

Impact of Trained Human Resources, Adoption of Technology and International Standards on the Improvement of Accounting and Auditing Activities in the Agricultural Sector in Viet Nam

Nguyen Van Hoa

University of Kinh Bac (UKB), Bac Ninh, Viet Nam
Email: nvhoacva@gmail.com

Nguyen Thi Hanh Duyen *

Vinh University, Vinh City, Viet Nam
Email: duyenktdhv@gmail.com

Vu Ngoc Huyen

Viet Nam National University of Agriculture (VNUA), Ha Noi, Viet Nam
Email: vnhuyen@vnu.edu.vn

Hoang Vu Quang

Researcher at Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD), Ha Noi, Viet Nam
Email: hoangvuquang@hotmail.com

Nguyen Van Huong

Hung Yen University of Technology and Education (UTEHY), Hung Yen, Viet Nam
Email: vanhuong75hy@gmail.com

Nguyen Thi Cam Tu

National Economics University (NEU), Ha Noi, Viet Nam
Email: camtunguyen238@gmail.com

Bui Thi Minh Nguyet

Vietnam National University of Forestry (VNUF), Xuan Mai, Ha Noi, Vietnam
Email: minhnnguyetfuv@gmail.com

* correspondence: Nguyen Thi Hanh Duyen

Email: duyenktdhv@gmail.com

Recently, the adoption of accounting and auditing standards in the agricultural sector has been a global phenomenon that has gained increasing trend due to the significant role of the agricultural industry in the country's economy. Thus, the present study examines the impact of trained human resources, technology adoption, and international standards on improving accounting and auditing activities in the agricultural sector in Vietnam. The present research investigates the moderating impact of agricultural, institutional support among the linkage of trained human resources, technology adoption, international standards, and improvement of accounting and auditing activities in the agricultural sector. The present article has adopted the questionnaires to gather the primary data from selected respondents. The current research has applied the smart-PLS to test the study's hypotheses. The results revealed that trained human resources, technology adoption, and international standards positively impact the improvement of accounting and auditing activities in the agricultural sector. The findings also indicated that the agricultural institutional support significantly moderates the linkage of trained human resources, technology adoption, international standards, and improved accounting and auditing activities in the agricultural sector.

Key words: Trained human resource, agricultural, institutional support, adoption of technology, adoption of international standards, the agricultural sector

1. INTRODUCTION

If organisations maintain their accounts following generally accepted accounting principles, they can quickly analyse their performance and compare peer-to-peer. This is critical to developing and maintaining a positive reputation with stakeholders such as competitors, vendors, and investors (Hall, Hoogduin, Pierce, & Tsay). The financial situation of businesses dictates the amount of credit they can obtain, at what interest rate, etc. People who will bind in a contract with the firms for some investment, credit, or selling/ buying purposes will clearly understand the opportunities and risks that your firms may present. When it comes time to pay your taxes, file your returns, and claim deductions, keeping track of the firms' accounts will come in handy (Juric, O'Connell, Rankin, & Birt, 2018). Accounting is a broad topic that encompasses a variety of different specialisation areas. Auditing is one of these specialised disciplines. While accounting is concerned with the tracking, recording, and documentation of financial transactions, auditing is concerned with the accuracy of the accounts. In many ways, auditing drives the integrity of a firms' entire accounting system. Even if

firms are non-profit or public, annual financial statement auditing is essential. This will give firms accuracy more credibility. Even if auditing isn't required, it's good to have it in place (Chien, Hsu, Zhang, Vu, & Nawaz, 2021; Wang, 2019).

When there are discrepancies or inaccuracies in a firm's financial statements, auditing becomes even more apparent. An auditor can assist management in identifying issues with bookkeeping that is out of date or out of order. If details are discovered that, indicate the existence of fraud or misconduct, the services of a forensic auditor are recommended. Even within the auditing area, a speciality deals with instances that are on the verge of being illegal (Liu, Lan, Chien, Sadiq, & Nawaz, 2022; noshfar, Mohseni, & Ghasemi, 2022).

The efficiency of the accounting and auditing efficiency depends on the ability of human resources, technology adoption, and application of international accounting standards. If the human resources are trained well for accountancy or handling financial matters, the accounting and auditing activities can be facilitated and improved (Qader et al., 2021; Sun et al., 2021). Accounting and

auditing functions can be carried out manually or through technological systems. Numerous technologies are available on the market and are primarily utilised in accounting and auditing procedures to track, record, and analyse financial operations and other business-related activities. These technologies allow businesses to enhance their accounting and auditing functions. (Magablih, 2018). International accounting standards have been presented as internationally defined and admissible principles and standards according to which accounting practices must be performed. The application of international accounting standards helps attain improvement in accounting and auditing activities.

The present study examines the influences of trained human resources, technology adoption, international accounting standards, and agricultural institutional support on improving accounting and auditing activities in Vietnam. Vietnam is a developing lower-middle-income economy with a GDP growth rate estimated to be \$404.105 billion in 2022. Agriculture is the country's significant economic sector, which contributes to the country's GDP at 18% rate. Agriculture employs 43 per cent of Vietnam's 92 million people, making it the country's largest employer ahead of services and industry (Velte, 2019). Agricultural input providers, farmer-producers, processor-distributors, and retailers are the four primary market entities in the agribusiness sub-sector. Each of these businesses makes a unique contribution to the overall success of the agricultural system. The firms dealing in agriculture with its sub-sectors record their financial transactions through a proper strategy, intending to maintain a summarized statement that can present its economic strength in short in a single. Preparing these records gives an overall view of the firms' risks and opportunities. Many agricultural firms are still involved in following manual ways of accountancy and auditing, and traditional manual ways include the use of paper & pen and man's intellect (Le et al., 2022).

Accounting and auditing technologies are being used in a few agricultural enterprises, although they are being implemented in a limited number of firms. (Ha, Nguyen, Nguyen, & Do, 2020). Agriculture is a significant economic sector in Vietnam, although the country lacks an accounting standard that defines basic accounting concepts in specialized agriculture, such as cultivation, and agricultural accounting standards are sparse and general. Vietnam is preparing to implement the International Financial Reporting Standards (IFRS), which necessitates the establishment of a Vietnam Accounting Standard for Agriculture. To increase the transparency and comparability of accounting data, VAS on agricultural should be based on the concepts and principles of International Accounting Standards (IAS), hence boosting the economy's competitiveness. (Doan et al., 2022).

Vietnam's agriculture sector is one of the progressive economic sectors, but its contribution to the country's growth is limited because of the limited investment in this sector. The accounting and auditing accuracy and

transparency could enhance the investment in this sector (Tran, Ha, Le, & Nguyen, 2019). The study's objective is to explore the role of trained human resources, technology adoption, international accounting standards, and improvement of accounting and auditing activities. It also aimed to identify the moderating influences of agricultural institutional support on the nexus between trained human resources, technology adoption, international accounting standards, agricultural institutional support, and improvement of accounting and auditing activities. This study makes a great addition to the literature. 1) This study aims to address efficiency in accounting and auditing practices quite the opposite of previous studies that have addressed accounting or auditing practices. 2) The prior studies have analyzed the impacts of trained human resources, technology adoption, international accounting standards, and the improvement of accounting and auditing activities in separate times. The present article adds to the literature with the simultaneous study of trained human resources, technology adoption, and international accounting standards that impact the improvement of accounting and auditing activities. 3) This study first addresses the agricultural institutional support as a moderator between the factors mentioned above and improving accounting and auditing activities.

The remaining portion of the study has the following parts. The next part highlights literary arguments about the relationship between trained human resources, technology adoption, international accounting standards, and agricultural institutional support to improve accounting and auditing activities. The third section describes the approach used to gather data and analyse the validity of the variables chosen and their relationship. The study's findings are then compared to those of previous research to determine their validity.

2. LITERATURE REVIEW

Business firms need to maintain their reputation in society and the market for several reasons encouraging investment by attracting investors, retaining the marketing of goods and services, winning the heat of the general public, and support from corporate regulators and government. The legitimacy of the accounts prepared and their reputation and goodwill determine the auditing effectiveness of the firms. However, advancements in accounting and auditing methods are contingent upon the performance of human resources and the implementation of modern technologies. (McCarthy, Kusaila, & Grasso, 2019). The adoption of international accounting standards and agriculture institution support also plays a significant role in determining the accuracy of account and auditing practices. The role of trained human resources, adoption of technology, and adoption of international accounting standards, in the improvement of accounting and auditing activities, has been addressed in many studies. Some of these studies are cited below for establishing hypotheses.

Sumaryati, Praptika, and Machmuddah (2020) examine the influences of trained human resources on improving

accounting and auditing practices. Accountants and auditors must be skilled in their work, whether they use manual processes or electronic recording and processing accounting and auditing operations. Proficient accountants and auditors can be developed when human resource management offers training sessions for their staff in their specialized field. According to the findings, technology adoption positively impacts accounting and auditing activities. Through empirical research [Yen, Thuy, Tien, and Anh \(2019\)](#) identify the effects of trained human resources on accounting and auditing efficiency. In the modern era, accounting and auditing practices must be performed by applying technological processes or technologies. For running these technologies and technologies, special expertise is needed. The trained human resources have this special expertise and can manage the accounting and auditing departments. [Tien, Thuong, and Yen \(2019\)](#), compare the human resources, which are given periodical training classes and the human resources without the training in accounting and auditing processes. The study concludes that human resources who are trained for their respective roles in accounting and auditing departments contribute significantly to the improvement of accounting and auditing operations. On the basis of the foregoing explanation, we can conclude:

H1: Trained human resources positively impact the improvement of accounting and auditing activities.

[Bonsón and Bednárová \(2019\)](#) investigated the impacts of blockchain technology on improvement in accounting and auditing. The authors collected data by reviewing the literature on the blockchain revolution in accountancy. Blockchain technology has the characteristics of decentralization and transparency. The use of blockchain technology to record and store data about the business transactions distributes the data from the central authority to the overall network. The management at the different chain nodes can look at the data, track the changes, and take action. This forces transparency in accounts preparation and contributes to the improvement in auditing of the accounts. Hence, adopting innovative technology assures improvement in accounting and auditing activities. [Schmitz and Leoni \(2019\)](#) conduct empirical research to determine the impact of technology adoption on accounting and auditing tasks. Adopting the innovative technology recording, processing, and communicating the data about the business financial transactions reduces accounting errors such as data entry errors, omission errors, commission, transposition errors, compensating errors, duplication errors, and errors of entry reversal. The reduction of accounting errors improves the credibility of accounts and facilitates the undertaking of auditing practices. So,

H2: Adoption of technology positively impacts the improvement of accounting and auditing activities.

[Malo-Alain, Aldoseri, and Melegy \(2021\)](#) conducted a piece of literature to investigate international standards for accounting impacts on the efficiency of accounting and

auditing activities. The authors took international financial reporting standards (IFRS) as the proxy of international accounting standards. They examined the impacts of IFRS on accounting and auditing practices for two periods: the time during the year 2016 and the period from 2017 to 2018. The study implies that universally defined and accepted principles make it easy for the accounts officers to correctly understand and record financial transactions. Additionally, when IFRS, or international accounting standards, are followed within a country, even outsiders understand which principles were applied to each entry and how to verify the accounts' correctness. This increases auditing efficiency. [El-Helaly, Ntim, and Soliman \(2020\)](#) investigate the International Financial Reporting Standards, or IFRS, and their contribution to the advancement of accounting and auditing standards. The data regarding the IFRS's contribution to the improvement in accounting and auditing standards were collected from interviews and secondary sources, focusing on the activities of issuing financial statements. The finds that the implementation of IFRS meets the corporate governance principles of responsibility, accountability, and transparency. So, with adoption of IFRS accounting practices can be improved and it makes easy to conduct a successful audit for the firm. Hence:

H3: Adoption of international accounting standards positively impacts improving accounting and auditing activities.

In an academic article, [Agyemang, Acheampong, and Akenten \(2018\)](#) present their views about the relationship between agricultural institution support, trained human resources, and improvement of accounting and auditing activities. The study implies that in the country where the government considers the significance of the agriculture sector for sustainable economic development and provides support in all possible ways, it takes care of the employees' proficiency in the agricultural firms. Thus, the agricultural institution's support maintains the training of human resources. Proper training prepares employees to perform business practises efficiently, and individuals responsible for accounting and auditing business deals can operate more effectively inside the organisations after being trained. [Aggarwal and Verma \(2020\)](#), wrote about the relation between agricultural institutional support, trained human resources and improvement of accounting and auditing activities. They believe that the agriculture institutions support through economic incentives to the agricultural firms, encouraging them to bring improvement in the human resources management. With sufficient financial resources, frequent training sessions on innovation adoption can be conducted. Accountants and auditors who have received training are better equipped to follow business operations, properly record them, analyse financial statements, and detect risk or fraud. On the basis of the foregoing talks, the following can be hypothesised:

H4: Agricultural institutional support is a moderator between trained human resources and accounting and

auditing activities improvement.

A study was conducted by [Maffei, Casciello, and Meucci \(2021\)](#) to investigate the agricultural institutional support, adoption of technology and improvement of accounting and auditing activities. The study implies that when the agricultural institutions are permitted by local government, they are facilitated in getting awareness of change in different technologies and acquiring innovative technologies from the national or international market. The widespread understanding and adoption of innovative technologies have revolutionised business procedures in the modern world, including accounting and auditing activities primarily dependent on digital technologies. As a result of agriculture institution support, the technology adoption improves the accounting and auditing practices within the firm. The study of [Desplebin, Lux, and Petit \(2021\)](#) throw light on the interrelationship between agricultural institutional support, adoption of technology and improvement of accounting and auditing activities. Agricultural firms' economic, social, and moral support motivates them to adopt innovative technology and technological processes.

Similarly, agricultural enterprises must maintain correct records to provide precise and reliable information about their business activities, resources, and dealings with others. Thus, farm institution support facilitates the adoption of new technologies and the improvement of accounting and auditing standards. As a result, we may speculate:

H5: Agricultural, institutional support modifies the adoption of technology and the improvement of accounting and auditing activities.

[Maradona and Chand \(2018\)](#) discuss the relationship between agricultural, institutional assistance, international accounting standards adoption, and accounting and auditing activity improvement. They proclaim that the when some other entities like the local or national government, corporate agencies, and significant economic authorities provide support to the agriculture sector to boost this sector, they are more likely to make the international accounting standards implemented in the agricultural firm for thus, they can easily understand the business practices, its dealings contracts, plans, risks, and opportunities. Additionally, supportive authorities monitor the firms' financial management and internal auditing. If they discover any difficulties, they attempt to resolve them, thereby improving accounting and auditing performance. Thus, agricultural institutional support enhances the contribution of the adoption of international accounting standards to the improvement of accounting and auditing activities. The literary article of [Kamla and Haque \(2019\)](#) explains that when agriculture sector institutions are assisted in incorporating innovation into their resources or processes, they can improve their accounting and auditing departments and practices. As a result, adopting

international accounting standards is simple, and accounting and auditing methods improve. [Bananuka, Kadaali, Mukyala, Muramuzi, and Namusobya \(2019\)](#), also proclaim that agricultural institution support assists the adoption of international accounting standards, and the improvement of accounting and auditing activities improves their relation. Hence:

H6: Adoption of international accounting standards and improving accounting and auditing activities.

3. RESEARCH METHODS

The study examines the impact of trained human resources, technology adoption, and adoption of international standards on the development of accounting and auditing activities in the agricultural sector, as well as the moderating effect of agricultural institutional support on the relationship between trained human resources, technology adoption, and adoption of international standards. The current article used questionnaires to elicit primary data from a sample of respondents. The employees of the accounting and auditing department of the agricultural sector are the respondents of the study. These respondents have been selected using simple random sampling. The researchers have used personal visits and emails to distribute the questionnaires to the respondents. The researchers have distributed around 522 surveys and returned only 293 surveys representing approximately 56.13 per cent response rate.

The current research has applied the smart-PLS to test the study's hypotheses. The smart-PLS is a suitable statistical tool for primary data analysis ([Hair et al., 2021](#)). It also operates effectively even if researchers have used large data sets or complex models ([Hair, Risher, Sarstedt, & Ringle, 2019](#)). In addition, three predictors have been taken as trained human resource (THR) with five items adapted from [Alshammari \(2020\)](#), adoption of technology (AT) with six items and extracted from [Shukla and Sharma \(2018\)](#) and adoption of international standards (AIS) with eight items taken from [Suryanto and Komalasari \(2019\)](#). Moreover, agricultural institutional support (AGIS) has been the moderating construct with six items from [Falahat, Lee, Ramayah, and Soto-Acosta \(2020\)](#). Finally, improved accounting and auditing activities (IAAA) have been used as the predictive variable taken from [Maffei et al. \(2021\)](#). These variables are presented in Figure 1.

4. RESEARCH FINDINGS

The present research has examined the correlation of the items using average variance extracted (AVE), and figures indicated that the values are higher than 0.50 and indicate valid convergent validity. In addition, factor loadings values are higher than 0.50, which exposed valid content validity. Finally, Alpha values are more significant than 0.70, and composite reliability (CR) values are also larger than 0.70, indicating significant reliability. Table 1 shows these figures.

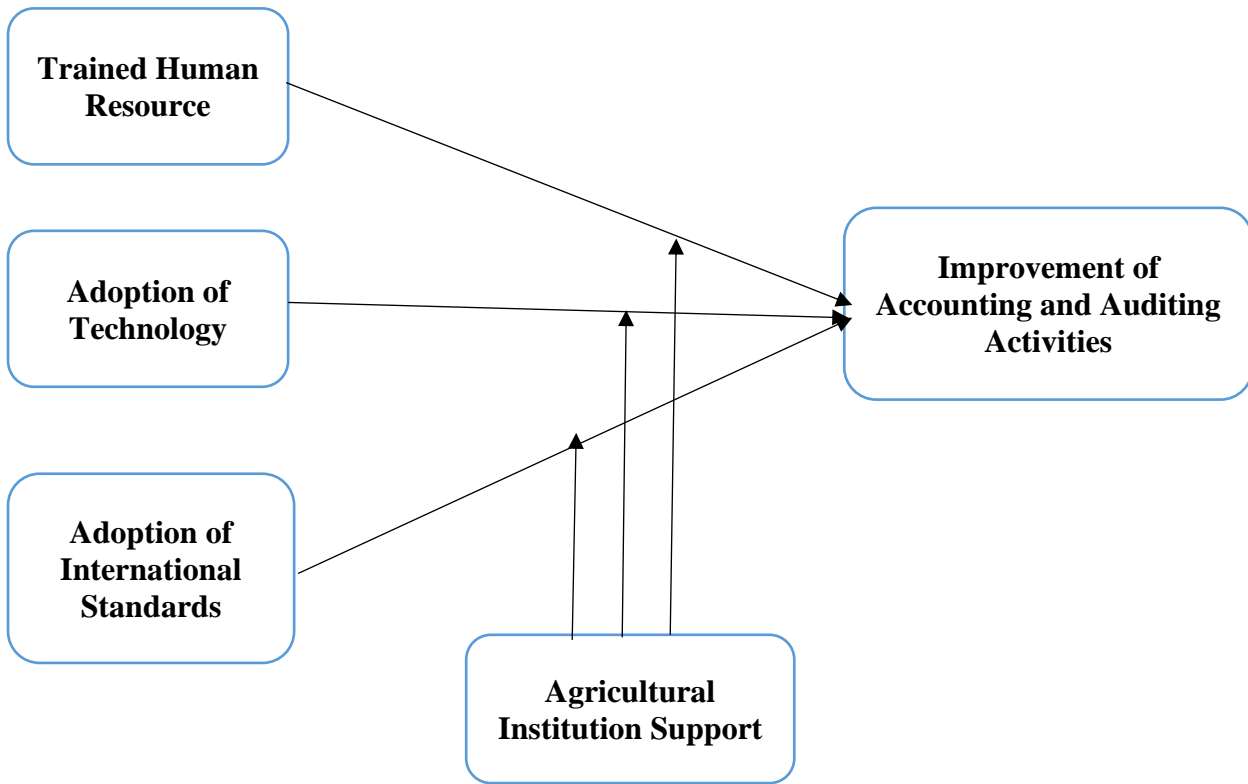


Figure 1: Research Model

Table 1: Convergent Validity

| Constructs | Items | Loadings | Alpha | CR | AVE |
|---|-------------------------------------|----------|-------|-------|-------|
| Agricultural Institutional Support | AGIS1 | 0.937 | 0.944 | 0.958 | 0.820 |
| | AGIS2 | 0.857 | | | |
| | AGIS4 | 0.935 | | | |
| | AGIS5 | 0.938 | | | |
| | AGIS6 | 0.856 | | | |
| | Adoption of International Standards | AIS1 | | | |
| AIS2 | 0.946 | | | | |
| AIS3 | 0.935 | | | | |
| AIS4 | 0.941 | | | | |
| AIS6 | 0.944 | | | | |
| AIS7 | 0.901 | | | | |
| AIS8 | 0.936 | | | | |
| Adoption of Technology | AT1 | 0.836 | 0.893 | 0.919 | 0.655 |
| AT2 | 0.853 | | | | |
| AT3 | 0.705 | | | | |
| AT4 | 0.760 | | | | |
| AT5 | 0.837 | | | | |
| AT6 | 0.853 | | | | |
| Improvement of Accounting and Auditing Activities | IAAA1 | 0.822 | 0.827 | 0.879 | 0.594 |
| | IAAA2 | 0.818 | | | |
| | IAAA3 | 0.842 | | | |
| | IAAA4 | 0.651 | | | |
| | IAAA5 | 0.701 | | | |
| Trained Human Resource | THR1 | 0.864 | 0.899 | 0.929 | 0.766 |
| | THR3 | 0.876 | | | |
| | THR4 | 0.882 | | | |
| | THR5 | 0.880 | | | |
| | | | | | |

The present research has also examined the variables' correlation using Fornell Larcker, and figures indicated that the values that show the association with the variable itself are higher than the values that show the association with other variables. These outcomes exposed valid discriminant validity. Table 2 shows these figures.

The present research has also examined the variables' correlation using cross-loadings, and figures indicated that the values that show the association with the variable itself are higher than the values that show the association with other variables. These outcomes exposed valid discriminant validity. Table 3 shows these figures.

The present research has also examined the correlation of the variables using the Fornell Larcker Heterotrait Monotrait (HTMT) ratio, and figures indicated that the values are lower than 0.90. These outcomes exposed valid

discriminant validity. Table 4 shows these figures.

Table 3: Cross-Loadings

| | AGIS | AIS | AT | IAAA | THR |
|-------|--------------|--------------|--------------|--------------|--------------|
| AGIS1 | 0.937 | 0.457 | 0.765 | 0.456 | 0.322 |
| AGIS2 | 0.857 | 0.442 | 0.719 | 0.451 | 0.373 |
| AGIS4 | 0.935 | 0.460 | 0.758 | 0.456 | 0.324 |
| AGIS5 | 0.938 | 0.461 | 0.773 | 0.444 | 0.324 |
| AGIS6 | 0.856 | 0.444 | 0.717 | 0.447 | 0.374 |
| AIS1 | 0.467 | 0.930 | 0.455 | 0.446 | 0.380 |
| AIS2 | 0.461 | 0.946 | 0.471 | 0.467 | 0.400 |
| AIS3 | 0.454 | 0.935 | 0.475 | 0.448 | 0.407 |
| AIS4 | 0.475 | 0.941 | 0.462 | 0.459 | 0.376 |
| AIS6 | 0.466 | 0.944 | 0.468 | 0.468 | 0.396 |
| AIS7 | 0.473 | 0.901 | 0.446 | 0.495 | 0.354 |
| AIS8 | 0.471 | 0.936 | 0.455 | 0.458 | 0.376 |
| AT1 | 0.662 | 0.388 | 0.836 | 0.409 | 0.330 |
| AT2 | 0.732 | 0.450 | 0.853 | 0.449 | 0.351 |
| AT3 | 0.541 | 0.317 | 0.705 | 0.391 | 0.329 |
| AT4 | 0.670 | 0.398 | 0.760 | 0.380 | 0.348 |
| AT5 | 0.661 | 0.382 | 0.837 | 0.406 | 0.332 |
| AT6 | 0.726 | 0.455 | 0.853 | 0.450 | 0.360 |
| IAAA1 | 0.491 | 0.397 | 0.455 | 0.822 | 0.327 |
| IAAA2 | 0.450 | 0.426 | 0.460 | 0.818 | 0.359 |
| IAAA3 | 0.389 | 0.398 | 0.447 | 0.842 | 0.319 |
| IAAA4 | 0.285 | 0.354 | 0.305 | 0.651 | 0.185 |
| IAAA5 | 0.248 | 0.330 | 0.261 | 0.701 | 0.242 |
| THR1 | 0.299 | 0.354 | 0.309 | 0.323 | 0.864 |
| THR3 | 0.347 | 0.357 | 0.389 | 0.328 | 0.876 |
| THR4 | 0.312 | 0.351 | 0.373 | 0.309 | 0.882 |
| THR5 | 0.365 | 0.375 | 0.403 | 0.368 | 0.880 |

Table 4: Heterotrait Monotrait Ratio

| | AGIS | AIS | AT | IAAA | THR |
|------|-------------|------------|-----------|-------------|------------|
| AGIS | | | | | |
| AIS | 0.521 | | | | |
| AT | 0.697 | 0.528 | | | |
| IAAA | 0.548 | 0.551 | 0.582 | | |
| THR | 0.410 | 0.439 | 0.471 | 0.430 | |

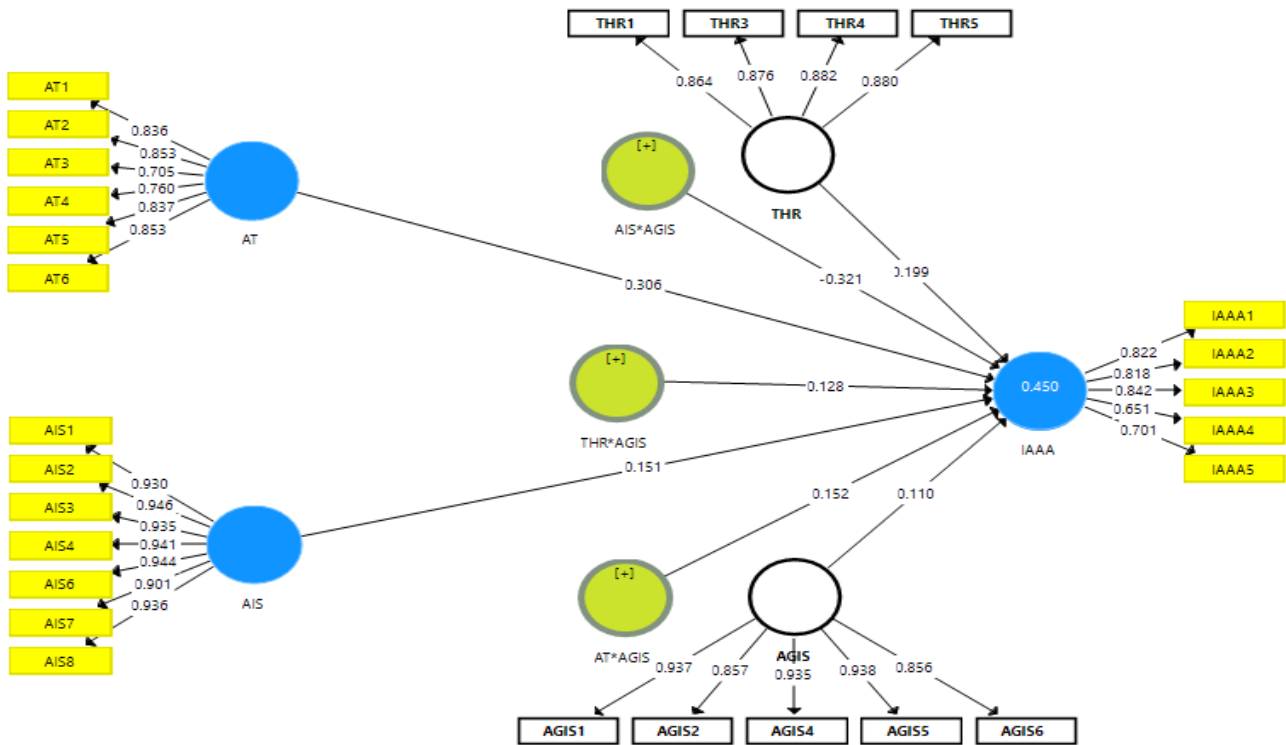


Figure 2: Measurement model assessment

The results revealed that trained human resources, adoption of technology and adoption, and international standards positively impact and international standards positively impact the improvement of accounting and auditing activities in the agricultural sector and accept H1, H2 and H3. The

findings also indicated that the agricultural institutional support significantly moderates among the linkage of trained human resources, technology adoption, international standards, and improvement of accounting and auditing activities in the agricultural sector and accepts H4, H5 and H6. Table 5 shows these figures.

Table 5: A Path Analysis

| Relationships | Beta | S.D. | T Statistics | P Values | L.L. | U.L. |
|------------------|--------|-------|--------------|----------|--------|--------|
| AIS -> IAAA | 0.151 | 0.070 | 2.175 | 0.016 | 0.007 | 0.248 |
| AIS*AGIS -> IAAA | -0.321 | 0.060 | 5.348 | 0.000 | -0.428 | -0.240 |
| AT -> IAAA | 0.306 | 0.105 | 2.908 | 0.002 | 0.130 | 0.454 |
| AT*AGIS -> IAAA | 0.152 | 0.081 | 1.883 | 0.031 | 0.016 | 0.289 |
| THR -> IAAA | 0.199 | 0.065 | 3.038 | 0.002 | 0.100 | 0.304 |
| THR*AGIS -> IAAA | 0.128 | 0.065 | 1.983 | 0.025 | 0.039 | 0.239 |

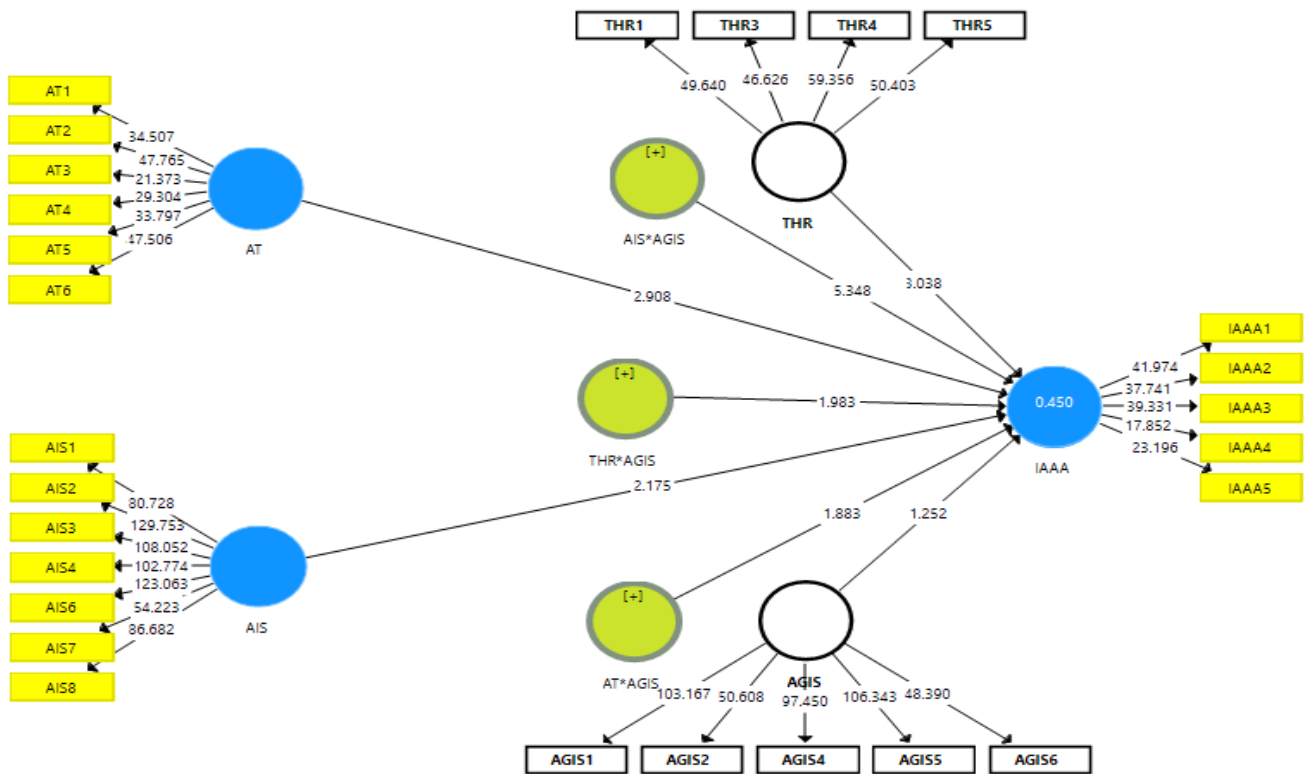


Figure 3: Structural Model Assessment

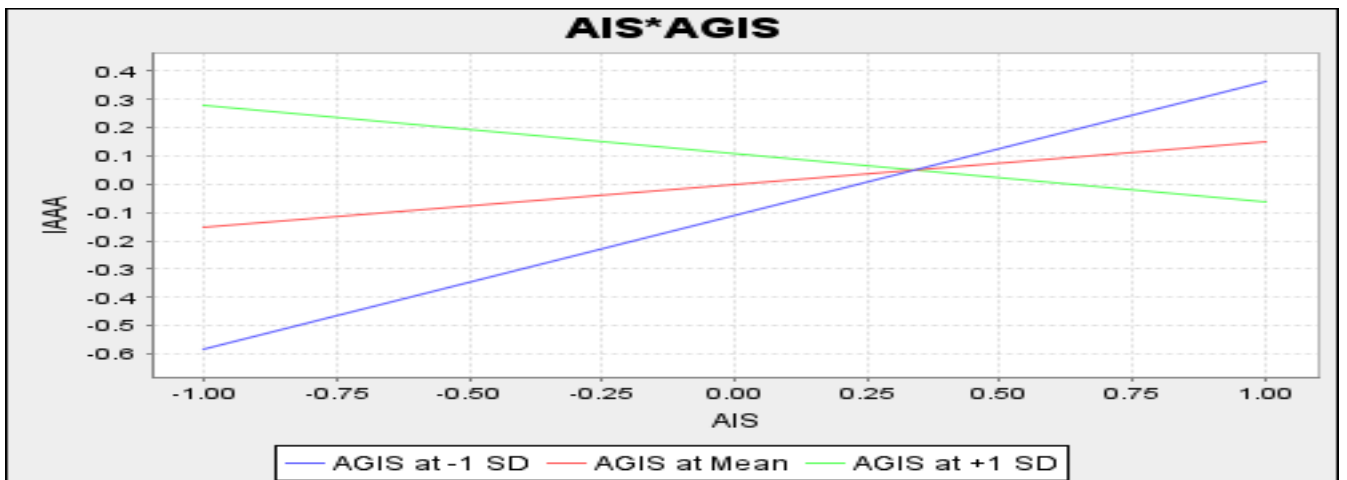


Figure 4: AIS*AGIS

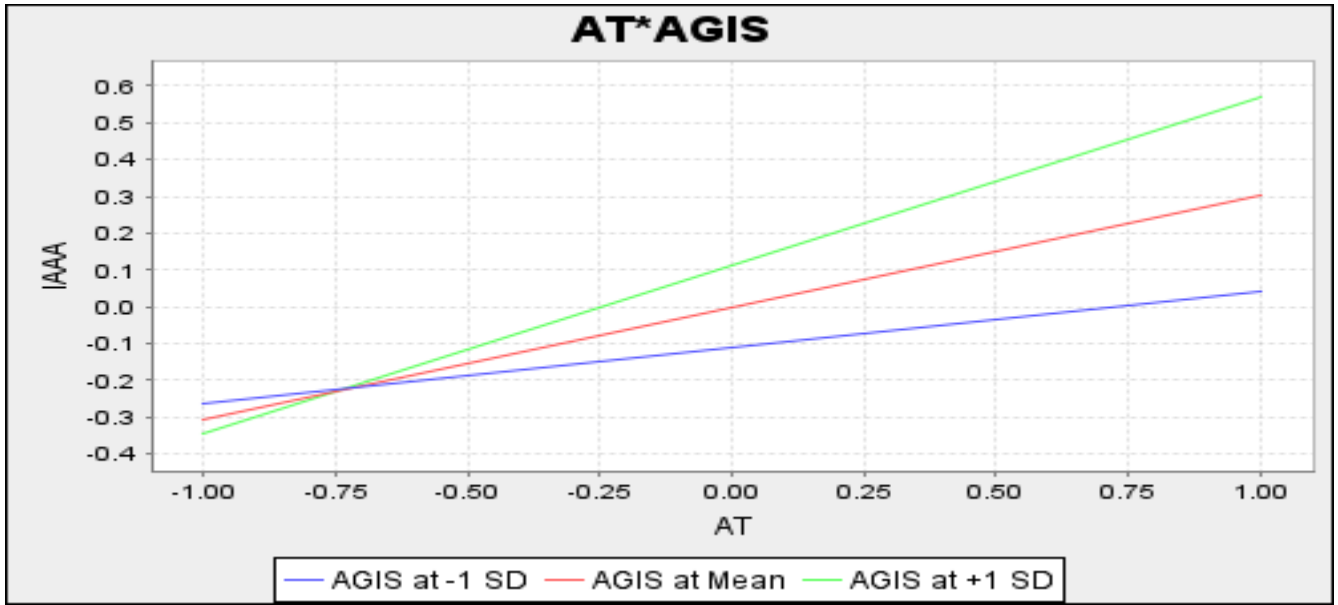


Figure 5: AT*AGIS

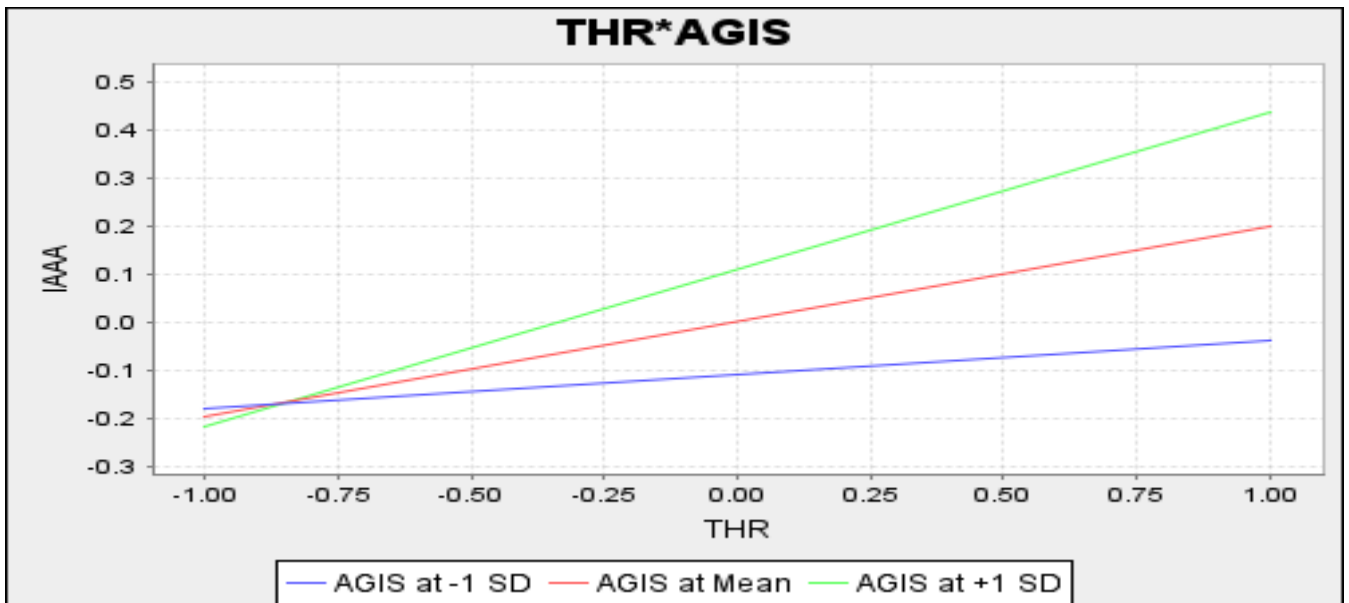


Figure 6: THR*AGIS

5. DISCUSSIONS

The results showed that trained human resources positively impact the improvement of accounting and auditing activities. These results are supported by [Alawi and Belfaqih \(2019\)](#), which examines how professional human resources effectively improve accounting and auditing activities within a firm. The study reveals that accounting and auditing contain technical practices maintained to learn the true nature of business transactions and determine firms' financial position and credibility. Human resources trained to perform these technical practices improve the accounting and auditing processes. These results are also supported by [Aryanti and Adhariani \(2020\)](#), which highlight that whether the business firms apply manual processes or technological ways of recording and

processing the accounting and auditing practices, the accountants and auditors must be proficient in their work. When human resource management organises training sessions for their staff, proficient accountants and auditors can be generated. The findings suggested that technology adoption has a beneficial effect on the improvement of accounting and auditing activities. These findings corroborate [Pimentel and Boulianne's \(2020\)](#) assertion that embracing technologies such as big data, data science, robotic process automation, machine learning, artificial intelligence, and blockchain enables accounting and auditing tasks to be more efficient. The results showed that the adoption of international accounting standards positively impacts the improvement of accounting and auditing activities. These results align with [Phan, Joshi,](#)

and Mascitelli (2018), which show that the international accounting standards focus on performing accounting practices so that all the financial transactions are adequately covered without missing any risks or future developmental activities. So, the goals of accounting and auditing can better be achieved.

The results indicated that agricultural, institutional support moderates trained human resources and accounting and auditing activities improvement. These results agree with Muhammad and Nugraheni (2022) that agricultural institutional support to human resource management assists them to implement employees' training practices for performing their duties in specialized departments. When the accountants and auditors are trained in a firm, they can adequately handle the accounting and auditing activities. The results indicated that agricultural institutional support moderates' technology adoption and improves accounting and auditing activities. These results match Qasim and Kharbat (2020), when the agricultural institutions provide financial support to the management, they can afford the technologies in all business areas. When firms have adopted technologies in accounting and auditing, they become able to improve accounting and auditing practices. The results indicated that agricultural institutional support moderates the adoption of international accounting standards and improves accounting and auditing activities. These results agree with Al-Nasrawi and Thabit (2020), which reveals that when agricultural sector institutions are provided with support in adopting creativity in their resources or process, they can also bring changes in their accounting and auditing departments and their practices. So, it becomes easy to adopt international accounting standards and improve accounting and auditing practices.

6. IMPLICATIONS

The current work is significant theoretically because of its substantial contribution to the economics literature. The study's primary focus is on the agricultural sector's development toward improved accounting and auditing practices. This study examines the impacts of trained human resources, technology adoption, and international accounting standards on improving accounting and auditing activities.

Contrary to the prior studies, which have addressed the impacts of trained human resources, technology adoption, international accounting standards, and improvement of accounting and auditing activities separately for different times, the present simultaneous analysis contributes to the literature. It is one of the significant contributions of the study that it tries to explain the moderating role of agriculture institution support between trained human resources, adoption of technology, adoption of international accounting standards and improvement of accounting and auditing activities. The current study also has great significance in the practical field. This study is significant to all financial firms because it addresses accounting and auditing activities common to all firms. This study suggests that accounting and auditing activities

improvement is possible if the employed human resources are trained, up-to-date technology is adopted, and international accounting standards are applied to accounting and auditing activities. Additionally, the study indicates that with adequate support for agricultural institutions, skilled human resources, technology adoption, international accounting standards, and accounting and auditing operations become simple.

7. CONCLUSIONS

The authors aimed to check the effectiveness of trained human resources, technology adoption, and international accounting standards to improve accounting and auditing activities. They were also to prevent the contribution of agricultural institution support to trained human resources, technology adoption, international accounting standards, and improvement in accounting and auditing activities. The information about the agricultural institution support, trained human resources, technology adoption, international accounting standards and improvement of accounting and auditing activities, and their relationship was acquired from the Vietnamese agricultural sector. Authors found a positive relation between trained human resources, technology adoption, and international accounting standards in improving accounting and auditing activities. The results showed that accountants and auditors could better perform their procedures if the human resources have specialization and are trained for their specific practices. The results also revealed that adopting up-to-date technology for accounting and auditing besides manual processes could improve the accounting and auditing practices. Adopting international accounting standards helps achieve accounting and auditing principles like transparency, responsibility, and accuracy. The study also concluded that agriculture institution support improves trained human resources, technology adoption, international accounting standards, and improved accounting and auditing activities and their association.

8. LIMITATIONS

The current study has several limitations, and future authors are expected to overcome these limitations. First, the study focuses on trained human resources, technology adoption, international accounting standards, and improvement of accounting and auditing activities. Financial development, corporate governance, and firm size have utterly been ignored, though these factors deeply influence improvement in accounting and auditing activities. Future studies must also discuss the impacts of these factors on improvement in accounting and auditing activities. Moreover, only the agricultural sector in Vietnam focuses on analyzing the role of trained human resources, adoption of technology, adoption of international standards, and improvement of accounting and auditing activities. Further literature must conduct the analysis for other economic sectors in multiple countries.

References

- Aggarwal, K., & Verma, A. (2020). Effect of Company Characteristics on Human Resource Disclosure Index: Empirical Evidences from Indian Corporates. *Management and Labour Studies*, 45(1), 85-117. doi:<https://doi.org/10.1177%2F0258042X19890246>
- Agyemang, J. K., Acheampong, O., & Akenten, W. N. (2018). Fair value accounting: Implementation challenges facing Small and Medium-sized entities in the agricultural sector. *International Journal of Accounting and Financial Reporting*, 8(4), 1-23. doi:<https://doi.org/10.5296/ijافر.v8i4.13643>
- Al-Nasrawi, S. A., & Thabit, T. (2020). The influence of the environmental factors on the adoption of the international accounting system IAS/IFRS: Case of Iraq. *Journal of Accounting, Finance and Auditing Studies*, 6(1), 66-85. doi:<https://dx.doi.org/10.2139/ssrn.3514438>
- Alawi, N. A., & Belfaqih, H. M. (2019). Human resources disclosure: an exploratory study of the quality in Qatar. *World Journal of Entrepreneurship, Management and Sustainable Development*, 15(1), 84-95. doi:<https://doi.org/10.1108/WJEMSD-01-2018-0010>
- Alshammari, A. A. (2020). The impact of human resource management practices, organizational learning, organizational culture and knowledge management capabilities on organizational performance in Saudi organizations: a conceptual framework. *Revista Argentina de Clínica Psicológica*, 29(4), 714-725. Retrieved from <https://www.revistaclinicapsicologica.com/data-cms/articles/20201004054927pmSSCI-219.pdf>
- Aryanti, C., & Adhariani, D. (2020). Students' perceptions and expectation gap on the skills and knowledge of accounting graduates. *The Journal of Asian Finance, Economics, and Business*, 7(9), 649-657. doi:<https://doi.org/10.13106/jafeb.2020.vol7.no9.649>
- Bananuka, J., Kadaali, A. W., Mukyala, V., Muramuzi, B., & Namusobya, Z. (2019). Audit committee effectiveness, isomorphic forces, managerial attitude and adoption of international financial reporting standards. *Journal of Accounting in Emerging Economies*, 9(4), 502-526. doi:<https://doi.org/10.1108/JAEE-08-2018-0084>
- Bonsón, E., & Bednárová, M. (2019). Blockchain and its implications for accounting and auditing. *Meditari Accountancy Research*, 27(5), 725-740. doi:<https://doi.org/10.1108/MEDAR-11-2018-0406>
- Chien, F., Hsu, C.-C., Zhang, Y., Vu, H. M., & Nawaz, M. A. (2022). Unlocking the role of energy poverty and its impacts on financial growth of household: is there any economic concern. *Environmental Science and Pollution Research*, 29(9), 13431-13444. doi:<https://doi.org/10.1007/s11356-021-16649-6>
- Desplebin, O., Lux, G., & Petit, N. (2021). To Be or Not to Be: Blockchain and the Future of Accounting and Auditing*. *Accounting Perspectives*, 20(4), 743-769. doi:<https://doi.org/10.1111/1911-3838.12265>
- El-Helaly, M., Ntim, C. G., & Soliman, M. (2020). The Role of National Culture in International Financial Reporting Standards Adoption. *Research in International Business and Finance*, 54, 101241. doi:<https://doi.org/10.1016/j.ribaf.2020.101241>
- Falahat, M., Lee, Y. Y., Ramayah, T., & Soto-Acosta, P. (2020). Modelling the effects of institutional support and international knowledge on competitive capabilities and international performance: Evidence from an emerging economy. *Journal of International Management*, 26(4), 100779. doi:<https://doi.org/10.1016/j.intman.2020.100779>
- Ha, S., Nguyen, H., Nguyen, N., & Do, D. (2020). The outside determinants influencing quality of accounting human resources for sustainability through the lens accounting service firms in Hanoi, Vietnam. *Management Science Letters*, 10(3), 543-550. doi:<http://dx.doi.org/10.5267/j.msl.2019.9.026>
- Hair, J. F., Astrachan, C. B., Moisescu, O. I., Radomir, L., Sarstedt, M., Vaithilingam, S., & Ringle, C. M. (2021). Executing and interpreting applications of PLS-SEM: Updates for family business researchers. *Journal of Family Business Strategy*, 12(3), 100392. doi:<https://doi.org/10.1016/j.jfbs.2020.100392>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24. doi:<https://doi.org/10.1108/EBR-11-2018-0203>
- Hall, T. W., Hoogduin, L. A., Pierce, B. J., & Tsay, J. J. Designing Efficient Stratified Mean-Per-Unit Sampling Applications in Accounting and Auditing. *Journal of Accounting, Auditing & Finance*, 0(0), 0148558X211064205. doi:<https://doi.org/10.1177%2F0148558X211064205>
- Juric, D., O'Connell, B., Rankin, M., & Birt, J. (2018).

- Determinants of the Severity of Legal and Employment Consequences for CPAs Named in SEC Accounting and Auditing Enforcement Releases. *Journal of Business Ethics*, 147(3), 545-563. doi:<https://doi.org/10.1007/s10551-015-2956-y>
- Kamla, R., & Haque, F. (2019). Islamic accounting, neo-imperialism and identity staging: The Accounting and Auditing Organization for Islamic Financial Institutions. *Critical Perspectives on Accounting*, 63, 102000. doi:<https://doi.org/10.1016/j.cpa.2017.06.001>
- Khowanassaeed, Q., Bayar Ali, I., Hassan Mahmood, A., Pshdar Abdalla, H., Sarhang, S., Bawan Yassin, S., . . . Bayar, G. (2021). The Effect of Human Resources Management Skills on Accounting Information Quality in Kurdistan Public Sector. *International Journal of Humanities and Education Development (IJHED)*, 3(3), 131-143. doi:<https://doi.org/10.22161/jhed.3.3.14>
- Le, T., Tran, T., Nguyen, T., Dao, N., Ngo, N., & Nguyen, N. (2022). Determining factors impacting the application of IFRS in teaching: Evidence from Vietnam. *Accounting*, 8(3), 323-334. doi:<http://dx.doi.org/10.5267/j.ac.2021.11.001>
- Liu, Z., Lan, J., Chien, F., Sadiq, M., & Nawaz, M. A. (2022). Role of tourism development in environmental degradation: A step towards emission reduction. *Journal of Environmental Management*, 303, 114078. doi:<https://doi.org/10.1016/j.jenvman.2021.114078>
- Maffei, M., Casciello, R., & Meucci, F. (2021). Blockchain technology: uninvestigated issues emerging from an integrated view within accounting and auditing practices. *Journal of Organizational Change Management*, 34(2), 462-476. doi:<https://doi.org/10.1108/JOCM-09-2020-0264>
- Magablihi, A. M. (2018). The Role of Internal Financial Controls, In Raising the Efficiency of the Accounting and Auditing of Government Revenue, Expenditure Control and Corruption Checking: The Case of Jordan. *International Journal of Asian Social Science*, 8(8), 509-517. doi:<https://doi.org/10.18488/journal.1.2018.88.509.517>
- Malo-Alain, A., Aldoseri, M., & Melegy, M. (2021). Measuring the effect of international financial reporting standards on quality of accounting performance and efficiency of investment decisions. *Accounting*, 7(1), 249-256. doi:<http://dx.doi.org/10.5267/j.ac.2020.9.011>
- Maradona, A. F., & Chand, P. (2018). The Pathway of Transition to International Financial Reporting Standards (IFRS) in Developing Countries: Evidence from Indonesia. *Journal of International Accounting, Auditing and Taxation*, 30, 57-68. doi:<https://doi.org/10.1016/j.intaccaudtax.2017.12.005>
- McCarthy, M., Kusaila, M., & Grasso, L. (2019). Intermediate accounting and auditing: Does course delivery mode impact student performance? *Journal of Accounting Education*, 46, 26-42. doi:<https://doi.org/10.1016/j.jaccedu.2018.12.001>
- Minh Duc, L. D., Thi Hoang Yen, N., Hoang Ngoc Thuy, V., Hoang Tien, N., & Hung Anh, D. B. (2019). Enhancing auditors' independence in auditing enterprises in Vietnam. *Cogent Economics & Finance*, 7(1), 1602240. doi:<https://doi.org/10.1080/23322039.2019.1602240>
- Muhammad, R., & Nugraheni, P. (2022). Sustainability of Islamic Banking Human Resources Through the Formulation of an Islamic Accounting Curriculum for Higher Education: Indonesian Perspective. *SAGE Open*, 12(1), 21582440221079838. doi:<https://doi.org/10.1177%2F21582440221079838>
- noshfar, a., Mohseni, A., & Ghasemi, M. (2022). Meta-Analysis of Factors Affecting Ethical Decision Making in the Accounting and Auditing Profession. *Journal of Governmental Accounting*, 8(2), 143-166. doi:<https://dx.doi.org/10.30473/gaa.2021.60439.1511>
- Phan, D., Joshi, M., & Mascitelli, B. (2018). What influences the willingness of Vietnamese accountants to adopt International Financial Reporting Standards (IFRS) by 2025? *Asian Review of Accounting*, 26(2), 225-247. doi:<https://doi.org/10.1108/ARA-03-2017-0052>
- Pimentel, E., & Boulianne, E. (2020). Blockchain in Accounting Research and Practice: Current Trends and Future Opportunities*. *Accounting Perspectives*, 19(4), 325-361. doi:<https://doi.org/10.1111/1911-3838.12239>
- Qasim, A., & Kharbat, F. F. (2019). Blockchain Technology, Business Data Analytics, and Artificial Intelligence: Use in the Accounting Profession and Ideas for Inclusion into the Accounting Curriculum. *Journal of Emerging Technologies in Accounting*, 17(1), 107-117. doi:<https://doi.org/10.2308/jeta-52649>
- Schmitz, J., & Leoni, G. (2019). Accounting and Auditing at the Time of Blockchain Technology: A

- Research Agenda. *Australian Accounting Review*, 29(2), 331-342. doi:<https://doi.org/10.1111/auar.12286>
- Shukla, A., & Sharma, S. K. (2018). Evaluating consumers' adoption of mobile technology for grocery shopping: an application of technology acceptance mode. *Vision*, 22(2), 185-198. doi:<http://dx.doi.org/10.1177/0972262918766136>
- Thanh, D. N., Thu, T. A. T., Thanh, C. H. U. H. T., Quynh, L. E. A. T., Thi, L. E. M., Hoang, P. T., & Thu, V. T. (2022). Cultural Factors Affecting Tendency of Ethical Decision-Making by Accounting Students: An Empirical Study in Vietnam. *The Journal of Asian Finance, Economics and Business*, 9(2), 159-168. doi:<https://doi.org/10.13106/jafeb.2022.vol9.no2.0159>
- Velte, P. (2019). What do we know about meta-analyses in accounting, auditing, and corporate governance? *Meditari Accountancy Research*, 27(1), 17-43. doi:<https://doi.org/10.1108/MEDAR-03-2018-0317>
- Wang, X. (2019). The National Ecological Accounting and Auditing Scheme as an Instrument of Institutional Reform in China: A Discourse Analysis. *Journal of Business Ethics*, 154(3), 587-603. doi:<https://doi.org/10.1007/s10551-016-3401-6>