The Impact of University Learning and Internship Learning on the Relevant Outcomes based on the International Education Standard–3

Case Study: Accounting Students of the Faculty of Economics and Business, University of Indonesia

Khalid Ardhi Nurrahman
Department of Accounting
Faculty of Economics and Business
Universitas Indonesia
Depok, Indonesia
khalid.nurrahman@gmail.com

Emil Bachtiar
Department of Accounting
Faculty of Economics and Business
Universitas Indonesia
Depok, Indonesia
emil.bachtiar@gmail.com

Abstract—**This study examines the impact of university and internship learning on the relevant outcomes from International Education Standard (IES) 3. The university learning experience in this study reflects the most recent grade-point averages and experiences of participating students, whereas the internship learning experience reflects the type of work gained during the internship and the level of students' understanding of the tasks. Internship learning outcomes are divided into four areas of competence: intellectual, interpersonal, personal, and organizational. There are 127 accounting students in the Faculty of Economics and Business, University of Indonesia, participating in this survey. Results indicate that the accountancy internship program contributes more to the students' ability to work together in teams. It also contributes to the commitment of continued learning, but is less able to contribute or benefit leadership and management qualities. However, the university learning experience has a significant positive influence on interpersonal and communication and personal competencies, whereas internship learning has a significant positive influence on interpersonal communication and organizational competencies.**

Keywords—University learning experience; Internship learning experience; Internship learning outcomes; Partial least square

I. Introduction

A university ostensibly teaches its students to become a professional in various fields of work. According to the International Education Standard (IES) Number 3, general education helps prospective accountants develop professional skills by giving them a broader perspective and helping them effectively communicate, research, analyze, reason, and think critically [1].

Many factors affect the learning produced by doing the internship programs. These are derived from experiences gained from university students who have studied on average for about 3.5 years. Most student experiences (e.g., organizing activities, committee work, student competitions, knowledge absorption) benefit from internship experience. Thus, they differentiate themselves from inexperienced students via real-world honed skills. Therefore, internship can benefit students from universities with fewer or poorer lectures.

Administrative-related jobs, such as filing, photocopying documents, or organizing will affect the internee's learning process differently compared to the internee who has experiences in problem solving, decision making, and so forth. Even so, the types of tasks assigned to interns are designed to affect their overall learning outcomes. Additionally, a task's difficulty can influence a student's perception of benefits. A difficult task is likely to be very useful after graduation. Hence, the student may feel a greater benefit. Conversely, if the student feels that the assignment is too easy or lacks meaning, the student may feel a lack of benefit.

This research measures the impact of university classroom learning and student internship experiences on the overall learning outcomes of internship programs, based on learning outcomes for professional skills, according to the International Accounting Education Standards Board (IAESB), via the International Accounting Standard (IES), Number 3. IES 3 is one of eight IES series issued by the IAESB, discussing specific professional accounting skills. IES 3 categorizes professional skills into four competencies: intellectual, interpersonal, personal, and organizational [2]. This research determines the abilities required to gain the biggest contribution from the internship program in the Faculty of Economics and Business, University of Indonesia (FEB UI). Additionally, it examines the influence of student experience during lectures on the achievement of the learning internship program.

Data collection in this study comprises questionnaires distributed to accounting students in FEB UI during academic-year 2016/2017, focusing on those who chose internship as their final project. Only students who completed their internships were asked to complete the questionnaires so that their opinions on internships would wholly reflect their learning achievements.

From the extant research on internships, most discuss the benefits received by students based on lectures and internship. However, no studies have attempted to associate the internship program with the IES-3 learning objectives. The results of this study can be used by the Department of Accounting at FEB UI to assess the benefits of internship programs in the future.

II. LITERATURE REVIEW

Students majoring in Accounting at FEB UI are required to select and complete one of three final assignments: thesis, internship report, or self study. The experience awarded are the same for each: 6 credits. Based on the "Internship Guideline of FEB UI Accounting S1 Program," as of March, 2017, the program aimed to accomplish the following objectives [3]:

1. Interns will understand the accounting knowledge gained from lectures in the S1 Accounting Program at FEB UI as applied at the company.
2. Internee's ability to solve problems will be sharpened as a result of working with corporate management professionals.
3. Interns will benefit from a work culture that applies time management, communication skills, teamwork, and pressures of finishing work on time.

During internships, not only do students perform assigned tasks, but they also report results to FEB UI to get the credits. In addition, the students need to consult with an intern instructor at least eight times (with at least four face-to-face meetings) during the internship. At the end of semester, the students must present their internship report in front of the lecturers.

The IAESB is an independent standards-setting body that serves the public interest by strengthening the accounting profession worldwide via the development and improvement of education. They enhance education by developing and implementing IESs that enhance the competence of the global accounting profession to strengthen public confidence. IES is an IAESB publication that assists accountants, regulators, corporations, academicians, and students by establishing principles for learning and developing professional accountants [1].

The IES framework created by IAESB consists of eight parts:

IES 1: entry requirements to professional accounting education programs

IES 2: initial professional development–technical competence

IES 3: initial professional development–professional skills

IES 4: initial professional development–professional values

IES 5: initial professional development–practical experience

IES 6: initial professional development–assessment of professional competence

IES 7: continuing professional development

IES 8: competence requirements for audit professionals

IES-3 skills are part of the technical competence and professional value, ethics, and attitudes required by our interns. Their professional skills are categorized into four areas of competence:

1. Intellectual: the ability of a professional accountant to solve problems, make a decision, and make professional judgments.
2. Interpersonal communication: collaborate with other professional accountants; work and interact effectively with others.
3. Personal: exhibit the attitude and personal behavior of a professional accountant.
4. Organizational: work effectively with or within an organization to obtain optimal results with existing resources.

The area of competence is a category where a series of related learning achievements can be determined. Then, the learning achievements define the content and depth of knowledge, understanding, and application required for each defined area of competence. Thus, the learning achievements can be demonstrated in the context of the work environment or professional accounting education program [2].

III. RESEARCH DESIGN

Our questionnaire was adapted from IES 3. 24 achievement-related questions were provided to undergraduate students who recently completed their internship to assess their competencies. Many factors can affect these competencies, such as the type of work, complexity of tasks, or the size of the company.

The population of this study comprises all students majoring in accounting at FEB UI who took the internship route. A total of 147 students did so in 2016–2017. Using the Slovin formula, the minimum sample size for this research was 108. The data collection began at the end of April and lasted until the beginning of May 2017.

After successfully collecting data from 30 respondents, we tabulated and tested their validity and reliability using SPSS v. 22. The questionnaire is available in Bahasa Indonesia on request. We used the Kaiser–Meyer–Olkin (KMO) criteria above 0.5 and Cronbach's reliability criteria above 0.6. The KMO score for the five competencies meets the criteria. For the loading factor, there were five questions whose value were less than 0.5 (i.e., IL3, PE2, PE6, OG1, and OG2). For reliability testing with Cronbach's reliability, the results show that values for five competencies were above 0, 6. Thus, those five competencies are proven reliable for the main test.

From the results of the validity and reliability tests, the results of the KMO values, factor-loading, and Cronbach's reliability values correspond to the desired categories, except for KI7 and OG6 questions that stated "the ability to give ideas and influence people others to provide support and commitment to the ideas I provide" and "skills using the right tools and technologies to improve efficiency and effectiveness and decision making." Because the factor-loading values for these two questions were less than 0.5, they were not used for further analysis.

IV. HYPOTHESES DEVELOPMENT

Students' age, department, credit hours taken, and the year when the internship begins are relatively homogeneous values across the population. However, the final GPA of the studied sample varies. We test the individual characteristics of interns during their lectures at FEB UI. We predict that their organizational experience at FEB UI and their committee impact will affect their learning achievements. Organizations and events of the committees at the FEB UI are very diverse. There are few varieties of organizations and committees at the faculty level. This research seeks to determine the influence of student activity in organizations and committees on campus, related to their achievements while interning. Additionally, we analyze the effect of lectures predicted to impact the achievement of internship learning, particularly in the competitive accounting department. The opportunity to participate in accounting competitions is wide open. Our hypotheses are as follows:

H1a: The lecturing experience has a positive effect on intellectual competence.

H1b: The lecturing experience has a positive effect on interpersonal communication competence.

H1c: The lecturing experience has a positive effect on personal competence.

H1d: The lecturing experience has a positive influence on organizational competence.

The level of understanding from the student's point of view influences their achievement level. However, the students' understanding during internship is also influenced by the quality of their experience, if the students feel their internship duties were too easy, they might feel that their benefits are very low. On the other hand, if they succeeded with complex tasks, the students may feel that the internship provided great benefits.

H2a: The internship experience has a positive effect on intellectual competence.

H2b: The internship experience has a positive effect on interpersonal communication competencies.

H2c: The internship experience has a positive effect on personal competence.

H2d: The internship experience has a positive effect on organizational competence.

The above hypotheses are used to determine the effect on the performance of internship learning, according to IES 3. See Fig. 1.
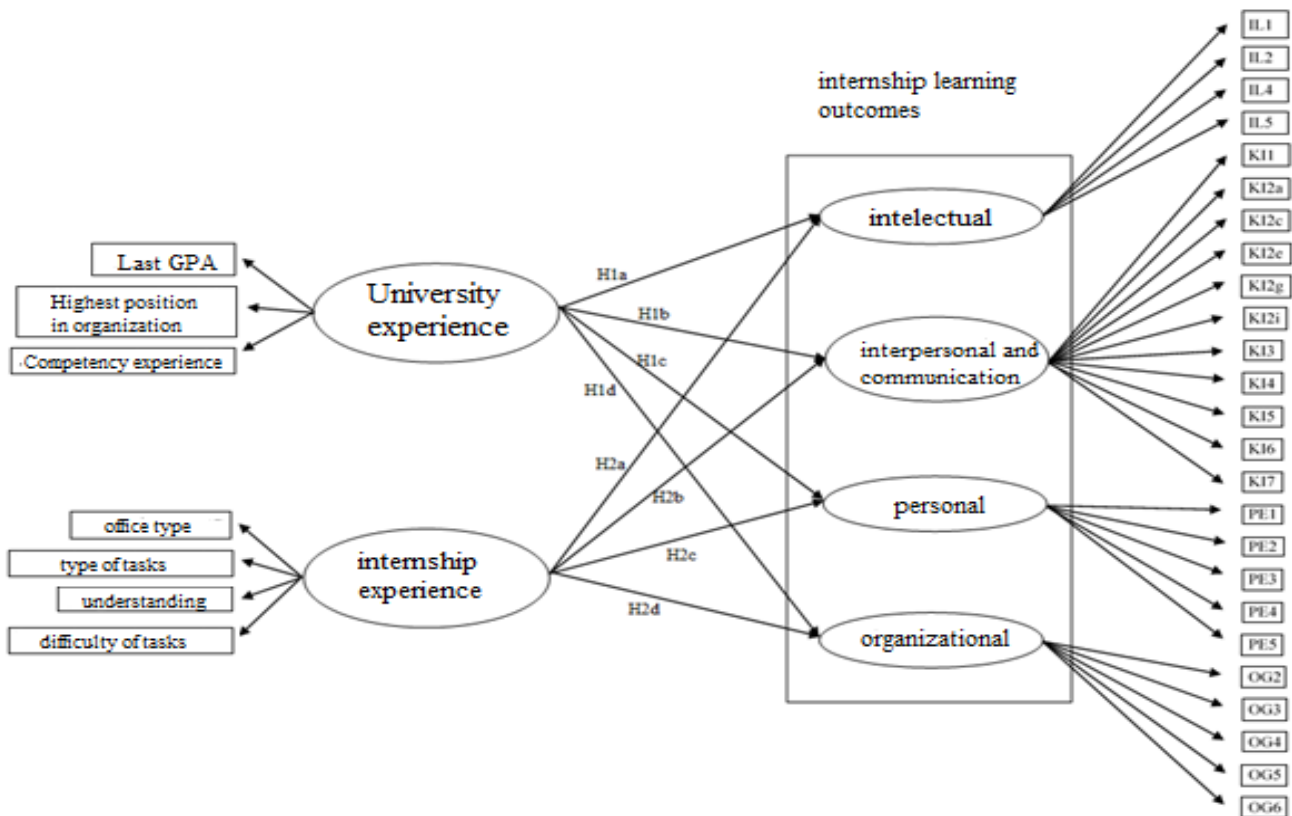

Fig. 1. Research Model.

V. Results

Descriptive Analysis

The total sample used in this study was 127 respondents, comprising 90 female and 37 male students (Table 2).

When compared to other competencies, internship programs seem to contribute less to improving intellectual competencies. For interpersonal and communication competencies, respondents strongly agreed that internships assisted them in improving their ability to work together and in teams (KI1). This is reflected by the high average value (4,488). The average value per indicator for this competency (4,072), was slightly above average for all the indicators (4.005). For personal competence, respondents generally agreed that the internship improved the skills and personal abilities, per IES 3. The average value of personal competence was above average (4,005), indicating that the personal benefits perceived by interns were higher than the overall benefits. For organizational competence, the average value of women (3,691) was the lowest, compared to the other three competencies.

This research uses the partial least squares (PLS) structural equation modeling (SEM) method, part of covariance-based (CB) SEM, with the following considerations [4]: PLS–SEM is a powerful analytical method, because it can be used on any type of data scale (e.g., nominal, ordinal, interval, ratio) as well as flexible assumption requirements. It requires relatively smaller sample sizes than CB-SEM. It can be used to estimate the path model with a small sample size, using a minimum number of 30 samples. It is more suitable for use in research where theories are still in development. It does not require that data should be normally distributed. Additionally, it can be used when data distribution is very skewed.

Figure modeling per the PLS–SEM can be seen in Figure 2.

Two analytical techniques were used: the measurement model analysis (i.e., outer model) and structural model analysis (i.e., inner model). In SEM, latent variables are measurements that cannot be directly observed, but can be represented by other indicators. Thus, they must be tested to determine whether the indicators used represent the constructs in question. The indicators of this construct comprise the measurement model. The first measurement is the loading factor describing the magnitude of the correlation between each measurement indicator and its variables. A factor-loading value above 0.7 is ideal, meaning that the indicator is valid as an indicator measuring the construct. However, if the value is below 0.7, it can be maintained if it is not below 0.5 [5].

A measurement model is valid if it has an average variance extracted (AVE) value greater than 0.5. This value describes the variance or variability of the manifest variables found in the latent construct. An AVE value equal to or greater than 0.5 indicates that the manifest variable representation of the latent construct is greater. Regarding its reliability, the measurement model can be stated reliably if its composite reliability value is in the range of 0.7 to 0.9. A limit value of 0.7 or above is acceptable, and above 0.8 and 0.9 is very satisfactory [5].

The second measurement is made by looking at discriminant validity to see that the indicator reflects the intended construct. This can be done by ensuring that the cross load value of each indicator to the construct is higher than the value of the indicator to the other counter. Based on the component values of the algorithm results that are less satisfactory in the first stage model analysis, we removed the invalid ones so that the structural model analysis could be performed. We deleted the organizational position indicator, the KI3 and KI4 questions, the difficulty of internship, and the type of internship because of the measurement model test performed.

TABLE I. THE VALUE OF DESCRIPTIVE ANALYSIS

| Latent Variables	Indi-cator	N	Min.	Max.	Average	Std. Dev.	Ave. for each competence	Average (all)
Intellectual	IL1	127	2	5	4	0,6172	3,854	4,005
	IL2	127	1	5	3,921	0,7194		
	IL4	127	2	5	3,89	0,7262		
	IL5	127	1	5	3,606	0,7884		
Inter-personal and communications	KI1	127	1	5	4,488	0,6769	4,072	
	KI2a	127	2	5	4,11	0,7262		
	KI2c	127	3	5	4,276	0,6259		
	KI2e	127	2	5	4,047	0,7222		
	KI2g	127	2	5	4,157	0,6834		
	KI2i	127	1	5	3,614	0,9763		
	KI3	127	2	5	4,268	0,6952		
	KI4	127	2	5	4,079	0,7304		
	KI5	127	1	5	3,74	0,7989		
	KI6	127	2	5	3,937	0,721		
Personal	PE1	127	2	5	4,488	0,6769	4,244	
	PE2	127	3	5	4,244	0,6983		
	PE3	127	2	5	4,236	0,7502		
	PE4	127	2	5	4,157	0,6834		
	PE5	127	2	5	4,094	0,6354		
Organizational	OR2	127	1	5	3,898	0,8341	3,691	
	OR3	127	1	5	3,567	0,9561		
	OR4	127	1	5	3,74	0,953		
	OR5	127	1	5	3,559	1,0208		
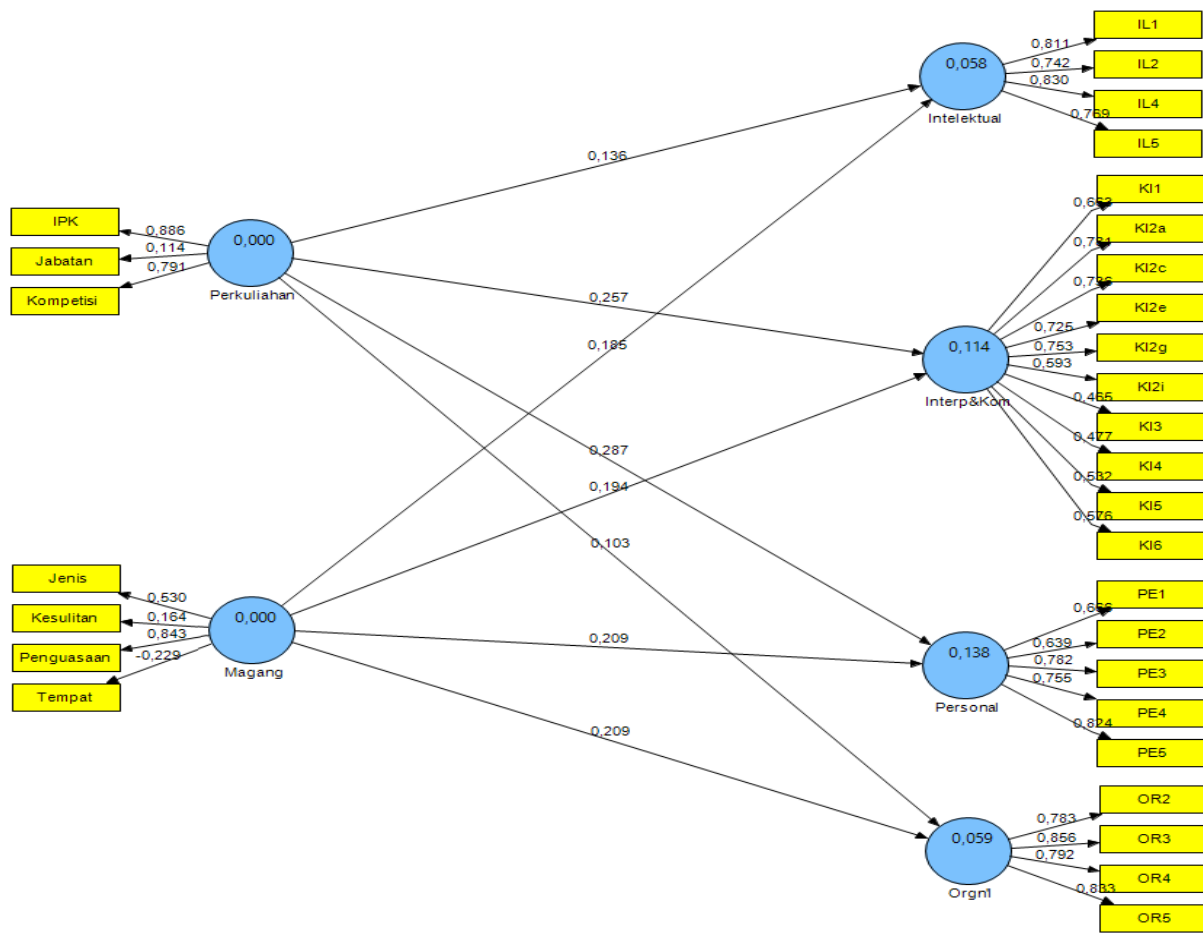
Fig. 2.   Research Model of PLS-SEM

During the second stage model analysis, after eliminating the invalid indicator, there were no longer any indicators having a factor-loading value less than or equal to 0.5. Thus, the indicators had consistency and could be understood. For composite reliability, the resulting value is greater than or equal to 0.7, except for intellectual competence variables. However, this variable is still reliable because its composite reliability value is close enough to 0.7. A composite reliability below 0.7, but more than 0.6 is acceptable [6].

After removing some indicators, all variables with an AVE value are greater than or equal to 0.5, except for experiential variables. Values with an AVE slightly below 0.5 are still acceptable if they do not generate problems for assessments based on other categories [7]. Variables having an AVE above 0.5 can explain more than half the variance of its indicators because the invalid indicators were omitted. The internship experience variable is intended to be used in subsequent research, if they remain valid. There is no multicollinearity in the variables because the correlation between the latent variables is greater than in the others. This happens because the invalid indicators in each construct were omitted. Based on component values of good algorithm results, structural model analysis can be performed.

After testing the measurement model, the next step is testing the structural (inner) model to observe the relationship between one construct with another. Testing of this model can be accomplished by studying the coefficient path (path

coefficient) that describes the strength of the relationship between constructs, referencing the t-test value (critical ratio) obtained from the bootstrapping process (resampling method). The coefficient of determination (R^2) in the PLS–SEM analysis can be determined by calculating the goodness-of-fit (GoF) index value obtained from the average communalities index roots, multiplied by the value of the R^2 model. The GoF index is a single measure used to validate the composition of the measurement model and the structural model. GoF values range from 0–1 (i.e., 0.1 = small GoF, 0.25 = GoF Moderate, and 0.36 = large GoF) [5].

The feasibility of the research model can be measured by determining the GoF value as a single measure to validate the combined performance of the measurement and structural models. GoF is the root of the average multiplication of communalities and the average R-square of each variable. The GoF obtained is 0.231, which is less than or equal to 0.25. Thus, it is moderate, indicating that the measurement model and the structural model can moderately explain the empirical data.

This study is one-tailed because the hypothesis is expressed in a directional (positive or negative) manner. Thus, the test analysis used a 5% significance level, yielding a critical value, t, of ± 1.645. If the hypothesis shows a positive influence, then the value of t should be ≥ 1.645, whereas the hypothesis shows a negative effect. Then, the value of t should

be $\geq$-1.645 [8]. Based on the analysis, the hypothetical results are listed in Table 2.

TABLE II. CONCLUSION OF HYPOTHESIS RESULTS

Hypothesis	T-Statistics	Conclusion
H1a: The lecturing experience has a positive effect on intellectual competence.	1.4341	The hypothesis is rejected
H1b: The lecturing experience has a positive effect on interpersonal communication competencies.	3.8247	**The hypothesis is accepted**
H1c: The lecturing experience has a positive effect on personal competence.	3.6899	**The hypothesis is accepted**
H1d: The lecturing experience has a positive influence on organizational competence.	.7948	The hypothesis is rejected
H2a: The internship experience has a positive effect on intellectual competence.	1.4833	The hypothesis is rejected
H2b: The internship experience has a positive effect on interpersonal communication competencies.	1.8981	**The hypothesis is accepted**
H2c: The internship experience has a positive effect on personal competence.	1.5474	The hypothesis is rejected
H2d: The internship experience has a positive effect on organizational competence.	1.8792	**The hypothesis is accepted**

An independent variable can be said to have a positive influence on the dependent variable if the value of its t-statistic is positive; it must be greater than equal to 1.645. It can be observed that there are four out of eight relationships that show a positive and significant relationships: H1b, H1c, H2b, and H2d.

VI. CONCLUSION

Lecturing abilities, reflected in GPA scores and student competition experience, were significantly affect IES 3's interpersonal communication and personal competencies. However, there is no effect on intellectual and organizational competencies were observed. The experiences of organizations or committees do not affect the four existing competencies as an internship learning achievement. The level of understanding from the internship is an indicator of experience having a positive and significant effect on interpersonal communication and organizational competencies. However, it does not affect intellectual and personal competencies. The type of business does not affect the achievement of internship learning, because about 83% of FEB UI accounting students had an internship in the top-5 accounting firms in Indonesia. Because this type of company is less diverse, the internship is not valid as an indicator of performance. The respondent's opinions about the difficulty of the job during the internship also had no effect on the achievement of internship learning, because most of the answers of the respondents were neutral.

In terms of competencies, internships improved students' personal competencies better than the other three competencies. However, the internship program was less able to contribute or benefit people-management and leadership skills. The internship program did not improve students' organizational competencies, compared to the other three IES 3 competencies. Because the question about intellectual competence is an indicator that can be influenced by also doing the learning on campus, intellectual competence is neither influenced by the variables of the lecture experience nor the internship experience. The internship is an opportunity for students to practice the lessons learned in prior classes. Thus, they are motivated to be proactive.

This study as the first study to connect an accountancy internship program with IES professional skills. We found that internships contribute in improving personal competencies, per IES 3. For others, competencies can be achieved through other activities, such as organizational activities, soft skills training, and classroom learning. In terms of the research model, only four out of seven independent indicators affected the achievement of internship learning, per IES 3. If the types of internships in this study were more diverse, there could be more independent variables to affect internship performance.

There are limitations to this study. First, the dependent variable comes from the achievement of professional skills-learning, according to IES 3, which is limited to the accounting profession. This measure may be less suitable to other majors. Independent variables were sourced from interviews. Second, this study only examines FEB UI students. Thus, if similar research were conducted on accounting students at other universities, the results may differ. Third, the company type where FEB UI accounting students intern were less varied.

Thus, the indicators used to measure the internship experience may need to be excluded from future research models. Last, no similar exploration research has been accomplished before now. It would be better if future research could use a previously used research model. It is possible that, at other universities, accounting students might undertake more diverse types of internships, not centered on the top-5 accounting firms. If future studies focus on organizational experience during lectures, the aspects of the achievement of learning according to IES could be used as one of the considerations in making a list of questions.

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