# Determinants Influencing Accountant Staff's Intention to Pursue International Professional Accountant Certifications: The Case of Vietnam

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**ABSTRACT**

*This study investigates the key factors influencing the intention of accounting professionals in Vietnam to pursue international professional accountant certifications. Based on survey data from 126 accountants and auditors, a Bayesian binary logistic regression model was applied to identify five significant determinants: economic motivation, career motivation, degree motivation, attitude, and level of comprehension. The results indicate that all five factors positively affect the intention to obtain international certifications. The study provides practical recommendations for training institutions, employers, and certification bodies. These include offering financial incentives, integrating certification content into university curricula, and improving awareness of certification benefits and processes. The findings underscore the importance of economic and career advancement motivations, alongside personal attitudes and understanding, in shaping professionals' decisions. This research contributes to the broader understanding of certification uptake in emerging economies and supports policy formulation aimed at strengthening the qualified accounting workforce in the context of global integration.*

**Keywords:** International professional accountant certifications, Accountant motivation, Bayesian logistic regression, Vietnam, professional development.

## Introduction

The accountancy profession is increasingly placing higher demands on accountants in terms of professional competence and professionalism. These professionals are now expected not only to possess in-depth knowledge of accounting and auditing but also to demonstrate strategic advisory capabilities and risk management skills. International professional accountant certifications, which are globally recognized, have attracted a substantial number of learners and holders. For instance, the ACCA certification is awarded by the Association of Chartered Certified Accountants (ACCA), a prestigious global professional body established in 1904. As of now, ACCA has over 526,000 students and 252,500 members across more than 180 countries. Similarly, the ICAEW ACA (ICAEW Chartered Accountancy) is awarded by the Institute of Chartered Accountants in England and Wales (ICAEW), an international

professional organization founded in 1880. ICAEW currently has over 310,000 members spread across 180 countries worldwide.

In Vietnam, as businesses prepare for the adoption of International Financial Reporting Standards (IFRS) according to the roadmap outlined by the Ministry of Finance (Decision No. 345/QĐ-BTC in 2020 approving the Project on the Application of Financial Reporting Standards in Vietnam), accountants with good understanding of IFRS are enjoying significant advantages and promising career opportunities. Individuals holding international professional accountant certifications are not only well-versed in IFRS but also equipped with the skills necessary to work in international environments. Obtaining such certifications not only fulfills the professional practice requirements for accountants but also enhances professional credibility and opens up greater opportunities for career advancement.

Despite the clear benefits of pursuing international professional accountant certifications, the number of international certificate holders in Vietnam remains modest—not only in comparison with developed countries such as the UK, the US, and Australia but also with regional peers such as Singapore, Malaysia, and Thailand. This study aims to assess the factors that influence the intention to pursue international professional accountant certifications among accountancy staff currently working at enterprises in Vietnam. The research findings contribute to helping organizations, businesses, and training institutions identify the factors that either encourage or hinder accountants' intention to take certification exams. From there, appropriate policies and programs can be developed and implemented to promote accountants' participation in international certification programs, thereby meeting the growing demands of Vietnam's labor market in the era of international integration.

To examine the influence of these factors on the intention to pursue international professional accountant certifications, this study employs the Bayesian binary logistic regression model using survey data collected from 126 professionals working in accountancy in Vietnam. The findings reveal five influential factors: economic motivation, career motivation, degree motivation, attitude, and level of comprehension. Based on these identified factors, the study proposes several implications for accounting and auditing training institutions, employers, and certification bodies in order to increase participation in international professional accountant certification programs.

## Literature Review and Hypotheses Development

Numerous empirical studies conducted in various countries and regions have identified several factors influencing the intention to pursue international professional accountant certifications. Specifically, five main groups of factors have been highlighted, starting with:

### Economic Motivation

Economic motivation refers to the internal drive within individuals to improve their capabilities in order to obtain desired financial rewards. These financial rewards may include direct benefits such as salary or base pay, overtime pay, and bonuses, as well as indirect benefits such as insurance, expense allowances, and pension funds (Abidin & Ervanto, 2015; Belfiore *et al*., 2024). Financial rewards serve as recognition for work performed and are especially meaningful to individuals who highly value monetary benefits (Widyanti & Saputra, 2018; Liu *et al*., 2022; Pradhan *et al*., 2023).

According to Maslow's hierarchy of needs (1954), physiological needs are the most basic and must be fulfilled first. Individuals tend to seek to enhance their financial capacity to meet fundamental needs such as clothing, food, and shelter. The study by Adeosun and Adegbite (2022), Thazha *et al*. (2023), conducted in Lagos, Nigeria, collected data from 230 HR professionals across various sectors, including both certified and non-certified individuals. Using a Likert-scale survey and structural equation modeling analysis, the study explored the relationship between exogenous and endogenous constructs. The results indicated that professional certification benefits career development, including increased income potential. Similarly, the study by Niswatin and Rochayatun (2024), Makhoahle and Gaseitsiwe (2022), which employed a quantitative descriptive method, focused on fifth- and seventh-semester accounting students at UIN Maulana Malik Ibrahim Malang. Using purposive sampling, 73 individuals were selected as the study sample. The authors found that the intention to pursue professional accountant certification was positively and significantly influenced by financial rewards, or in other words, by economic motivation (Dhanasekar *et al*., 2022).

In addition, several other studies, such as those by Binna *et al*. (2018), Graefen *et al*. (2023) and Abidin and Ervanto (2015), have also demonstrated that economic motivation significantly influences the intention to take professional accountant certification exams. These findings suggest that when the financial rewards associated with a profession are perceived as substantial, individuals are more likely to pursue the relevant professional certification. Therefore, in the context of this study, economic motivation is considered a relevant factor influencing auditing staff's intention to pursue international professional accountant certifications.

Based on the above discussion, the following hypothesis is proposed:

***H1.*** *Financial rewards influence accountancy staff's intention to take international/professional accountant certification*

### *Career Motivation*

Career motivation refers to the internal drive within individuals to enhance their capabilities in order to achieve higher positions or advance in their professional careers. Career motivation can be measured by the extent to which an individual desires to improve their career—specifically, through the pursuit of promotion opportunities, job suitability, professional recognition, increased performance potential, the ability to manage workload effectively, and the acquisition of job-related knowledge (Arnita, 2022; Wilhelmy *et al*., 2022; İlaslan *et al*., 2023; Figueroa-Valverde *et al*., 2024).

According to Maslow (1954), self-actualization is the desire of an individual to systematically develop their potential into effective and consistent capabilities in pursuit of a career. Therefore, career motivation is considered to influence the intention to pursue professional accountant certifications, as it supports the development of the inherent potential of staff working in accounting firms.

The study by Muh and Abdul (2021), Kulkarni *et al*. (2023), conducted on 100 accounting students at the Islamic University of Malang, applied multiple linear regression analysis and found that career motivation variables had a positive effect on students' interest in pursuing professional accounting education (PPAk). Similarly, studies by Selfiana and Rochayatun (2021), Pavlova (2024) and Rispantyo and Djoko (2015) also concluded that career motivation has a positive influence on the intention to take professional accountant certification exams.

Based on the above discussion, the following hypothesis is proposed:

***H2.*** *Career motivation influences the intention of staff to take international professional accountant certification*

### *Degree Motivation*

Degree motivation refers to an individual's intrinsic drive to attain higher levels of academic and professional qualifications (Niswatin & Rochayatun, 2024; Ravoori *et al*., 2024). The number of qualifications a person possesses reflects an increasing level of educational attainment that has been explored and achieved (Sapitri & Yaya, 2015; Alturki *et al*., 2022; Fernandes *et al*., 2022).

Possessing a professional qualification is considered a valuable asset for employees in accounting firms, as it serves as evidence of having reached a certain level of professional expertise in their field. This accomplishment can fulfill a personal desire for self-pride and recognition. Therefore, degree motivation may positively encourage employees' intentions to obtain international professional accountant certifications.

The study by Setiani and Rita (2021), Shaheen *et al*. (2023), using purposive sampling (194 respondents) and binary logistic regression analysis, collected data from accountancy students at Satya Wacana Christian University (SWCU) to estimate the influence of degree motivation on students' interest in taking the professional accountant certification exam. The results revealed that degree motivation significantly influenced accounting students' interest in pursuing professional certification. Similarly, findings by Vina Arnita (2022) and Maneea *et al*. (2024), also confirmed that qualification motivation has a significant impact on the intention to sit for professional accountant certification exams.

Based on the above discussion, the following hypothesis is proposed:

***H3.*** *Degree motivation influences the intention of staff to take international/ professional accountant certification*

### *Attitude*

According to the Theory of Planned Behavior, attitude refers to an individual's favorable or unfavorable evaluation of a particular behavior (Ajzen, 1991; AlHussain *et al.*, 2022). If a person holds a positive perception that professional certification will bring them benefits, it can enhance their interest in pursuing such certification. This implies that cultivating a positive attitude toward professional certifications is essential for forming the intention to sit for these exams.

When employees demonstrate a favorable attitude and greater trust in the value of professional certifications, their intention to take the certification exam is likely to increase (An *et al.*, 2022; Madhukar, 2022; Malcangi *et al.*, 2023). The study conducted by An *et al.* (2022), Bulusu and Cleary (2023), applied Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), and Structural Equation Modeling (SEM) using data collected from 400 university graduates in accounting and auditing in Can Tho City. The study aimed to examine the factors influencing outcomes related to professional accountant certification exams. The findings revealed a positive correlation between expectations, attitude, and the intention to take the certification exams.

Other studies, such as those by Coe (2016), Affifah *et al.* (2021) and Bolay *et al.* (2024), also confirmed that attitude has a significant and positive effect on the intention to pursue professional accountant certification. Then the hypothesis that can be proposed is:

**H4.** *Attitude influences the intention of staff to take international/ professional accountant certification*

### *Comprehension of International Professional Accountant Certifications*

Comprehension reflects an individual's ability to comprehend and apply information in various contexts (Ardiantoro, 2013; Pisano *et al.*, 2023; Jiang *et al.*, 2024). Dewi *et al.* (2018) and Dipalma *et al.* (2022), conducted a study involving all undergraduate students enrolled in the Accounting program at Bali University to examine the influence of attitude, subjecti ve norms, perceived behavioral control, knowledge, career motivation, economic motivation, and achievement motivation on students' intention to pursue professional accountant certifications such as ACCA, CA, and CPA. The results indicated that knowledge significantly affects students' intentions to obtain professional accountant certifications.

Access to information regarding international professional accountant certifications is essential for fostering the intention to pursue them. Such information includes procedures for certification, examination regulations, and requirements set by governing bodies (Laksmi & Suciati, 2018).

Studies by An *et al.* (2022), Marian *et al.* (2024) and Sari *et al.* (2023) also demonstrated that the level of knowledge has a notable influence on the intention to pursue professional accountant certifications. Specifically, An *et al.* (2022) and Fiodorova *et al.* (2022), found that understanding the regulatory framework and examination-related procedures positively impacts candidates' attitudes toward undertaking the certification process.

Then the hypothesis that can be proposed is:

**H5.** *Comprehension of international professional accountant certifications has a positive influence on the staff's intention to get the certifications*

## Materials and Methods

### *Research Model*

To identify the factors influencing the intention to pursue international professional accountant certifications, this study builds upon the theoretical foundation and empirical findings of previous research, including studies by Ahmad *et al.* (2015), Affifah *et al.* (2021), An *et al.* (2022), Coe (2016), Niswatin and Rochayatun (2024), Noorina (2019), Rahma and Murdiansyah (2023), Selfiana and Rochayatun (2021), Setiani and Rita (2021), and Dongmo and Tamesse (2023). Based on this foundation, we propose the following binary logistic regression model:

$$log\left(\frac{P_{it}}{1 - P_{it}}\right) = \beta_0 + \beta_1 EM_i + \beta_2 CM_i + \beta_3 DM_i + \beta_4 AT_i + \beta_5 LC_i + u_i \qquad (1)$$

Where:

$P_i$ is defined as the probability that the dependent variable **EIAC** (Employees Interested in International Accountant

certification) takes the value "1", conditional on Z, which includes the input variables **EM, CM, DM, AT,** and **LC** (Eq. 2).

$$P_i = P(EIAC_i = 1|Z_i) = \frac{1}{1 + e^{-Z_i}}$$

with:

$$Z_i = \beta_0 + \beta_1 EM_i + \beta_2 CM_i + \beta_3 DM_i + \beta_4 AT_i + \beta_5 LC_i + \varepsilon_i \tag{2}$$

$1-P_i$ is the probability that the variable **EIAC** takes the value "0"; and $(P_i/1-P_i)$ represents the *odds ratio*, which is the ratio of the probability of having the intention to take international professional accountant certification exams (**EIAC = 1**) to the probability of not having such intention (**EIAC = 0**).

The independent variables used in the model include:

- **EM** (Economic Motivation)
- **CM** (Career Motivation)
- **DM** (Degree Motivation)
- **AT** (Attitude)
- **LC** (Level of Comprehension)
- $u_i$, $\varepsilon_i$ are the random error; $i$ is the surveyed employees.

The measurement scales for the variables used in this research model are described in **Table 1.**

**Table 1.** Variable Descriptions

| Codings | Variables | Scale | Expectations | Sources |
|---|---|---|---|---|
| EIAC | Intention to Pursue International Professional Accountancy Certification | Binary | | |
| EM | **Economic motivation** | | + | |
| EM1 | The future is secured | Likert | | Ahmad *et al.* (2015) |
| EM2 | High salary | Likert | | Niswatin and Rochayatun (2024) |
| EM3 | Fast salary increase | Likert | | Rahma and Murdiansyah (2023) |
| EM4 | Availability of other rewards outside of salary or bonus | Likert | | Niswatin and Rochayatun (2024) |
| CM | **Career motivation** | | + | |
| CM1 | Obtaining a job that is linear with the educational background | Likert | | Niswatin and Rochayatun (2024) |
| CM2 | Increases the sense of professionalism | Likert | | Niswatin and Rochayatun (2024) |
| CM3 | Can complete the workload well | Likert | | Niswatin and Rochayatun (2024) |
| CM4 | Improve the ability to excel at work | Likert | | Selfiana and Rochayatun (2021) |
| CM5 | Increase opportunities for promotion at work | Likert | | Selfiana and Rochayatun (2021) |
| DM | **Degree motivation** | | + | |
| DM1 | Earning a professional degree, other than a bachelor's degree | Likert | | Setiani and Rita (2021) |

| DM2 | Increase knowledge in the field of accounting | Likert | Niswatin and Rochayatun (2024) |
|---|---|---|---|
| DM3 | Improve abilities | Likert | Niswatin and Rochayatun (2024) |
| DM4 | Improve expertise | Likert | Niswatin and Rochayatun (2024) |
| AT | **Attitude** | + | |
| AT1 | Attitudes and beliefs held by staff to take certification towards intrinsic value, career prospects, and the job market. | Likert | Niswatin and Rochayatun (2024) |
| AT2 | Consequences of students following certification on intrinsic value, career prospects, and the job market | Likert | Niswatin and Rochayatun (2024) |
| AT3 | Professional certification is necessary and important for accountants in Vietnam; therefore, pursuing such certification is essential. | Likert | An *et al.* (2022) |
| AT4 | It is believed that information about professional certifications should be disseminated as early as possible in order to encourage early participation in the examination process. | Likert | An *et al.* (2022) |
| LC | **Level of comprehension** | + | |
| LC1 | Certification exam organizer | Likert | Niswatin and Rochayatun (2024) |
| LC2 | Experience in the accounting field | Likert | Niswatin and Rochayatun (2024) |
| LC3 | Terms and conditions of the certification exam | Likert | An *et al.* (2022), Niswatin and Rochayatun (2024) |
| LC4 | Levels of certification exam | Likert | Niswatin and Rochayatun (2024) |
| LC5 | Fee Level of the certification exam | Likert | Niswatin and Rochayatun (2024) |

Source: Synthesized from relevant literature and the authors' recommendations.

Since all independent variables in the model are latent variables measured by multiple indicators, we employed Principal Component Analysis (PCA) to measure the variables EM, CM, DM, AT, and LC. The Bartlett's Test of Sphericity and the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy were conducted to assess the suitability of the data for PCA. Bartlett's Test evaluates whether the correlation matrix used in PCA is an identity matrix. If the p-value of the Bartlett test is less than 0.05, factor analysis is deemed appropriate (Hair *et al.*, 2010; Tabachnick *et al.*, 2007). The KMO test measures the adequacy of sampling, where a KMO value ranging from 0 to 1 and greater than 0.5 indicates the data is suitable for factor analysis (Hair *et al.*, 2010; Tabachnick *et al.*, 2007; Patil, 2022).

The results of both Bartlett's Test and the KMO test, presented in **Table 2**, show that all five variables—EM, CM, DM, AT, and LC—have KMO values greater than 0.5 and within the 0 to 1 range. For Bartlett's Test, the p-values for all five independent variables are less than the significance level of alpha = 0.01. Therefore, the results of both tests confirm that the use of PCA is appropriate for measuring EM, CM, DM, AT, and LC. Accordingly, PCA was employed in this study to construct these latent variables. The total variance explained for each variable (EM, CM, DM, AT, and LC) is presented in **Table 3**.

**Table 2.** Scale Validity and Reliability Test Results

| KMO and Bartlett's Test | | EM | CM | DM | AT | LC |
|---|---|---|---|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | 0.787 | 0.861 | 0.848 | 0.840 | 0.852 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 353.844 | 319.450 | 355.025 | 338.934 | 420.880 |
| | df | 6 | 10 | 6 | 6 | 10 |
| | Sig. | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

Source: Compiled by the research team

**Table 3.** Total Variance Explained

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| Total Variance Explained for the EM Variable | | | | | | |
| 1 | 3.139 | 78.470 | 78.470 | 3.139 | 78.470 | 78.470 |
| 2 | .395 | 9.882 | 88.353 | | | |
| 3 | .309 | 7.734 | 96.087 | | | |
| 4 | .157 | 3.913 | 100.000 | | | |
| Total Variance Explained for the CM Variable | | | | | | |
| 1 | 3.203 | 80.066 | 80.066 | 3.203 | 80.066 | 80.066 |
| 2 | .339 | 8.468 | 88.535 | | | |
| 3 | .266 | 6.656 | 95.191 | | | |
| 4 | .192 | 4.809 | 100.000 | | | |
| Total Variance Explained for the DM Variable | | | | | | |
| 1 | 3.203 | 80.066 | 80.066 | 3.203 | 80.066 | 80.066 |
| 2 | .339 | 8.468 | 88.535 | | | |
| 3 | .266 | 6.656 | 95.191 | | | |
| 4 | .192 | 4.809 | 100.000 | | | |
| Total Variance Explained for the AT Variable | | | | | | |
| 1 | 3.143 | 78.569 | 78.569 | 3.143 | 78.569 | 78.569 |
| 2 | .376 | 9.392 | 87.961 | | | |
| 3 | .267 | 6.673 | 94.634 | | | |
| 4 | .215 | 5.366 | 100.000 | | | |
| Total Variance Explained for the LC Variable | | | | | | |
| 1 | 3.586 | 71.729 | 71.729 | 3.586 | 71.729 | 71.729 |
| 2 | .612 | 12.240 | 83.969 | | | |
| 3 | .385 | 7.697 | 91.666 | | | |
| 4 | .253 | 5.067 | 96.733 | | | |
| 5 | .163 | 3.267 | 100.000 | | | |
| Extraction Method: Principal Component Analysis. | | | | | | |

Source: Compiled by the research team

Additionally, given the small sample size of this study (126 observations), we chose the Bayesian Binary Logistic Regression model to estimate the factors influencing employees' intention to pursue international professional accountant certifications. Compared to the frequentist approach, the Bayesian approach often provides more reliable

estimates, as it combines prior information about the model parameters with observed data to form a posterior model of interest.

To perform Bayesian analysis, it is necessary to specify a likelihood function for the data and a prior distribution for the model parameters. In this study, the survey data collected from 126 accounting and auditing staff are assumed to be independent from one another. Accordingly, the likelihood function for a sample dataset of size *n* individuals can be defined as follows $EIAC = (EIAC_1, EIAC_2, \ldots EIAC_n)^T$:

$$prob(\text{EIAC}|\beta) = L(\beta|EIAC) = \prod_{i=1}^{n}[P_i^{EIAC_i}(1-P_i)^{(1-EIAC_i)}] =$$

$$\prod_{i=1}^{n}\left(\frac{e^{\beta_0+\beta_1 EM+\beta_2 CM+\beta_3 A M\hat{E}+\beta_4 AT+\beta_5 LC}}{1+e^{\beta_0+\beta_1 EM+\beta_2 CM+\beta_3 A M\hat{E}+\beta_4 AT+\beta_5 LC}}\right)^{EIAC_i}\left(1-\frac{e^{\beta_0+\beta_1 EM+\beta_2 CM+\beta_3 A M\hat{E}+\beta_4 AT+\beta_5 LC}}{1+e^{\beta_0+\beta_1 EM+\beta_2 CM+\beta_3 A M\hat{E}+\beta_4 AT+\beta_5 LC}}\right)^{(1-EIAC_i)} \tag{3}$$

One of the key prerequisites in any Bayesian analysis is the selection of prior information for the logistic regression parameters. In this study, the prior distribution for each regression coefficient is assumed to follow a normal distribution with mean $\mu_j$ and variance $\sigma^2_j$, denoted as $\beta_j \sim N(\mu_j, \sigma^2_j)$

Mathematically, the prior distribution for the logistic regression parameters is expressed as follows (Eq. 4):

$$P(\beta_j) = \frac{1}{\sqrt{2\pi\sigma_j^2}} exp\left\{\frac{-1}{2}\left(\frac{\beta_j-\mu_j}{\sigma_j^2}\right)^2\right\} \tag{4}$$

A non-informative normal prior distribution with prior distribution parameters of mean value 0 and variance of 1000 was taken into consideration in this investigation because there was insufficient historical data for the prior distribution of regression coefficients. The posterior distribution of model parameters, which is the result of the combination of Eqs. (4) and (3), then has the following form (5 and 6) given the selection of non-informative independent normal priors and likelihood function for the data:

$$P(\beta|EIAC) = \prod_{j=0}^{5}[P(\beta_j)] * \prod_{i=1}^{n}[L(\beta|EIAC)] \tag{5}$$

$$= \prod_{j=0}^{5}\frac{1}{\sqrt{2\pi\sigma_j^2}}exp\left\{\frac{-1}{2}\left(\frac{\beta_j-\mu_j}{\sigma_j^2}\right)^2\right\} * \prod_{i=1}^{n}\left[\left(\frac{e^{\beta_0+\beta_1 EM+\beta_2 CM+\beta_3 DM+\beta_4 AT+\beta_5 LC}}{1+e^{\beta_0+\beta_1 EM+\beta_2 CM+\beta_3 DM+\beta_4 AT+\beta_5 LC}}\right)^{EIAC_i}\left(1-\frac{e^{\beta_0++\beta_1 EM+\beta_2 CM+\beta_3 DM+\beta_4 AT+\beta_5 LC}}{1+e^{\beta_0+\beta_1 EM+\beta_2 CM+\beta_3 DM+\beta_4 AT+\beta_5 LC}}\right)^{(1-EIAC_i)}\right] \tag{6}$$

According to Spiegelhalter *et al.* (1996), Markov Chain Monte Carlo (MCMC) simulation is the most widely used method for approximating general posterior distributions. Furthermore, among various MCMC methods, the Metropolis-Hastings algorithm and Gibbs sampling are the most commonly applied approaches, as noted by Gelfand *et al.* (1990) and Watanabe *et al.* (2024).

Therefore, in this study, we adopt the Bayesian estimation approach using a combination of the Random-Walk Metropolis-Hastings algorithm and Gibbs sampling to estimate the influence of various factors on the intention of accounting and auditing staff to pursue international professional accountant certifications.

*Data Collection*
In this study, we utilized primary data collected from 126 individuals working in the fields of accounting and auditing. Our research model consists of five independent variables and one dependent variable.

According to Tabachnick and Fidell (1996), the minimum sample size should follow the formula $n \geq 8m + 50$, where *n* is the sample size and *m* is the number of independent variables. Based on this formula, the minimum required sample size for this study is *8 × 5 + 50 = 90* observations.

Alternatively, Harris (1985) suggests that the minimum sample size should be *n ≥ 104 + m* (where *m* is the number of independent and dependent variables), or *n ≥ 50 + m* if *m < 5*. Applying the first condition to our model (*m = 6*), the minimum required sample size is *110*.

When using Exploratory Factor Analysis (EFA), Hair *et al*. (1998) recommend a minimum sample size of 50, with 100 or more being preferable. Furthermore, the sample size should be at least five times the number of observed variables.

In terms of multiple regression analysis, Tabachnick and Fidell (1996) also recommend a minimum of 90 observations, while Harris (1985) suggests at least 110 observations.

With a total of 126 valid responses, our sample size meets the minimum requirements as proposed by Tabachnick and Fidell (1996), Harris (1985), and Hair *et al*. (1998), thereby ensuring the robustness of our statistical analyses.

To collect information for this study, we employed a convenience sampling method. The survey was distributed to accounting and auditing personnel via an online Google Form. A total of 132 responses were received, of which 126 were complete and valid, accounting for 95.5% of the total. Therefore, we used these 126 valid responses for our analysis.

Regarding the sample characteristics, there were 91 female respondents (72.2%) and 35 male respondents (27.8%). In terms of job position, among the 126 participants:

- 46 individuals (36.5%) worked as accountants or general accountants,
- 25 individuals (19.8%) were auditors,
- 55 individuals (43.7%) held other positions.

The average age of respondents was 34 years, ranging from 22 to 56 years old. The average monthly income was 28 million VND. The income group with the highest proportion was 10–20 million VND (25.4%), followed by the 20–30 million VND group (22.2%). The lowest proportion was observed in the under 10 million VND group (15.9%), followed closely by those earning over 50 million VND (16.7%).

## Results and Discussion

### *Research Results*

Descriptive statistics of the variables used in the model are presented in **Table 4.** According to the data in **Table 4**, among the 126 surveyed respondents, 47 individuals (37.3%) indicated an intention to pursue an international professional accountant certification, while 79 individuals (62.7%) did not express such intention.

Among the measurement items of the variables, only two items—EM4 (Availability of other rewards outside of salary or bonus) and CM3 (Can complete the workload well)—had average scores approximately equal to 4. All remaining items received average scores above 4.

**Table 4.** Descriptive Statistics of Variables Used in the Model

|  | N | Mean | Median | Std. Deviation | Min | Max |
|---|---|---|---|---|---|---|
| *EIAC* (Frequency/ Percent) | 126 | - | - | - | - | - |
| 1: Intend to pursue international certification | 47 (37.3%)) |  |  |  |  |  |
| 0: Do not intend to pursue international certification | 79 (62.7%) |  |  |  |  |  |
| EM1 | 126 | 4.143 | 4 | 0.777 | 1 | 5 |
| EM2 | 126 | 4.127 | 4 | 0.820 | 2 | 5 |
| EM3 | 126 | 4.103 | 4 | 0.818 | 2 | 5 |
| EM4 | 126 | 3.944 | 4 | 0.932 | 1 | 5 |
| CM1 | 126 | 4.198 | 4 | 0.727 | 2 | 5 |
| CM2 | 126 | 4.405 | 4 | 0.635 | 3 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| CM3 | 126 | 3.960 | 4 | 0.880 | 2 | 5 |
| CM4 | 126 | 4.190 | 4 | 0.797 | 1 | 5 |
| CM5 | 126 | 4.365 | 4 | 0.676 | 3 | 5 |
| DM1 | 126 | 4.349 | 4 | 0.696 | 3 | 5 |
| DM2 | 126 | 4.500 | 5 | 0.642 | 2 | 5 |
| DM3 | 126 | 4.429 | 5 | 0.662 | 3 | 5 |
| DM4 | 126 | 4.500 | 5 | 0.642 | 2 | 5 |
| AT1 | 126 | 4.151 | 4 | 0.694 | 3 | 5 |
| AT2 | 126 | 4.056 | 4 | 0.696 | 3 | 5 |
| AT3 | 126 | 4.079 | 4 | 0.816 | 2 | 5 |
| AT4 | 126 | 4.151 | 4 | 0.760 | 2 | 5 |
| LC1 | 126 | 4.063 | 4 | 0.735 | 2 | 5 |
| LC2 | 126 | 4.135 | 4 | 0.685 | 2 | 5 |
| LC3 | 126 | 4.159 | 4 | 0.709 | 3 | 5 |
| LC4 | 126 | 4.143 | 4 | 0.723 | 1 | 5 |
| LC5 | 126 | 4.063 | 4 | 0.756 | 2 | 5 |

Source: Compilations by the authors

According to the results in **Table 5**, the model's acceptance rate reaches 0.2392, which falls within the optimal range of 0.15 to 0.5 as suggested by Roberts and Rosenthal (2001). The minimum, average, and maximum efficiency values of the model are 0.0201, 0.0327, and 0.0423, respectively—each exceeding the warning threshold of 0.01. In addition, all Monte Carlo standard error (MCSE) values are below 5%, indicating acceptable precision. Following the recommendations of Hosmer *et al.* (2013), these results suggest that the model has achieved convergence and posterior estimation accuracy.

Furthermore, to ensure that Bayesian inference based on the MCMC sample is valid, we conducted convergence diagnostics for the MCMC parameter estimates through visual inspection. According to Balov (2020), MCMC convergence diagnostics include trace plots, posterior distribution histograms, autocorrelation plots, and density estimates. As shown in **Figure 1**, the trace plots fluctuate around the mean with no discernible trend, indicating stationarity and convergence. The autocorrelation drops rapidly (lags < 40), and the shapes of the posterior distribution and density plots are consistent. These results confirm that the MCMC chains meet the convergence condition and thus support the robustness of the Bayesian inference in the research model.



a)      b)
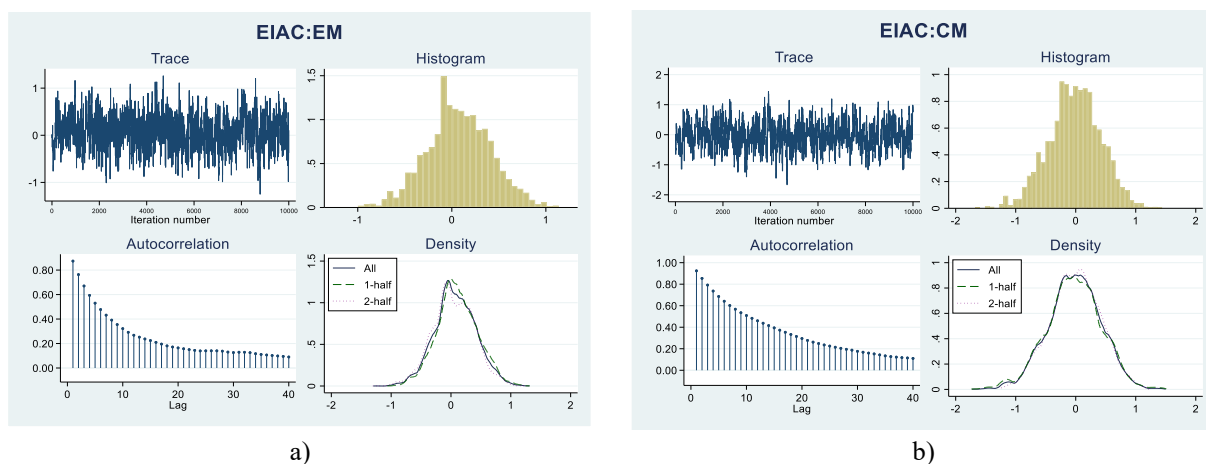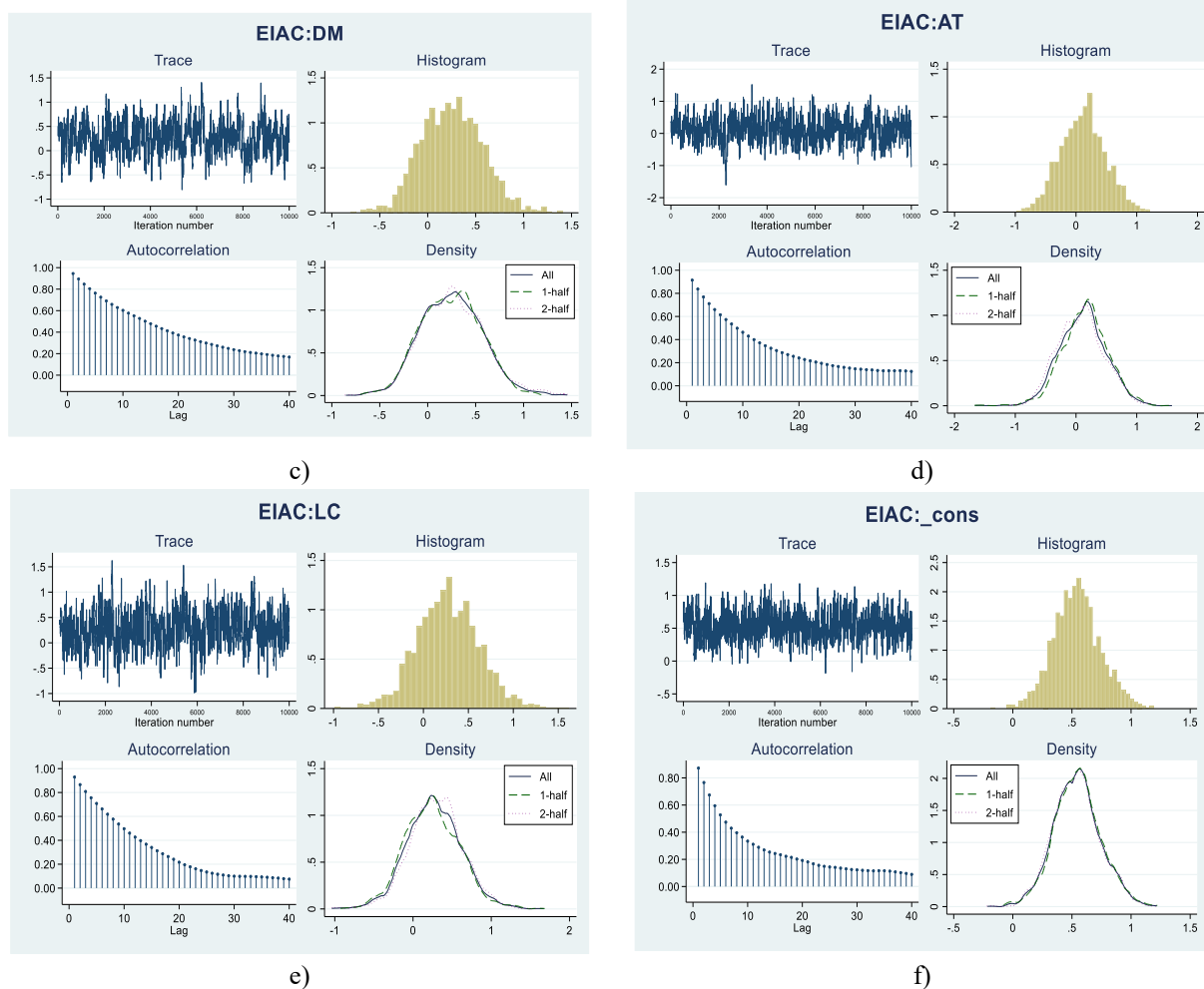
**Figure 1.** Convergence diagnostics of MCMC chains

**Table 5** presents the posterior odds ratios, Monte Carlo standard errors (MCSE), posterior medians, and the Bayesian credible intervals for the variables EM, CM, DM, AT, and LC, as estimated from the Bayesian binary logistic regression model. The estimation results indicate that all five independent variables—Economic Motivation (EM), Career Motivation (CM), Degree Motivation (DM), Attitude (AT), and Level of Comprehension (LC)—exert a positive influence on employees' intention to pursue international professional accountant certifications.

Specifically, an increase in any of these motivational or cognitive factors is associated with a higher probability that accounting and auditing staff will intend to take such international certification exams. This suggests that enhancing these underlying factors may effectively encourage professional engagement in international certification programs.

**Table 5.** Simulation results of the model

| Predictors | Odds ratio | Posterior standard error | MCSE | Posterior median | 95% Credible interval of the posterior mean | |
|---|---|---|---|---|---|---|
| *EM* (Economic motivation) | 1.1419 | 0.4033 | 0.0209 | 1.0656 | 0.5366 | 2.1359 |
| *CM* (Career motivation) | 1.0784 | 0.4821 | 0.0273 | 0.9951 | 0.4148 | 2.2547 |
| *DM* (Degree motivation) | 1.3572 | 0.4605 | 0.0325 | 1.2808 | 0.7166 | 2.4818 |
| *AT* (Attitude) | 1.2033 | 0.4690 | 0.0256 | 1.1304 | 0.5425 | 2.3554 |

| | | | | | | |
|---|---|---|---|---|---|---|
| *LC* (Level of comprehension) | 1.3915 | 0.5074 | 0.0284 | 1.3024 | 0.6547 | 2.6712 |
| *Cons* | 1.7540 | 0.3530 | 0.0172 | 1.7148 | 1.1675 | 2.5791 |
| MCMC iterations | 12500 | | | | | |
| Burn-in | 2500 | | | | | |
| MCMC sample size | 10000 | | | | | |
| Number of obs | 126 | | | | | |
| Acceptance rate | 0.2392 | | | | | |
| Efficiency: | | | | | | |
| - Min | 0.0201 | | | | | |
| - Avg | 0.0327 | | | | | |
| - Max | 0.0423 | | | | | |

Source: Compiled and analyzed by the authors from the survey data.

The research findings reveal that *economic motivation* plays a significant role in influencing the intention of accounting and auditing employees to pursue international professional accountant certifications. This result is consistent with the findings of Abidin and Ervanto (2015), Rispantyo and Djoko (2018) and Niswatin and Rochayatun (2024), who also found that economic motivation has a positive and substantial impact on the intention to take international professional accountant certification exams. Such certifications offer individuals expectations of a more secure future, better-paying jobs, and higher salary growth potential.

Our survey data further supports this, as **80.1%** of accounting and auditing employees agreed that holding an international professional accountant certification ensures a more secure future. In addition, **78.6%** agreed that such certifications would lead to higher salaries; **77.8%** believed that the opportunity for faster salary growth would increase, and **77.8%** also agreed that the chance of receiving additional non-salary rewards would be greater.

This study explores the role of *career motivation* in increasing the likelihood that accounting and auditing employees will take international professional accountant certification exams. This conclusion aligns with the findings of Binna *et al*. (2015), Hartati (2019) and Selfiana and Rochayatun (2021), who also identified career motivation as a positive influence on the intention to pursue international professional accountant certifications. These results indicate that career motivation is one of the key determinants of professional competence among accounting and auditing personnel.

Our survey results show that 83.3% of respondents agreed that taking international accountant certification exams would help them obtain jobs that match their educational qualifications. Furthermore, 92.1% believed that international certifications enhance professionalism in their careers; 69% agreed that obtaining a CPA certificate would improve their ability to handle work pressure; 81.8% believed that having a CPA certificate would improve their job performance; and 88.9% stated that it would increase their chances of career advancement.

Degree motivation was found to influence the intention to pursue international professional accountant certifications. Specifically, degree motivation increases the likelihood that accounting and auditing employees will take part in such exams. This finding is consistent with the studies of Puspitarini and Kusumawati (2011) and Setiani and Rita (2021). Degree motivation reflects the desire of accounting and auditing professionals to be recognized by others for their high level of expertise and qualifications.

Our survey results reveal that 87.3% of respondents agreed that international professional accountant certifications would provide them with professional qualifications beyond a bachelor's degree. Moreover, 88.2% agreed that degree motivation helps enhance their knowledge in the field of accounting; 90.5% believed that international certifications improve their competencies; and 93.6% stated that such certifications help strengthen their professional expertise.

Our research findings are also in line with the results of Coe Affifah *et al*. (2021) and An *et al*. (2022), which indicate that attitude has a positive impact on the intention to pursue international professional accountant certifications. Encouraging employees to intend to take such certifications requires fostering a positive attitude toward professional

credentials. The more positive the employees' attitudes and trust in international accountant certifications, the higher the probability that they will choose to sit for the exams.

According to our survey results, 82.5% of respondents agreed that employees' attitudes and trust in the certification are driven by intrinsic value, career prospects, and job market opportunities. Furthermore, 78.6% agreed with the view that satisfaction with regulations related to international certification exams influences their intention to pursue them. Additionally, 85.5% believed that the certification is necessary and important for auditors in Vietnam and that sitting for the exam is essential. Finally, 80.9% of respondents agreed that information about professional certifications should be disseminated as early as possible to encourage timely exam participation.

The level of comprehension regarding the certification body plays a crucial role in enhancing the intention to pursue international professional accountant certifications among accounting and auditing staff. The higher the level of comprehension, the greater the likelihood that employees will choose to take the certification exam. This finding is consistent with the results of An *et al.* (2022), who emphasized that knowledge of exam-related regulations positively influences the intention to pursue professional certification.

According to our survey results, 80.9% of respondents agreed that understanding the organizations that administer international certification exams influences their decision; 89.4% agreed that having experience in the accounting field contributes to their intention; 84.2% supported the view that understanding the terms and conditions of the certification exam is important; 81.7% believed that knowledge of the different levels of the certification exams plays a role; and 84.1% stated that awareness of the exam fees impacts their intention to take the CPA exam.

## Conclusion

Using Bayesian binary logistic regression with data collected from 126 accounting and auditing professionals in Vietnam, this study identifies five key factors that influence the intention to pursue international professional accountant certifications. These factors include economic motivation, career motivation, degree motivation, attitude, and level of comprehension. Based on these findings, several implications are proposed to enhance participation in such certification programs:

**First**, economic motivation plays a crucial role in encouraging accounting and auditing professionals to pursue international certifications. Therefore, employers should offer economic incentives to motivate employees, such as competitive salary packages aligned with professional qualifications and promotion opportunities to high-specialization positions for those holding international certifications.

**Second**, to foster career and degree motivation, employers should prioritize hiring candidates with international accountant certifications and set certification requirements for higher-level positions or after a specific period of employment. This approach signals the importance of certifications and encourages employees to invest in their professional development.

**Third**, individual employees should recognize the significant benefits that international professional accountant certifications bring in terms of expertise, career advancement, and compensation. Each professional should develop a personal plan and timeline to obtain such certifications.

**Fourth**, certification bodies should consider financial support policies such as exam and review fee subsidies. Our survey results indicate that 62.7% of respondents view cost as a major barrier despite their relatively high average monthly income of 28 million VND, which far exceeds the national average income of 7.1 million VND per month (Vietnam General Statistics Office, 2023).

**Lastly**, international professional organizations should collaborate with reputable universities to integrate certification content into accounting and auditing curricula. Instructors should emphasize the knowledge and skills required for certification exams and incorporate relevant case studies into their teaching. Additionally, universities should increase the proportion of accounting courses taught in English to improve students' language proficiency. Our findings show that 61.1% of respondents consider language a barrier to pursuing international certifications. These efforts will help students understand the certification process early and encourage them to begin their certification journey while still in university.

In conclusion, this study highlights the positive influence of economic, career, and degree motivations, along with attitude and comprehension level, on the intention to pursue international accountant certifications. Future studies may expand upon this research by exploring barriers such as time constraints, financial costs, and language proficiency, as well as conducting comparative research across other developing countries.

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