“Effect of emotional intelligence on auditors’ judgment and audit sustainability: Empirical evidence from Vietnam”

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EFFECT OF EMOTIONAL INTELLIGENCE ON AUDITORS’ JUDGMENT AND AUDIT SUSTAINABILITY: EMPIRICAL EVIDENCE FROM VIETNAM

Abstract

This paper aims to measure the influence of emotional intelligence on auditors’ judgment and the sustainability of audit activities in the Vietnamese market through auditors’ perceptions. Data were collected through interviews using questionnaires from 232 auditors who currently work for independent audit firms in many provinces and cities. The research methods used include Cronbach’s Alpha test, Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), and Structural Equation Modeling (SEM). The study showed that 5 of 5 factors of emotional intelligence positively affect the auditors’ judgment. These are intrapersonal awareness competency, interpersonal relationship capability, stress management ability, environment adaptability potentiality, and mood creativity focus. Meanwhile, only 4 of 5 factors of emotional intelligence positively influence the audit sustainability of audit projects (excluding interpersonal relationship capability). The study also shows that the auditor’s judgment has a positive influence on audit sustainability. Besides, there is a great difference related to the emotional intelligence and its impact on auditor’s judgment and audit sustainability based on gender. The study’s results provide scientific evidence that human factors, especially emotional intelligence, influence the auditor’s judgment and the sustainability of his/her professional career.

Keywords

professional skepticism, emotional quotient, audit firms, auditor’s perception, audit quality, SEM

JEL Classification

C12, M10, M42

INTRODUCTION

Similar to many professions, in the audit field, human factors are always considered important factors affecting services’ quality. Therefore, studies on auditors are performed in different aspects such as career ethics, skepticism, satisfaction, loyalty, training process, and others. In the past couple of years, there are some studies related to emotional intelligence, audit judgment, and audit sustainability.

The previous studies showed that human intelligence is a factor affecting the performance and success of works in life. Human intelligence includes two parts: intelligent quotient (IQ) and emotional quotient (EQ). People with a high level of IQ usually are not successful in their careers, but people with high EQ are the opposite (Goleman, 1998). There are also views that success in life depends on 20% of IQ and 80% of EQ (Mayer & Salovey, 1995). EQ is defined as “the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others” (Mayer & Salovey, 1997, p. 10). In the audit field, auditors’ EQ is considered as perception, managing, and controlling skills in the
working process and in the relationship with their customers (Bhattacharjee et al., 2012). Having good EQ would reduce stress in working, ensure the balance between work pressure, judgment ability, and decision making of auditors (Yang, 2013).

Some outstanding studies related to the effect of emotional intelligence on auditor’s judgment are the research of Yang et al. (2017), Yang (2013), Angelidis and Ibrahim (2011), Chung et al. (2008), Jannopat and Ussahawanitchakit (2013), Handoko et al. (2019). At the same time, there are also a few studies on audit sustainability and the effect of emotional intelligence on audit sustainability such as Thapayom et al. (2018), Coyne (2006), and Phan et al. (2021).

In Vietnam, according to the Ministry of Finance, up to April 2021, Vietnam has 208 qualified audit firms with more than 2,200 registered auditors. Auditor-related issues are always of interest to many scholars, but there is no research on the relationship between emotional intelligence and auditor judgment and audit sustainability. Up to now, there are only a few studies on emotional intelligence affecting stress during work in other fields (Dung & Hue, 2019; Hang & Linh, 2016).

1. LITERATURE REVIEW

1.1. Audit sustainability

Audit sustainability is a term that has been mentioned by many researchers and can be basically understood under two different viewpoints.

First, audit sustainability is the public acceptance of audit firms’ reputation and audit quality, through which would help audit firms to retain their current customers and attract more new customers. Chen et al. (2002), Thapayom et al. (2018), and Hai et al. (2020) agreed that improving audit quality is the best solution to achieve goals. This will also help ensure the continuation of audit activities.

Second, audit sustainability is considered a criterion to evaluate audit services provided to customers. Coyne (2006) has confirmed that audit sustainability as a testing and evaluation activity focuses on three factors: economic, environmental and social.

Therefore, in the past, audit sustainability has been the subject research by many different scholars, and depending on the methods applied, there are different factors affecting audit sustainability such as factors of audit firms, factors of audit customers, and others. This study is approached in terms of audit sustainability influenced by factors of audit firms, with the hypothesis that the auditors’ judgment will affect audit quality and therefore affect audit sustainability.

1.2. Auditors’ judgment

Dawes and Hastie (2001) showed that professional judgment in accounting is a behavior used when predicting the conditions, events, and evaluating the current situation under the uncertainty circumstances. Auditors’ judgment is one of the core problems of an audit ensuring that there will be no material misstatements and serious consequences for those using audit works and for auditors themselves (Bonner, 2008). In the legal information system used for audit works, there are many standards and principles mentioned about the audit judgment, which is a very important factor ensuring the audit quality in the audit process.

Audit judgment has been an interesting research topic in the past; there are some outstanding studies on this topic. So, Hojatifard et al. (2019), based on the interviews of 13 audit experts and 87 professional auditors with supervisor rank or higher, presented a 9-step procedure of professional auditors’ judgment in Iran: 1) Problem definition, 2) Exploring possible solutions, 3) Memory retrieval and applying accounting and auditing guidelines, 4) Collecting and evaluating information, 5) Reviewing judgment issue, 6) Hypothesis generation, 7) Hypothesis evaluation and challenging the client’s judgment, 8) Discussion and conclusion, and 9) Documentation.

In the other research of the Center for Audit Quality, the USA AICPA, a successful judgment procedure included five steps: 1) Identify and de-
fine the issue, 2) Gather the facts and information, identify the relevant literature, 3) Perform the analysis and identify alternatives, 4) Make the decision, 5) Review and complete the documentation and rationale for the conclusion.

Wedemeyer (2010) believes that auditors’ judgment is a very important factor in a good quality audit. After many events leading to the issuance of Sarbanes – Oxley laws in 2002, many people determine that the legal environment, business model, and organization’s structure would influence the auditors’ judgment, independence, and professional skepticism of auditors.

1.3. Emotional intelligence

Emotional intelligence is a very interesting topic ever through many different studies. The most widely accepted definition is that of Salovey and Mayer (1990) stating that emotional intelligence is the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others (Mayer & Salovey, 1997, p. 10). Goleman (1998) and Bar-On (2000) concluded that emotional intelligence is a good way to reduce stress, communicate effectively, and overcome obstacles.

Many scholars explained and suggested that many factors create emotional intelligence. Mayer and Salovey (1997) and Mayer and Caruso (2000) suggested a four-factor model of emotional intelligence, including 1) awareness of one’s own and others’ emotion; (2) emotional facilitation; (3) emotional understanding; and (4) management of one’s own and others’ emotions. Bar-On (1997) defined emotional intelligence as emotional-social intelligence comprised of the five key components of intrapersonal skills, interpersonal skills, adaptability, stress management, and general mood. Petrides and Furnham (2001) suggest that emotional intelligence is a structure of 15 aspects, dividing into four groups: sentimentality, self-control, sociability, and happiness.

In the accounting and auditing field, Cook et al. (2011) determined that emotional intelligence may allow accountants to perform better in leadership, team building, client relations, and decision making. Other factors related to emotional intelligence, including leadership, team building, and individual relationships, are considered very important. Jannopat and Usawahwanitchakit (2013) believed that four factors of emotional intelligence include: self-awareness, self-management, social awareness, relationship management; these factors all have a certain influence to the auditors’ judgment and audit quality.

On the other hand, Thapayom et al. (2018) suggest an emotional intelligence model of five factors, including intrapersonal awareness competency, interpersonal relationship capability, stress management ability, environment adaptability potentiality, and mood creativity focus.

1.4. Components of emotional intelligence

There are different views on the elements of emotional intelligence. Within the scope of this study, based on the study by Thapayom et al. (2018), the elements of emotional intelligence are specifically analyzed as indicated below.

The first element of emotional intelligence is intrapersonal awareness competency. In the accounting and audit fields, Pornpandejvittaya and Sukkhewat (2011) proved that the intrapersonal awareness competency has a positive effect on the career and determines the success in these professions. Before that, Bay and McKeage (2006) said that intrapersonal awareness competency is a skill that can help accountants to perform better in different roles such as leader, managing customer relationships, and making decisions.

The second element of emotional intelligence is interpersonal relationship capability. Bar-On (2006) suggested this element is the ability to recognize, understand, and empathize with others to create and maintain positive relationships. In other words, this is the ability to show empathy, social responsibility, and interpersonal relationships. In the field of accounting and auditing, there have been many studies mentioning that auditors know how to create good relationships with customers, and having good communication relationships will contribute to fulfilling their tasks (Kermis & Kermis, 2010; Akers & Porter, 2003).
The third element of emotional intelligence is the stress management ability. Bar-On (2006) believed that this element is the skill to handle the pressure situations and control the emotions of someone. Mayer et al. (1999) said that people with emotional intelligence can manage pressure effectively thanks to their ability to control their emotions. Research from different fields also showed that, when staff is exhausted and stressed, it easily leads to many health-related problems that could cause serious damage to organizations. In accounting and audit fields, some published studies showed that managing pressure would allow accountants to increase their effectiveness in different tasks such as leadership, decision making, and customer relations. Jannopat and Ussahawanitchakit (2013) believed that the ability to manage stress in the audit process would have positive effects on auditors’ judgment and help to increase audit quality.

The fourth element of emotional intelligence is environment adaptability potentiality. Bar-On (1997, 2004) said that one of the very important factors of emotional intelligence is the adaptability with changes and individual or society’s problems. The environment adaptability potentiality is about the ability to use emotion to change and adapt to daily needs effectively. In accounting and audit, Durgut et al. (2013), regarding accounting students, have proven that adaptability and problem-solving skills are on the side of the emotional intelligence, they positively affect the success of their studies in universities. Pornpandejvittaya and Sukkhewat (2011) determined that the adaptability skill has a positive effect on the success in accountants’ career. However, Jannopat and Ussahawanitchakit (2013) believed that this skill would help auditors to control their judgment and improve audit quality.

The fifth element of emotional intelligence is mood creativity focus. Bar-On (2006) believe that the mood creativity focus is the ability to create positive feelings about oneself, others and life in general, and the ability to motivate oneself and maintain optimism. A steady and positive mood will help individuals take the initiative and work hard to improve themselves. Petrides and Furnham (2001) believe that a person with good mood will have a high emotional intelligence and a sense of happiness of success, confidence, joy and satisfaction with life, looking at everything with positive eyes. In accounting and auditing, many studies agreed with the conclusion that mood has a positive effect on professional practice and thereby success in the career (Akers & Porter, 2003; Pornpandejvittaya & Sukkhewat, 2011; Bhattacharjee & Moreno, 2013). The very good mood will help accountants focus on their own motivation and thereby have a significant influence on the efficiency of accounting practice and professionalism. Before that, Chung et al. (2005) said that the auditor’s mood has influenced their professional skepticism in the audit process. Thapayom et al. (2018), through their empirical research, have shown that creative focus influences the achievement of continuous audit performance and affects audit sustainability.

1.5. The relationship between emotional intelligence, auditors’ judgment, and audit sustainability

Research on emotional intelligence with a wide variety of issues has varied from past to present. However, most of the studies have similar characteristics in that they consider emotional intelligence as a factor affecting a certain problem. These problems can be effective leadership (Rosete & Ciarrochi, 2005), ability to work in teams effectively (Jordan et al., 2002), ability to succeed in the job application process (Maynard, 2003), or related to other job outcomes such as contribution to positive working environments (Lopes et al., 2006), job satisfaction (Sy et al., 2006), conflict resolution style (Jordan & Troth, 2002), creative effectiveness at work (Darvishmotevali et al., 2018), and many others.

In accounting and auditing, Yang (2013) and Yang et al. (2017) considered emotional intelligence to influence the judgment in the auditors’ working process. These professional judgments will reduce audit risk, thus improving audit efficiency and quality (Coram et al., 2004; Nelson & Tan, 2005; Jannopat & Ussahawanitchakit, 2013; Hai et al., 2020). Meanwhile, Thapayom et al. (2018) and Phan et al. (2021) argued that if continuous audit performance is achieved by maintaining a stable audit quality, audit sustainability will be fully improved.
2. AIM OF THE STUDY

This study aims to measure the auditor’s perception and understanding about the components of emotional intelligence and its influence on the auditor’s judgment and audit sustainability in the Vietnamese market.

3. HYPOTHESES
   DEVELOPMENT AND RESEARCH MODEL

Based on the above analysis, the following six research hypotheses are advanced:

H1a: Intrapersonal awareness competency of auditors has a positive effect on auditors’ judgment.

H1b: Intrapersonal awareness competency of auditors has a positive effect on audit sustainability.

H2a: Interpersonal relationship capability has a positive effect on auditors’ judgment.

H2b: Interpersonal relationship capability has a positive effect on audit sustainability.

H3a: Stress management ability has a positive effect on auditors’ judgment.

H3b: Stress management ability has a positive effect on audit sustainability.

H4a: Environment adaptability skill has a positive effect on auditor’s judgment.

H4b: Environment adaptability skill has a positive effect on audit sustainability.

H5a: Mood creativity focus has a positive effect on auditors’ judgment.

H5b: Mood creativity focus has a positive effect on audit sustainability.

H6: Auditors’ judgment has a positive effect on audit sustainability.

Based on research results so far, especially the studies by Bar-On (1997, 2000, 2004), Yang et al. (2017), Jannopat and Ussahawanitchakit (2013), Thapayom et al. (2018), a theoretical research model is as follows (Figure 1).

4. DATA AND RESEARCH METHODOLOGY

4.1. Sample selection and data collection procedure

According to the data provided by the Ministry of Finance on their website, up to 02/03/2020, Vietnam has about 4,000 certified public accountants CPA working in 193 audit firms. However, there are only about 2,216 CPA qualified to sign the audit reports. Therefore, it can be considered that 2,216 CPA is the total number; and using the
testing table of Krejcie and Morgan (1970), the minimum samples is 327 people. On the other hand, from Hair et al. (2006), the minimum sample size for EFA analysis should be 5 times higher than that of the total number of variables observed in the questionnaire. For this study, the sample size of 232 is much larger than the minimum of 32 x 5 = 160. Meanwhile, according to Tabacknick and Fidell (2001), for the best regression analysis, the sample size must be satisfied: \( n > 8k + 50 \) (k is the number of independent variables).

Based on the analysis above, the sample size was determined by double the minimum sample number and equaled 654 (= 327 x 2) survey questionnaires via the Google form link. After checking and screening, only 232 corrected and completed responses were selected for analysis. Thus, the response rate of the email is 35.47%, this is also the appropriate result because in the opinion of Aaker et al. (2001) for email survey, the response rate of 20% is satisfactory.

The data collection period was from April 2020 to July 2020. The survey participants’ criteria are those who are currently on the list of CPA eligible to practice by the Ministry of Finance. Respondents were divided into several groups according to control variables, including: job position, gender, group of businesses currently working, age, number of years of experience. Information about the study sample is detailed in Table 1.

### Table 1. Descriptive statistics of the survey sample

| Characteristics       | Frequency | Percentage |
|-----------------------|-----------|------------|
| Work status           | N = 232  | 100%       |
| Senior auditor, Auditor | 69     | 29.7       |
| Manager               | 135      | 58.2       |
| Director, Partner     | 28       | 12.1       |
| Gender                | N = 232  | 100%       |
| Male                  | 145      | 62.5       |
| Female                | 87       | 37.5       |
| Business Group        | N = 232  | 100%       |
| Big Four              | 82       | 35.3       |
| None-Big Four         | 150      | 64.7       |
| Age                   | N = 232  | 100%       |
| From 28 to 35         | 73       | 31.4       |
| From 36 to 45         | 76       | 32.7       |
| From 46 to 55         | 65       | 28         |
| Over 55               | 18       | 7.9        |
| Year of experience    | N = 232  | 100%       |
| Under 5 years         | 24       | 10.3       |
| From 5 to 10 years    | 129      | 55.6       |
| Over 10 years         | 79       | 34.1       |

### 4.2. Variable measurement

The questionnaires to measure variables include two main sections. The first section contains questions relating to the auditor’s demographic characteristics such as gender, age, current position of employment, number of years of experience and the group of firms the auditor is working with. The second part is questions measuring variables of emotional intelligence, based on the EQI (Emotional Quotient Inventory) scale developed by Bar-On (1997), and combined with the scale from Jannopat and Ussahawanitchakit (2013) and Thapayom et al. (2018). The measurement scale related to auditors’ judgments is based on the research results of Yang (2013) and Yang et al. (2017). All questions used a five-point Likert scale (1 = strongly disagree, and 5 = strongly agree), except for control variables.

The detailed development of scales is done through qualitative research, based on in-depth interviews with opinions of experts (10 people) who are working in the audit field in Vietnam. Accordingly, the scale of this study includes five independent variables: Intrapersonal Awareness Competency (IAC) with five observations, Interpersonal Relationship Capability (IRC) with four observations, Stress Management Ability (SMA) with variables, Environment Adaptability Potentiality (EAP) with four observations, and Mood creativity focus (MCF) with five observations. There are two dependent variables: auditors’ judgment (AJM) with four observations, and audit sustainability (ASA) with five observations.

### 4.3. Analysis method

The scale test is performed using Cronbach’s Alpha test. The measurement scale is considered acceptable when the CRA factor > 0.6, and the corrected item total correlation > 0.3 (Nunnally, 1978; Peterson, 1994). Measurement scale and observable variables are continued to be analyzed using the EFA model. In the EFA testing, the appropriateness of variables are examined using the Kaiser – Meyer – Olkin measure (KMO measure), linear correlation of the observed variables in each scale by the Bartlett test; the extracted variance is tested with the significance identification indices.
less than or equal to 0.05; the acceptance conditions are extraction variance > 50%, Eigenvalues > 1, factor loading for sample sizes below 350 is greater than 0.55 (Hair et al., 2006; Gerbing & Anderson, 1988).

Next, CFA and SEM analysis techniques were performed to confirm that the measurement model is consistent with the actual data and to test the 6 initial hypotheses. The indicators to measure the suitability of the model are Cmin/df, $\chi^2$/df < 5 (Schumacker & Lomax, 2004), CFI > 0.9, TLI > 0.9 (Hair et al., 2006) and RMSEA < 0.08 (Schumacker & Lomax, 2004; Hair et al., 2006). The index to test the interaction between factors is based on the significance of the estimated P-value coefficients < 0.05 (Hair et al., 2006).

5. RESULTS

The survey results of auditors, as mentioned above, are presented in this section.

5.1. Coefficient test using Cronbach’s Alpha and EFA

Cronbach’s Alpha test results in Table 2 show that CRA coefficients of total independent and dependent variables are greater than 0.6, so all the observations in the scale are qualified. In addition, the indicators show the suitability and linear correlation of observed variables as shown in Table 3.

Thus, based on Table 3, the indices KMO, P-value, VAE, the factor loading and eigen value coeffi-

Table 2. Matrix results around the factors and CRA of observations

| Observations | Factors | Cronbach’s Alpha |
|--------------|---------|-----------------|
| ASA4         | 0.831   |                 |
| ASA1         | 0.830   |                 |
| ASA3         | 0.792   |                 |
| ASA2         | 0.777   |                 |
| ASA5         | 0.771   |                 |
| MCF5         | 0.869   | 0.937           |
| MCF2         | 0.862   |                 |
| MCF3         | 0.852   |                 |
| MCF1         | 0.826   |                 |
| MCF4         | 0.733   |                 |
| IAC5         | 0.846   |                 |
| IAC2         | 0.818   |                 |
| IAC4         | 0.818   |                 |
| IAC3         | 0.797   |                 |
| IAC1         | 0.787   |                 |
| SMA4         | 0.895   | 0.896           |
| SMA2         | 0.870   |                 |
| SMA1         | 0.834   |                 |
| SMA3         | 0.833   |                 |
| SMA5         | 0.710   |                 |
| IRC1         | 0.935   | 0.897           |
| IRC4         | 0.909   |                 |
| IRC2         | 0.795   |                 |
| IRC3         | 0.776   |                 |
| EAP1         | 0.913   | 0.888           |
| EAP4         | 0.840   |                 |
| EAP2         | 0.828   |                 |
| EAP3         | 0.811   |                 |
| AJM4         | 0.778   | 0.823           |
| AJM3         | 0.689   |                 |
| AJM1         | 0.657   |                 |
| AJM2         | 0.656   |                 |
The appropriateness of the model: The model has 440 degrees of freedom, CFA shows Chi-squared = 558.037 with $p = .000$; GFI value of 0.873 is quite high, but it is also easily affected by the sample size. Some other indicators that are less sensitive to the sample size are used to evaluate the model’s appropriateness such as: RMSEA = 0.034 is less than 0.05; Chi-Square/df = 1.268 (less than 2); TLI = 0.975 and CFI = 0.978 are both greater than 0.9. Thus, the analytical results show that the data is acceptable with the proposed model.

Table 4 shows the results of the evaluation of reliability, convergence value and discriminant value.

Based on Table 4, the composite reliability (C.R) is greater than 0.7, the total extracted variance is greater than 50%, so it can be concluded that the reliability and convergence components of the scale are obtained. When analyzing the correlation coefficient between the pairs of factors, the results have highest value of 0.658, not exceeding 0.85, so the factors satisfy the condition of discriminant value.

Table 3. EFA analysis results

| Variables                  | KMO   | Sig  | AVE (%) | Eigen Value |
|----------------------------|-------|------|---------|-------------|
| 1. Independent variables  | 0.787 | 0.000| 73.498  | 2.355       |
| 2. Dependent variables     | 0.911 | 0.000| 73.723  | 1.278       |

Table 4. Reliability and convergence value results

| Factor                              | Symbol | C.R  | AVE   |
|-------------------------------------|--------|------|-------|
| 1. Intrapersonal Awareness Competency | IAC    | 0.978| 0.901 |
| 2. Interpersonal Relationship Capability | IRC    | 0.881| 0.658 |
| 3. Stress Management Ability        | SMA    | 0.948| 0.786 |
| 4. Environment Adaptability Potentiality | EAP    | 0.925| 0.757 |
| 5. Mood creativity focus            | MCF    | 0.922| 0.710 |
| 6. Auditors’ judgment               | AJM    | 0.964| 0.870 |
| 7. Audit Sustainability              | ASA    | 0.971| 0.869 |

Figure 2. SEM results of the research model
5.3. Model and hypothesis testing

Structural equation modeling (SEM) is used to test the model and the initial hypotheses. The research model results showed that there are seven concepts in the model: (1) Intrapersonal Awareness Competency; (2) Interpersonal Relationship Capability; (3) Stress Management Ability; (4) Environment Adaptability Potentiality; (5) Mood creativity focus; (6) Auditors’ judgment; and (7) Audit Sustainability.

The test model has 450 degrees of freedom ($p = 0.00$), and the indicators show the model is appropriate for the data collected from the market (chi-square/df = 1.289; GFI = 0.869; CFI = 0.976, TLI = 0.973, and RMSEA = 0.035).

The results show that both relationships are statistically significant ($p < 5\%$). Thus, the relationship of the concepts has met the theoretical expectation (see Figure 2). Based on the SEM analysis results, the initial hypothesis testing is presented in Table 5.

Table 5. Results on the hypothesis testing

| Relationship | Estimate | S.E. | C.R. | P       | Decision |
|--------------|----------|------|------|---------|----------|
| AJM ← MCF   | 0.171    | 0.035| 4.920| ***     | Accepted H1a |
| AJM ← IAC   | 0.171    | 0.038| 4.450| ***     | Accepted H5a |
| AJM ← SMA   | 0.109    | 0.036| 3.047| 0.002   | Accepted H2a |
| AJM ← IRC   | 0.159    | 0.031| 5.076| ***     | Accepted H3a |
| AJM ← EAP   | 0.100    | 0.033| 3.006| 0.003   | Accepted H4a |
| ASA ← MCF   | 0.185    | 0.048| 3.860| ***     | Accepted H6a |
| ASA ← IAC   | 0.191    | 0.053| 3.630| ***     | Accepted H7  |
| ASA ← SMA   | 0.170    | 0.048| 3.573| ***     | Accepted H3b |
| ASA ← IRC   | 0.024    | 0.042| 0.565| 0.572   | Rejected H2b |
| ASA ← EAP   | 0.130    | 0.044| 2.958| 0.003   | Accepted H3b |
| ASA ← AJM   | 0.674    | 0.122| 5.519| ***     | Accepted H4b |

One-way ANOVA test is used to analyze independent variables, including: gender, audit business types (Big Four or none Big Four), age, experience, and work status (job position). The dependent variables are auditors’ judgment and audit sustainability. The results are shown in Table 6.

Table 6 shows that all the factors are statistically significant ($p < 5\%$), except for the impact relationship IRC → ASA. This table shows that all five components of emotional intelligence have a positive impact on auditor’s judgment. In which, factors of intrapersonal awareness competency and mood creativity focus have the strongest impact, followed by factors of interpersonal relationship capability, stress management ability, and the environment adaptability potentiality. The results in Table 6 also show that, except for the interpersonal relationship capability factor, the other four components of emotional intelligence positively affect audit sustainability. The study also noted a positive relationship between auditors’ judgment and audit sustainability.

Table 6. Testing the differences according to the sample characteristics using ANOVA analysis

| Factors                       | df | F    | Sig  | Conclusion |
|-------------------------------|----|------|------|------------|
| Factors affecting auditors’ judgment |    |      |      |            |
| 1. Age                        | 231| 0.187| 0.905| No differences |
| 2. Experience                 | 231| 1.535| 0.218| No differences |
| 3. Work status                | 231| 0.762| 0.468| No differences |
| 4. Business type              | 231| 0.604| 0.438| No differences |
| 5. Gender                     | 231| 8.414| 0.004| Different   |

| Factors affecting audit sustainability |    |      |      |            |
|----------------------------------------|----|------|------|------------|
| 1. Age                                 | 231| 2.249| 0.083| No differences |
| 2. Experience                          | 231| 2.644| 0.073| No differences |
| 3. Work status                         | 231| 2.338| 0.099| No differences |
| 4. Business type                       | 231| 0.469| 0.494| No differences |
| 5. Gender                              | 231| 515.125| 0.000| Different   |
6. DISCUSSION

This result shows similarities with some other studies in the world that have been done in the past, such as Yang (2013), Yang et al. (2017), and Jannopat and Ussahawanitchakit (2013). Accordingly, the relationship between the emotional intelligence components has a positive impact on the auditors’ judgment. However, a few other studies, in particular the study by Thapayom et al. (2018) in Thailand, showed that only two out of five components of emotional intelligence impacted audit sustainability. The experimental results of this study have up to 4/5 components (except IRC – Interpersonal Relationship Capability) that have a positive impact on audit sustainability. The auditors’ professional judgment affects directly the quality and thereby has an impact on audit sustainability.

The results of the study also indicate that in order to improve audit quality and sustainability, by further improving the auditors’ judgment, it is necessary to perform training in auditing. Training purposes are to improve the ability to build relationships, to work in groups among auditors within the enterprise, to enhance skills in the process of interaction, and to maintain relationships between auditors and customers. The results of the test also showed that there were no differences between the groups of auditors for the different control variables related to the effects of the components of emotional intelligence on judgment and audit sustainability, except for gender differences. This also shows that in the auditing environment in Vietnam, a South East Asia country, emotional intelligence between genders affects the judgment of the profession in the working process. Especially in Vietnam, women are often under higher pressure than men because besides work, they also have to spend more time with their families and take care of their children. This can affect their emotional intelligence and judgment in the course of their work, and in fact, the percentage of women working in the audit field in Vietnam is often lower.

The results of this study are of both academic and practical value, especially in helping managers of auditing firms to make policy implications for training and coaching. Training courses to improve the different aspects and skills of auditors’ emotional intelligence would be more relevant in the future. Creating a good and stable working mood, focusing on work and creativity, improving self-awareness of strengths and weaknesses, enhancing ability adapting, reducing stress issues in the work environment and managing relationships well, maintaining teamwork among auditors, developing relationships and customer communications are the core issues for building an audit team with high emotional intelligence. Since then, it helps to make career judgments better, thereby improving the sustainability of auditing activities that enterprises provide to the market.

However, this study also has some certain limitations. Emotional intelligence and the scale of emotional intelligence components are quite diverse and have many different perspectives. This study selected and developed the scale based on five components from the viewpoint of Bar-One (1997), Yang et al. (2017) and Thapayom et al. (2018). However, there are still many other opinions and scales related to the auditors’ emotional intelligence, which need to be further investigated for analysis and comparison. These limitations could be considered as suggestions for future research in Vietnam and in other countries. Further studies can be carried out at different points in each stage of the audit process or in audit firms by ownership, by membership levels of international audit firms.

CONCLUSION

This study was conducted to explore the impact of emotional intelligence on auditors’ judgment and audit sustainability through the perception of auditors currently working for Vietnam auditing firms. Analytic structural analysis method (SEM) was selected to analyze the results of the study. It was simultaneously combined with ANOVA analysis to test the difference of research results according to the characteristics of the survey sample by gender, age, working location, experience and type of audit firm, business group (Big Four or none Big Four).
The results of the analysis show that emotional intelligence has an impact on auditors’ judgment, and all five elements of emotional intelligence have an impact in descending order, these are intrapersonal awareness competency, interpersonal relationship capability, stress management ability, environment adaptability potentiality, and mood creativity focus. At the same time, emotional intelligence also positively affects audit sustainability with four factors such as intrapersonal awareness competency, stress management ability, environment adaptability potentiality, and mood creativity focus. The study also shows that the auditor’s judgment contributes to quality and provides a positive improvement in audit sustainability. At the same time, the perception of the relationship between emotional intelligence and judgment, audit sustainability between the two audit groups by gender is completely different.

Based on the results of this study, managers of auditing firms in Vietnam need to pay more attention to the emotional intelligence aspect by formulating welfare policies, promote and improve the working environment, create and maintain good working relationships among its employees. An auditor with good emotional intelligence will have a positive impact on professional judgment, thereby contributing to improving and enhancing the quality and efficiency of work and bringing added values to the audit firm. In addition, the results of this study have a useful academic contribution to the theoretical enrichment and diversification of aspects related to human factors in the field of audit.

AUTHOR CONTRIBUTIONS

Conceptualization: Hai-Thanh Phan, Phu-Huu Nguyen. Data curation: Hai-Thanh Phan, Phu-Huu Nguyen, Cuong-Thanh Nguyen. Formal analysis: Hai-Thanh Phan, Cuong-Thanh Nguyen. Investigation: Hai-Thanh Phan, Phu-Huu Nguyen, Cuong-Thanh Nguyen, Tien-Thuy Thi Vo, Tung-Thanh Nguyen. Methodology: Hai-Thanh Phan, Phu-Huu Nguyen, Tung-Thanh Nguyen. Project administration: Hai-Thanh Phan. Resources: Hai-Thanh Phan, Phu-Huu Nguyen, Cuong-Thanh Nguyen, Tien-Thuy Thi Vo, Tung-Thanh Nguyen. Software: Hai-Thanh Phan, Tien-Thuy Thi Vo, Tung-Thanh Nguyen. Supervision: Cuong-Thanh Nguyen, Tien-Thuy Thi Vo, Tung-Thanh Nguyen. Validation: Cuong-Thanh Nguyen, Tien-Thuy Thi Vo. Visualization: Cuong-Thanh Nguyen, Tien-Thuy Thi Vo. Writing – original draft: Hai-Thanh Phan, Phu-Huu Nguyen, Cuong-Thanh Nguyen, Tien-Thuy Thi Vo, Tung-Thanh Nguyen. Writing – review & editing: Hai-Thanh Phan.

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REFERENCES

1. Aaker, D. A., Kumar, V., & Day, G. S. (2001). *Marketing research*. New York: John Wiley and Sons.
2. Akers, M. D. & Porter, G. L. (2003). Your EQ skills: Got what it takes? *Journal of Accountancy*, 195(3), 65-70. https://epublications.marquette.edu/cgi/viewcontent.cgi?article=1036&context=account_fac
3. Angelidis, J., & Ibrahim, N. A. (2011). The impact of emotional intelligence on the ethical judgment of managers. *Journal of Business Ethics*, 99, 111-119. https://doi.org/10.1007/s10551-011-1158-5
4. Bar-On, R. (1997). *Bar-On Emotional Quotient Inventory technical manual*. Toronto: MultiHealth Systems.
5. Bar-On, R. (2000). *Emotional and social intelligence: Insights from the emotional quotient inventory*. In R. Bar-On, and J. D. A. Parker, (Eds.), *The Handbook of Emotional Intelligence* (pp. 17, 363-388). San Francisco: Jossey-Bass.

6. Bar-On, R. (2004). The Bar-On Emotional Quotient Inventory (EQ-i): Rationale, description and summary of psychometric properties. In G. Geher (Ed.), *Measuring emotional intelligence: Common ground and controversy* (p. 115-145). Nova Science Publishers.

7. Bar-On, R. (2006). The Bar-On model of emotional-social intelligence (ESI). *Psicothema, 18*, 13-25.

8. Bay, D., & McKeage, K. (2006). Emotional intelligence in undergraduate accounting students: preliminary assessment. *Accounting Education: An International Journal, 15*(4), 439-454. https://doi.org/10.1080/09639280601111311

9. Bhattacharjee, S., & Moreno, K. K. (2013). The Role of Auditors’ Emotions and Mood on Audit Judgment: A Research Summary with Suggested Practice Implications. *Current Issues in Auditing, 7*(2), 1-8. http://dx.doi.org/10.2308/ciia-50565

10. Bhattacharjee, S., Moreno, K., & Riley, T. (2012). The interplay of interper-sonal affect and source reliability on auditors’ inventory judgments. *Contemporary Accounting Research, 29*(4), 1087-1108. https://doi.org/10.1111/j.1911-3846.2011.01139.x

11. Bonner, S.E. (2008). *Judgment and decision making in accounting*. Prentice Hall.

12. Chen, Z. X., Tsui, A. S., & Farh, J.-L. (2002). Loyalty to supervisor vs. organizational commitment: Relationships to employee performance in China. *Journal of Occupational and Organizational Psychology, 75*(3), 339-356. https://doi.org/10.1348/030179022023069749

13. Chung, J. O. Y., Cohen, J. R., & Monroe, G. S. (2005). *A research note on the effect of mood states on professional skepticism*. Paper at AAA 2005 Annual Meeting, at San Francisco. Retrieved from https://www2.bc.edu/cohens/Research/Research1.pdf

14. Cook, G. L., Bay, D., Visser, B., Myburgh, J. E., & Njoroge, J. (2011). Emotional Intelligence: The Role of Accounting Education and Work Experience. *Issues in Accounting Education, 26*(2), 267-286. https://doi.org/10.2308/iace-10001

15. Coram, P., Ng, J., & Woodliff, D. (2004). The effect of risk of misstatement on the propensity to commit reduced audit quality acts under time budget pressure. *Auditing: A Journal of Practice and Theory, 23*(2), 159-167. https://doi.org/10.2308/aud.2004.23.2.159

16. Coyne, K. L. (2006). Sustainability auditing. *Environmental Quality Management, 16*(2), 25-41. https://doi.org/10.1002/tqem.20119

17. Darwishmotevali, M., Altinay, L., & De Vita, G. (2018). Emotional intelligence and creative performance: Looking through the lens of environmental uncertainty and cultural intelligence. *International Journal of Hospitality Management, 73*, 44-54. https://doi.org/10.1016/j.ijhm.2018.01.014

18. Dawes, R. M., & Hastie, R. (2001). Rational choice in an uncertain world: The psychology of judgement and decision making. *Thousand Oaks, CA: Sage Publications*, 33(6), 817-818.

19. Dung, N. T. P., & Hue, V. H. (2019). The impact of emotional intelligence on stress in the work of employees in Can Tho. *Journal of Economic Science, 7*(1), 126-136. (In Vietnamese).

20. Durgut, M., Gerekan, B., & Pehlivan, A. (2013). The impact of emotional intelligence on the achievement of accounting subject. *International Journal of Business and Social Science, 4*(13), 64-71.

21. Gerbing, D. W., & Anderson, J. C. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*(3), 411-423. Retrieved from https://www.scholars.northwestern.edu/en/publications/structural-equation-modeling-in-practice-a-review-and-recommended

22. Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam Books.

23. Hai, P. T., Toan, L. D., Quy, N. L. D., & Tung, N. T. (2020). Research Factors Affecting Professional Skepticism And Audit Quality: Evidence In Vietnam, *International Journal of Innovation, Creativity and Change*, 13(1), 830-847. Retrieved from https://www.ijicc.net/images/vol_13/13182_Hai_2020_E_R.pdf

24. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2006). *Multivariate Data Analysis* (6th ed.). Englewood Cliffs, NJ: Prentice Hall.

25. Handoko, B. L., Lesmana, T., & Kosasih, V. (2019). Effect of Professional Ethics, Work Experience, and Emotional Intelligence on Auditor Opinion. *International Journal of Engineering and Advanced Technology, 9*(2), 1486-1491. Retrieved from https://www.ijel. org/wp-content/uploads/papers/v9i2/B3494129219.pdf

26. Hang, V. V., & Linh, P. T. C. L. (2016). The impact of emotional intelligence on work stress of accountants in Ho Chi Minh City. *Journal of Science, Ho Chi Minh City Open University*, 2(47), 102-113. (In Vietnamese). Retrieved from http://tckh.ou.edu.vn/vn/chitiet-bai-viet?id=241

27. Hojatfard, H., Pourheidari, O., & Baharmohammad, M. (2019). The Auditor’s Professional Judgment Process. *Academy of Marketing Studies Journal, 23*(2). Retrieved from https://www.abcacademies. org/articles/the-auditors-professional-judgment-process-8239.html

28. Jannopat, S., & Usahawanitchakit, P. (2013). Audit emotional intelligence, audit judgment and audit quality: Evidence from tax auditors in Thailand. *California Business Review*, 1(2), 5-22. https://
37. Mayer, J. D., & Salovey, P. (1997). Emotional intelligence and conflict resolution: Implications for human resource development. Advances in Developing Human Resources, 4, 62-79. https://doi.org/10.1177/2F152422302004001005

38. Mayer, J. D., Caruso, D. R., & Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. Intelligence, 27, 267-298.

39. Maynard, M. (2003). Emotional intelligence and perceived employability for internship curriculum. Psychological Reports, 93, 791-792.

40. Nelson, M., & Tan, H. (2005). Judgment and Decision Making Research in Auditing: A Task, Person, and Interpersonal Interaction Perspective. AUDITING: A Journal of Practice & Theory, 24(s-1), 41-71. doi:10.2308/aud.2005.24.s-1.41

41. Nunnally, J. C. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill

42. Peterson, R. A. (1994). A Meta-Analysis of Cronbach’s Coefficient Alpha. Journal of Consumer Research, 21(2), 381-391. https://doi.org/10.1086/209405

43. Phan, H. T., Mai, T. T., & Nguyen, T. T. (2021). The Impact of Emotional Intelligence Orientation on Audit Sustainability: Empirical Evidence from Vietnam. The Journal of Asian Finance, Economics and Business, 8(3), 1021-1034. https://doi.org/10.13106/JAFEB.2021.VOL8.NO3.1021

44. Pornpandejvittaya, P., & Sukkhewat, A. (2011). Emotional intelligence quotient, professional practice and job success: Empirical research in the stock exchange in Thailand. Journal of Academy of Business and Economics, 11(3), 202-212.

45. Rosete, D., & Ciarrochi, J. (2005). Emotional intelligence and its relationship to workplace performance outcomes of leadership effectiveness. Leadership and Organization Development Journal, 26, 388-399.

46. Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. Imagination, Cognition and Personality, 9, 185-211.

47. Schumacker, R. E., & Lomax, R. G. (2004). A beginner’s guide to structural equation modeling (2nd ed.). Lawrence Erlbaum Associates Publishers.

48. Sy, T., Tram, S., & O’Hara, L. (2006). Relation of employee and manager emotional intelligence to job satisfaction and performance. Journal of Vocational Behavior, 68, 461-473. http://dx.doi.org/10.1016/j.jvb.2005.10.003

49. Tabachnick, B. G., & Fidell, L. S. (2001). Using Multivariate Statistics. Boston: Allyn and Bacon.

50. Thapayom, A., Usahawanitchakit, P., & Boonlua, S. (2018). Effect of Emotional Intelligence Orientation on Audit Sustainability of Certified Public Accountants (CPAs) in Thailand. Journal of Accountancy and Management, 10(3), 1-16. Retrieved from https://so02.tci-thaijo.org/index.php/mbs/article/view/223038

51. Wedemeyer, P. D. (2010). A discussion of auditors’ judgment as the critical component in audit quality - a practitioner’s perspective. International Journal of Disclosure and Governance, 7(4), 320-333. Retrieved from https://link.springer.com/article/10.1057/jdg.2010.19

52. Yang, L. (2013). The impact of emotional intelligence on auditors’ judgment (Theses and Dissertations). Virginia Commonwealth University, Richmond, Virginia, USA. Retrieved from https://scholarcompass.vcu.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1508&context=etd

53. Yang, L., Brink, A. G., & Wier, B. (2017). The impact of emotional intelligence on auditors’ judgment. International Journal of Auditing, 22(1), 83-97. https://doi.org/10.1111/ija.12106