

## Factors of Internal Auditors' Characteristics in the Digital Age in Thailand

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### Abstract

A study on the factors of internal auditors' characteristics in the digital age in Thailand is a survey research using a quantitative descriptive method, and a questionnaire as an instrument for data collection. The samples were administrators of the companies registered with the Stock Exchange of Thailand (SET), the Market for Alternative Investment-MAI and groups of internal auditors. The statistics for data analysis were descriptive statistics consisting of percentage, mean and standard deviation including confirmatory factor analysis or CFA, system equation model-SEM. The model fit was assessed and it was found that the indexes of congruence of the model were: Chi-Square = 611.016, CMIN/df. = 1.089, CFI = 0.995, GFI = 0.903, IFI = 0.995, NFI = 0.941, AGFI = 0.836, RMSEA = 0.019 และ RMR = 0.021.

The results of the analysis of the factors of internal auditors' characteristics in the digital age in Thailand were statistically significant at level 0.01, namely : 1) those registered with SET having the most influences were characteristics of the internal auditors, followed by professionalism, work performance, digital skills, leadership and communication, and ability in handling changing environment respectively; 2) those registered with the Market for Alternative Investment-MAI having the most influences consisted of work performance, followed by professionalism, characteristics of internal auditors, digital skills, leadership and communication, and ability in handling changing environment respectively; 3) those within the groups of internal auditors themselves having the most influences, namely: characteristics of the internal auditors, followed by professionalism, work performance, digital skills, leadership and communication, and ability in handling changing environment respectively.

**Keywords:** Factors of Internal Auditors, Internal Auditors' Characteristics, Digital Age in Thailand

## Introduction

Currently, we are in the digital age which comes to play important roles in changing business rapidly which can be observed from the changed behaviors of customers in purchasing, financial transaction, using public transportation services and others, creating challenges among internal auditors a great deal. The business process and other activities in the past have been adjusted to be performed much more online, making information transferring and linking occur quickly. Such abrupt changes without notice may change our ways of life and the ways the internal auditors work. This could happen permanently and become a New Normal under which we have to adjust ourselves to new environment and find ways to confront with the changes (Bangkok Thurakit, 2020). The information in the Big Data has to be brought into analyzed and used in the internal auditing by finding the relationship of the information, as well as using the Data Analytics method in the internal auditing system when everything is driven by the term “digital”. The same is true when getting access to customers, including using other media like iPad, Tablet to help facilitate the customers within the rapid changes in digital transformation and the society driven by the Big Data. It is therefore necessary for the internal auditors to adjust themselves to keep up with the new world of auditing which is aimed at developing new information technology and innovation that directly affect auditing work. The internal auditors must always develop themselves by learning new skills, both thinking skill, technical skill and digital skill in order to cope with the changes, and also increase the standard of internal auditing in a creative manner, creating both efficiency and effectiveness to the organization. Therefore, the internal auditors must adjust themselves to be well-rounded, having both thinking skill, using equipment including social skill in order to be more professional and reliable. It is a kind of value-added to the organization which is an important factor of the internal auditor in the new digital age, a new model for driving the country’s economy to adjust its structure toward the economy driving by value-based economy where an integrated internal auditing is required. It is necessary that the internal auditing be developed to cope with this changing world situation in order to fulfill the organization’s objectives by evaluating and improving the effectiveness of risk management, controlling, and monitoring by means of the internal auditors analyzing, suggesting and giving advice pertaining to the internal auditing system (Chomprang Wongrasameeduean, 2021).

At present, internal auditing has been developed in terms of roles and forms with the aim at changing the outsiders’ negative attitude by finding false to promoting the work to be successful or adding up value to the internal auditing organization to listen to the facts occurring, coordinate or give consultation for the work to achieve the management’s objectives. The internal auditors’ roles, therefore, change according to a new model of economic drive of Thailand into an innovation-driven economy, making the internal auditors have wider roles and functions to play which will affect the organization’s success. This is where their important roles come from in the new era, and this why the internal auditors become an important mechanism in a business sector that enables us to move forward steadily in the world economic context with a clear recovery tendency but with more risks occurring as well. Under the world with high risks, we will also confront with changes on leaping technological progress and disease epidemic which will alter our way of life, ways of working, relationship of people in the society, and also will bring both an opportunity and new challenges. The internal auditing, therefore, is an important tool to make the organization perform properly and transparent because it is a mechanism that helps increase ability to control, report and follow up the operation. The internal auditors take parts with administrators at different levels in order to find appropriate and efficient ways and method of job performing under the increasing

competition. Also, the internal auditing has important roles in assisting the organization to have transparent management, good monitoring and have important roles in making value-added to the organization, as well as developing the organization to have sustainable strength. This is the reason why the researchers are interested to investigate the factors of internal auditors' characteristics in the digital age in Thailand.

## Objective

To investigate the factors of the internal auditors' characteristics in the digital age, analyze and compare the required factors that should be developed for the internal auditors.

## Literature Review

### Related Concepts on Internal Auditing

Internal auditing as defined by the Association of Internal Auditing of Thailand (2004) refers to giving assurance and consultation with justice and independence in order to add values and improve of an organization. The internal auditing helps the organization achieve its goal by an evaluation and improvement of effectiveness of the process, risk management, control, and with systematic and orderly management which is consistent with the Comptroller General's Department (2003). Also Silapaporn Srichanpetch (2011) has defined internal auditing in the same manner, and Kanjana Wimonchaijit (2015) has concluded it is an activity giving assurance and consultation independently and justly established to create added values and improve an organization operation. The internal auditing could be classified into types, namely:

1. Assurance services refer to checking various evidence with justice in order to be evaluated independently in the process of risk management, control and good management of the organization by performing the work with care based on the profession standard like the professionals.

2. Consulting services refer to suggestion activities and services related to the organization, types and work frame are in line with joint agreement of the organization with the aim to add values and improve work performance of the organization.

### Related Concepts on Using Technology in Internal Auditing

The era 4.0 is full of changes, sustainable driving an organization forward in the world of VUCA is volatile, uncertain, complex and ambiguous. Wirathai Santipraphop (2017) states that the internal auditor gives importance in three aspects, namely:

#### Dimension 1 Productivity

The internal auditors increase their roles in examining performance audit using 3E principle, namely Economy, Efficiency and Effectiveness in an evaluation of using resources in different projects or processes of the organization if they are worthwhile and meet its set objective which will eventually lead to increasing the efficiency and image of the organization. However, this kind of internal auditing will be different from in the past, the auditors have to realize thoroughly understand the goal and the how different sides of work in the organization are performed. The auditors could increase their efficiency in their work by using technology such as Data analytics/Artificial intelligence. In the future this technology will be an important tool in the internal auditing in the digital age. Certain organizations may have Real Time Data

Base. This development will enable the internal auditors to have the source of data to find errors or signs of risks.

### **Dimension 2 Immunity**

The best immunity of the organization is corporate or organization culture that takes into consideration of risks or risk culture. To make everyone in the organization have If the risk culture can not be made successfully, if everyone in the organization is not aware that the internal auditors are their trusted partners who know the risks and keep warning of dangers and also their consultants who can help risk management.

### **Dimension 3 Inclusivity**

To promote the organization realize in being good corporate citizen in order to have inclusivity where benefits spread all over will decrease social problems, particularly inequality or will not aggravate or add up the existing problems. The organization administrator has to establish good corporate citizen where the internal auditors can assure the committee and administrators that a good governance and sustainability policy can be brought into real practice in the organization.

## **Research Methodology**

### **Population and Samples**

The population for the study were administrators of the companies registered at the Stock Exchange of Thailand (SET) consisting of eight groups with a total number of 580 companies (as announced at the SET on 3 September 2021) and the administrator of the eight groups registered at MAI with a total number of 197 companies (as announced at the SET on 3 September 2021) including the internal auditors. The samples, based on Taro Yamane (1970) with reliability at 95%, statistical error 5% consisting of 600 samples divided by the researchers into three groups, namely:

Group 1 all of the eight groups of administrators of the companies registered at the Stock Exchange of Thailand (SET) with a total number of 580 companies 150 samples.

Group 2 all of the eight groups of administrators of the companies registered at MAI with a total number of 179 companies 150 samples.

Group 3 the internal auditors collected by purposively sampled with a total number of 200 samples.

### **Research Instrument**

The questionnaire is an instrument for collecting quantitative data since its contents are related the characteristics of the internal auditors on professionalism, operation, ability in confronting with the necessary changing environment, leadership and communication, and digital skills. The questionnaire is designed into types, namely: 1) questionnaire for administrators, and 2) questionnaire for the internal auditors. Both types are different from each other only in Part 1, general information of the respondent. However, the questionnaire used in this study is divided into three parts, namely: questionnaire on, questionnaire on opinions towards the factors of internal auditors' characteristics in the digital age in Thailand, and the opened questionnaire for respondents express their ideas if there are any other factors of the internal auditors' characteristics apart from those in Part 2. Afterwards, the whole data collected would be used for an analysis according to the objectives of study.

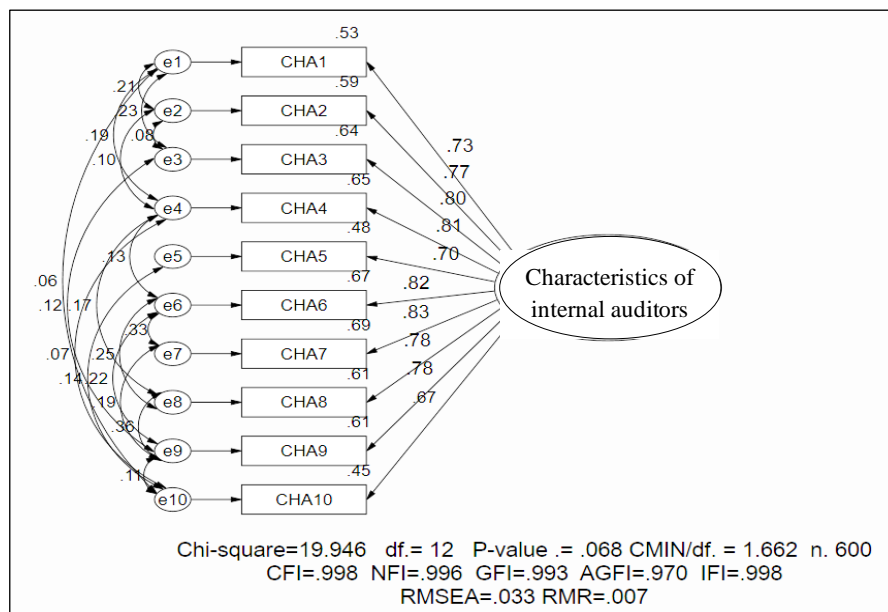
### Statistics for Data

The confirmatory Factor Analysis: CFA was used to examine the constructive validity of the factors on each side, that is professionalism, operation, ability in confronting with the necessary changing environment, leadership and communication, and digital skills in order to check whether they have been examined the theoretical validity, and content validity by experts and are true according to the empirical data using Structural Equation Model: SEM by AMOS program, Standardized Regression Coefficient, Standard Error, t-Value, Critical Ratio (C.R.) and Average Variance Extracted: AVE followed by an Evaluation of the Data Model Fit. The statistics used in examining appropriateness of the empirical data and theoretical validity were: 1) Chi-square Probability Level: CMIN-p, 2) Relative Chi-square: CMIN/df, 3) Goodness of Fit Index: GFI, and 4) Root Mean Square Error of Approximation: RMSEA.

### Research Finding

Based on the analysis the researchers have found the results as detailed as follows.

**1. The result of an analysis of a confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand on characteristics of internal auditors.**

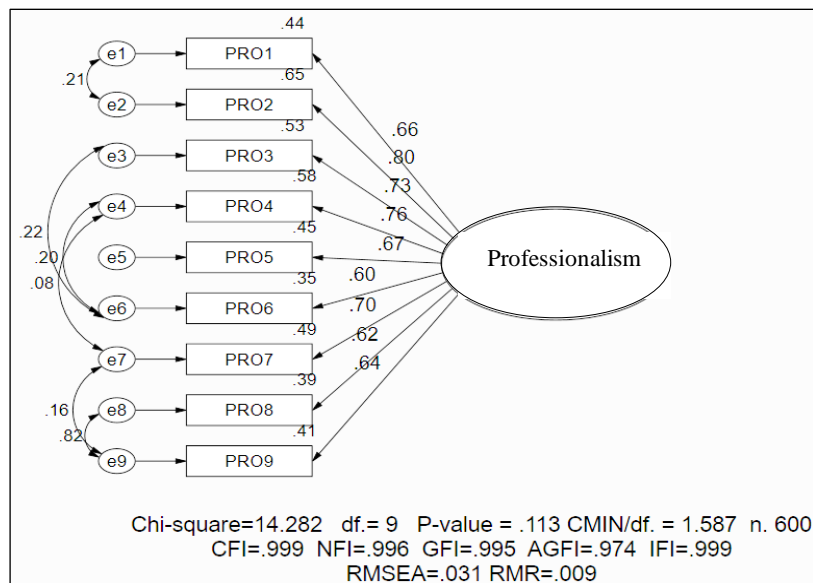


**Figure 1:** Variance Model A Variance Model indicating a confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand

The Variance Model indicating a confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand could be concluded that the model was valid and in line the empirical data at a good level with the CFI, GFI, AGFI, RMSEA, RMR, NFI and the IFI passing the set criteria (0.90). This showed that the model validity in measuring the internal auditors' characteristics in the digital age in Thailand was valid. Besides the weight of coefficient between 0.67-0.83 and Variance Extracted between 0.06-0.08 were between the satisfactory criteria, R<sup>2</sup> for each item between 45.0-69.0%, AVE 0.592 more than 0.50, and CR Of 0.935 more than 0.60 indicating that the validity and reliability of the variance used in the analysis. And the result found that the correlation between observable variance was

between 0.516 – 0.592, more than 0.50 and CR equal 0.935 more than 0.60, indicating that the validity and reliability of the variance used in the analysis. And the result found that the correlation between observable variance was between 0.516 – 0.782 was positive and not more than 0.80 and had no problem on being independent between the variances.

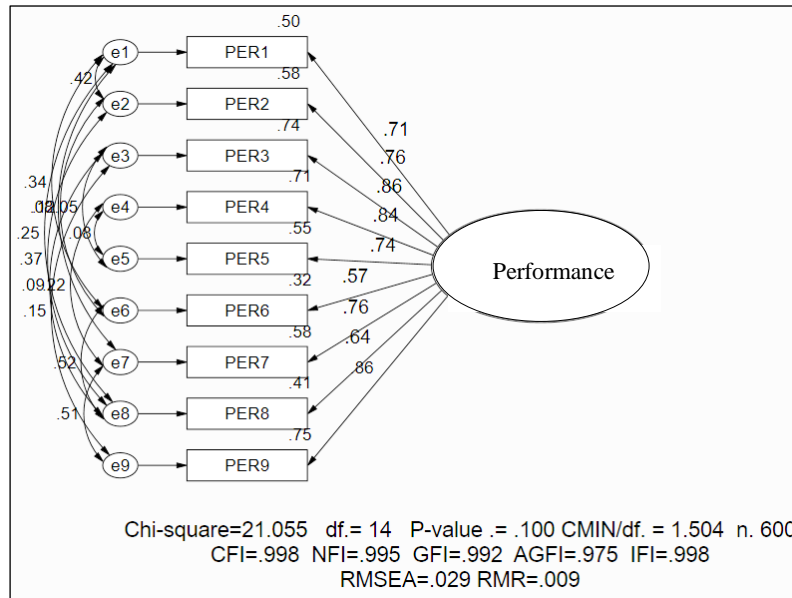
## 2. The result of an analysis of a confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand on professionalism.



**Figure 2:** A confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand on professionalism.

The confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand on professionalism could be concluded that the Model was valid and the measuring model was line with the empirical data at a good level with the CFI, GFI, AGFI, RMSEA, RMR, NFI and the IFI passing the set criteria (0.90). This indicated the validity that the model validity in measuring the internal auditors' characteristics in the digital age in Thailand was valid. Besides the weight of coefficient between 0.62 - 0.80 0.62 - 0.80, the variance Extracted between 0.08 - 0.11, in the satisfactory criteria, R<sup>2</sup> of each item at 36.0-65.0%, AVE) equal 0.576 more than 0.50, and CR equal 0.890 more than 0.60 which indicated the validity and reliability of the variances used in the analysis. Besides, the correlation between observable variance was between 0.388 - 0.894 was positive and not more than 0.90 and had no problem on being independent between the variances.

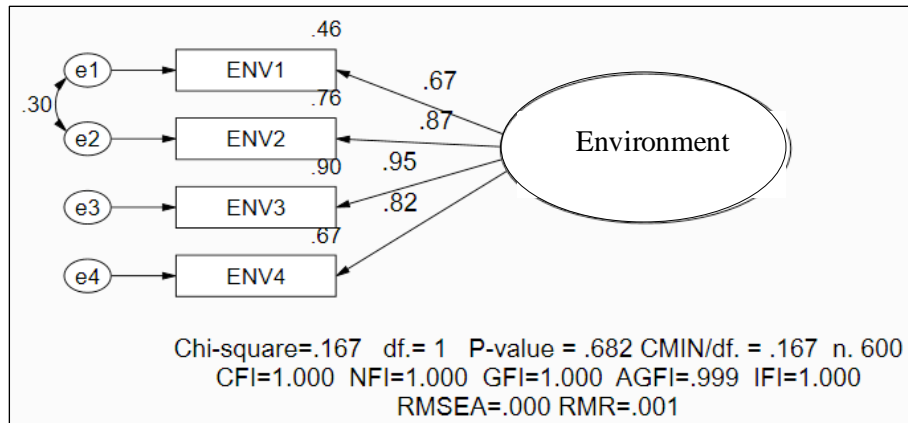
### 3. The result of an analysis of a confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand on performance.



**Figure 3:** A confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand on performance.

The confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand on performance could be concluded that the Model was valid and the measuring model was line with the empirical data at a good level with the CFI, GFI, AGFI, RMSEA, RMR, NFI and the IFI passing the set criteria (0.90). This indicated the validity that the model validity in measuring the internal auditors' characteristics in the digital age in Thailand was valid. Besides the weight of coefficient between 0.62 - 0.80 0.62 - 0.80, the variance Extracted between 0.08 - 0.11, in the satisfactory criteria, R2 of each item at 36.0-65.0%, AVE) equal 0.576 more than 0.50, and CR equal 0.890 more than 0.60 which indicated the validity and reliability of the variances used in the analysis. Besides, the correlation between observable variance was between 0.388 - 0.894 was positive and not more than 0.90 and had no problem on being independent between the variances.

**4. The result of an analysis of a confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand on ability to confront with the changing environment.**

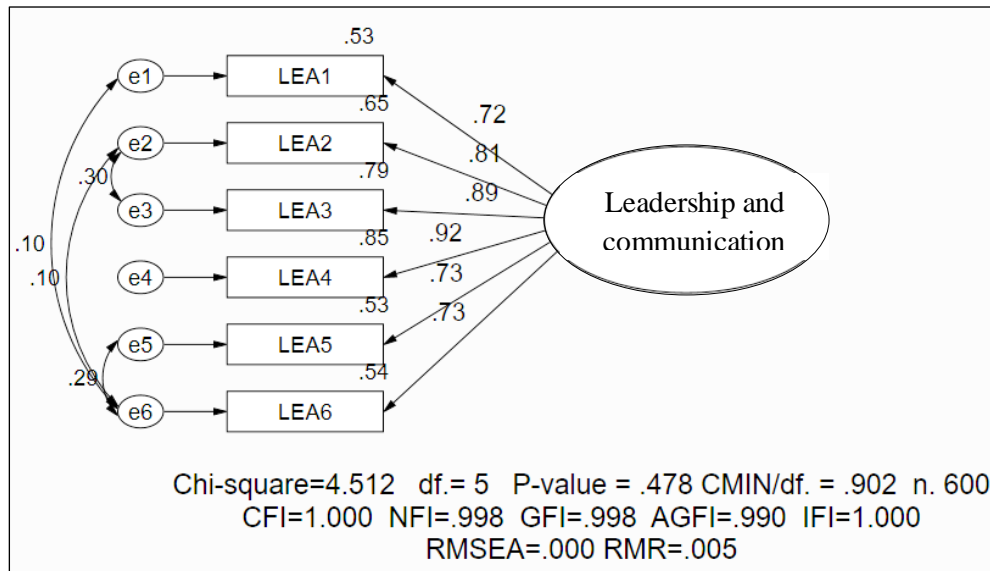


**Figure 4:** A confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand on ability to confront with the changing environment

The confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand on ability to confront with changing environment could be concluded that the Model was valid and the measuring model was in line with the empirical data at a good level with the CFI, GFI, AGFI, RMSEA, RMR, NFI and the IFI passing the set criteria (0.90). This indicated the validity that the model in measuring the internal auditors' characteristics in the digital age in Thailand was valid. Besides the weight of coefficient between 0.62 - 0.80, the variance Extracted between 0.08 - 0.11, in the satisfactory criteria, R2 of each item at 36.0-65.0%, AVE) equal 0.576 more than 0.50, and CR equal 0.890 more than 0.60 which indicated the validity and reliability of the variances used in the analysis. Besides, the correlation between observable variance was between 0.388 - 0.894 was positive and not more than 0.90 and had no problem on being independent between the variances.



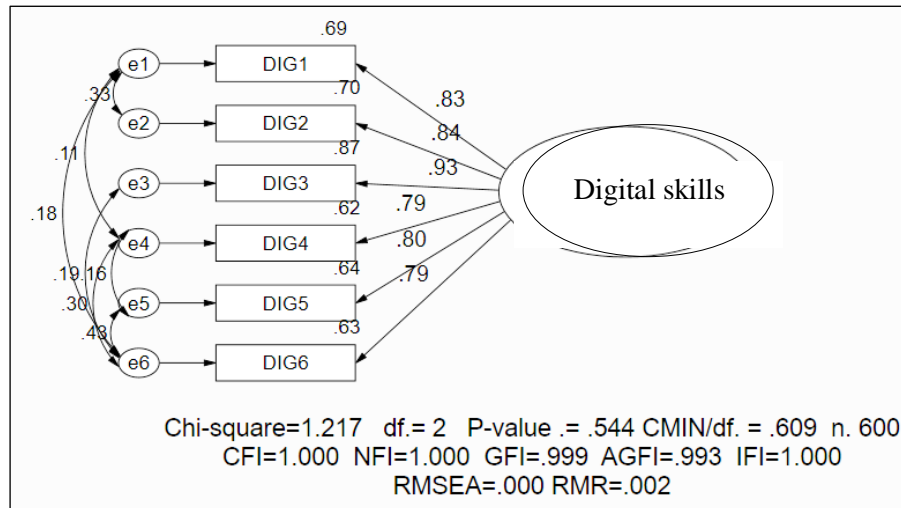
### 5. The result of an analysis of a confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand on leadership and communication.



**Figure 5:** A confirmatory model of the factors of the internal auditor's' characteristics in the digital age in Thailand on leadership and communication

The confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand on leadership and communication could be concluded that the Model was valid and the measuring model was line with the empirical data at a good level with the CFI, GFI, AGFI, RMSEA, RMR, NFI and the IFI passing the set criteria (0.90). This indicated the validity that the model validity in measuring the internal auditors' characteristics in the digital age in Thailand was valid. Besides the weight of coefficient between 0.62 - 0.80 0.62 - 0.80, the variance Extracted between 0.08 - 0.11, in the satisfactory criteria, R2 of each item at 36.0-65.0%, AVE equal 0.576 more than 0.50, and CR equal 0.890 more than 0.60 which indicated the validity and reliability of the variances used in the analysis. Besides, the correlation between observable variance was between 0.68 - 0.95 and the Variance Extract between 0.06 - 0.08 which was satisfactory. The correlation of R2 for each item was at 53.0-85.0%, AVE equal 0.647 more than 0.50 and CR equal 0.916 more than 0.60, indicating that validity and reliability of the variance used in the analysis. Besides, the correlation between the observable variance was between 0.554 - 0.817 was positive and not more than 0.80 and without problem on being independent between the variances.

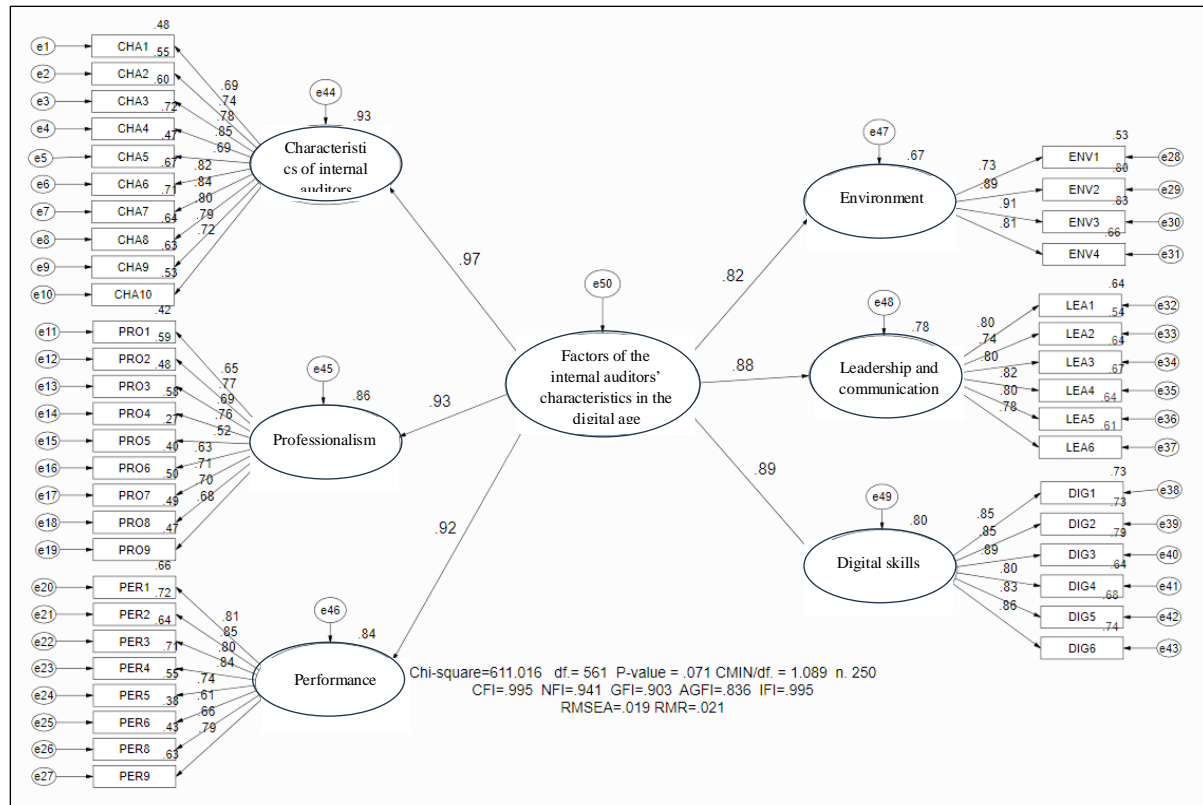
## 6. The confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand on digital skills.



**Figure 6:** A confirmatory model of the factors of the internal auditor's' characteristics in the digital age in Thailand on digital skills

The confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand on digital skills could be concluded that the Model was valid and in line with the empirical data at a good level with the CFI, GFI, adjusted AGFI, RMSEA, RMR, NFI and the IFI passing the set criteria (0.90). This indicated that the model in measuring the internal auditors' characteristics in the digital age in Thailand was valid. But the weight of coefficient was between 0.79 - 0.93 and the Variance Extracted was between 0.03 - 0.05 which was satisfactory. The correlation R<sup>2</sup> of each item was between 62.0-87.0 %. The AVE equal 0.691 more than 0.50 and CR equal 0.930 more than 0.60, indicating the validity and reliability of the variance used in the analysis. Furthermore, the correlation between the observable variance was between 0.654 - 0.798 which was positive, not more than 0.80, and without problems in being independent between the variances.

### 7. The confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand within the groups of administrators of companies registered in Stock Exchange of Thailand (SET).

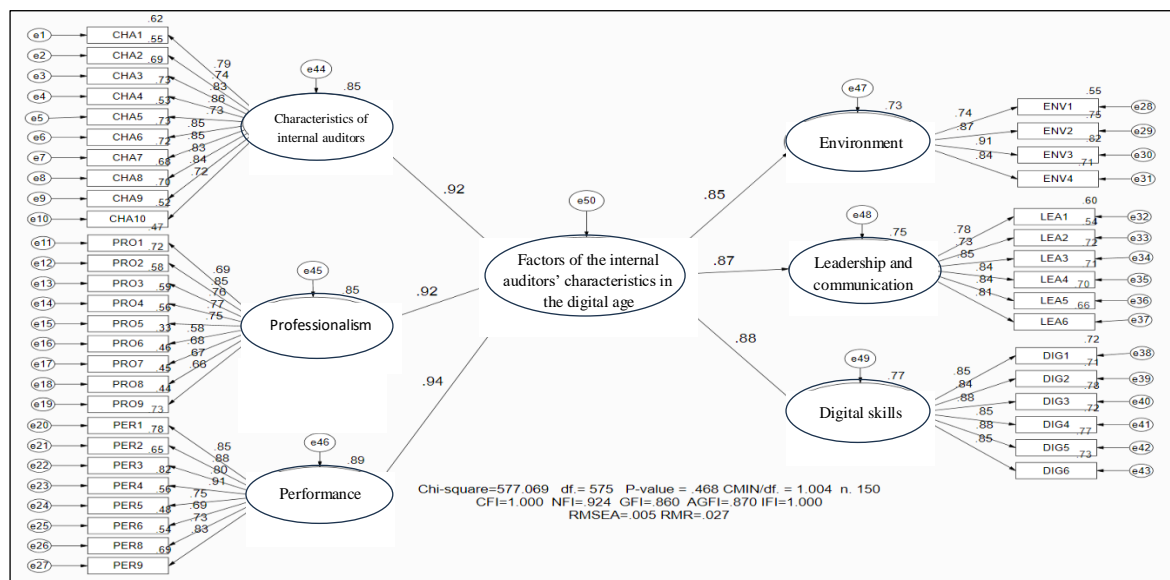


**Figure 7:** A confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand within the groups of administrators of companies registered in Stock Exchange of Thailand (SET)

The confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand within the groups of administrators of companies registered in the Stock Exchange of Thailand (SET) could be concluded that it was congruent with the empirical data at a good level with the Chi-Square equal 611.016 with df equal 561.0 and P-value equal 0.071 ( $> 0.05$ ), and CMIN/df equal 1.089 ( $< 2.0$ ). The (CFI) equal 0.995 ( $> 0.90$ ), (GFI) equal 0.903 ( $> 0.80$ ), AGFI equal 0.836 ( $> 0.80$ ), RMSEA equal 0.019 ( $< 0.05$ ), RMR equal 0.021 ( $< 0.05$ ), NFI equal 0.941 ( $> 0.90$ ), and the IFI equal 0.995 ( $> 0.90$ ).

This indicated that these indexes passed the set criteria for measuring the validity of the model in analyzing the characteristics of the companies' administrators registered in the SET in the digital age. It was found that the result of the analysis of the confirmatory model of the factors of their characteristics of those registered at SET in the digital age in Thailand was that the correlation  $R^2$  between variance was within 27.0% - 83.0% with the highest characteristics of the internal auditors having  $R^2 = 0.97$  and the lowest characteristics on the ability to confront with the changing environment ( $R^2 = 0.67$ , indicating that the relation of variances in the model was different at the statistical level .01, making the result of the analysis was highly statistical reliable.

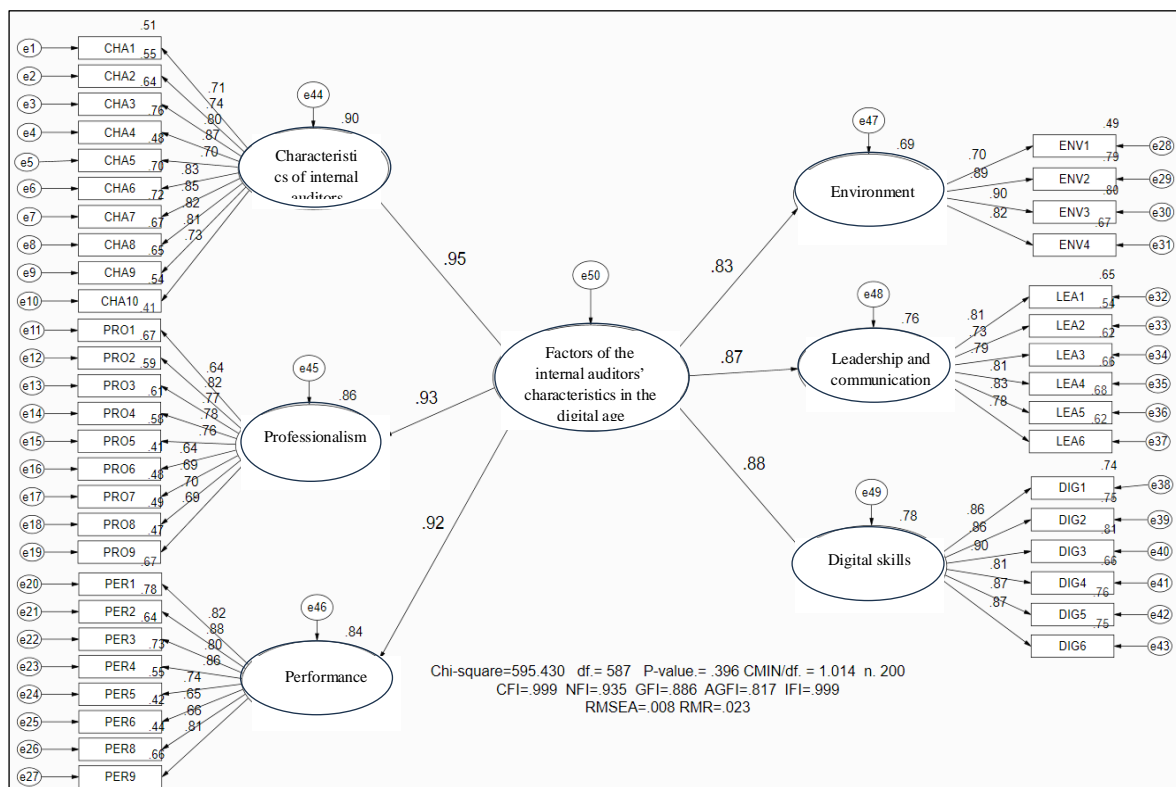
### 8. The confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand within groups of companies' administrators registered in the MAI Stock Exchange.



**Figure 8** A confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand within the groups of administrators of companies' administrators registered in the MAI Stock Exchange

The confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand within the groups of companies' administrators registered in MAI Stock Exchange could be concluded that it was congruent with the set criteria with Chi-Square equal 577.069 with df equal 575.0 and P-value equal 0.468 ( $> 0.05$ ) including indexes of congruence with CFI = 1.000 ( $> 0.90$ ), GFI = 0.860 ( $> 0.80$ ), AGFI = 0.870 ( $> 0.80$ ), RMSEA = 0.005 ( $< 0.05$ ), RMR = 0.027 ( $< 0.05$ ), NFI = 0.924 ( $> 0.90$ ), IFI = 1.000 ( $> 0.90$ ), indicating that the model was right in measuring the internal auditors' characteristics in the digital age. Besides, the R2 was during 33.0 - 89.0 % with the factors having the most influences on performance (R2 = 0.94), professionalism (R2 = 0.92), internal auditors' characteristics (R2 = 0.92), digital skills (R2 = 0.88), leadership and communication (R2 = 0.87), and ability to confront changing environment (R2 = 0.85) with t-test with coefficient between 0.58 - 0.92 and t-test for the tolerance was interesting at the statistical level .01, making the relation of the variances in the model highly reliable.

### 9. The confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand within groups of companies' administrators registered in the MAI Stock Exchange.



**Figure 9:** A confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand within the groups of the companies' administrators registered in the MAI Stock Exchange

The confirmatory model of the factors of the internal auditors' characteristics in the digital age in Thailand within the groups of companies' administrators registered in the MAI Stock Exchange on congruence and validity of the model used in the analysis could be concluded that the results of analysis of the model showing that it was in congruence with the empirical data at a good level with Chi-Square equal 595.530, with df equal 587.0 and P-value equal 0.396 ( $> 0.05$ , meaning the model had validity toward the data. Besides, CMIN/df was within 1.014 ( $< 2.0$ ) and CFI equal 0.999, GFI equal 0.886, AGFI equal 0.817, all of which were higher than the set value (CFI, GFI, AGFI  $> 0.80$ ). This indicated the appropriateness of the model and data consistency but the RMSEA was 0.008 and RMR equal 0.023, both less than 0.05, indicating satisfaction in measuring the model consistency with NFI equal 0.935 and IFI equal 0.999, both of which were higher than the set value (NFI, IFI  $> 0.90$ ). This indicated the appropriateness and data consistency of the model as a whole. The result of the analysis found that the model had the confirmatory indexes consistent with the empirical data with validity and appropriate in measuring the data in many dimensions of the factors on the internal auditors' characteristics in the digital age in Thailand within the groups of companies' administrators registered at the MAI Stock Exchange. As a whole, the internal auditors' characteristics in the digital age in Thailand within the groups of companies' administrators registered at the MAI Stock Exchange were important for work management and could have influences on the success of the organization in the state of changes in the digital age. The characteristics like the internal auditors' characteristics, professionalism, work performance, digital skills, leadership and communication, and ability to confront with the changing environment had relation with success of the organization in the state of digital with statistical significance.

## Discussion

1. An investigation of the factors of the internal auditors' characteristics in the digital age in Thailand on ability to confront with the changing environment found that the qualification that the internal auditors should have most was self-adjustment and learn about changes quickly and the working environment was important factors for success of the organization a great deal which was in line with a study of Ramita Insai and Worawit Laohameti (2019). It was found that the factors that affected work performance of the internal auditors on the state of environment were the administrative policy and support, readiness of working system and information, understanding and acceptance of the auditing receiver, relationship between the internal auditing office and other offices. This was in congruence with Aekachai Achaphipat (2016) who stated that in developing of the internal auditing, the internal auditor should prepare readiness on various sides including self-adjustment for changes, be well-rounded on information and keep up with the world, try to understand factors/continued and rapid environment changes from both insides and outside in order to be able audit at the right point and be an efficient supporting office

2. An investigation of the factors of the internal auditors' characteristics in the digital age in Thailand on professionalism found that the qualification that the internal auditors should have most was the internal auditors being independent, justice in giving opinion toward auditing report or restriction in auditing in order to sufficiently and appropriately report to the auditing committee. This is consistent with Angelicah Wanjiru Kaabue (2020) who found that the expertise of internal auditors and support of executives It affects the performance of the Kenya Civil Service Commission. In addition, the study also found that internal control and the head of internal audit has no influence on the performance of the Kenya Civil Service

Commission. In line with Saddam A (2020), the impact of internal auditing on the financial performance of commercial banks was studied. The research results found that Independence of the internal audit department According to international standards, internal auditing has a significant impact on the financial performance of commercial banks. In line with Fikre, Gedefa (2019) stated that the independence of the internal audit function It has a positive relationship with financial performance. It was also found that Increased independence of the internal audit function will lead to increased financial performance. The study further concluded that internal auditors should be independent of both personnel and the organization's operations. minor elements Internal auditors should have accounting knowledge. (Financial reporting standards, financial statement analysis, accounting systems, management accounting) to be useful in internal auditing work.

3. An investigation of the factors of the internal auditors' characteristics in the digital age in Thailand on work performance found that the internal auditors should have most was they should well respond to the need of the auditing receiver and expectation of users of the auditing report, Delegation of authorization and duties had positive relation with the quality of the internal auditing report which was consistent with Inshik Seol, Joseph Sarkis and Frank Lefley (2011) who explained the necessary skills for the internal auditors, namely: 1) Skill and knowledge like technical skills, analytical skills/design, admiring skills, 2) behavioral skills, personal skills, human relationship skills, organizational skills, professional ability of the internal auditors, and from an investigation of professional ability of the internal auditors in the government sectors in Bargarua opportunity and challenges.

4. An investigation of the factors of the internal auditors' characteristics in the digital age in Thailand on the characters of the internal auditors found that the qualification that the internal auditors should have most was they should perform their work under the risk of the organization specified in the handout of risk management so that the organization would be able to meet the set objectives which was in line with Inshik Seol (2005) who found that decision making structure and decision making analysis to choose the internal auditors consisted of 1) skills and knowledge, namely: technical skills, analytical skills, admiration skills, and 2) behavioral skills, namely: personal skills, human relationship skills, and organizational skills.

5. An investigation of the factors of the internal auditors' characteristics in the digital age in Thailand on digital skills found that that the qualification that the internal auditors should have most was they should have searching skills, evaluating, sharing, and creating contents as well as systematic process (Digital Literacy) because Thailand is entering digital society which was in line with James A. Bailey (2010) who found the result of a survey of important general ability of the internal auditors in an organization included knowledge of IT, work frame, instrument and techniques which ranked number 5 in term of importance.

## Suggestions

### Suggestions for the study

1. The findings should be taken into consideration as a guideline for administrators in developing the characteristics of the internal auditors to suit the digital age which will lead to development of the necessary factors for the internal auditors' internal auditing process.

2. To confront with the changing environment affecting the internal auditors, internal auditing, characteristics of internal auditors in the digital age which influence the internal auditing efficiency.

3. The findings could be used by the internal auditors and interested persons who wish to investigate the characteristic factors of the internal auditors in the digital age in Thailand.

4. The findings could be used for the administrators to support the internal auditors and to help make decision choosing the internal auditor.

### Suggestions for future study

1. Agencies or interested persons could make use of the internal auditors' characteristics mentioned to further study and compare differences of different businesses or industries whether the differences affect the internal auditors' characteristics or not.

2. Additional studies should be made on characteristics of internal auditors on other sides during the time and the new situations arising for development of the personnel on internal auditing.

3. Additional studies should be made on the impact of the age of digital skills towards the efficiency of other government sectors such as Excise Department, Customs Department, Revenue Department, State Enterprises or other business organizations in order to compare the findings.

4. An additional studies should be made on the method of collecting data using other methods such as in-depth interview according to kind of business of the companies having been ordered by the Securities and Exchange Commission (SEC) to have special inspections, and backward comparison of work performance, for instance, in order to learn the view point and in-depth data for more research efficiency and effectiveness.

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