supports reporting, and designing training programs focused on enhancing *Tax Knowledge* for all involved finance staff.

RESEARCH METHODS

The study employed a quantitative causality approach using a *survey* method to test the influence and relationships between variables (Sugiyono, 2016)vv. The research was conducted at Puskesmas (Public Health Centers) in Bandung Regency. The variables investigated included *Information Technology* (X₁) and *Tax Knowledge* (X₂) as independent variables, *e-Filing Application* (Y) as an *interfering* variable, and *Tax Reporting* (Z) as the dependent variable. The research population consisted of all 62 accounting or finance personnel at Puskesmas in Bandung Regency. A sample of 36 respondents was determined using *Nonprobability Sampling* with the *Purposive Sampling* model. Quantitative data was primarily

collected through the distribution of a questionnaire (*angket*) utilizing a *Likert scale*, supplemented by interviews and documentation studies. Data quality was tested using *validity* tests (Pearson *Product Moment*), *reliability* tests (Spearman-Brown coefficient), and *normality* tests (*One-Sample Kolmogorov-Smirnov Test*). The main analytical technique used for testing the causality model and hypotheses was *Path Analysis* (Analisis Jalur), processed using IBM SPSS 21.00 software and Excel 2017

RESULTS AND DISCUSSION

Research

Based on the statistical analysis utilizing *Path Analysis*, all research hypotheses were accepted with a high level of significance. The test results demonstrate that the influence of the independent variables on the *interfering* variable and the dependent variable is as follows:

Causal Relationship	Direct Influence (%)	Indirect Influence (%)	Total Influence (%)	Hypothesis Status
Information Technology (X ₁) → e-Filing Application (Y)	16.97%	14.06%	31.03%	Accepted (H ₁)
Tax Knowledge (X ₂) → e-Filing Application (Y)	16.81%	14.05%	30.86%	Accepted (H ₂)
X ₁ and X ₂ → Y (Simultaneous)			61.89%	Accepted (H ₃)
e-Filing Application (Y) → Tax Reporting (Z)			86.31%	Accepted (H ₄)
External Variables (Other Factors) → Y			38.11%	
External Variables (Other Factors) → Z			13.69%	

Source: Primary data from the IBM SPSS 21.00 program

The simultaneous influence of *Information Technology* and *Tax Knowledge* on *e-Filing Application* (Y) is 61.89% (*R-Square* 0.6189), with the remaining 38.11% explained by external factors (*epsilon* 1). Furthermore, *e-Filing Application* (Y) has a direct and highly dominant influence on *Tax Reporting* (Z) of 86.31% (*R-Square* 0.8631), with the remaining 13.69% explained by the residual factors (*epsilon* 2).

t-Test (Partial)

The hypothesis test in this study uses the t-Test, which is one of the methods in linear regression analysis. The t-Test aims to determine whether the independent variable (X) has an effect on the dependent variable (Y). In this study, the hypothesis test using the t-Test is conducted to prove whether there is an effect of Information Technology and Tax Knowledge variables on the interfering variable of e-Filing Implementation.

Table 2. The Effect of Variable X on Y
Coefficients

Model	Unstandardized Coefficients B	Standardized Coefficients	t	Sig
1 (Constant)	6.166		1.994	0.054
Teknologi Informasi	0.438	0.206	2.126	0.041
Pengetahuan Perpajakan	0.406	0.192	2.118	0.042

a. Dependent Variable: Penerapan e-filing

F-Test Results (Simultaneous Effect) of Information Technology (X1) and Tax Knowledge (X2) on e-Filing Implementation (Y). The simultaneous effect (together) of Information Technology (X1) and Tax Knowledge (X2) on e-Filing Implementation (Y) in schools within the research area is 0.6189. This can also be seen from the IBM SPSS 21.00 results table indicated by the R-Square coefficient as follows:

Table 3. Simultaneous Effect of Variables X1 and X2 on Y

Model	Change Statistics				
Variable	R Square Change	F Change	df1	df2	Sig.F Change
X1 X2	0.619	26.85	2	33	0.000

Source: Primary data from the IBM SPSS 21.00 program

Statistical Test of Path Analysis Path analysis

The diagram of the influence paths of the two variables X1 and X2 on Y, and the influence of variable Y on Z based on Path Analysis using IBM SPSS 21.00 software above can be generally described as follows:

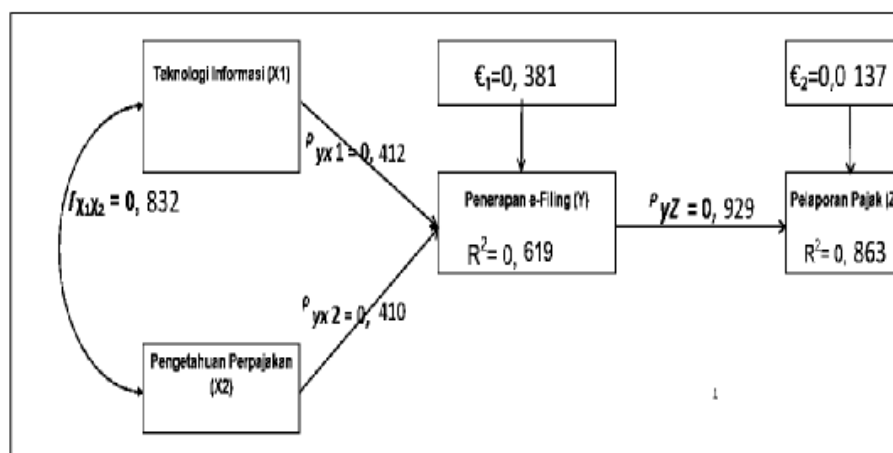


Figure 1. Diagram of the Results of the Path Relationship Test between Variables

Research findings, after being analyzed, can be presented in the discussion as answers to the research problem statements and the verification of hypotheses.

Descriptive Analysis

1. Influence of Exogenous Variables (X₁ and X₂) on e-Filing Application (Y)

The acceptance of hypotheses {H₁} and {H₂} confirms that both *Information Technology* (total 31.03%) and *Tax Knowledge* (total 30.86%) are crucial determinants in *e-Filing* adoption. This finding supports previous research, such as Setiawati et al. (2023), who confirmed that technological readiness affects *e-Filing* usage, aligning with the view that IT is a form of system modernization for submitting the Annual Tax Return (SPT). Likewise, the acceptance of H₂ is consistent with the findings of Wowor et al. (2014), which stated that knowledge/experience influences *e-Filing* usage behavior, underscoring that taxpayer understanding is a substantive prerequisite for transitioning to electronic systems. However, the data reveals that one indicator of *Information Technology*, namely "The availability of technology related to taxation," still requires improvement. Similarly, an indicator of *Tax Knowledge* that remains suboptimal is "Knowledge about tax legislation."

2. Strength of the Simultaneous Model and Intervening Variable (H₃ and H₄)

The simultaneous test ($\{H_3\}$), with an *R-Square* value of 61.89%, indicates that the combined effect of *Information Technology* and *Tax Knowledge* is highly effective in predicting *e-Filing Application*. Nevertheless, the magnitude of the influence of external variables (*epsilon I*), at 38.11%, suggests that other factors such as management support, organizational commitment, or incentives also play a significant role in driving the adoption of this system.

The most substantial finding in this study is the acceptance of hypothesis $\{H_4\}$, where *e-Filing Application* yields a total influence of 86.31% on *Tax Reporting*. This result is remarkably strong and unequivocally validates the objective of the DGT's modernization policy: when the *e-Filing* system is effectively adopted and implemented, the primary outcome, which is the quality of *Tax Reporting*, increases drastically. The reporting compliance at *Puskesmas* in Bandung Regency is categorized as Very Good, reflecting the success of technology transfer in achieving efficiency, data accuracy, and timely reporting.

CONCLUSION

Based on the results of the analysis and discussion, descriptively, the condition of the variables *Information Technology*, *Tax Knowledge*, and *e-Filing Application* falls into the 'good' category, while *Tax Reporting* is classified as 'very good.' These findings reinforce the validity of the proposed causality model. Simultaneously, *Information Technology* and *Tax Knowledge* were proven to significantly influence *e-Filing Application* with a total contribution of 61.89%, where *Information Technology* provided the largest influence contribution among the independent variables. Furthermore, as an *interfering* variable, *e-Filing Application* exerted a highly dominant and significant influence on *Tax Reporting*, contributing 86.31%. The primary conclusion indicates that the success of *e-Filing Application* and the quality of *Tax Reporting* at *Puskesmas* in Bandung Regency are substantially determined by the combination of *Information Technology* support and staff *Tax Knowledge* capability. Practically, this result validates the tax modernization efforts of the Directorate General of Taxes (DGT), asserting that investment in technological prerequisites and staff competence will result in the achievement of efficient and accurate *Tax Reporting* objectives. Nevertheless, to maintain and enhance quality, *Puskesmas* management is advised to focus on strengthening indicators that still require development, specifically: The availability of technology related to taxation and Knowledge about tax legislation.

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