

ROLE OF ACCOUNTING INFORMATION SYSTEM IMPLEMENTATION FOR SMEs: BASED ON APPLICATION OF THE TECHNOLOGY ACCEPTANCE MODEL

Nantachai Sasadeeong¹

Abstract

The research aims 1) to study the level of opinion on acceptance factors, 2) the relationship between acceptance variables, and 3) to retest the causal relationship model for acceptance using the accounting package programme in Bangkok and its vicinity. The mixed method was applied to this research; 500 respondents were collected online and used descriptive statistics to explain percentages, averages, standard dimensions, and analysis through the AMOS programme—interviews with 30 key informants with semi-structured interviews, analysis, and summaries using data analysis elements. The result presented the benefits of using high-level, timely management decisions and reducing posting errors (0.827). The usability was moderate level; it was easily and quickly processed and reconciled more efficiently and accurately (0.899). The effectiveness was high: accurate and faster accounting records, fault prevention systems, and fraud problem reduction (0.870). The intention was high level; essential for the establishment's work, available online and offline, staff's support, and they tend to recommend it to friends or establishments (0.832). The used behaviour was high-level, up-to-date, and met accounting certification standards (0.825). The researcher tested the harmonisation of models based on assumptions and empirical data and found that all thresholds were within the acceptable (pass) criteria; CMIN/df = 1.984, GFI = .988, NFI = .977, TFI = .979, RMR = .979, RMSEA = .044, and hypothesis testing shows that accepting all hypotheses except hypothesis 4 (H4) does not meet the hypothesis.

Keywords: Accounting information system, Small and Medium Enterprises (SMEs.), Application, Technology.

¹ Lecturer of Bachelor of Accountancy Faculty of Business Administration
Thai-Nichi Institute of Technology, nantachai@tni.ac.th

Introduction

In modern times, the development of information is increasing, along with fierce competition, especially between business environments. Organisations must carry out their activities efficiently and effectively, requiring accurate information. To be able to make management decisions following the development of the applied information system, all organisations must act. Thus, accounting information systems aim to provide accounting-related information, i.e., external goals adjusted according to standards set by governments and internally related to management decisions (Ogundajo et al., 2022), defined as a set of organisational resources such as people and control devices to convert information into information (Bodnard & Hopwood, 2000). It is an element of an organisation that collects, classifies, processes, analyses and communicates relevant financial information for decision-making to third parties and insiders. Technology development has flourished, and many innovations have emerged in hardware and software development (Baridwan et al., 2012). The use of information technology in accounting is widely used. It has become a daily routine, so carrying out accounting entries, financial operations, and financial statements is complicated, mainly without IT (Damasiotis et al., 2015). This significantly impacts the development of accounting information systems to generate financial information that users use in organisational decision-making processes as a fundamental basis for value for money and a competitive advantage for SMEs to compete with competitors and reach customers worldwide (Udegbum et al., 2018). For example, accounting software allows companies to generate various reports quickly and easily for executive decision-making (Thottoli & Ahmed, 2019). A computerised accounting system increases overall working accuracy, fast processing, and the creation of accurate financial statements (Tilahun, 2019).

Accounting plays an essential role in the success or failure of a company or organisation (Amanamah et al., 2016). It is intended to assist the management in controlling the economic and financial space of the company (Horvat & Mojzer, 2019). It helps the internal control reporting system improve over time (Arcega et al., 2015). Computerised bookkeeping keeps track of business customers and suppliers. A sound computerised accounting system can cost thousands or millions of dollars, depending on the complexity and size of the organisation (Ndubuisi et al., 2017). Adopting a computerised accounting system that allows accountants to use specialised software can increase costs (Taiwo, 2016). In addition, SMEs face significant

problems, such as incomplete records, a lack of financial control, inexperienced employees, and others (Ogundana et al., 2017).

The technology acceptance model (TAM); a theory that widely uses behavioural theory approaches to investigate information technology adoption processes (Fatmawati, 2015). The model of acceptance of information technology to be used by the user improves, adapted from the theory of rational action (Theory of Reasoned Action: TRA) developed by Fred D. Davis in 1986, who designed the user acceptance modelling of information systems. TAM's primary purpose is to monitor external factors' influence on users' attitudes, beliefs, etc. TAM added two main structures to the TRA model. These two main structures are usefulness and ease of use. Also, Venkatesh et al. (2003) explained that the TAM model is integrated by incorporating internal and external factors into external variables that influence system use. The factors within each user are called "internal factors," while the environmental factors that motivate users to use the system are called "external factors." The TAM model explains why accounting information systems (accounting packages) are accepted for use by small and medium-sized enterprises. The way to analyse them is to add certain variables to the TAM model, such as ease of use, perceived benefits, the effectiveness of controlling the accounting package programme, behavioural intent to use, and acceptance behaviours to be used. In addition, the TAM model has been extensively used in adoption research. This technology can be used to explain whether a user or financial reporter can accept an accounting information system. It is an analytical model to determine user behaviour in obtaining an accounting information system, an understanding that describes how a user receives and uses technology (Permatasari et al., 2016).

Based on the above issues, we see the importance of studying the competitiveness of SMEs. The researcher presented a conceptual model for implementing accounting packages in SMEs, guided by research questions: (1) What factors influence the intention to accept the adoption of accounting packages? (2) How can existing technology adoption theories be applied to accounting package acceptance models? The motivation from the academic literature on adopting accounting packages still needs to be a sufficient insight into the factors influencing SMEs that can lead to successful technology adoption among domestic SMEs. In addition, the complexity of adopting this technology is high and limited since each theory and conceptual framework has areas for improvement (Dincer & Dincer, 2016). The proposed model demonstrating the impact of the structure will help fill a gap in the adoption study of existing accounting software packages at SMEs. This result will significantly contribute to further research on the application of technologies that SMEs adopt.

Research objectives

1. To study the level of opinion on the acceptance of using accounting packaged programs by small and medium-sized enterprises in Bangkok and its vicinity.
2. To study the relationship between the acceptance variables for accepting the use of accounting packaged programs by small and medium-sized enterprises in Bangkok and its vicinity.
3. To reexamine the consistency of the causal relationship model towards adopting accounting packages in Bangkok and its vicinity.

Literature review

Technology Acceptance Model: TAM

Some models are created to analyse and understand the factors influencing the adoption of technology, including the Theory of Reasoned Action (TRA), the Theory of Planned Behavior (TPB), and the Technology Acceptance Model (TAM) (Muslichah, 2015). The technology acceptance model was introduced by Fred D. Davis in 1986 and adopted from the Theory of Reasoned Action (TRA). The technology adoption model aims to enable developer theories to design, evaluate, plan, and implement information systems successfully. The technology adoption model is said to adopt the approach of rational action, as TRA is the basis for developing a technology adoption model to adapt information systems. Finding a fundamental reason for the user to accept or reject information systems, the theory of rational action proposes that attention to behaviour is closely related to the specific behaviour of the individual, while attitudes and amenable to close individuals are what precede behaviour. The concept of the technology adoption model has two main structures that predict interest in information technology behaviour: perceived usefulness and perceived ease of use. Technology acceptance models have been developed to (1) determine how to measure the relevant behavioural elements of attitudes; (2) distinguish between beliefs and attitudes; and (3) define methods of external stimulation, such as objective attributes and causal objects related to beliefs, attitudes, and behaviours (Muslichah, 2015). Overall, the technology adoption model consists of five concepts: (1) find it helpful; (2) find it easy to use, (3) attitude towards use; (4) intention to use it; and (5) put it into practice (Davis, 1989).

The Accounting Information System: AIS, is a set of elements that coordinate to achieve goals. The system has three characteristics: (1) components that can be seen, heard, or touched; (2) a process is an activity that coordinates the relevant elements in the system; and (3) the goal is the goal to be achieved through the coordination of these

elements. (Krismiaji & Perdana, 2018) define information as systematised and utilised information that must be presented in detail for its benefit, which consists of (1) relevant, (2) reliable, (3) complete, (4) timely, (5) easy to understand, and (6) verifiable. Hartono (2012) states that accounting information systems can process business transaction data into financial information for users, which is used as the basis for decision-making. Romney and Steinbart (2018) say that a system will perform well if it can meet a company's or institution's needs. The effectiveness of accounting information systems describes achieving goals with the resources used to collect, process, and store electronic data. This is then converted into useful information for delivering quality and timely reports (Taiwo & Agwu, 2016).

Accounting Information System Control Effectiveness is an operational method focusing on general and system control (Liu, 2016). It is an operational process that provides rational assurance that the business has an internal management environment, a policy of separating job duties in the information system, and development standardisation of supporting documents, accounting information systems, adequate emergency damage prevention planning, control of data import, processing, storage, and results in a concrete, clear, and practicable manner. The control of the accounting information system involves the formulation of appropriate internal control policies, the establishment of an exemplary information audit process supported by executives at all levels, and the cooperation of personnel from all sectors of the organisation, management and employees at all levels must realise the importance of and comply with the security policy of the company. The information system strictly has a concise and transparent work plan in internal and external processes to control the accounting information system as defined, resulting in efficiency, effectiveness, and the most cost-effective use of resources (Biswas & Roy, 2015). Applying computer information technology and the Internet to accounting information systems will increase the efficiency of accounting information to be fast, reliable, and accurate, directly affecting the quality of financial reports (Nanwong, 2023).

Methodology

This mixed-methods research combined in-depth interviews with quantitative and survey research. This research has been developed based on data collection based on the theoretical literature review in Chapter 2 as well as the development of a relevant theoretical framework with two phases of operation:

Phase 1 is quantitative research, where researchers review relevant documents and research to create questionnaire instruments that have passed the quality check of appliances with a directness check to

verify questions for content and a precision check with the method of alpha coefficient determination according to Kronbach's method. The sample for research consisted of 500 SMEs or assignees, collecting data using questionnaires to ask SMEs or representatives of informants. Determining the opinion of experts based on the Index of Item Objective Congruence (IOC) (Rovinelli & Hambleton, 1976). In this research, the index is 0.90, and data analysis using descriptive statistics, percentage, average, standard deviation, and path analysis of the structure with the AMOS programme is as follows:

Hypothesis 1: The perception of the effectiveness of accounting packages influences the perception of the ease of use of the accounting packages programme.

Hypothesis 2: Perception of the effectiveness of the accounting package programme influences the benefits of using accounting software packages.

Hypothesis 3: Perception of the effectiveness of the accounting package programme influences the intention of use.

Hypothesis 4: Perception of accounting package effectiveness influences behaviour or practical use.

Hypothesis 5: The perception of the ease of use of the accounting packages programme influences the awareness of the benefits of using the accounting packages programme.

Hypothesis 6: Perception of the benefits of using accounting software packages influences the intention to use them.

Hypothesis 7: The intention to use accounting software packages influences behaviour or use.

Phase 2 is qualitative research of key contributors consisting of 30 SMEs with semi-structured interviews as well as in-depth interviews to conduct discussions or interviews with key informants who have knowledge or experience in the subject they are studying, are willing to converse with the researcher, and should be specifically selected interviewees because they can allow the researcher to learn more than others (Patton, 1990) with a process that begins with actual circumstances or phenomena. The researchers cannot use all the data from the genuine phenomenon to study it, so only part of the data from all the actual phenomena or conditions is collected for analysis. The results of the analysis, which will answer the objectives or goals set by the researcher, can be summarised regarding the actual situation using the elements of data analysis, namely (1) the type and source of the data obtained, (2) the informant, (3) the nature and reliability of the data, and (4) the knowledge and abilities of the data analyst. (5) the goal of data analysis, and (6) summarising and referencing the results of the analysis (Suwan, 2013).

Result

The benefits of use were moderately positive, and the accounting software packages are helpful to all establishments. Especially for SMEs, these are very useful because the information from the program can be used to make various administrative decisions in time, reduce posting errors, save people, time and cost, fast processing, and are easy; weight value of 0.827 and an R2 value of 0.683.

The ease of use/application was moderately opinionated. The accounting package programme is a simple system that makes work easier, saves time, is fast and accurate, and can also display reports quickly; suitable for training new accounting staff, weight value of 0.899 and an R2 value of 0.808.

Effectiveness: It was found that there is a high level of opinion that accounting software is effective in controlling accounting tasks, helping to make accounting records more accurate, reducing work procedures, being efficient and fast, and ensuring that financial statements and reports received are factual, system to prevent, but there may be problems from people keying in numbers. However, it helps reduce errors, monitor information quickly, and reduce fraud problems; the weight value is 0.870, and the R2 value is 0.758.

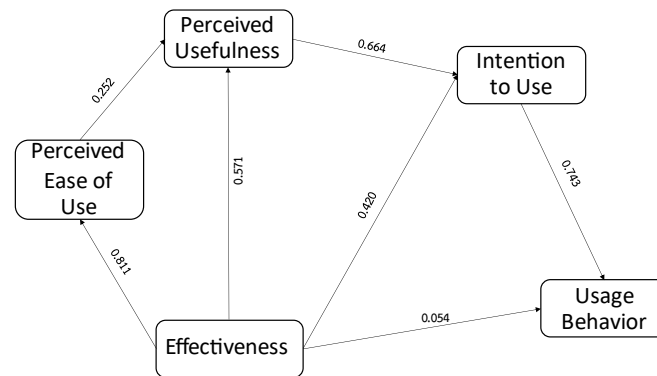
The intention of using it found that there is a high level of opinion that the accounting package program is effective in accounting work but should be chosen to suit the business because the program is easy to use, must be working both online and offline, and has a supporting staff, which is another reason. More than 90% of customers use the same software package because they can send information to each other and inquire about problems with the programme, a weight value of 0.832 and an R2 value of 0.535.

The usage behaviour was found to have a high level of opinion. Most of them accept the purchase or use of accounting software packages because it is a modern program nowadays, easy to work with, reduces errors from calculations, is efficient and effective, reduces the working time, has an organised system, can update accounting software, has precision in cash management planning, prevents fraud, and most importantly, the program requires that it has passed accounting certification standards and is accepted by the Revenue Department; weight value of 0.825 and R2 value of 0.681.

Path Analysis

The path was used to analyse data and routed with the AMOS programme. The results presented in the following figure are:

Figure 1: The technology adoption model flowchart.



This model test uses multiple fit indexes using fit goodness to measure how well the research model is developing. An excellent appropriate indication or model to study can be found in the following criteria for an excellent fit test:

Table 1: Model Test Criteria

The goodness of the fit index	Cut-off value	Research Model Value
CMIN/df	$0 < \chi^2 / df \leq 2$	1.984
GFI	$0.95 < \text{GFI} \leq 1.00$	.968
CFI	$0.97 < \text{CFI} \leq 1.00$	.988
NFI	$0.95 < \text{NFI} \leq 1.00$	.977
TLI	$0.95 < \text{TLI} \leq 1.00$	.979
RMR	$0 < \text{RMR} \leq 0.05$	.026
RMSEA	$0 < \text{RMSEA} \leq 0.05$	.044

From Table 1, the calculation values in the proposed form meet the criteria for accepting these results, proving whether such a model is suitable or sound (Ferdinand, 2002)

Hypothesis Testing

Testing the model using a given hypothesis test path compares the probability value with a value of 0.05. If the probability of each variable is lower than 0.05, such a correlation between external variables and external factors in the model is essential, thus summarising the significant relationship as follows. The path coefficients of hypotheses 1 (0.811), 2 (0.571), 3 (0.420), 5 (0.252), 6 (0.664), and 7 (0.743) are conformed hypothetical or supportive, except hypotheses 4 do not meet the assumptions or do not support it and has a path coefficient of 0.054.

Discussion

The benefits of using it were moderate, and the accounting package programme benefits all establishments, especially SMEs. Because the information from the program can be used to make various administrative decisions in time, reduce posting errors, staffing, time, and cost, be processed quickly, and be easy to use (weight value of 0.827, R2 value of 0.683), this aligns with Yoon's (2016) research findings in TAM, evaluating two variables: perceived ease of use and perceived benefits to technology, influenced by external variables. Similarly, the research of Edison et al. (2012) suggests that the benefits of technology adoption and the risks associated with intolerance are among the factors that researchers study in business failure. According to El-Dalabeeh's research (2019), accounting information systems are an essential part of overall information system management and are used by business owners to make timely, accurate, and relevant decisions.

The ease of use was found to have a moderate level of opinion. The programme is a simple system that simplifies work, saves time, is fast and accurate, and can display reports quickly. Ideal for training new accountants to use the program (weight value of 0.899, R2 value of 0.808). Putra's previous research (2019) stated that small and medium-sized enterprises should use computerised accounting to conduct their accounting and payroll to prepare fair financial statements and file income tax returns on time. Likewise, Lovita and Andriyani's (2019) research also shows that the perception of benefits is the most critical and vital construct influencing attitudes. Intention and behaviour in the use of technology compared to other structures.

The effectiveness was found to have a high level of opinion. The program effectively controls accounting tasks, makes accounting records more accurate, reduces work steps, makes work efficient and fast, reduces errors, can check information quickly, and reduces fraud problems (weight value of 0.870, R2 value of 0.758). Maryanti et al.'s (2019) research stated that accounting software assists organisations with better data processing speeds, reliable and accurate data entry, and good corporate governance. In addition, Azih's (2018) research revealed that timely management data records many accounting transactions, reduces manual and clerical work, and improves stakeholder satisfaction.

The intention to use it was found to have a high level of opinion; the program is effective in accounting work but should be selected to suit the business. It can be used quickly and flexibly in online and offline formats, and the staff is very caring. The samples are more likely to recommend this program to other people who know and use it, and more than 90% of customers also use this programme (weight of

0.832, R2 value of 0.535). Research by Al-Omari and Al Turani (2012) suggests that integrated automation can improve customer service, assist in inventory control, and demonstrate improved service and inventory as expected. It also indicates that consumers are willing to adapt to certain self-service technologies; their willingness to adapt to new technologies results from the convenience of using the service.

Usage behaviour was found to have a high level of opinion. Most of the respondents accept the purchase or use of accounting packages programme because they are modern programs nowadays, easy to operate. It reduces calculation errors, is efficient and effective, reduces working time, has a more organised system, can continuously update and has precision in planning. The program must pass accounting certification standards and be accepted by the Revenue Department (weight value of 0.825, R2 value of 0.681). This aligns with Boylan and Dennerly's (2018) research, which suggests that small business owners should invest in accounting information systems to complete accounting and payroll tasks quickly. In addition, Putra (2019) argues that accounting software technology is affordable for business owners to adopt; this cost is relatively less compared to external accounting services.

Hypothesis 1 conforms to the hypothetical or supportive category, which means that the effectiveness factor in controlling the accounting package programme and influencing the knowledge that the programme is easy to use, with the path coefficient line being 0.811 statistically significant at 0.05. Based on the results of this hypothesis, and in line with the research of Suravongchaithawat and Penvutikul (2023), it was found that most companies have a network system that allows them to share information or resources even when they are far apart, making it easier to exchange information, increasing the efficiency and effectiveness of work, as well as significantly reducing the cost of using information technology. The format mainly clouds networks because it allows quick response and no problems dividing the usage space. In line with Watanamara (2010), the elements of choosing an accounting package programme include compatibility with the current operating system, and entrepreneurs who sell accounting package programmes should plan marketing strategies and integrate communications with buyers or SMEs to know the effectiveness of the programme in controlling accounting systems for SMEs to maximise benefits.

Hypothesis 2 conforms to the hypothesis or is supportive, which means that the effectiveness factor in controlling the accounting system of the finished programme influences the benefits of using the accounting package programme, with the path coefficient line statistically significant at 0.571 at 0.05, showing that SMEs value the relationship between the two factors at 56.10%. This is consistent with

the research of Biswas and Roy (2015) found that the processing of trade transactions in accounting information systems affects the processing, storage, auditing, and presentation of financial statements, which is critical to the quality of financial reports. Wei's research (2015) also suggests that fast communication between agencies and users of financial statements is useful for decision-making. The effectiveness of control of accounting information systems has resulted in benefits in improving the quality of accounting information, increasing the efficiency of decisions of users of financial statements in various ways, and making the performance of enterprises with information integration better than that obtained from businesses without information integration. It should be used to plan marketing strategies and integrate communication with buyers or SMEs to know the effectiveness of accounting packages for maximum benefit.

Hypothesis 3 conforms to the hypothesis or is supportive. This means that the effectiveness factor in controlling the accounting system of the finished programme influences the intention of use. There is a path coefficient line of 0.420, statistically significant at 0.05, and this hypothesis is accepted. It shows that SMEs value the relationship between the two factors by 42%. This is the same Seethamraju's research (2015) commented that the financial affordability of small and medium-sized enterprises led them to opt for accounting software. Another study by Rattanaprayoon (2017) has shown that commissioners are more satisfied with computerised accounting programmes than manual accounting. Because it is an easy-to-understand system, it meets users' needs and increases the effectiveness of lending, debt collection, and economics. The programme can automatically calculate, correct, and return results immediately, saving time and resources. Therefore, entrepreneurs who sell accounting software packages must plan an integrated communication strategy that will quickly, comprehensively, and thoroughly transmit information on the effectiveness of existing companies to SMEs.

Hypothesis 4 does not conform to the hypothesis or is supportive. The effectiveness factor in controlling the accounting system of ready-made programmes influences its behaviour or practical use, with a path coefficient of 0.054, statistically insignificant at 0.05. It shows that only 5% of SMEs value the relationship between the two factors. The results from this hypothesis are inconsistent with Liu's (2016) research, which stated that it is an operational process that provides a rational assurance that the entity has an environment of internal control, policies of separation of job duties in information systems, development and improvement of systems, standardisation of documentation, accounting information systems, adequate

emergency damage prevention planning, appropriateness, data import, and processing control. In addition, the control of the accounting information system involves the formulation of appropriate internal control policies. Therefore, entrepreneurs who sell accounting packages see very little of the relationship and importance of such factors; in order to plan marketing strategies and integrate communications in order for buyers or SMEs to know the effectiveness of accounting packages, other factors must be considered when formulating a sales strategy for the right group.

Hypothesis 5 conforms to the hypothesis and is supportive. The user-friendliness coefficient influenced the benefits of using accounting packages, with a path coefficient of 0.252 and a statistical significance of 0.05, showing that SMEs value the relationship between the two factors by 25%. Permatasari et al. (2016) stated that the standard regression coefficient of perceived usefulness of use was 0.85, with a value lower than 0.05, which means this value has a strong influence. Because the more significant the perception of ease of use, the more perceived the system's benefits will be. Users believe the system is easy to use without hard work and hassle; the treasurer or the school's finance department will benefit because the accounting information system is easy to use. Indicators of perceived comfort include ease of learning, convenience with simple technology, an undemanding, high-quality financial department, and ease of exchange of financial information. Therefore, entrepreneurs who sell accounting packages programme must continue to focus on this factor, including planning strategies and integrated communication, so buyers or SMEs can know the effectiveness of accounting packages for SMEs.

Hypothesis 6 conforms to the hypothesis and supports the utilitarian factor of accounting software influencing the intention to use it, with a path coefficient of 0.664, statistically significant at 0.05, showing that SMEs value the relationship between the two factors by 66.40%. This aligns with the research of Permatasari and Prajanti (2018), which indicated that the standard regression coefficient of perceived benefits is a behavioural intention to be used with value. A value of 0.11 greater than 0.05 means there was no significant effect, as the study's results did not find a perceived beneficial effect on intentional behaviour. Similarly, in the research of Awa et al. (2015) in TAM, the user's intention to use the application is explained and predicted by perceiving the benefits of technology and simplicity because the demand for systems depends more on the needs of the organisation. Therefore, the treasurer or the finance department has no guarantee of the system's benefits or indicators of perceived benefits, such as facilitating decision-making, providing information, obtaining information, controlling, and auditing, not affecting the intention of usage behaviour. Therefore, entrepreneurs who sell accounting

packages, seeing the relationship and importance of such factors, should make strategic planning and integrated communication through various factors based on research results that will make buyers or SMEs aware and want to use or buy accounting packages programme.

Hypothesis 7 conforms to the hypothesis and supports it. The intention factor of entrepreneurial use positively influences behaviour or actual use, with a path coefficient of 0.743 (74.3%). The results from this hypothesis are in line with research by Rungwarin (2019) mentioned that the intention to use a digital wallet to purchase goods or services online directly affects the behaviour of using a digital wallet to purchase goods or services online, namely the frequency of use of a digital wallet to purchase goods or services online, the amount topped up in a digital wallet at a time, and the most significant remaining balance in a digital wallet. Therefore, entrepreneurs selling accounting software packages should plan their strategies and communicate through various factors based on research results that will make buyers or SMEs aware of and want to use or buy the programme.

Recommendation

The study found that the phase of adoption of accounting package programmes by SMEs is expressed through a set of acceptance structures, such as recognition of ease of use, benefits, the effectiveness of controlling, and behavioural intentions to use the system. This adoption is expected to promote responsible accounting reporting in the workplace. Testing whether structures with significant regression coefficients favour behavioural intentions in SMEs' accounting package programmes must be practical, and control over the programme increased. The study found that the structure with a significant regression coefficient does not support the behaviour of SMEs in accepting or using the accounting package programme of SMEs. The only effective control of the programme is to consider its benefits. Owners' perception of the benefits of the accounting package programme motivates them to use it. In contrast, the difficulty of using the system is essential for encouraging SMEs to use it. Entrepreneurs need the training to become more competent and confident with the accounting packages programme, which requires educating and training SME owners to show them how to use them.

The accounting system of small and medium-sized businesses in Thailand should be studied, or variables added to make it more comprehensive. This research recommends a model that integrates a company's accounting information system with latent variables and variables only observed in large enterprises. Accounting information systems and business model applications can be used to compare

SMEs and large companies. Future research should test the direct relationship between integrated models in the technology-organization-environment framework and the impact of technology.

Bibliography

- Al-omari, E. H., & Al Turani, I. M. (2012). Installing an Automated System will improve Customer Service, and Control Inventory. *Journal of Management Research*, 4(2). <https://doi.org/10.5296/jmr.v4i2.1515>
- Amanamah, R. B., Morrison, A., & Asiedu, K. (2016). Computerised Accounting Systems Usage by Small and Medium Scale Enterprises in Kumasi Metropolis, Ghana. *Research Journal of Finance and Accounting*, 7(16), 16. <https://www.iiste.org/Journals/index.php/RJFA/article/view/32741/33632>
- Arcega, C. K., Danguino, E., Guerra, J., Guno, C., Mayuga, H. J., Villamena, E., & Manongsong, J. L. (2015). Computerized vs. Non-computerized Accounting System of Small and Medium Enterprises in Lipa City, Philippines: A Comparative Analysis. *Asia Pacific Journal of Academic Research in Business Administration*, 1(1), 48–55. <https://research.lpubatangas.edu.ph/wp-content/uploads/2015/05/APJARBA-2015-1-006-Computerized-vs.-Non-computerized-Accounting-System.pdf>
- Awa, H. O., Ojiabo, O. U., & Emecheta, B. C. (2015). Integrating TAM, TPB and TOE frameworks and expanding their characteristic constructs for e-commerce adoption by SMEs. *Journal of Science and Technology Policy Management*, 6(1), 76–94. <https://doi.org/10.1108/jstpm-04-2014-0012>
- Azih, N. (2018). Electronic Accounting: An Imperative Tool for Quality Assurance in Accounting Education programme in the Digital Era. *Nigerian Journal of Business Education (NIGJBED)*, 1(2), 90–98. <http://www.nigjbed.com.ng/index.php/nigjbed/article/view/161/161>
- Baridwan, Z., Ghazali Maskie, S., Bambang Subroto, S., & Sutrisno, S. (2012). Analisis Keperilakuan Individu terhadap Implementasi Sistem Informasi Akuntansi: Model Penerimaan dan Kesuksesan Sistem Informasi Berbasis Teknologi. *Repository.ub.ac.id; Brawijaya Knowledge Garden*. <http://repository.ub.ac.id/id/eprint/161114>
- Boylan, D. H., & Dennery, C. (2018). Accounting Software and Its Effect on the Demand for Accountants in Small Business, Accountancy Business and the Public Interest 2018. Resource document. <http://visar.csustan.edu/aaba/BoylanBoylandDennery2018.pdf>. Accessed 12 May 2020.
- Biswas, A., & Roy, M. (2015). Green products: an exploratory study on the consumer behaviour in emerging economies of the East. *Journal of Cleaner Production*, 87, 463–468. <https://doi.org/10.1016/j.jclepro.2014.09.075>

- Bodnard, H. G., & Hopwood, W. S. (2000). *Sistem Informasi Akuntansi Buku I Edisi ke 6 Terjemahan Amir Abadi Yusuf dan Rudi M Tambunan*. Jakarta: Salemba Empat.
- Damasiotis, V., Trivellas, P., Santouridis, I., Nikolopoulos, S., & Tsifora, E. (2015). IT Competences for Professional Accountants. A Review. *Procedia - Social and Behavioral Sciences*, 175, 537–545. <https://doi.org/10.1016/j.sbspro.2015.01.1234>
- Davis, F. D. (1986). A technology acceptance model for empirically testing new end-user information systems: theory and results. *Mit.edu*. <http://hdl.handle.net/1721.1/15192>
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Dincer, B., & Dincer, C. (2016). Literature Review on the Use of Technology and Information Systems in SMEs. *International Journal of Academic Research in Business and Social Sciences*, 6(12), 678–684. <https://doi.org/10.6007/ijarbss/v6-i12/2528>
- Edison, G., Manuere, F., Joseph, M., & Gutu, K. (2012). Evaluation of Factors Influencing Adoption of Accounting Information System by Small to Medium Enterprises in Chinyoshi (pp. 1126–1141). *Interdisciplinary Journal of contemporary research in business*. <https://journal-archives24.webs.com/1126-1141.pdf>
- El-dalabeeh, A. el-Rahman Kh. (2019). The Impact of Accounting Information Systems Development on Improving E-Commerce in the Jordanian Public Shareholding Industrial Companies. *Academy of Accounting and Financial Studies Journal*, 23(2). <https://www.abacademies.org/articles/the-impact-of-accounting-information-systems-development-on-improving-ecommerce-in-the-jordanian-public-shareholding-industrial-co-8014.html>
- Fatmawati, E. (2015). Technology Acceptance Model (TAM) untuk Menganalisis Penerimaan terhadap Sistem Informasi di PerpustakaanM INFORMASI PERPUSTAKAAN. *Iqra: Jurnal Perpustakaan Dan Informasi*, 9(1), 1–13. <https://www.neliti.com/publications/196942/technology-acceptance-model-tam-untuk-menganalisis-penerimaan-terhadap-sistem-in#id-section-content>
- Ferdinand, A. (2002). *Structural equation modeling dalam penelitian manajemen*. Fakultas Ekonomi UNDIP: Semarang.
- Hartono, J. (2012). *Business Research Methodology: Misunderstandings and Experiences*. Yogyakarta: Badan Penerbit Fakultas Ekonomi Universitas Gadjah Mada.
- Horvat, T., & Mojzer, J. (2019). Influence of Company Size on Accounting Information for Decision-Making of Management. *Naše Gospodarstvo/Our Economy*, 65(2), 11–20. <https://doi.org/10.2478/ngoe-2019-0007>
- Krismiaji & Perdana, D. (2018). Accounting Information Quality and Capital Investment Choice in the Governance Perspective -an Indonesian Evidence. *International Journal of Business Management and Economic Research (IJBMER)*, 9(2), 1236–1243.

<http://www.ijbmer.com/docs/volumes/vol9issue2/ijbmer2018090201.pdf>

- Liu, B. (2016). Internal Control of Accounting Information System based on Network Environment. *Www.atlantis-Press.com*, 905–907. <https://doi.org/10.2991/icence-16.2016.166>
- Lovita, E., & Andriyani, A. (2019). Influence of Information Technology, Training and Participation of Users towards the Effectiveness of Accounting Information Systems in the Supply Chain Management. *Proceedings of the 5th Annual International Conference on Accounting Research (AICAR 2018)*. <https://doi.org/10.2991/aicar-18.2019.3>
- Maryanti, E., Tawfeeq, T., Alabdullah, Y., Ries Ahmed, E., & Muneerali, M. (2019). Effect of Board Size and Duality on Corporate Social Responsibility: What has Improved in Corporate Governance in Asia? *Effect of Board Size and Duality on Corporate Social Responsibility: What Has Improved in Corporate Governance in Asia?* <https://doi.org/10.21070/jas.v3i2.2810>
- Muslichah, I. (2015). An antecedent analysis of the attitudes and intentions of using a Blackberry with the basis of a technology acceptance model. *Business Strategy Journal*. Volume 19 No 2, July 2015. ISSN 0853-7666.
- Nanwong, T. (2023). Factors Affecting the Level of Internal Control of the Accounting Information Systems on the Government Fiscal Management Information System in the Political Support Mission Agencies. *Tci-Thaijo.org*, 4(1), 76–91. <https://so02.tci-thaijo.org/index.php/apheitvu/article/view/95124/74321>
- Ndubuisi, A. N., Chidoziem, A. M.-F., & Chinyere, O. J. (2017). Comparative Analysis of Computerized Accounting System and Manual Accounting System of Quoted Microfinance Banks (MFBs) in Nigeria. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 7(2), 30–43. <https://doi.org/10.6007/ijarafms/v7-i2/2787>
- Ogundajo, G. O., Awoniyi, O. A., & Iwala, O. A. (2022). Usage of Accounting Software on Cost Control of Listed Deposit Money Banks in Nigeria. *International Journal of Management Studies and Social Science Research*, 4(6), 1–24. <https://doi.org/10.56293/IJMSSSR.2022.4521>
- Ogundana, O. M., Okere, W., Ayomoto, O., Adesanmi, D., Ibidunni, S., & Ogunleye, O. (2017). ICT and accounting system of SMEs in Nigeria. *Management Science Letters*, 1–8. <https://doi.org/10.5267/j.msl.2016.11.007>
- Patton, M. Q. (1990). *Qualitative Evaluation and Research Methods*. SAGE Publications, Incorporated.
- Permatasari, C. L., & Prajanti, S. D. W. (2018). Acceptance of Financial Accounting Information System at Schools: Technology Acceptance Model. *Journal of Economic Education*, 7(2), 109–120. <https://doi.org/10.15294/jeec.v7i2.27182>
- Permatasari, C. L., Yanto, H., & Widiyanto, W. (2016). Penerimaan Pernyataan Standar Akuntansi Keuangan Oleh Pengelola Keuangan Yayasan Pendidikan: Analisis Technology Acceptance Model. *Journal of Economic Education*, 5(1), 90–99. <https://journal.unnes.ac.id/sju/index.php/jeec/article/view/13022>

- Putra, Y. M. (2019). Analysis of Factors Affecting the Interests of SMEs Using Accounting Applications. *Journal of Economics and Business*, 2(3). <https://doi.org/10.31014/aior.1992.02.03.129>
- Rattanaprayoon, S. (2017). Empowering Accounting Efficiency and Effectiveness by Using Software Package for Village and Urban Community Fund of Municipal Area in Chiang Khong District, Chiang Rai Province. *Lampang Rajabhat University Journal*, 6(1), 158–172. <https://so04.tci-thaijo.org/index.php/JLPRU/article/download/69026/71348/224234>
- Romney, M. B., & Steinbart, P. J. (2018). *Accounting information systems*. Pearson Education Limited.
- Rovinelli, R., & Hambleton, R. (1976). On the Use of Content Specialists in the Assessment of Criterion-Referenced Test Item Validity. Undefined. <https://www.semanticscholar.org/paper/On-the-Use-of-Content-Specialists-in-the-Assessment-Rovinelli-Hambleton/14a18d4b0d4694911ff32b20de7f1f090088012e>
- Rungwarin, W. (2019). A Study of factors affecting intention and behavior of using mobile wallet to purchase online products or services. https://doi.nrct.go.th/ListDoi/Download/570160/dca8a77cb5244df826742584cc731aae?Resolve_DOI=10.14457/TU.the.2019.893
- Seethamraju, R. (2014). Adoption of Software as a Service (SaaS) Enterprise Resource Planning (ERP) Systems in Small and Medium Sized Enterprises (SMEs). *Information Systems Frontiers*, 17(3), 475–492. <https://doi.org/10.1007/s10796-014-9506-5>
- Suravongchaithawat, V., & Penvutikul, P. (2023). Application Factor of The Accounting Software Package That have an Effect on the Effectiveness of SMEs Accounting System in Thailand. *Tci-Thaijo.org*. <https://so04.tci-thaijo.org/index.php/JSBA/article/view/252298/174368>
- Suwan, M. (2013). *Research methodology in social sciences and humanities*. Odeon Store, Central Building 2 Room 2502, General Book, Khon Kaen University Library.
- Taiwo, J. N., & Agwu, E. (2016). Effect of ICT on Accounting Information System and Organizational Performance. *European Law Review*, 8(6), 01–01. <https://doi.org/10.21859/eulawrev-08061>
- Thottoli, M. M., & Ahmed, E. R. (2019). Adoption of Audit Software by Audit Firms: A Qualitative Study. *Journal of Information and Computational Science*, 9(9). https://www.researchgate.net/publication/336414371_Adoption_of_Audit_Software_by_Audit_Firms_A_Qualitative_Study
- Tilahun, M. (2019). A Review on Determinants of Accounting Information System Adoption. *Science Journal of Business and Management*, 7(1), 17. <https://doi.org/10.11648/j.sjbm.20190701.13>
- Udegbuma, E. O., Uchenu, C. A., Odimegwa, C. G., & Nwogu, M. C. (2018). Electronic Accounting A Tool for Quality Management of Small and Medium Scale Enterprises (Smes) in the 21st Century Nigeria. *Nigerian Journal of Business Education (NIGJBED)*, 5(2), 86–95. <http://www.nigjbed.com.ng/index.php/nigjbed/article/view/244>

- 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. <https://doi.org/10.2307/30036540>
- Watanamara, W. (2010). Dicision factor of using accounting information system and accounting application merchandising a case study of Thaveekijelectric company limited. <http://dspace.spu.ac.th/handle/123456789/2907>
- Wei, W. (2015). Internal Accounting Control Based on Computerization System. *Engineering Science*, 7, 151-158.
- Yoon, H.-Y. (2016). User Acceptance of Mobile Library Applications in Academic Libraries: An Application of the Technology Acceptance Model. *The Journal of Academic Librarianship*, 42(6), 687–693. <https://doi.org/10.1016/j.acalib.2016.08.003>