

-RESEARCH ARTICLE-

EXPLORATORY FACTOR AND STRUCTURAL EQUATION MODELLING ANALYSIS OF INCREASING EFFICIENCY OF ACCOUNTING OFFICERS WITH DEMING CYCLE

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—Abstract—

The majority of accounting firms in Rayong, Thailand's industrial province, struggle with an unbalanced client-employee ratio and a lack of efficiency. This study aimed to provide a guideline for increasing performance efficiency and investigate factors associated with improving performance efficiency in accounting offices in Rayong using the Deming Cycle technique. The population for this study comprised accountants from 79 accounting businesses in Rayong. Cluster sampling was used to choose the sample, followed by random sampling. 226 individuals completed the questionnaire in total. The percentage, mean, standard deviation, and exploratory factor analysis were utilized to analyze the data (EFA). Additionally, PLS-SEM was used to examine the relationship between variables. The findings indicated that EFA was composed of four components: checking, acting, planning, and doing. The importance of a guideline for boosting accounting offices' performance efficiency was regarded as high. When criteria were ranked, doing came out on top, followed by action, checking, and planning. Additionally, the SEM results revealed a clear correlation between accountant efficiency and all elements such as checking, acting, planning, and doing. Accounting firms can use the research findings to help them improve their service levels and operational efficiency, hence increasing client satisfaction.

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1. INTRODUCTION

The strategic plan for industrial development in Rayong from 2017 to 2021 established a guideline for industrial action to enhance the potential of the target businesses. The goals of this plan were to 1) apply technology and innovation to the business, 2) strengthen industrial business by creating operation standards and product quality, and 3) increase business potential by generating revenue, which will increase Rayong's GDP. Rayong's population density indicates that it is an industrial area. Accounting plays a crucial role in driving a business because it reflects a firm's performance and financial status. Thus, several juristic persons, who must submit their financial statements to the government under Thai civil and commercial law, tend to use an accounting firm's convenience, accuracy, and time-saving service. For these reasons, the number of accounting firms is increasing every year due to the growth of juristic persons.

During the two years of the Covid-19 pandemic, Thailand's industrial and service sectors' economies have been affected. However, according to public health, there are preventive measures to ensure employees' safety so that businesses can continue running and adapting to this situation. In Rayong, an average new juristic person registered is around 1,200-1,300 cases per year; 1,281 firms in 2020 and 1,202 firms in 2021. The rise of new businesses leads to accounting firms' need to help companies prepare their financial documents, provide information for their business decisions, and prepare reports for government agencies.

The main factor driving an accounting firm is accountants. They must have knowledge, competence, and skills. Furthermore, they have to comply with professional accounting ethics to work efficiently. Interestingly, the number of members of the accounting office in Rayong Province has increased steadily since 2018; 1,302 firms in 2018, 1,386 firms in 2019, and 1,444 firms in 2020. The researcher believes that an accounting firm's business has great potential to grow in the future, but the accountants need to provide good service quality to customers in terms of reliability and honesty. [Kirkpatrick, Sturdy, Alvarado, Blanco-Oliver, and Veronesi \(2019\)](#) explained the importance of service efficiency in accounting firms by comparing productivity and resource consumption, which can be reached in several economic, administrative, and social dimensions. Therefore, this research aimed to analyze the exploratory factor for increasing performance efficiency with the Deming Cycle strategy of accounting offices in Rayong. The findings of this study can be applied to accounting firms to improve operational processes to achieve higher standards and become high-quality accounting firms in Thailand.

Thailand is one of the growing economies where significant corporations operate their business practices and contribute to the economy's GDP growth and raising its level in the worldwide market. Massive corporations are engaged in important transactions. They have to deal with a vast volume of financial data coming from transactions, and their accounting reports play a crucial part in capital marketing. They maintain a specific accounting department or obtain services of accounting firms or accountants. The performance of the accountants influences the companies' goodwill in the market and subsequently affects their performance. So, knowledge must be generated on how employees' performance efficiency in accounting can be increased. The present study represents an initiative in this direction. The study's purpose is to analyze the influences of checking, planning, acting, and doing processes on the employee performance efficiency in accounting.

Though employee performance is not a novel subject among academics or scholars to be examined, it is nonetheless a remarkable contribution to the literature. First, many literary essays explore the consequences of checking, planning, acting, and procedures on staff efficiency. But, it is accepted that these processes for their impacts on staff efficiency have been investigated in different articles. The present study, which amalgamates the influences of checking, planning, acting, and performing processes on staff efficiency, adds to economic literature. Second, most earlier authors have examined the effects of checking, planning, action, and doing processes on staff efficiency in commercial enterprises without distinguishing their specialty. The present study is a differentiation in the existing literature in that it evaluates the impacts of checking, planning, acting, and doing processes on staff efficiency, notably in the accounting area. Third, the problem of the personnel with bad efficiency in the accounting area in Thailand's economy has long been there, and many organizations have to confront its adverse results. But little research has been undertaken to explore the function of checking, planning, acting, and doing processes in enhancing the staff efficiency in the accounting system in Thailand. The present study that is intended to analyze the influences of checking, planning, action, and doing processes on the employee performance efficiency in the accounting context of Thailand's economy provides a significant contribution to literature.

The present paper is comprised of multiple parts. After establishing the study issue, the report presents existing literature that deals with the effects of checking, planning, action, and doing processes on the employee efficiency in accounting with the purpose that an adequate hypothesis regarding their relationship may be created. Next, the paper outlines the methodology utilized to gather data and its analysis to assess the study hypotheses' dependability. The results about the relation among the understudy constructs can be extracted and compared with the prior studies for validity. Afterward, light is thrown on study implications, followed by study limitations.

2. LITERATURE REVIEW

The current article examines the Deming cycle's impact on employee efficiency, and the study by [Kholif, Abou El Hassan, Khorshid, Elsherpieny, and Olafadehan \(2018\)](#) claimed that the quality of work could be improved. He proposed a workflow for production systems that could systematically provide good quality products and services or streamline the working processes. This strategy can be applied to all professions or even people's daily lives. The Deming cycle or PDCA under teamwork and continuous improvement consists of four steps. Firstly, "plan" refers to defining clear objectives, goals, plans, processes, methods, time, personnel, and budget.

Secondly, "do" is defined as implementing the strategy continuously. The success of the plan implementation requires good cooperation from team members.

Moreover, if operations do not align with the strategy, the procedure may need to be adjusted. When the modified plan is appropriate, it can be used and implemented. Then, "check" is to evaluate results after implementing the plan. The last process is "act," taking the results from the checking process and improving them. If the operating results do not follow the procedure, the cycle of PDCA needs to be continuously performed. The Deming cycle is a continuous process for systematic and sustainable management. It can start from any step of operations, depending on problems, workflows, or other factors. It may begin with examining the needs of an organization and comparing them with actual conditions. By doing this, the solutions will be found according to the [La Verde, Roca, and Pugliese \(2019\)](#) suggested that successful quality management relies on a quality cycle or Deming cycle (PDCA), which should be repeated continuously.

Moreover, quality management cannot be done by just one person; it must be done throughout the organization because quality management is a philosophy for the organization and its people. The benefits of applying the Deming cycle or PDCA are as follows: 1) increased efficiency and effectiveness, as this process begins by identifying problems that must be fixed to achieve an organization's goals; 2) continuous improvement and development, as this is a repeatable process that results in the highest efficiency; 3) ease of decision-making, has clear goals, and measurements have been established, and assessment results can be used for future planning. When anything goes wrong, it is much easier to maintain control of the situation and avoid future dangers. Many scholars have given concepts of efficiency. [Dong et al. \(2021\)](#) defined Human Efficiency as a relationship between positive outcomes and contributions to work. In the context of an individual's employment, performance is measured by comparing the resources committed to a job, such as effort and energy, to the job's outputs. [Simon \(1960\)](#) suggested that the relationship between inputs and outputs can determine efficient work. When an accounting firm serves good accounting services, it will create customer satisfaction.

Sun, He, Ning, Song, and Pang (2021) focused on organizational executives. He stated that overall organizational efficiency should focus on the organizational structure, goals, relationship of the employee, and management. Additionally, he defined 12 principles of efficiency as 1) Clearly Defined Ideal, 2) Common Sense, 3) Competent Counsel, 4) Discipline, 5) Fair Deal, 6) Reliable, Diate, Accouate, and Pernament Records, 7) Dispatching, 8) Standards and Schedules, 9) Standardized Conditions, 10) Standardized Operations, 11) Written Standard-practice Instructions, and 12) Efficiency-reward. In short, efficiency starts with everyone in an organization by working together towards the same goal and direction in order to get the right results and create customer satisfaction. Effectiveness is “Doing the Right Things” while achieving the goal with minimum resource consumption, or “Doing Things Right” is efficiency.

Maintaining or improving the employees' efficiency in the accounts management department or any other business area depends on the checking process applied by the concerned employees or seniors. Suppose an effective method is periodically for analyzing the performance of the employees. In that case, it becomes clear whether their actions cause some risks or problems for the firm, where the errors are, and the causes. When the risks, concerns, or mistakes are found, and the reasons behind them are determined, it becomes easy to avoid the dangers and remove the errors or issues by controlling the reasons. Thus, the checking processes are applied to improve the employees' work efficiency as it clarifies which errors or wrongdoing they must not commit in the subsequent work (Bramasto & Adiwiguna, 2020). A study was conducted by Dubey, Kaushik, and Sengar (2019), to investigate the checking process's role in improving employees' efficiency in accounts management. The study reveals that when continuous techniques are applied to check or evaluate the performance of employees, they focus on their functioning more attentively, follow the discipline, apply the set standards of accounting, and prepare proper reports about their work. Thus, they are more likely to improve their performance. Based on the above discussion, it can be hypothesized:

H1: Checking process has a positive relation to employee efficiency.

After the checking process is applied to evaluate the employees' performance in the accounts office and their consequences, a planning process is used. In the planning process, a list of guidelines is prepared so that the errors in employees' work can be removed and further improvements can be made. Effective planning and proper strategies can be useful to improve the employees' performance. Vo (2018)'s literary workout addresses the function of planning in increasing accountants' work efficiency. The report asserts that accounting plans outline the duration of work, recommendations for establishing alignment between work performance and corporate goals, and procedures for resolving problems. When accounting strategies are followed correctly,

individuals can be discouraged from avoiding work, acting against company goals, or making errors due to a lack of enthusiasm or attention. So, the employees' overall performance is improved. [Zafar and Zia \(2021\)](#) claim that common and well-defined accounting standards are described as effective planning and set performance indicators. When the employees properly follow these standards, they work according to the performance indicators. The accounts are accurate and transparent, indicating improved employees' performance. Hence, we can say:

H2: The planning process has a positive relation to employee efficiency.

When the checking process has been applied for the employee performance evaluation and plans, have been prepared to define how to work deficiency can be controlled, and performance can be improved, the next task is to employ an effective action process for practical improvement in employee efficiency. [Lestari and Santoso \(2019\)](#) analyze action process contribution to improving employee work efficiency. They believe that personnel must reflect thoroughly on their prior mistakes, learn from them, and apply what they've learned to future performance. If they have not encountered any significant obstacles in their previous job and have achieved the expected results, they must establish more significant following goals and take action to achieve them. When personnel takes practical steps to carry out established strategies, they perform more efficiently than before. [Osazefua \(2019\)](#) considers the action process immediately after applying the checking process. They offer the notion that only the employees who take effective actions like using previous mistakes for improvement, setting further improvement goals, preventing the repetition of mistakes, following the defined improvement standards, preparing plans, and implementing those plans improves employee work efficiency. Based on previous discussion about employee efficiency, the following hypothesis can be developed:

H3: The action process has a positive relation to employee efficiency.

In the employee efficiency improvement cycle, the doing process comes last. It is the preparation before starting their work next. The employees must make it their habit to keep a continuous check on the work done just before. Thereby, they can prevent error occurrence in their work or overcome the negative consequences of the errors before affecting other business practices or decisions. This improves the performance of the employees in accounting or other businesses departments and motivates them to acquire the desired organizational goals ([Javed & Idris, 2018](#)). It is expected from firm employees to assist in gaining the business goals and maintaining its reputation among stakeholders. The employees in the accounting department must prepare the accounts so that they can record the transactions accurately and transparently and determine the correct financial position of the firm. When the accountants feel their responsibility and try to do their best to achieve the business goals, they perform their functions like

managing revenues and spending, recording transactions, determining the firm financial position, and preventing financial risks (Retolaza, Aguado, & San-Jose, 2020). These literary arguments suggest the following hypothesis:

H4: Doing the process has a positive relation to employee efficiency.

3. RESEARCH METHODOLOGY

The study area of this research was 79 accounting businesses in Rayong. A sample was of accounting firms' members, accounting for 226 samples. The sampling approach in this study begins with cluster sampling, followed by the random sampling method. The variables studied in this research were: 1) independent variables, which were elements for boosting performance efficiency using the Deming Cycle method of accounting offices in Rayong such as planning, doing and checking and action 2) dependent variable was the efficiency of staff. The questionnaire was employed as a research tool in this study. The questionnaire has two components. Section one was a respondent's personal information. Section two was connected to elements for boosting performance efficiency with the Deming Cycle method of accounting offices in Rayong. The questions in this section were measured on a five-point Likert scale, where five represented "very important" and one represented "unimportant." The questionnaire was verified using the Index of Item-Objective Congruence (IOC) by three academic experts to analyze the consistency between questions and study objectives. The IOC value must be greater than 0.5 to assume that the query is consistent with research aims. Then, a trial of 30 samples was undertaken to test the reliability of the questionnaire by Cronbach-Alpha and discrimination analysis. This questionnaire obtained a Cronbach-Alpha value of 0.948 and a discrimination value of between 0.420 and 0.754, which is reliable if the number of Cronbach-Alpha is more than 0.800 and discrimination is more significant than 0.30.

The researcher collected data by calling accounting offices to make an appointment to distribute the questionnaire to accountants and sending the questionnaire by mail to offices that were inconvenient to meet. The questionnaire was distributed to 79 accounting firms in Rayong, and 226 sets of questionnaires were returned. The questionnaires were adapted from Matsuo and Nakahara (2013) such as the checking (CH) process has nine items, the action (AC) has eight items, the planning (PL) process has nine-item, doing (DO) process has six items and employee efficiency (EEF) has five items. These items with sources are given in Table 1.

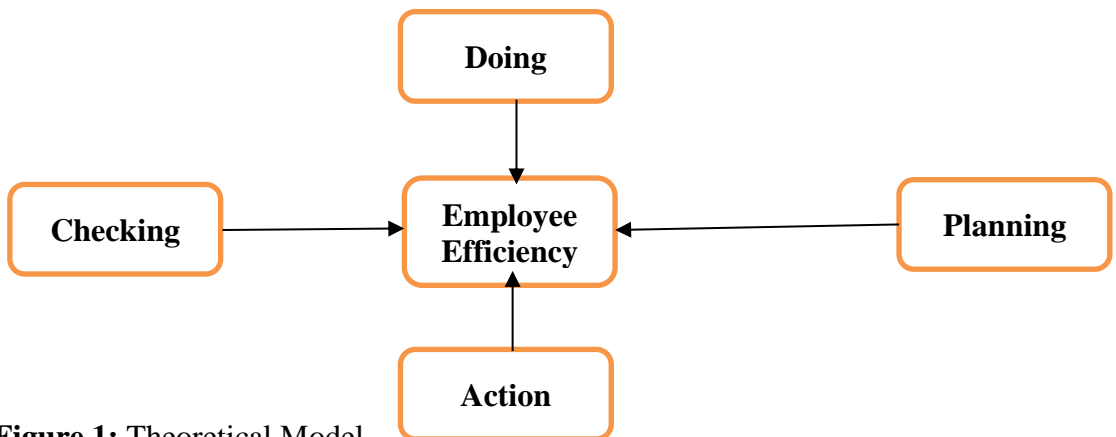
Table 1. Items of the Variables

Items	Statements	Sources
Checking		
CH1	Analysis of the root causes and revision	(Matsuo & Nakahara, 2013)
CH2	Identify the causes of mistakes	
CH3	Determine clear inspection methods	
CH4	The performance was under the goals.	
CH5	Prepare a performance report	
CH6	Compare the performance with a plan	
CH7	Determine the systems for inspection and evaluation	
CH8	Work follows a plan with discipline	
CH9	Able to give good advice on accounting to customers	
Action		
AC1	Use the previous mistakes to improve the work	(Matsuo & Nakahara, 2013)
AC2	When the goal is reached, keep setting higher following goals for improvement	
AC3	Establish a plan to prevent repeat errors	
AC4	Clearly defined standards for improvement	
AC5	Problems can be solved immediately	
AC6	Analyze the results of the assessment to improve a plan	
AC7	Adjust a plan to be appropriate for a specific situation	
AC8	Keep the accounting up to date	
Planning		
PL1	Always plan ahead	(Matsuo & Nakahara, 2013)
PL2	Determine the duration of work	
PL3	Set clear guidelines for working	
PL4	Set performance indicators	
PL5	Set clear goals	
PL6	Prepare to deal with problems	
PL7	Work under performance indicators	
PL8	Work promptly	
PL9	Work according to guidelines	

Table 1. Continued

Doing		
DO1	Prepare before starting work	(Matsuo & Nakahara, 2013)
DO2	Always check the work done	
DO3	Clearly define work objectives	
DO4	Analyze assessment results and apply them to future work	
DO5	Work according to a plan	
DO6	Work with honesty and integrity	
Employee Efficiency		
EEF1	The checking process can enhance my performance in the organization.	(Matsuo & Nakahara, 2013)
EEF2	The planning process can improve my performance.	
EEF3	The doing process also improves the performance of the employee.	
EEF4	The action process also leads the employee towards high performance.	
EEF5	Overall Deming cycle improves the employee performance	

To check the relationships among checking (CH), action (AC), planning (PL), doing (DO), and employee efficiency (EEF), the PLS-SEM was executed. For this purpose, checking (CH), action (AC), planning (PL), and doing (DO) processes are used as the independent variables, while employee efficiency (EEF) has been taken as a dependent variable. These variables are mentioned in [Figure 1](#).

**Figure 1:** Theoretical Model

4. RESULTS

According to the respondents' personal information, most of the respondents were female (88.05%) and under 25 (48.23%). The largest group of respondents was accountants (73.89%). The work experience was mainly under five years (53.54%). The number of employees in an organization was concentrated on over five people (84.07%). The correlation matrix between variables found the KMO (Kaiser-Meyer-Olkin Measure of Sampling Adequacy) value of 0.931, Chi-Square of 4638.249, and Sig. = .000. The KMO value must be greater than 0.50 to be able to analyze EFA. Thus, it can imply that all variables were correlated and appropriated for further analysis of the Exploratory Factor Analysis (EFA). Exploratory factor analysis of factors for increasing performance efficiency with the Deming Cycle strategy of accounting offices in Rayong from Eigenvalue consisted of four factors, for which Eigenvalues were from 3.124 to 5.197, the percentage of variance was from 10.221 to 16.240, and the percentage of cumulative variance was from 16.240 to 58.550.

The results in [Table 2](#) illustrate that the checking process contained nine factors with factor loadings from 0.758 to 0.849, Eigenvalue of 5.197, the percentage of the variance of 16.240, and the percentage of the cumulative variance of 16.240. In the first component, checking, the item of able to give good advice on accounting to customers was the most important because it had the highest factor loading value.

Table 2. EFA for Checking The Process

No.	Observes	Factor Loading
CH1	Analysis of the root causes and revision	0.827
CH2	Identify the causes of mistakes	0.831
CH3	Determine clear inspection methods	0.832
CH4	The performance was under the goals.	0.845
CH5	Prepare a performance report	0.777
CH6	Compare the performance with a plan	0.835
CH7	Determine the systems for inspection and evaluation	0.794
CH8	Work follows a plan with discipline	0.758
CH9	Able to give good advice on accounting to customers	0.849
	Eigenvalue	5.197
	Percentage of variance	16.240
	Percentage of cumulative variance	16.240

The results in [Table 3](#) show that the action process comprises eight indicators with factor loadings from 0.920 to 0.940, Eigenvalue of 5.099, the percentage of the variance of 15.933, and a cumulative variance of 32.173. In the action component, clearly defined

standards for improvement were the most critical factor as it had the highest factor loading.

Table 3. EFA for Action Process

No.	Observes	Factor Loading
AC1	Use the previous mistakes to improve the work	0.920
AC2	When the goal is reached, keep setting higher following goals for improvement	0.931
AC3	Establish a plan to prevent repeat errors	0.930
AC4	Clearly defined standards for improvement	0.940
AC5	Problems can be solved immediately	0.925
AC6	Analyze the results of the assessment to improve a plan	0.927
AC7	Adjust a plan to be appropriate for a specific situation	0.943
AC8	Keep the accounting up to date	0.924
	Eigenvalue	5.099
	Percentage of variance	15.933
	Percentage of cumulative variance	32.173

The results in [Table 4](#) indicate that the planning process includes nine indicators with factor loadings from 0.579 to 0.865, Eigenvalue of 4.779, the percentage of the variance of 14.935, and the percentage of the cumulative variance of 47.108. In the planning component, setting clear goals was the most crucial factor.

Table 4. EFA for the Planning Process

No.	Observes	Factor Loading
PL1	Always plan ahead	0.830
PL2	Determine the duration of work	0.860
PL3	Set clear guidelines for working	0.850
PL4	Set performance indicators	0.813
PL5	Set clear goals	0.865
PL6	Prepare to deal with problems	0.858
PL7	Work under performance indicators	0.852
PL8	Work promptly	0.780
PL9	Work according to guidelines	0.579
	Eigenvalue	4.779
	Percentage of variance	14.935
	Percentage of cumulative variance	47.108

The results in [Table 5](#) indicate that the doing process includes six indicators with factor loadings from 0.834 to 0.951, Eigenvalue of 3.661, the percentage of the variance of 11.441, and the percentage of the cumulative variance of 58.550. The results show that constantly checking the work done was the most significant factor in the doing component.

Table 5. EFA for Doing the Process

No.	Observes	Factor Loading
DO1	Prepare before starting work	0.950
DO2	Always check the work done	0.951
DO3	Clearly define work objectives	0.835
DO4	Analyze assessment results and apply them to future work	0.948
DO5	Work according to a plan	0.834
DO6	Work with honesty and integrity	0.950
	Eigenvalue	3.661
	Percentage of variance	11.441
	Percentage of cumulative variance	58.550

The results in [Table 6](#) indicate that the employee efficiency includes five indicators with factor loadings between 0.764 to 0.881, Eigenvalue of 3.124, the percentage of the variance of 10.221, and the percentage of the cumulative variance of 57.632. The results show that the planning process can improve my performance was the most significant factor in the doing component.

Table 6. EFA for Employee Efficiency

No.	Observes	Factor Loading
EEF1	The checking process can enhance my performance in the organization.	0.764
EEF2	The planning process can improve my performance.	0.881
EEF3	The doing process also improves the performance of the employee.	0.846
EEF4	The action process also leads the employee towards high performance.	0.878
EEF5	Overall Deming cycle improves the employee performance	0.863
	Eigenvalue	3.124
	Percentage of variance	10.221
	Percentage of cumulative variance	57.632

The current article has checked the convergent validity using average variance extracted (AVE), and the results exposed that the values are not less than 0.50 and exposed valid convergent validity. In addition, the results also disclosed that the Alpha and CR values are not smaller than 0.70 and indicated practical reliability. [Table 7](#) presents these results.

Table 7. Convergent Validity

Variables	Alpha	CR	AVE
AC	0.978	0.981	0.865
CH	0.938	0.948	0.668
DO	0.959	0.968	0.834
EEF	0.901	0.927	0.718
PL	0.935	0.946	0.663

The current article has checked the discriminant validity using Heterotrait Monotrait (HTMT) ratio, and the results exposed that the values are not bigger than 0.85 and exposed valid convergent validity. [Table 8](#) presents these results.

Table 8. Discriminant Validity

	AC	CH	DO	EEF	PL
AC					
CH	0.512				
DO	0.515	0.717			
EEF	0.420	0.507	0.487		
PL	0.445	0.484	0.425	0.434	

Finally, the SEM results also exposed that all the factors such as checking, action, planning, and doing have a positive nexus with accountant efficiency and accept H1, H2, H3, and H4. [Table 9](#) shows these findings.

5. DISCUSSIONS AND CONCLUSION

In conclusion, most respondents were female, under the age of 25, employed as accountants with fewer than five years of experience, and worked in accounting firms operating more than five people. The critical level of Deming's strategy is guidelines for boosting work efficiency in Rayong. The results indicate that the most vital aspect is the checking process, as it has the highest Eigenvalue. The organization's performance should be monitored to identify problems and implement corrective actions until new procedures or operating methods are completed. The findings corroborated the findings of [Sun, He, Ning, Song, and Pang \(2021\)](#), who discovered that performance assessment

components had the greatest Eigenvalue in quality management across the organization of Thai universities. The study demonstrated that a systematic internal and external quality audit and assessment procedure could provide insight into present performance and improve future operations.

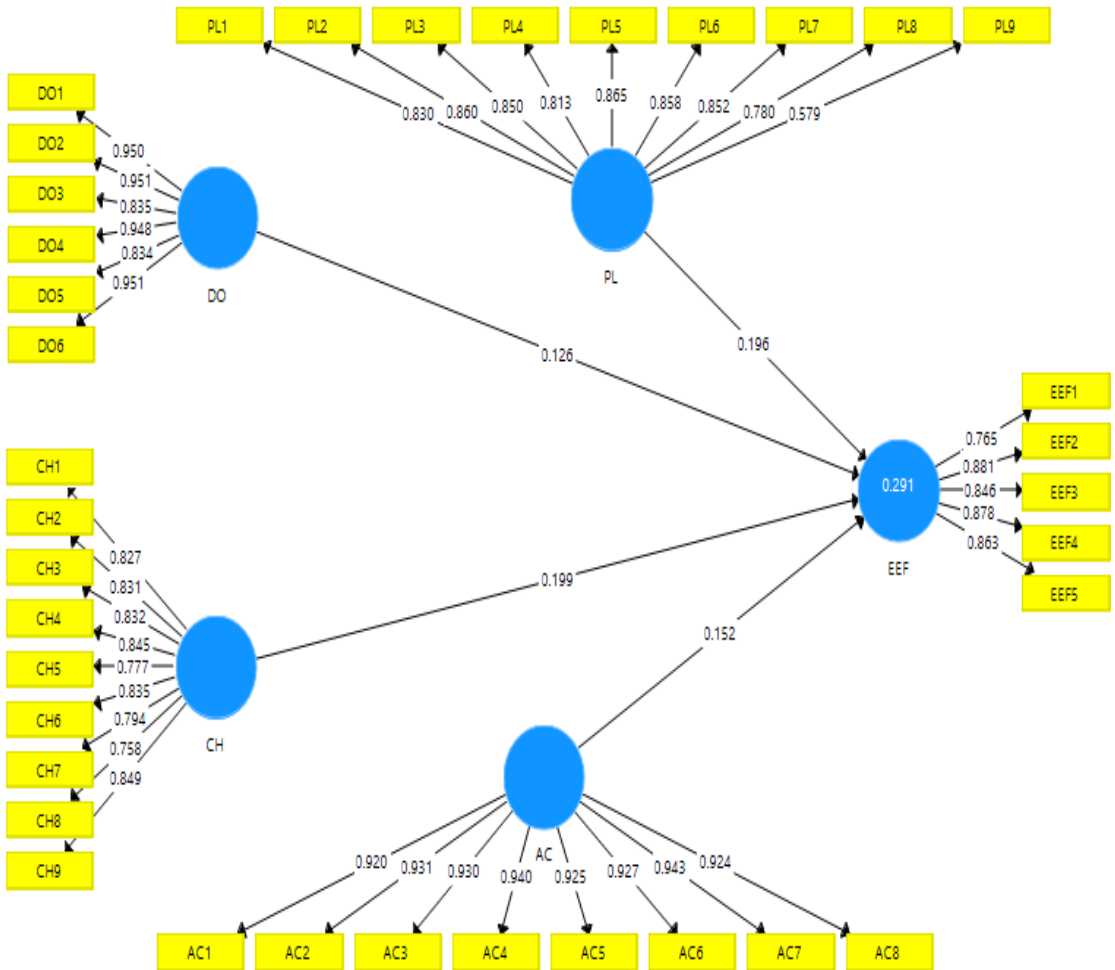


Figure 2: Measurement Model Assessment

Table 9. Path Analysis

Relationships	Beta	S.D.	T Statistics	P Values
AC -> EEF	0.152	0.078	1.963	0.026
CH -> EEF	0.199	0.095	2.081	0.020
DO -> EEF	0.126	0.095	1.324	0.094
PL -> EEF	0.196	0.071	2.775	0.003

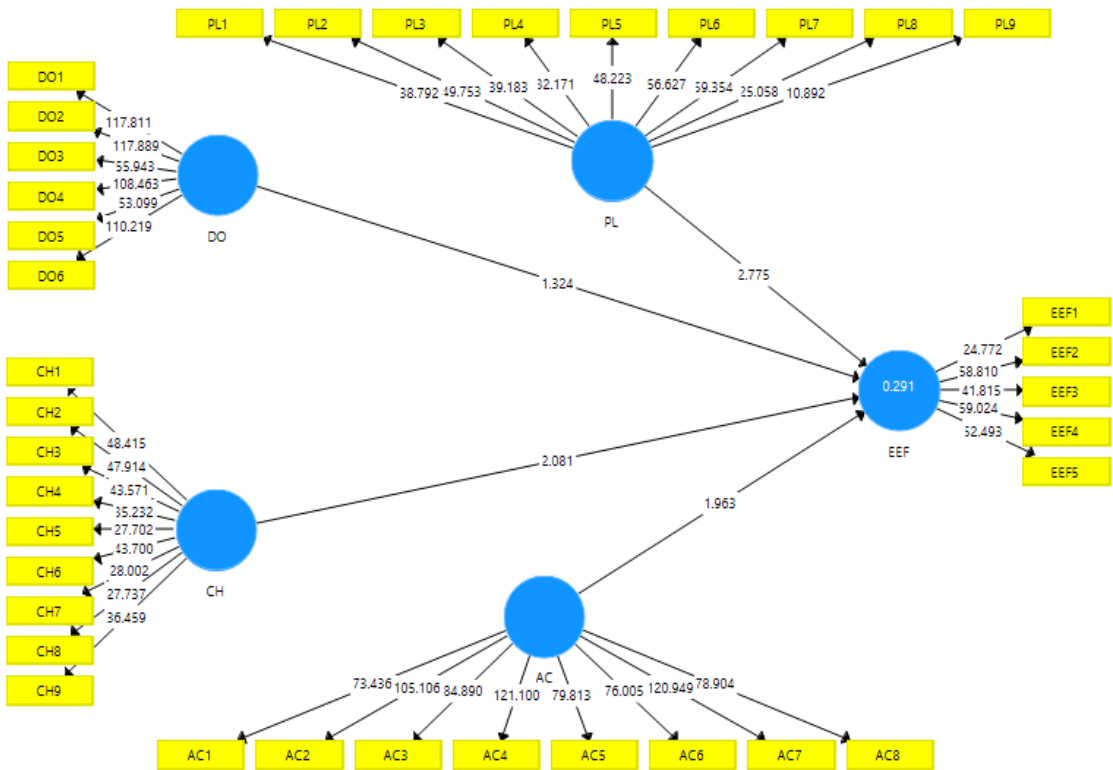


Figure 3: Structural Model Assessment

Meanwhile, James, Bennett, and Blum (2021) indicated that the most crucial qualification of modern accountants with the highest Eigenvalue was English language proficiency, which is concordant with the current situation when a firm receives a job from a foreign company. English is necessary to account in terms of bookkeeping and revision in English. Thus, an accountant must pay attention and be careful about the use of language.

This research indicated that the doing process had the highest score. It could imply that before starting work, preparation and clear objectives should be established, and then do the job following a plan with determination and honesty, as well as improve a current position from previous mistakes. Meanwhile, Schmutz, Meier, and Manser's (2019) study discovered that teamwork was the most critical element. A team should cooperate cooperatively to support and assist one another. However, Chen, Wang, Cui, and Li (2021) demonstrated that the doing procedure was a significant issue. Thus, the authors suggested that managers or executives should monitor, support, follow up on the work plan, and provide equipment for operations. The highest important scores were found in

the items “Work with honesty and integrity” and “Set clear goals.” To be successful, managers or executives must have a clear operational structure that can be adjusted according to the environment, economy, and society. In addition, workers should understand and follow their roles and duties. The results were under [Shin and Kong’s \(2021\)](#) study using PDCA theory. They found that work plans, methodology, and assessments should be established clearly by a manager or an executive.

Moreover, the use of experts is significant in providing technical advice to reduce the risk of work. [However, Yap, Lee, Rose, and Skitmore \(2020\)](#) found that preventive measure for corruption rooted indishonesty is morality and ethics cultivation. Executives should start to be role models in morality and ethics, not using power to corrupt for the benefit of themselves and partisans, encouraging operators to cultivate honesty by applying to the familiar thing first to be accepted and easy to follow.

[Meanwhile, Jack, Florez-Lopez, and Ramon-Jeronimo \(2018\)](#) found that accountants rated transparency, independence, fairness, and honesty as the most important factors for an accountant’s professional ethics. Thus, accountants should place a premium on their job, since it reflects their professionalism and the integrity of their organization. Additionally, they must be willing to work, eager, and willing to learn from previous mistakes, which they should communicate to the rest of the team. The results conformed to [van Dun and Wilderom \(2021\)](#) study that found employees should learn from previous mistakes and adapt to their current work to minimize potential risks and learn about innovations and technology. According to [Zandkarimi, Rennemeier, and Rehse \(2021\)](#) research, a mistake can happen at any time, but it should not be repeated. Employees should learn from mistakes and do their job to the best of their ability. Moreover, when a job does not follow a plan or meet a standard, an executive or a manager should take immediate action to fix the problems.

The study findings revealed that the checking process positively links to employees’ efficiency. These results agree with [Singh \(2022\)](#), which examine the checking process’s contribution to employees’ efficiency. The study posits that employees pay more attention to their job when continuous processes check or assess their performance. They maintain discipline, apply accounting rules, and create accurate reports on their work when continuous processes are used to check or evaluate their performance. As a result, individuals are more likely to enhance their results.

These findings also corroborate [Ma, Renwick, Yuan, and Ratna \(2018\)](#), who demonstrate that accountants are human and may make errors while performing their duties. When an effective checking method is used when completing accounting procedures, the occurrence of errors or mistakes is minimized. When errors are reduced, accountants’ efficiency increases. The study’s findings indicated that planning correlated with workforce efficiency. These findings corroborate [Malo-Alain, Aldoseri, and](#)

Melegy (2021) assertion that accounting strategies are developed in response to the results of the checking procedure. If there are errors or problems found in the current carried-on accounting practices, plans are made to minimize or remove these errors or problems, and if the accounting activities are performed according to goals desired by the firms, plans are made to bring further improvements. So, in any situation, the planning process can be useful to enhance the employees' efficiency. These results are also supported by Alawaqleh (2021), which states that effective plans for the evaluation of employees performance, reducing errors, and following steps like accounting standards and accounting goals setting improve the accountants' work efficiency. The study findings revealed that the action process positively links to employees' efficiency. These results agree with Yu, Gudergan, and Chen (2020), which throws light on the action process's role in improving employees' efficiency. The study implies that employees must reflect on their past experiences, learn from them, and apply what they've learned to help them grow in the future. If they haven't had any major challenges in their past job and have met their objectives, they should set greater next goals and take action to achieve them. Employees offer more efficient performance than before when they take effective steps to implement the stated strategies. The study findings revealed that the doing process positively links to employees' efficiency. These results match Chan, Kawada, Shin, and Wang (2020). This study is about the analysis of doing process and its contribution to employees' efficiency in accounting. This study proclaims that the employees' performance in the relevant area is assessed in the doing process, and plans are made to improve the situation. The accountants try to do their best to perform their functions efficiently. Hence, doing process contributes a lot to the improvement in employees' efficiently.

6. IMPLICATIONS AND LIMITATIONS

Accountants should conduct themselves honestly to maintain their credibility, and they should establish clear goals, as this is the first stage in an organization's strategic planning process. They could then pursue careers as professional accountants. Accounting business executives should create clear objectives and implement the Deming cycle (PDCA) since it is a straightforward and effective quality management method applied to any organization. Additionally, PDCA can be utilized to track performance. The Federation of Accounting Professions, which is under the Royal Patronage of His Majesty the King, might use the findings of this study to design training courses and seminars to help members have a better grasp of and ability to implement these concepts in their accounting firms. Additionally, it might serve as a venue for exchanging knowledge about team management to generate new knowledge. The current study establishes a framework for enhancing employee efficiency through effective checking, planning, action, and doing procedures, particularly in the accounting system, where employees must work meticulously.

The current study explores the effects of staff efficiency on the checking, planning, acting, and doing phases. Numerous additional aspects, such as human resource management, organizational support, and business size, also increase staff efficiency. As a result, future authors must consider these aspects while determining an employee's efficiency. This study focuses exclusively on employees' accounting efficiency. It investigates the role of checking, planning, action, and execution procedures in increasing employee efficiency in accounting organizations. However, staff efficiency is merely one of a firm's concerns. That is why the PDCA method should be researched in conjunction with other types of service organizations, such as hotels and banks, to obtain a deeper understanding and, as a result, produce guidelines for increasing labor efficiency in other types of service businesses. A Structural Equation Model should be undertaken in conjunction with a literature analysis of theory and academic notions to generate new information.

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