

## Factors Affecting the Effectiveness of Accounting Work under the Context of Applying Accounting Software at SMEs in Hanoi

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### Abstract

This research focuses on the factors affecting the effectiveness of accounting work through software application at small and medium enterprises (SMEs) in Hanoi City. In the context of digital transformation, firms invest in technology but many do not fully exploit the software functions, leading to low accounting work efficiency. This study collected data through an online questionnaire via Google Forms to accountant department in Hanoi and analyzed quantitatively using the SPSS software. This research identified four factors significantly impacting the effectiveness of the accounting work, including user awareness and skills, manager support, software functions, and cost of software. Among these, user awareness and skills were the strongest influencing factor, confirming the decisive role of the human capacity. Manager support is also a crucial foundation, while cost of software has a negative relationship with effectiveness. Conversely, support from the software provider was not statistically significant in the model. This suggests that support quality may be inconsistent, affecting user trust levels. The study recommends that businesses prioritize investment in personnel training and secure commitment from leadership to optimize the use of accounting software.

**Keywords:** Accounting work effectiveness, accounting software, SMEs

### 1. Introduction

In the digital era, digital transformation has become a critical requirement for all businesses worldwide, driving competitiveness and sustainability (Vial, 2021). In Vietnam, where the SMEs account for over 95% of total businesses (MPI, 2017), technology adoption is no longer a trend but a decisive factor for survival and development. Accounting, with its central role in financial management and decision-making, is also under strong pressure to transform. Traditional manual accounting processes expose limitations in accuracy, timeliness, and transparency (Susanto & Meiryani, 2019). Against this backdrop, accounting software has emerged as an effective solution, enabling automation, standardization, and efficiency improvements (Rom & Rohde, 2007).

However, the practical implementation of accounting software is not straightforward. Many SMEs, particularly in major economic centers such as Hanoi, have invested in accounting software but cannot fully exploit its potential benefits. In Hanoi, SMEs often face specific constraints such as limited financial resources for long-term software investment, frequent changes in tax and accounting regulations, and pressure to comply with electronic invoicing and online reporting requirements. In many cases, the software is not fully compatible with the firms' business characteristics or existing management systems, leading to difficulties in integrating accounting software with other subsystems (e.g., sales, inventory, or banking). At the same time, accountants may lack sufficient IT skills or formal training in digital accounting processes, resulting in dependency on a narrow set of basic functions while more advanced features (such as automatic reconciliation, internal control reports, or management dashboards) remain underutilized. Inconsistent and sometimes delayed support from software providers further exacerbates these issues, making troubleshooting and system updates challenging in day-to-day operations. Consequently, accounting software is often used only at a basic level, leading to reduced accounting work effectiveness and limiting its contribution to overall financial management.

Although numerous studies have examined factors influencing accounting software usage, critical gaps remain. Most existing research focuses on isolated aspects, such as user acceptance behavior (Davis, 1989; Venkatesh et al., 2003), information quality (Delone & McLean, 2003; Petter, DeLone, & McLean, 2013), or internal control,



without offering a comprehensive evaluation across human, organizational, and technical dimensions. Moreover, prior studies tend to emphasize “system quality” or “software usage effectiveness” rather than directly analyzing their relationship with accounting work effectiveness, a core indicator of financial accounting performance (Ahmad & Al-Shbiel, 2019). In the case of Vietnam, and Hanoi in particular, updated empirical evidence on SMEs’ accounting effectiveness after software adoption remains limited, despite the city’s high software adoption rate and the practical difficulties these firms encounter in implementing and operating accounting software. This context highlights the need for further research into the factors affecting the effectiveness of accounting work under the application of accounting software at SMEs in Hanoi.

The findings of this study enrich the theoretical foundation of digital transformation in accounting while also offering practical implications. For SMEs, the results provide scientific evidence to support optimal software selection and usage. For software providers, the study offers insights to enhance product features and after-sales services. For policymakers, the research outcomes serve as a valuable reference for designing supportive policies that promote digital transformation among SMEs. The remainder of this article is structured as follows. Section 2 reviews the relevant literature and hypotheses development. Section 3 describes the research methodology, including data collection and analytical techniques. Section 4 presents the empirical findings and discussion. Finally, section 5 concludes with implications for future research.

## 2. Objectives

This study is conducted to provide a comprehensive and integrated assessment of the factors affecting accounting work effectiveness after the adoption of accounting software in SMEs. By directly evaluating the effectiveness in SMEs in Hanoi, the research aims to provide the empirical evidence of determinants that affecting the effectiveness of accounting work.

## 3. Materials and Methods

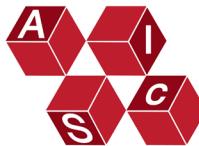
### 3.1. Literature review and hypotheses development

In the context of digital transformation, applying accounting software is an inevitable requirement for SMEs. However, in practice, many businesses in Hanoi have invested but have not exploited the software's full potential. This situation stems from various causes such as unsuitable software, staff lacking technological skills, or untimely support from providers. This reduces accounting effectiveness and impacts the overall financial management efficiency of the enterprise. Thus, theoretically, the topic contributes to perfecting the theoretical foundation on the effectiveness of accounting software application, clarifying the relationship between factors like user skills, software suitability, and support from stakeholders. Practically, the research results will provide specific recommendations helping businesses, software providers, and state management agencies make effective decisions and policies, promoting the digital transformation process in the accounting-finance sector. Analysis of research documents shows an overview of factors affecting the effectiveness of accounting work and software application in Vietnam. These studies focus on three main aspects, including accounting work, accounting software, and the effectiveness of applying accounting software.

Regarding accounting work, some studies by Binh et al. (2020), Hải et al. (2024) showed that the effectiveness of accounting work is influenced by many organizational and human factors. These factors include the legal environment, information technology application, management awareness, staff qualifications, and organizational culture. These studies emphasize that investment in technology must go hand in hand with enhancing human capacity and commitment from leadership.

Regarding the accounting software, some studies by Duân and Hùng (2024) and Phuong et al. (2023) focus on factors affecting the acceptance and selection of accounting software. The main identified factors are features, ease of use, cost, provider reputation, and support. These studies provide insight into important criteria when businesses decide to invest in software.

With the effectiveness of applying accounting software, studies by Bình and Huyền (2016), Hang et al. (2020), Ngo (2023), and Phan and Nguyễn (2023) analyzed the effectiveness of accounting software application in



different aspects such as error control capability, information quality, and management capacity. These studies indicate that software usage effectiveness depends on the combination of technical factors (software quality), organizational factors (organizational characteristics), and human factors (user skills).

Hypotheses development is stated in Table 1.

**Table 1** The research hypotheses

| Code | Hypotheses   | Expected | Source                |
|------|--|----------|-----------------------|
| AS   | User awareness and skills positively affect accounting work effectiveness.           | +        | (Hang et al., 2020)   |
| SF   | Software functions positively affect accounting work effectiveness.                  | +        | (Duân & Hùng, 2024)   |
| CS   | Cost of software negatively affect accounting work effectiveness.                    | -        | (Phuong et al., 2023) |
| MS   | Manager support positively affects accounting work effectiveness.                    | +        | (Hải et al., 2024)    |
| SP   | Support from the software provider positively affects accounting work effectiveness. | +        | (Nguyễn, 2018)        |

The proposed research model is built based on synthesis from various theories and published studies. The resource-based view (RBV) emphasizes that enterprise effectiveness comes from exploiting internal resources, in this case, human and technological resources. The information system success model evaluates the success of a system based on system quality, information quality, and user satisfaction. The technology acceptance model (TAM) helps explain factors influencing users' technology acceptance and usage behavior, especially perceived ease of use and perceived usefulness. Synthesizing from studies by Hang et al. (2020), Hải et al. (2024), Duân and Hùng (2024), and many other authors, it can be seen that accounting work effectiveness is influenced by the following factor groups: *Human-related factors*: Knowledge, skills, awareness, and participation of users and management. *Technology-related factors*: Features, reliability, security, and cost of the software. *Organization-related factors*: Support from management, organizational culture, and operational processes. From these analyses, the study proposes a linear regression equation including five main independent variables affecting the dependent variable.

$$AE_i = \beta_0 + \beta_1 AS_i + \beta_2 SF_i + \beta_3 CS_i + \beta_4 MS_i + \beta_5 SP_i + \varepsilon$$

### 3.2. Research methods

**Measuring variables:** The research model is comprised of five independent variables, each constructed based on existing literature, and one dependent variable, built upon the synthesis of the independent variables' effects. User awareness and skills (AS) is based on the study of Hang et al. (2020). It is expected to positively affect accounting work effectiveness, as user proficiency is crucial for controlling fraud and errors. Software functions (SF) is drawn from the research of Duân and Hùng (2024), this variable is anticipated to have a positive impact. It reflects the importance of software features and ease of use in online accounting services. Cost of software (CS) was the cost as a factor in the decision to adopt accounting software, adopted from the study by Phuong et al. (2023). Manager support (MS) was based on the study of Hải et al. (2024) on the quality of accounting information systems. Support from the software provider (SP) was derived from the research by Nguyễn (2018). It is expected to have a positive impact on the choice and use of accounting software.

The dependent variable, Accounting work effectiveness (AE), is a comprehensive construct built upon a synthesis of the literature mentioned above. It aims to measure the overall impact of accounting software, encompassing aspects such as organizational performance, adopted from Ahmad and Al-Shbiel (2019), which links accounting information systems to organizational performance. System Quality is rooted from Delone and McLean (2003), which defines the success of information systems. User satisfaction is originated from the TAM Model (Davis, 1989), this includes perceived usefulness and ease of use. Information quality is adopted from Binh, Tran, and Vu (2022), which focus on improving the quality of accounting information systems. Efficiency and process improvement: Incorporating insights



from papers on improving accounting processes and efficiency, such as those by Binh and Huong (2017) and Phan and Nguyễn (2023).

**Data collection:** To collect data for the research, the author group designed a survey questionnaire based on theoretical foundations of accounting software and influencing factors. The questionnaire used a 5-point Likert scale, distributed online via Google Forms to accountants, chief accountants, and financial-accounting staff at SMEs in Hanoi. The survey had two main parts: general information and the survey of influencing factors. According to Hair et al. (2014), with 19 measurement variables, the minimum sample size required is 95. The author distributed 140 surveys and collected 99 valid responses, meeting the minimum sample size requirement for quantitative analysis using SPSS software. The collected data ensures minimum sample to yield reliable results.

**Data analysis:** The data analysis for this study was conducted using quantitative methods. The researchers collected primary data by distributing 140 online surveys and obtained 99 valid responses. The collected data was then compiled and processed using SPSS software to perform the quantitative analysis.

#### 4. Results and discussion

##### 4.1. Results of measurement quality test

This study use reliability test and exploratory factor analysis (EFA) to examine the quality of measurement. Table 2 indicates the summary of reliability test using Cronbach's Alpha.

**Table 2** Summary of reliability test results

| Items  | Code                        | Item-Total Correlation | Cronbach's $\alpha$ if Item Deleted |
|--|-----------------------------|------------------------|-------------------------------------|
| <b>[AS] User awareness and skills</b>  | Cronbach's $\alpha = 0.972$ |                        |                                     |
| I have been fully trained in how to use accounting software in my work.                          | AS1                         | 0.951                  | 0.952                               |
| I am able to proficiently use the main functions of accounting software.                         | AS2                         | 0.928                  | 0.968                               |
| I regularly update new knowledge and skills related to accounting software.                      | AS3                         | 0.946                  | 0.954                               |
| <b>[SF] Software functions</b>   | Cronbach's $\alpha = 0.954$ |                        |                                     |
| The accounting software interface is easy to see, easy to understand and user-friendly.          | SF1                         | 0.927                  | 0.926                               |
| Accounting software effectively meets the specific requirements of my business operations.       | SF2                         | 0.892                  | 0.966                               |
| The functions in the software are arranged logically and are easy to access and use.             | SF3                         | 0.937                  | 0.912                               |
| <b>[ICS] Software cost</b>   | Cronbach's $\alpha = 0.981$ |                        |                                     |
| The cost of implementing accounting software is suitable for my business's financial conditions. | CS1                         | 0.975                  | 0.966                               |
| Software maintenance and update costs are considered reasonable.                                 | CS2                         | 0.968                  | 0.966                               |
| My business is willing to invest in accounting software to improve work efficiency.              | CS3                         | 0.952                  | 0.985                               |
| <b>[MS] Manager support</b>  | Cronbach's $\alpha = 0.984$ |                        |                                     |
| Managers support the selection and implementation of accounting software.                        | MS1                         | 0.974                  | 0.973                               |
| Managers facilitate employees to participate in software training courses.                       | MS2                         | 0.975                  | 0.969                               |
| Managers consider accounting software as a strategic tool in business management and operations. | MS3                         | 0.959                  | 0.987                               |
| <b>[SP] Support from software provider</b>   | Cronbach's $\alpha = 0.969$ |                        |                                     |
| Supplier's support team responds quickly and efficiently in case of technical problem            | SP1                         | 0.952                  | 0.951                               |



| Items   | Code | Item-Total Correlation | Cronbach's $\alpha$ if Item Deleted |
|---|------|------------------------|-------------------------------------|
| My firm is provided with full documentation on how to use the accounting software.                            | SP2  | 0.939                  | 0.958                               |
| Vendors regularly upgrade software to improve performance and add new features.                               | SP3  | 0.933                  | 0.953                               |
| <b>[AE] Accounting work effectiveness</b> Cronbach's $\alpha$ = 0.967   |      |                        |                                     |
| Accounting information from the software is highly accurate, updated promptly and reliably to serve the work. | AE1  | 0.942                  | 0.950                               |
| Using accounting software helps reduce document processing time and improve reporting efficiency.             | AE2  | 0.933                  | 0.954                               |
| I am satisfied with the experience of using accounting software.  | AE3  | 0.865                  | 0.971                               |
| Accounting information from software supports managers in accurate and timely decision-making                 | AE4  | 0.943                  | 0.951                               |

Cronbach's Alpha values for all research constructs were very high, ranging from 0.954 to 0.984 (AS = 0.972; SF = 0.954; SP = 0.969; CS = 0.981; MS = 0.984), confirming excellent internal consistency and suitability for further analysis. None of the observed variables showed a Cronbach's Alpha if item deleted higher than the total coefficient, and all item-total correlation coefficients exceeded 0.3, with many above 0.9, indicating strong associations between items and their respective constructs. For the dependent variable [AE] – Accounting work effectiveness, the Cronbach's Alpha reached 0.967. Although AE3 showed a slightly higher alpha if deleted (0.971), its item-total correlation coefficient was 0.865 ( $>0.3$ ), thus it was retained to ensure theoretical completeness of the scale. Overall, all measurement items met reliability requirements and were included in the subsequent EFA. The results of EFA test are shown in Table 3.

**Table 3** Summary of measurement quality testing

| Variable                       | No. of items | KMO   | Bartlett's Test | Sig.  |
|--------------------------------|--------------|-------|-----------------|-------|
| Accounting work effectiveness  | 4            | 0.828 | 556.454         | 0.000 |
| <i>Independent variables</i>   |              | 0.945 | 3585.547        | 0.000 |
| User awareness and skills      | 3            |       |                 |       |
| Software functions             | 3            |       |                 |       |
| Support from software provider | 3            |       |                 |       |
| Software cost                  | 3            |       |                 |       |
| Manager support                | 3            |       |                 |       |

Regarding the independent variables, based on the KMO and Bartlett's test results above, the Kaiser-Meyer-Olkin (KMO) coefficient is 0.945 ( $> 0.5$ ), indicating a high suitability of the data for conducting Exploratory Factor Analysis (EFA). This result confirms that the observed variables have sufficient correlation levels to be grouped into common factors. Bartlett's Test of Sphericity gives a Sig. value = 0.000  $< 0.05$ , rejecting the hypothesis that the correlation matrix is an identity matrix (the observed variables have no correlation in the population). This shows a significant correlation between the observed variables, and the collected data is entirely suitable for factor analysis. The total variance extracted reached 67.162% ( $> 50\%$ ), indicating that the 5 extracted factors can explain 67.162% of the variation in the entire dataset. Thus, the scale is considered to meet the explanation level requirement and can be used for subsequent analysis steps.

Furthermore, all extracted factors have Eigenvalue  $> 1$ , which aligns with the criteria of exploratory factor analysis - only retaining factors that can significantly explain variance in the data. Specifically, the Eigenvalue of the fifth factor (the last one) is 1.256, exceeding the threshold of 1, and thus qualifies to be retained in the model. Based



on the results from the rotated component matrix, 15 observed variables were included in the EFA and extracted into 5 latent factors. All variables had factor loadings greater than 0.7, and no variables were removed, indicating good convergence and fit with the factor groups. After identifying the 5 latent factors and testing for convergence, the scales that met requirements were used in subsequent correlation and regression analyses to test the proposed research hypotheses.

Regarding the independent variable, the test results show a KMO coefficient of 0.828, indicating the data is fully suitable for factor analysis. Simultaneously, Bartlett's Test of Sphericity has a Chi-Square value = 556.454 with  $df = 6$  and significance level  $Sig. = 0.000 (< 0.05)$ , confirming the observed variables have significant linear correlations. Thus, the data satisfies the necessary conditions to proceed with the EFA. The EFA results for the dependent variable (AE) show that all 4 observed variables converge into a single factor with loadings all greater than 0.9, reflecting very high convergence. This factor has a total variance extracted of 83.775% and an Eigenvalue = 3.351 ( $>1$ ), fully meeting statistical criteria. The analysis data is suitable, no variables were removed, therefore the author retains all variables and names the factor AE for inclusion in the next analysis steps in the research model.

Despite these favourable psychometric indicators, the Cronbach's Alpha coefficients for most constructs are extremely high (above 0.95). While this confirms very strong internal consistency, it may also indicate redundancy among items and a high degree of overlap between constructs. Such redundancy can inflate shared variance and contribute to multicollinearity in subsequent regression analyses. Therefore, the measurement strategy should be viewed as a methodological limitation of the study, and future research is encouraged to refine the scales by removing highly similar items and re-examining the dimensionality of the constructs.

#### 4.2. Results of hypotheses tests

The Pearson correlation analysis test the correlation among variables. The result is shown in Table 4.

**Table 4** Correlation Analysis Results

|    | AE              | AS      | SF      | SP      | CS      | MS      |
|----|-----------------|---------|---------|---------|---------|---------|
| AE | Pearson Corr.   | 1       |         |         |         |         |
| AS | Pearson Corr.   | 0.976** | 1       |         |         |         |
|    | Sig. (2-tailed) | 0.000   |         |         |         |         |
| SF | Pearson Corr.   | 0.967** | 0.970** | 1       |         |         |
|    | Sig. (2-tailed) | 0.000   | 0.000   |         |         |         |
| SP | Pearson Corr.   | 0.978** | 0.973** | 0.980** | 1       |         |
|    | Sig. (2-tailed) | 0.000   | 0.000   | 0.000   |         |         |
| CS | Pearson Corr.   | 0.887** | 0.908** | 0.928** | 0.923** | 1       |
|    | Sig. (2-tailed) | 0.000   | 0.000   | 0.000   | 0.000   |         |
| MS | Pearson Corr.   | 0.961** | 0.932** | 0.945** | 0.976** | 0.914** |
|    | Sig. (2-tailed) | 0.000   | 0.000   | 0.000   | 0.000   | 0.000   |

The correlation analysis indicates that, at the 5% significance level and with 95% confidence, all independent variables in the model exhibit statistically significant linear relationships with the dependent variable (AE). Specifically, all  $Sig.$  values are 0.000 ( $< 0.05$ ), and the corresponding Pearson correlation coefficients exceed 0.8, suggesting strong and positive associations between each independent variable and AE. Among these, SP demonstrates the strongest correlation with AE ( $r = 0.978$ ), followed by AS ( $r = 0.976$ ), SF ( $r = 0.967$ ), MS ( $r = 0.961$ ), and CS ( $r = 0.887$ ). These results imply that the model's components are closely linked to accounting effectiveness within the surveyed firms.

To test the hypotheses about the impact of factors affecting the accounting work effectiveness, a linear regression model was built. The final regression model, presented in Table 5, includes four independent variables: AS, SF, CS, and MS. The adjusted  $R^2$  value of 0.777 means that 77.7% of the variation in accounting work effectiveness is



explained by the four independent variables in the final research model. The Durbin-Watson statistic of 1.651 indicates no autocorrelation. The ANOVA test shows the model is statistically significant with  $F = 105.824$  and  $Sig. = 0.000$ .

**Table 5** Summary of multiple regression

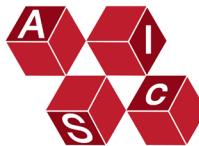
| Predictor             | Unstandardized<br>Coeff. (B) | Std. Error             | Standardized<br>Beta ( $\beta$ ) | t      | Sig.  |
|-----------------------|------------------------------|------------------------|----------------------------------|--------|-------|
| (Constant)            | -0.105                       | 0.059                  |                                  | -1.770 | 0.080 |
| AS                    | 0.652                        | 0.049                  | 0.605                            | 13.215 | 0.000 |
| SF                    | 0.241                        | 0.062                  | 0.228                            | 3.905  | 0.000 |
| CS                    | -0.192                       | 0.034                  | -0.226                           | -5.593 | 0.000 |
| MS                    | 0.397                        | 0.053                  | 0.491                            | 7.534  | 0.000 |
| $R^2 = 0.785$         |                              | Adjusted $R^2 = 0.777$ |                                  |        |       |
| $F = 105.824$         |                              | $Sig. = 0.000$         |                                  |        |       |
| Durbin-Watson = 1.651 |                              |                        |                                  |        |       |

Based on the final regression results presented in Table 5, the *Sig.* values for variables AS, SF, CS, and MS are all 0.000, confirming these four factors have a statistically significant impact on the dependent variable. The multiple regression analysis of the final model confirmed that four proposed factors had a statistically significant impact on accounting work effectiveness. Specifically, AS, SF, and MS showed a positive relationship, while CS had a negative relationship. These findings align with the initial hypotheses. Conversely, the hypothesis regarding support from the software provider (SP) was not supported. This result suggests that in the practical context, support from providers may not be a significant or consistent predictor of accounting effectiveness in the studied context.

The final regression model demonstrates a strong explanatory power, with an adjusted  $R^2$  of 0.777. This means that 77.7% of the variation in accounting work effectiveness through accounting software application at SMEs in Hanoi City is explained by the four independent variables in the model. The remaining 22.3% is attributable to other factors not included in this research. The model is a good fit, as confirmed by a highly significant F-statistic of 105.824 ( $p < 0.001$ ), and no autocorrelation is detected, with a Durbin-Watson statistic of 1.651. Based on the final regression results, the significance values (*Sig.*) for all four variables AS, SF, CS, and MS are 0.000, which is less than the 0.05 threshold. This confirms that these factors have a statistically significant impact on accounting work effectiveness.

The analysis of the coefficients reveals the specific influence of each factor: User Awareness and Skills (AS) has the strongest positive effect ( $\beta = 0.605$ ), confirming it as the most critical driver. Manager Support (MS) also shows a strong positive influence ( $\beta = 0.491$ ), underscoring the importance of leadership. Software Functions (SF) has a positive, though smaller, effect ( $\beta = 0.228$ ). Cost of Software (CS) maintains a significant negative relationship with effectiveness ( $\beta = -0.226$ ). The initial hypothesis regarding Support from the Software Provider (SP) was not supported. This variable was excluded from the final model due to its statistical insignificance ( $p > 0.05$ ). This result suggests that, in the context of this study, vendor support was not a reliable predictor of accounting work effectiveness.

This research proposed an initial model with five independent variables. However, the final validated model comprises four key factors significantly affecting accounting work effectiveness: User awareness and software skills (AS), software functions (SF), cost of software (CS), and manager support (MS). These factors have a linear relationship and significantly affect accounting work effectiveness. Notably, user awareness and software skills has the highest standardized beta coefficient ( $\beta = 0.605$ , *Sig. = 0.000*), indicating it is the strongest influencing factor on accounting effectiveness. This result confirms that proficiency in software operations, understanding of digital accounting processes, and the ability to flexibly apply software in practical work are key factors helping optimize work performance and accounting information quality, consistent with Binh et al. (2020). Manager support with  $\beta$



= 0.491 and Sig. = 0.000, showing the strategic direction and commitment from management significantly influences promoting accounting technology application in the enterprise. Management attention is shown not only through budget allocation but also through organizing training, monitoring implementation, and encouraging innovation in accounting operations, consistent with Bình and Huyền (2016). Software functions has a beta coefficient of 0.228 (Sig. = 0.000) reflecting that when software is designed to be user-friendly and customizable according to business characteristics, it creates favorable conditions for users to operate more accurately and effectively. Notably, cost of software has a negative regression coefficient ( $\beta = -0.226$ , Sig. = 0.000), reflecting that if investment, maintenance, or upgrade costs exceed the enterprise's financial capacity, it creates financial pressure and leads to limited exploitation or delayed software implementation, thereby negatively affecting accounting work effectiveness. Conversely, support from the software provider (SP) was not statistically significant in the final model. This variable was removed due to severe multicollinearity and lack of statistical significance, suggesting that in the practical context of Hanoi's SMEs, support from providers may not meet expectations or be inconsistent, thus not emerging as a reliable predictor of accounting effectiveness.

The research results clarify that the human factor plays a decisive role in the effectiveness of accounting software application. No matter how modern software is, it cannot be effective if users lack appropriate skills, do not understand how to operate it, or do not use its available functions fully. This raises an urgent requirement for investment in training and developing digital capacity for accounting teams at SMEs. Manager support plays a foundational role in creating conditions for effective software implementation. When business leaders care about and commit to digital transformation in accounting, internal policies will be adjusted to encourage software application, thereby spreading positive awareness throughout. The final model, excluding the non-significant provider support variable, provides a more robust and reliable framework for understanding the key drivers of accounting effectiveness in Hanoi's SMEs.

From a theoretical standpoint, the results are consistent with the Resource-Based View (RBV) and the IS Success Model that underpin the research framework. The strong effects of user awareness and skills (AS) and manager support (MS) highlight the central role of firm-specific human and managerial resources as strategic assets that enable SMEs to translate accounting software into superior accounting performance, in line with RBV arguments. At the same time, software functions (SF) and cost considerations (CS) can be interpreted through the IS Success Model: SF reflects system quality and functionality, while AS and MS relate to user involvement and service quality. They contribute to accounting work effectiveness (AE), which represents the net benefits dimension of the model. By empirically confirming these relationships in the context of Hanoi's SMEs, the study enriches the theoretical understanding of how organizational, human, and technical resources interact to shape accounting outcomes in a digital transformation context.

## 5. Conclusion

This study identified and quantified four key factors influencing the effectiveness of accounting work through software application in Hanoi's SMEs: user perception and skills, software functions, cost of software, and support from leadership. The final model confirms that the human factor, especially user skills and awareness, plays the most critical role in determining how effectively accounting software is used. Leadership commitment is also essential for creating an enabling environment for digital transformation, while software functions contribute to the accuracy, timeliness, and usefulness of accounting information. In contrast, the cost of software has a negative impact, and support from software vendors was found to be statistically insignificant and was excluded from the final model, suggesting inconsistency or inadequacy in after-sales services.

On the practical side, the findings imply that SMEs should adopt more concrete actions to improve the effectiveness of accounting software use. First, businesses should invest systematically in user training, including initial training when the software is implemented and regular refresher courses when new functions or regulatory changes arise. This can be done through in-house training programs, collaboration with software providers, or external professional courses focusing on both technical skills and understanding of digital accounting processes. Second, managers should demonstrate strong and visible support by allocating sufficient budget for software acquisition,



maintenance, and upgrades; establishing internal policies that encourage the use of advanced software functions rather than relying only on basic features; and integrating software-based information into performance evaluation and decision-making processes. Third, SMEs should carefully select software solutions that match their size, industry characteristics, and financial capacity, preferably opting for scalable and modular systems that allow gradual expansion without creating excessive financial pressure.

For software providers, the results highlight the need to improve the quality and consistency of technical support and after-sales services so that their role becomes more meaningful in enhancing accounting work effectiveness. Providers should develop clear service-level commitments, such as response time standards, and diversify support channels (hotlines, online support, user portals) to assist SMEs in a timely manner. In addition, they should offer practical training materials tailored to SMEs, including user manuals, video tutorials, and hands-on workshops, to help accountants fully exploit the available functions. Regular updates should not only focus on technical improvements but also align with changes in tax and accounting regulations, accompanied by guidance on how to apply new features in daily work. By strengthening these aspects, software providers can contribute more effectively to the success of accounting software implementation in SMEs.

Overall, the study underscores that optimizing accounting work effectiveness in Hanoi's SMEs requires coordinated efforts from both businesses and software providers. SMEs need to build internal capacities in human resources and management support, while providers must enhance their technical support and training services. These actions can help ensure that investments in accounting software translate into tangible improvements in accounting performance and support the broader digital transformation of SMEs.

## References

Ahmad, M. A., & Al-Shbriel, S. O. (2019). The effect of accounting information system on organizational performance in Jordanian industrial SMEs: The mediating role of knowledge management. *International Journal of Business and Social Science*, 10(3), 99-104.

Binh, V. T. T., & Huong, H. T. (2017). *Improving Accounting Information System to promote tourism firms in sustainable development conditions in Vietnam*. Paper presented at the International conference on tourism in Vietnam: Tourism beyond borders, National Economics University: Hanoi.

Bình, V. T. T., & Huyền, C. T. (2016). Nghiên cứu các nhân tố ảnh hưởng đến hiệu quả của hệ thống thông tin kế toán trong các doanh nghiệp trên địa bàn Hà Nội [A study of factors influencing the effectiveness of accounting information systems: context of enterprises in Hanoi]. *Tạp chí Khoa học & công nghệ - Trường Đại học Công Nghiệp Hà Nội*, 34.2016, 91-98.

Binh, V. T. T., Tran, N.-M., Thanh, D. M., & Nga, N. T. H. (2020). Impact of accountant resource on quality of accounting information system: Evidence from Vietnamese small and medium enterprises. *ACRN Journal of Finance and Risk Perspectives*, 9, 1-14. doi:<https://doi.org/10.35944/jofrp.2020.9.1.001>

Binh, V. T. T., Tran, N.-M., & Vu, M.-C. (2022). The Effect of Organizational Culture on the Quality of Accounting Information Systems: Evidence From Vietnam. *SAGE Open*, 12(3), 1-12. doi:<https://doi.org/10.1177/21582440221121599>

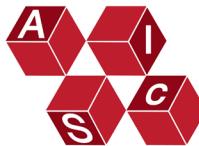
Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340. doi:<https://doi.org/10.2307/249008>

Delone, W. H., & McLean, E. R. (2003). The DeLone and McLean Model of Information Systems Success: A Ten-Year Update. *Journal of Management Information Systems*, 19(4), 9-30. doi:<https://doi.org/10.1080/07421222.2003.11045748>

Duẩn, N. D., & Hùng, T. N. (2024). Sử dụng dịch vụ kế toán trực tuyến tại các doanh nghiệp nhỏ và vừa—Nghiên cứu thực nghiệm tại các tỉnh phía Nam [Utilizing Online Accounting Services in SMEs - An Empirical Study in the Southern Provinces of Vietnam]. *Tạp chí Kinh tế và Phát triển*, 321(2), 90-99.

Hải, N. V., Thanh, T. D., Sơn, L. H., Quang, L. H., & Long, N. T. (2024). Factors affecting the quality of accounting information systems in small and medium enterprises in Nghe An province. *Tạp chí Kinh tế và Dự báo online*.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate Data Analysis: 7th Edition*. Essex: Pearson Education Limited.



Hang, N. T. T., Vu, T. H., Tran, Q. T., Vu, M. C., & Nguyen, T. H. N. (2020). Factors Affecting the Capacity of Accounting Software in Controlling Frauds and Errors in Small and Medium Enterprises (Smes): A Case Study of SMEs in Hanoi, Vietnam. *Vietnam Journal of Agricultural Sciences*, 3(3), 746–755. doi:<https://doi.org/10.31817/vjas.2020.3.3.08>

MPI. (2017). *Sách trắng: Doanh nghiệp nhỏ và vừa Việt Nam*. General Statistics Office of Vietnam.

Ngo, D. T. (2023). Factors Influencing Accounting Information Systems in Small and Medium Enterprises: The Case in Hanoi, Vietnam. *International Journal of Professional Business Review*, 8(6), e02411. doi:<https://doi.org/10.26668/businessreview/2023.v8i6.2411>

Nguyễn, T. Q. (2018). *Các nhân tố ảnh hưởng đến sự lựa chọn phần mềm kế toán của các doanh nghiệp xây lắp trên địa bàn Tp. Hồ Chí Minh*. [Master thesis, University of Economics Ho Chi Minh City].

Petter, S., DeLone, W. H., & McLean, E. R. (2013). Information systems success: The quest for the independent variables. *Journal of Management Information Systems*, 29(4), 7-62. doi:<https://doi.org/10.2753/MIS0742-1222290401>

Phan, T. H., & Nguyễn, T. M. Â. (2023). Giải pháp nâng cao hiệu quả sử dụng phần mềm kế toán tại các doanh nghiệp tỉnh Trà Vinh [Solutions for improving the efficiency of using accounting software in businesses located in Tra Vinh province]. *Tạp chí Công Thương*. <https://ojs.tapchicongthuong.vn/vi/ojs-post/giai-phap-nang-cao-hieu-qua-su-dung-phan-mem-ke-toan-taicac-doanh-nghiep-tinh-tra-vinh-72067.htm>

Phương, V. T. M., Ngọc, B. L., Mai, N. Q., & Nữ, N. N. (2023). Các nhân tố tác động đến quyết định lựa chọn phần mềm kế toán của các doanh nghiệp kinh doanh dịch vụ tại miền Bắc. *Tạp chí Kinh tế và Dự báo*, 9, 109-112.

Rom, A., & Rohde, C. (2007). Management accounting and integrated information systems: A literature review. *International Journal of Accounting Information Systems*, 8(1), 40-68.

Susanto, A., & Meiryani, M. (2019). Antecedents of environmental management accounting and environmental performance: Evidence from Indonesian small and medium enterprises. *International Journal of Energy Economics and Policy*, 9(6), 401-407.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, 27(3), 425-478. doi:<https://doi.org/10.2307/30036540>

Vial, G. (2021). Understanding digital transformation: A review and a research agenda. In A. Hinterhuber, T. Vescovi, & F. Checchinato (Eds.), *Managing Digital Transformation* (1st ed.). London: Routledge.