CTU Journal of Innovation and Sustainable Development
ISSN 2588-1418 | e-ISSN 2815-6412
DOI:10.22144/ctujoisd.2025.069

Factors influencing the effectiveness of academic advising by lecturers at Can Tho University

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Article info.

Received 15 Nov 2024
Revised 30 Mar 2025
Accepted 1 Jul 2025

Keywords

Academic advising, advising, academic advising performance, university students

ABSTRACT

The study was conducted to find out the factors affecting the effectiveness of academic advising work of lecturers at Can Tho University (CTU) from the perspective of students. The study used a questionnaire survey method with 124 students studying at CTU according to the convenience sampling method. In this study, exploratory factor analysis (EFA) and factor score matrix analysis were used to find factors that affect the effectiveness of teachers' administrative work at the school. Results from exploratory factor analysis from a survey of 124 students at Can Tho University show that there are five factors affecting the effectiveness of academic advisor activities at CTU, specifically: Academic advisor, Relationship natural and social relationships, Students, Schools and Other factors.

1. INTRODUCTION

In contemporary times, the credit-based system has become increasingly commonplace within Viet Nam's educational landscape, particularly at the collegiate and university levels. This system aligns with global trends and accommodates the diverse learning needs of students. It is evident that quality assurance plays a pivotal role, operating in tandem with and requiring commensurate investment alongside the implementation of credit-based education.

Inseparable from the credit-based training method is the undeniable importance of academic advisors (AAs) a position closely associated with this training format. AAs are the closest representatives of the institution to support and assist students throughout their college life. Numerous studies have shown that effective AAs have a positive impact on students' academic performance (Sariem et al., 2012; Vianden & Barlow, 2015; Awodiji & Naicker, 2024) help students adhere to their study plans and ensure timely graduation, assist or advise students in resolving academic issues (Khali & Williamson, 2014), foster positive relationships and loyalty among students towards theuniversity (Vianden & Barlow, 2015), increase academic integrity (Spurlock, 2008). Consequently, the role of an academic advisor is not merely a supporting component of the credit-based system but is also a critical factor contributing to the quality of education, student experience, and satisfaction within educational institutions. However, these positive outcomes can only be realized when academic advising is truly effective for students.

Currently, an examination of domestic literature reveals two primary research directions on this topic: (1) Research focused on evaluating the current state, effectiveness, and role of academic advising, and (2) Research proposing solutions to improve the effectiveness of advising activities within institutions. Meanwhile, international research has concentrated on exploring the impact of academic advising on specific aspects such as academic performance, progress, academic

integrity, and so on. However, there is a dearth of research that investigates the effectiveness of academic advising and explores the factors influencing the efficacy of this practice, particularly within a domestic context.

Can Tho University commenced implementing a credit-based system in 1995; however, its full-scale adoption began in the first semester of the 2007-2008 academic year. The results of a conference held in June 2011 to evaluate the performance of academic advisors at Can Tho University revealed significant challenges related to time constraints and staffing shortages (Can Tho University [CTU], 2011). To date, considering the research situation in the area, only the study by Nguyen and Nguyen (2021) on "Academic advising in engineering programs at the College of Engineering, Can Tho University" focused on AAs—the individuals conducting academic advising (AA). It can be seen that the scientific literature on this topic is still limited to reflect the demands to AA work.

Therefore, the study was proposed to contribute to the topic by exploring the factors influencing the effectiveness of AA from the perspective of students, who are the primary beneficiaries of AA services. These factors will provide both a theoretical and a practical foundations for enhancing the effectiveness of advising activities at the institution.

2. MATERIALS AND METHOD

This study focuses on identifying the factors affecting the effectiveness of academic advising activities at Can Tho University, conducted from May 2023 to September 2024.

2.1. Research design

Based on the identified research gap in previous studies, this research will focus on exploring the factors influencing the effectiveness of academic advising at Can Tho University. Specifically, the study will address the following two research questions:

(1) What factors have influenced the effectiveness of academic advising at Can Tho University?

(2) Among the factors influencing the effectiveness of academic advising, which component factors have the strongest impact on that factor?

A questionnaire-based survey was employed as the primary data collection method in this study. The questionnaire consisted of three parts. The first part collected basic information about the participants, such as their faculty, year of study, and gender, using closed-ended questions. In the second part, a factor analysis was used to assess the participants' perceptions of the factors influencing the effectiveness of academic advising on a 5-point Likert scale ranging from 1 (Not at all influential) to 5 (Highly influential). This section included four factor groups with a total of 24 observed variables for the students to evaluate: (1) academic advisor (experience, time, seniority, attitude, workload, skills); (2) institution (benefit support, academic advising regulations, recruitment, training, monitoring and evaluation, rewards, class organization); (3) students (economic conditions, participation, academic ability and progress, pro-activeness, positive attitude, objectivity, attitude); and (4) natural and social factors (stakeholder interest, family support, peer interaction, environmental conditions, disease risks). These factor groups and observed variables were derived from a review of previous studies and an initial survey conducted at the research site. In the final part, participants were asked to provide further explanations for their choices through open-ended questions such as "Which factor do you considerbeing the most important contributor to the effectiveness of academic advising? Why did you choose this factor?"

2.2. Participants

Convenience sampling was employed in this study. Given the research's specific focus on identifying factors influencing the effectiveness of academic advising, more targeted sampling methods were deemed unnecessary. Given that the study utilized exploratory factor analysis (EFA), Hair (2006) recommend a minimum sample size of 50, preferably 100, and an observation-to-item ratio of 5:1, ideally 10:1 or more. Consequently, the study adopted a 5:1 ratio, resulting in 5 observations per measured variable. With 24 variables in the study, a minimum sample size of 120 was required for factor analysis. To account for potential data loss or incomplete responses, an initial sample of 150 was collected. After data cleaning, a final sample of 124 complete responses was retained for analysis.

Participants in the 124 valid responses came from six colleges, institutes, and schools at Can Tho University, including the School of Social Sciences and Humanities (41.1%) and the College of Economics (34.7%). Students from three academic years, 46, 47, and 48 were represented, accounting

for 0.8%, 37.9%, and 61.3% of the sample, respectively. The majority of respondents were female (63.7%), compared to 36.3% male.

2.3. Data collection

A questionnaire was the primary data collection method for this study, with its structure detailed in Section 2.1.

Before the main survey, a pilot study was conducted with five students to assess any potential difficulties in answering the questionnaire. Based on the pilot results and feedback, certain questions were rephrased for better clarity. Additionally, variables deemed to have a negligible impact were removed to streamline the questionnaire.

The raw data was manually screened to identify and remove incomplete or unreliable responses. Subsequently, the data was entered into SPSS for further cleaning using frequency tables. Any outliers or inconsistencies identified during this process were corrected or removed.

To assess the reliability of the measurement scales, a Cronbach's alpha analysis was conducted. Items with item-total correlations below 0.3 were removed, and only scales with Cronbach's alpha values of 0.6 or higher were retained (Nunnally, 1978; Peterson, 1994; Slater, 1995). The proposed model included four factors with 24 observed variables: academic advisor (6 items), institution (6 items), student (7 items), and natural and social factors (5 items). The Cronbach's alpha results for these four factors demonstrated adequate reliability, with values of 0.866, 0.826, 0.864, and 0.830, respectively. These results indicate that the Cronbach's alpha for each variable was within the acceptable range of 0.6-0.8, and each factor had at least three observed variables with no item having a higher Cronbach's alpha than the overall factor.

Therefore, after the Cronbach's alpha reliability test, all 24 observed variables across the four scales (academic advisor, institution, student, and natural and social factors) were deemed reliable and were subsequently included in the exploratory factor analysis (EFA).

3. RESULTS AND DISCUSSION

3.1. Exploratory Factor Analysis (EFA) of the factors influencing the effectiveness of academic advising at Can Tho University

Following Hair et al. (1998), factor analysis was employed as a statistical method to reduce a large set of observed variables into a smaller set of factors that are more meaningful yet retain most of the original information.

After conducting a Cronbach's alpha reliability test, an exploratory factor analysis was performed on all 24 variables to group them into meaningful factors that influence the effectiveness of academic advising at Can Tho University.

Only variables with factor loadings greater than 0.5 were retained, following Hair (2010), who suggested that a factor loading of 0.5 indicates a good quality observed variable. Additionally, the factor loading should be considered in conjunction with the sample size. Given that a factor loading of 0.5 corresponds to a minimum sample size of 120, only variables with factor loadings greater than 0.5 were reported. In the first iteration, one variable, NT4 (emphasis on training academic advisors through workshops, teaching content, and experience sharing), had missing values and was thus removed from the model. A second iteration was conducted with the remaining 23 variables.

Table 1. KMO and Barlet's test results

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.888
Bartlett's Test of Sphericity	Approx. Chi-Square	1399.676
	df	253
	Sig.	.000

(Source: Survey Results, 2023)

The survey resulfs presented in Table 1 show that Exploratory factor analysis with varimax rotation revealed five factors influencing the effectiveness of academic advising from the perspective of students at Can Tho University: academic advising, institution, student, socio-cultural factors, and an additional factor. Specific parameters include: KMO = 0.888, indicating a very good fit for factor analysis ($0.5 \leq KMO \leq 1$); Bartlett's test of sphericity was significant ($p < 0.05$), suggesting that the observed variables are correlated within the population; and total variance explained was 64.530% ≥50%, indicating that the five extracted factors account for 64.530% of the total variance in the data (Table 2).

Table 2. Results of the second exploratory factor analysis (EFA)]

Factors	Factor Rotation Matrix				
	F1	F2	F3	F4	F5
CVHT2: The lecturer dedicates a significant amount of time to academic advising.	0.788				
CVHT1: The lecturer has extensive experience in academic advising activities.	0.772				
CVHT3: The lecturer has worked a long time with academic advising.	0.759				
CVHT4: Your academic advisor expresses an attitude of kindness, enthusiasm, concern, and empathy towards the students.	0.730				
CVHT5: Your academic advisor is able to balance their workload and life, including family responsibilities and university duties.	0.725				
CVHT6: Your academic advisor masters skills in counseling, questioning, and information delivery.	0.697				
TNXH5: The disease outbreak risk has been mitigated.		0.740			
TNXH3: The students share information with each other during the learning process to reduce the duty pressure of academic advisors.		0.730			
TNXH4: Environmental conditions and weather are favorable for on-site academic advising meetings.		0.717			
TNXH2: Families care about, remind, and accompany students in their studies and extracurricular activities.		0.704			
TNXH1: Relevant parties (Youth Union, lecturers, class committees, etc.) are concerned about, support, and assist i academic advisors with their jobs.		0.692			
NT1: The school provides full benefits for academic advisors (responsibility allowances, extra payment, etc.).		0.593			
SV2: The students fully participate in advising meetings, class activities, etc.			0.805		
SV6: The students provide objective and impartial evaluations and feedback on academic advising.			0.777		
SV5: The students are proactive in contacting academic advisors outside of scheduled meetings.			0.707		
SV7: The students are concentrated and positive when listening to academic advisors in advising meetings.			0.630		
SV4: Students are proactive, willing to exchange and share difficulties and obstacles with academic advisors.			0.591		
NT2: The institution has specific regulations on academic advising (guidelines, regulations, etc.).				0.773	
NT5: The institution is concerned about and fully implements the inspection, supervision, promotion, reward, and discipline of academic advising activities.				0.677	
NT3: The institution focuses on recruiting, training, assigning, and supporting faculty members in carrying out academic advising tasks.				0.661	
NT6: The institution distributes a suitable number of students in every class				0.592	
SV1: Students have sufficient economic conditions (laptops, phones, smart devices, etc.) to serve their studies and interactions with academic advisors.					0.708
SV3: Differences in students' abilities and learning progress (students self-enroll in courses).					0.553

(Source: Survey Results, 2023)

Results from Table 2 indicate that the 23 variables were extracted into 5 factor groups:

– Factor F1 consists of 6 variables: CVHT1, CVHT2, CVHT3, CVHT4, CVHT5, and CVHT6 (Table 2). Since these observed variables belong to the same group, this study named Factor F1 as AAs, the "subjective factor“. Similarly, factors F2, F3, F4, and F5 are respectively named:

– Factor F2 consists of 6 variables: TNXH1, TNXH2, TNHX, TNXH4, TNXH5, and NT1 (Table 2). This factor group is named "natural and social environment."

– Factor F3 consists of 5 variables: SV2, SV4, SV5, SV6, and SV7. This factor is named the "students" factor.

– Factor F4: Comprised of four variables: NT2, NT3, NT5, and NT6, this factor was labeled "institution" factor.

– Factor F5: Composed of two variables: SV1 and SV3, this factor was labeled "other" factor.

Thus, the exploratory factor analysis (EFA) identified five factors influencing the effectiveness of academic advising at Can Tho University: academic advisor subjectivity, natural and social environment, student factors, institutional factors, and other factors.

3.2. Factor score matrix analysis

After conducting exploratory factor analysis (EFA) and extracting five independent factors, the study proceeded with analyzing the factor score matrix to examine the influence of these factors on the effectiveness of academic advising at Can Tho University. The research results are shown in Table 3.

Therefore, the new research model consists of five factors. The absolute value of the coefficient preceding each variable indicates the relative importance of each factor. The larger the absolute value of the coefficient, the greater the influence of that factor on factor F. Consequently, we can establish five functions as follows:

F1: CVHT2*0.247 + CVHT1*0.237 + CVHT3*0.254 + CVHT4*0.214 + CVHT5*0.251 + CVHT6*0.220

F2: TNXH5*0.303 + TNXH3*0.234 + TNXH4*0.269 + TNXH2*0.259 + TNXH1*0.224 + NT2*0.195

F3: SV2*0.350 + SV6*0.310 + SV5*0.270 + SV7*0.213 + SV4*0.181

F4: NT2*0.459 + NT5*0.370 + NT3*0.337 + NT6*0.319

F5: SV1*0.554 +SV3*0.388

Factor F1 = CVHT20.247 + CVHT10.237 + CVHT30.254 + CVHT40.214 + CVHT50.251 + CVHT60.220 suggests that CVHT3 (*The lecturer has worked a long time with academic advising.*) is the most influential factor in F1, with a factor loading of 0.254. Experience is simply understood as the length of time a faculty member has been involved in academic advising. Academic advising experience is closely related to the knowledge and skills acquired through years of advising. Therefore, the more experience, the greater the advisor is expertised. Additionally, CVHT5 (*Your academic advisor is able to balance their workload and life, including family responsibilities and university duties.*) and CVHT2 (*The lecturer dedicates a significant amount of time to academic advising.)* are also highly influential factors in F1 with loadings of 0.251 and 0.247, respectively. The factors of time and workload are often cited as challenges faced by most faculty members involved in academic advising, not just at Can Tho University. This is because faculty members often assume multiple roles, including teaching and advising, leading to potential role conflicts.

Factor F2 = TNXH5*0.303 + TNXH3*0.234 + TNXH4*0.269 + TNXH2*0.259 + TNXH1*0.224 + NT2*0.195. Among these variables, TNXH5 (*The disease outbreak risk has been mitigated.),* TNXH4 (*Environmental conditions and weather are favorable for on-site academic advising meetings.*), and TNXH2 (*Families care about, remind, and accompany students in their studies and extracurricular activities.*) are the most influential factors in F2, with factor loadings of 0.303, 0.269, and 0.259, respectively. These are objective factors affecting the effectiveness of academic advising, especially the mitigation of the COVID-19 pandemic, which has allowed students to return to school and for advising activities to resume normally. However, it is also noted that the pandemic has left certain difficulties affecting academic advising activities. The use of social media to provide information has become habitual, leading to dependence. As a result, the absence of students in on-site advising meetings is now common, even though the pandemic has been mitigated. This has significantly impacted the effectiveness of academic advising.

Table 3. Results of factor score matrix analysis

Factors	Rotated factor matrix				
	F1	F2	F3	F4	F5
CVHT2: The lecturer dedicates a significant amount of time to academic advising.	0.247				
CVHT1: The lecturer has extensive experience in academic advising activities.	0.237				
CVHT3: The lecturer has worked a long time with academic advising.	0.254				
CVHT4: Your academic advisor expresses an attitude of kindness, enthusiasm, concern, and empathy towards the students.	0.214				
CVHT5: Your academic advisor is able to balance their workload and life, including family responsibilities and university duties.	0.251				
CVHT6: Your academic advisor masters skills in counselling, questioning, and information delivery.	0.220				
TNXH5: The disease outbreak risk has been mitigated.		0.303			
TNXH3: The students share information with each other during the learning process to reduce the duty pressure of academic advisors.		0.234			
TNXH4: Environmental conditions and weather are favorable for on-site academic advising meetings.		0.269			
TNXH2: Families care about, remind, and accompany students in their studies and extracurricular activities.		0.259			
TNXH1: Relevant parties (Youth Union, lecturers, class committees, etc.) are concerned about, support, and assist academic advisors with their jobs.		0.224			
NT1: The school provides full benefits for academic advisors (responsibility allowances, extra payment, etc.).		0.195			
SV2: The students fully participate in advising meetings, class activities, etc.			0.350		
SV6: The students provide objective and impartial evaluations and feedback on academic advising.			0.310		
SV5: The students are proactive in contacting academic advisors outside of scheduled meetings.			0.270		
SV7: The students are concentrated and positive when listening to academic advisors in advising meetings.			0.213		
SV4: Students are proactive, willing to exchange and share difficulties and obstacles with academic advisors.			0,181		
NT2: The institution has specific regulations on academic advising (guidelines, regulations, etc.).				0.459	
NT5: The institution is concerned about and fully implements the inspection, supervision, promotion, reward, and discipline of academic advising activities.				0.370	
NT3: The institution focuses on recruiting, training, assigning, and supporting faculty members in carrying out academic advising tasks.				0.337	
NT6: The institution distributes suitable number of students in every class				0.319	
SV1: Students have sufficient economic conditions (laptops, phones, smart devices, etc.) to serve their studies and interactions with academic advisors.					0.554
SV3: Differences in students' abilities and learning progress (students self-enroll in courses).					0.388

(Source: Survey Results, 2023)

Factor F3 = SV2*0.350 + SV6*0.310 + SV5*0.270 + SV7*0.213 + SV4*0.181. In this factor, variables SV2, SV6, and SV5 are the most influential, with factor loadings of 0.350, 0.310, and 0.270, respectively. In reality, students who rarely participate in advising sessions often do not fully grasp or understand the information provided by advisors. This not only affects the quality of academic advising but also impacts students' learning and development.

Factor F4 = NT2*0.459 + NT5*0.370 + NT3*0.337 + NT6*0.319 indicates that variable NT2 has the greatest influence on the effectiveness of academic advising, with a coefficient of 0.459. Next is variable NT5 with a coefficient of 0.370. Variable NT3 has the third most significant influence on the effectiveness of academic advising, with a coefficient of 0.337. Similar to regulations on training like The Academic Principles, the issuance of regulations for academic advising activities is essential as it provides a foundation for advisors to identify their functions, responsibilities, and effectively fulfill their duties in advising. Besides issuing regulations, it is necessary to inspect, review, reward, and discipline regularly. This is considered one of the important factors and a guideline for solutions for future academic advising activities, contributing to improving the quality of teaching and learning at the institution.

Factor F5 = SV1*0.554 + SV3*0.388. In this factor, variable SV1 (*Students have sufficient economic conditions (laptops, phones, smart devices, etc.) to serve their studies and interactions with academic advisors.*) to support their studies and interactions with advisors) has the greatest influence with a coefficient of 0.554. Next is variable SV3 with a coefficient of 0.388.

4. CONCLUSION

The effectiveness of academic advising is influenced by multiple factors, including the five identified in this study: academic advisor, student, institution, natural and social conditions, and other factors. Among the 23 variables influencing academic advising effectiveness at Can Tho University, the study identified the most significant variables contributing to each factor. These include: 'The lecturer has worked a long time with academic advising' (academic advisor factor), 'Your academic advisor is able to balance their workload and life, including family responsibilities and university duties' (*Academic advisor factor),* 'The disease outbreak risk has been mitigated' (natural and social conditions factor), 'The students fully participate in advising meetings, class activities, etc.' (student factor), 'The institution has specific regulations on academic advising (guidelines, regulations, etc.)' (institutional factor) and 'Students have sufficient economic conditions (laptops, phones, smart devices, etc.) to serve their studies and interactions with academic advisors' (other factor). Improving these variables could positively impact the effectiveness of academic advising at the university.

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