

# Digital Literacy Moderates the Influence of Tax Education through DGT RI Instagram on Tax Knowledge

Lailatus Sa'adah<sup>1</sup>, Qanina Syahrotsa Viramadhon<sup>2</sup>

<sup>1,2</sup>STIE Malangkuçewara Malang, Indonesia



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## ABSTRACT

**Objective:** Advances in information technology have changed many parts of life, including the tax system. This study examines how tax education on the DGT RI Instagram account can improve tax knowledge among people in Malang City and whether digital literacy affects this relationship. **Method:** The research used a quantitative method, Partial Least Squares Structural Equation Modeling (PLS-SEM), and included 100 respondents. **Results:** The results show that tax education through DGT RI's Instagram positively affects tax knowledge. This suggests that using digital strategies for tax education is effective, and digital literacy does not influence the link between tax education and tax knowledge. **Novelty:** The study provides evidence on the effectiveness of Instagram-based tax education in improving tax knowledge and highlights that digital literacy does not affect the relationship between tax education and tax knowledge.

## INTRODUCTION

As globalization and information technology continue to advance, many areas of life are changing, including the tax system. The government is working to improve taxpayers' knowledge, understanding, awareness, and compliance by using both traditional and digital media. For example, the Directorate General of Taxes (DGT RI) uses its Instagram account to share tax information and education with the public in an interactive way, boosting digital literacy and tax knowledge.

The Directorate General of Taxes uses its DGT RI Instagram account to share tax information with the public in an interactive, easy-to-access format. By using platforms like Instagram, the Indonesian DGT is keeping up with digital trends. As of January 2024, more than 68.9% of Indonesians use social media regularly, with 139 million active user accounts [1]. This shows that Instagram is an important channel for reaching a wide and varied audience. It helps the DGT of the Republic of Indonesia share tax information quickly and clearly [2]. Improving tax knowledge can help prevent tax evasion, make it easier to adjust to new regulations, and support a stronger tax system. However, it remains unclear whether social media is effective in helping people better understand taxes.

Tax education helps people understand how taxes work and their responsibilities under the law. Its main goal is to raise awareness by improving tax knowledge. When people receive better tax education, their understanding of taxes is expected to grow. Still, how effective tax education is depends not just on the information given, but also on whether people can find, understand, and use it. Since many people are still not fully meeting their tax obligations, the Directorate General of Taxes continues to seek new

ways to boost state tax revenue through ongoing reforms [3]. Digital literacy plays an important role in making tax education more effective and improving people's understanding of tax matters.

Digital literacy means being able to use technology to find, understand, and evaluate information from digital sources, including tax education. According to the Indonesian Digital Society Index (IMDI) survey by the Ministry of Communication and Information Technology, the score increased to 43.34 in 2024, up 0.16 points from 43.18 the previous year. People with strong digital skills are more likely to understand tax education shared on social media. Making tax administration and information more digital has also helped improve taxpayer compliance by motivating people and helping them better understand the tax system [3].

Studies on tax education, tax knowledge, and digital literacy yield mixed results. In his research, he stated that tax education on social media for the millennial generation has not been optimized. This is because many people are still unaware of the official Instagram account belonging to the West Java DGT Regional Office. Research has shown that the understanding of digital media has an effect on tax understanding among MSME actors [4]. The study found that artificial intelligence (AI)-based services influence digital literacy, and digital literacy affects how well taxpayers comply [5]. His research showed that using digital content to improve tax education makes delivering tax information more effective and flexible. The study also found that tax socialization plays an important role in increasing tax knowledge [6]. The survey showed different results. It found that digital literacy did not affect the link between tax awareness and taxpayer compliance at KPP Pratama Sidoarjo Utara. However, digital literacy strengthened the impact of *E-filing* on taxpayer compliance [7], [8], [9]. In the same study, digital literacy did not have a significant impact on how tax sanctions affected taxpayer compliance [10], [11].

This study found that research gaps remain, especially regarding how digital literacy affects the success of tax education on social media in improving tax knowledge. The research examines how tax education through DGT RI's Instagram influences tax knowledge, with digital literacy as a moderating factor. It also examines how much tax education on DGT RI's Instagram can increase tax knowledge among people in Malang City and how digital literacy shapes this effect. The findings are expected to help develop better digital tax education strategies and encourage greater public tax awareness.

## RESEARCH METHOD

This study focuses on people in Malang City who use Instagram and view tax education content from the official DGT RI (Directorate General of Taxes of the Republic of Indonesia) account through Instagram, with a population of 257,105 people obtained from *malangkota.bps.go.id*. Sampling was conducted using the purposive sampling method, based on specific criteria relevant to the research, and a total of 100 respondents were selected. A research variable is an attribute or trait or value of a person, object, or activity that has certain variations that the researcher determines to be studied and then draws conclusions [12]. The variables used in this study are dependent (bound),

independent variables (free), and moderation variables. Tax education through Instagram DGT RI (X) as an independent variable, tax knowledge (Y) as a dependent variable, and Digital literacy (Z) as a moderation variable.

This study will use SmartPLS version 4.1.0.2 as the data analysis methodology, based on the hypotheses that have been described. PLS (*Partial Least Squares*) is a *soft modeling* analysis method that does not require data on a particular scale, allowing the use of smaller sample sizes, typically fewer than 100. Since the Partial Least Squares (PLS) analysis method does not rely on many assumptions, it is pretty robust. In addition, PLS does not require a large sample size. Due to the moderation variable, namely Digital Literacy, this study uses *Structural Equation Modeling* (SEM)-PLS. According to the PLS test, there are three stages, namely: outer model measurement analysis, structural model test [13], and hypothesis test.

## RESULTS AND DISCUSSION

### Results

#### Outer Model Review

The *results of outer loading* of each indicator are as follows:

Variable X (DGT Instagram Tax Education) has an outer loading value between 0.780 and 0.884, which means that all indicators are valid and can be used in measurement. All indicators for variable X have outer loadings above 0.70, indicating that each item contributes meaningfully to measuring tax education content. The X2 indicator has the highest value (0.884), which means understanding the content is the most important factor for this variable.

Variable Y (Tax Knowledge) has outer loadings ranging from 0.866 to 0.909, indicating strong convergent validity. The Y2 indicator has the highest loading (0.909), meaning knowledge of tax types is the most important aspect for this variable. All values above 0.866 show the indicators are valid and reliable.

Variable Z (Digital Literacy) has *outer loading* values between 0.789 and 0.893, all above the recommended minimum. The Z1 indicator has the highest value (0.893), indicating that the ability to search for tax information online is the primary indicator of digital literacy. All indicators for this variable exceed 0.70, indicating convergent validity and a strong representation of the construct.

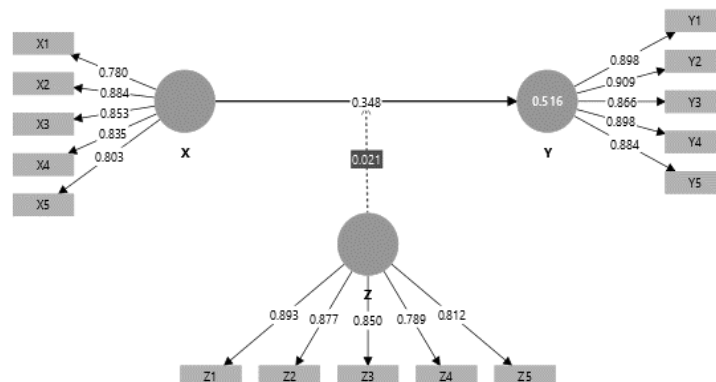


Figure 1. Path coefficient results.

**Average Variance Extracted (AVE)****Table 1.** Average Variance Extracted (AVE)

Statements and subscales	AVE
Tax Education	0,692
Tax Knowledge	0,794
Digital Literacy	0,714

The *Average Variance Extracted* (AVE) test results show that all variables have AVE values above 0.50, indicating each construct explains more than 50% of the variance in its indicators [14]. Thus, the model demonstrates convergent validity, as each construct effectively represents its indicators.

**Structural Model Test (Inner Model)*****Coefficient of determination (R-Squared)***

In this study, the determination coefficient (R<sup>2</sup>) for Tax Knowledge is 0.516. This means that tax education and digital literacy account for 51.6% of the variation in tax knowledge. The structural model therefore, shows moderate explanatory power.

**Table 2.** R-Squared

Statements and subscales	R-square	R-square adjusted
Tax Knowledge	0,516	0,501

**Predictive Relevance (Q-Squared)**

Based on the calculation results, the Q-Square value was obtained as 0.516. This indicates that 51.6% of the data diversity in the Tax Knowledge variable can be explained by this research model, specifically through the variables Tax Education and Digital Literacy. The remaining 48.4% were attributed to factors not accounted for in the model, which were not included in the study. Thus, this model is considered to have good predictive ability in explaining dependent variables

**Pathway Significance Test and Hypothesis Test****Table 3.** Track Significance Test.

Statements and subscales	Path Coefficient (O)	T statistic ( O/STDEV )	P Values	Information
X-> Y	0,348	2,864	0,004	Significant
Z x X -> Y	0,021	0,578	0,563	Insignificant

The path significance test aims to determine whether the relationship between the independent and dependent variables in the research model is statistically significant. Based on Table 3, it can be explained that:

The value of the path *coefficient (original sample)* was 0.348, the t-statistical value was 2.864, and the P-value was 0.004 < 0.05, so the hypothesis was accepted. Tax education through the DGT RI Instagram has a significant effect on the tax knowledge of

the people of Malang. This means that the higher the exposure to tax education through the official social media of the DGT RI, the better the public's tax knowledge.

The value of the interaction path coefficient was 0.021, with a t-statistic of 0.578 and a P-value of 0.563, which is greater than 0.05; therefore, the hypothesis was rejected. Digital literacy does not moderate the influence of tax education through the DGT RI's Instagram on the tax knowledge of the people of Malang, despite the positive coefficient; a P value greater than 0.05 indicates that this interaction is not significant.

## **Discussion**

### **Tax Education Through Instagram DGT RI Towards Tax Knowledge**

The Path Coefficient (*Original Sample*) of 0.348 shows that tax education through the DGT RI Instagram has a positive influence on tax knowledge. The more people are exposed to the educational content provided by the DGT of the Republic of Indonesia on Instagram, the more their level of expertise about taxation tends to increase [15], [16]. The value of this coefficient also indicates that the relationship between the variables is unidirectional (positive), suggesting that tax education makes a significant contribution to improving tax knowledge. Tax education through the DGT RI's Instagram has been proven to significantly increase the tax knowledge of the people of Malang City, which is evidence that the digital strategy of tax education is effective.

The more intensive tax education is carried out through social media, especially the DGT RI's Instagram, the more it will increase public understanding of tax obligations and rights. These findings align with the literature, which states that social media can be an effective means of conveying tax information that was previously considered complex. Content visualization, ease of access, and simple language use on the DGT RI Instagram account can help the public better understand tax issues.

These results are in line with research conducted was found that optimizing tax education through digital content can increase the effectiveness and flexibility of tax education [17]. By utilizing Instagram, the DGT of the Republic of Indonesia can reach more people more quickly and efficiently, and in accordance with the Regulation of the Director General of Taxes Number PER-12/PJ/2021 concerning tax education.

### **Digital Literacy Moderates the Influence of Tax Education Through DGT RI Instagram on Tax Knowledge**

The Coefficient of Interaction Pathway of 0.021 indicates that digital literacy only provides a minimal influence as a moderator between tax education and tax knowledge. The value of this coefficient is very low and close to zero, indicating that digital literacy is not sufficiently strong to alter or influence the primary relationship between tax education and tax knowledge. Respondents' digital capabilities did not strengthen or weaken the impact of tax education on their understanding.

The P-value obtained was 0.563 much greater than 0.05. This indicates that the data do not support the moderation hypothesis. Thus, there is insufficient evidence to suggest that digital literacy plays a role in strengthening or weakening the relationship between tax education through the DGT's Instagram and tax knowledge [18], [19]. This means

that, regardless of the respondents' digital literacy level, tax education still has its own influence on tax knowledge, without the need for moderation.

Several factors can cause this insignificance. One of them is the possibility that, despite having high digital literacy (the ability to access, understand, and verify digital information), people do not necessarily apply these skills specifically to deepen their understanding of tax issues [20]. In addition, the influence of tax education through the DGT RI Instagram is quite strong directly, so the existence of digital literacy does not have a significant additional effect on their knowledge [21]. These findings show that tax education remains effective even without relying on the high level of digital literacy of the community. The results of previous research conducted by the university stated that digital literacy does not moderate the relationship between tax awareness and taxpayer compliance, nor does it moderate the relationship between the effectiveness of e-filing and taxpayer compliance.

## CONCLUSION

**Fundamental Finding :** The study's results show that tax education through the DGT RI Instagram has a significant impact on increasing the tax knowledge of the people of Malang City. Digital education strategies help improve public understanding of taxation, and the effect of tax education remains the same regardless of the level of digital literacy, indicating that DGT RI's educational content successfully reaches individuals with diverse digital skills. **Implication :** These findings underscore the need to enhance tax communication and outreach on social media as part of taxation's digital transformation. Given the effectiveness of Instagram-based tax education, the DGT should consider developing more varied, interactive, and relevant content, as social media serves as an inclusive and accessible tool for public tax education. **Limitation :** The sample size was limited to 100 respondents from Malang City, which may affect the generalizability of the findings. Digital literacy was self-reported, which could introduce bias, and the study focused solely on Instagram without comparing other digital platforms. **Future Research :** Future research could include more regions and a larger sample to improve representativeness. It is recommended to examine factors such as learning interests, frequency of social media use, and the credibility of information sources. Researchers may also compare the effectiveness of other tax education platforms such as TikTok, YouTube, and digital tax apps, and employ a qualitative approach to further explore user behavior and provide deeper insights.

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**\*Lailatus Sa'adah (Coresponding Author)**

STIE Malangkuçeçwara Malang, Indonesia

Email: [ila@stie-mce.ac.id](mailto:ila@stie-mce.ac.id)

**Qanina Syahrotsa Viramadhon**

STIE Malangkuçeçwara Malang, Indonesia

Email [qaninasyahrotsa24@gmail.com](mailto:qaninasyahrotsa24@gmail.com)

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