

Does the Information System Audit Syllabus Fit the Industry's Needs?

Practitioners and Academic Perceptions

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ABSTRACT

The successful absorption of graduates in practical work will depend on the curriculum design offered by the study program. Developing a course syllabus that suits industry needs is an important aspect that must be considered. This study aimed at seeing differences in perceptions regarding the level of relevance of information system audit material based on the perceptions of practitioners and academics. The research method used was a descriptive quantitative method. The respondents in this study were accounting study program lecturers and practitioners in the fields of accounting, auditing, and information technology. The data analysis was performed using one-way ANOVA. The results showed no differences in perceptions regarding the relevance of the information system audit syllabus. The implication of this research can be used as the basis for undergraduate accounting study programs in Indonesia in developing a curriculum that suits industry needs.

Keywords: *Academics, Information System Audit, Perception, Practitioners, Syllabus.*

1. INTRODUCTION

The increasing development of information technology has led to significant changes in the company's business activities. Information technology has helped business entities conduct their operational activities, including preparing financial reports. All entities are currently developing accounting information systems to produce quality accounting information. The use of computerized Accounting systems has brought opportunities for companies to perform the accounting function more effectively and efficiently because the use of computerized AIS has brought significant time and cost savings [1]. This is important because quality financial report information will help users make the right economic decisions.

The use of Information Technology can improve internal control by adding new control procedures performed by computers to replace the manual controller, which is prone to human error [2]. However, the accounting information system can be ineffective [3]. In reality, the existing accounting information system still has various weaknesses, such as errors due to inadequate

general controls, inappropriate application controls, inconsistencies in information generated by the information system with the company's business strategy, or other errors. Therefore, the need for information system audit services is increasing along with the increasingly massive use of information technology. One of the vital information system audit services is related to financial statement audit services. Before carrying out a detailed examination of the information in the financial statements, the auditor who audits the financial statements will need an information system audit service to obtain sufficient assurance that the information generated from the information system is reliable.

The increasing need for information system audit services certainly encourages various study programs to provide graduates with sufficient expertise in information systems auditing. An information system audit is a combination of audit science and information technology. Information system audit services required during the audit of financial statements encourage the improvement of the competence of public accountants in the field of information systems auditing. Therefore, accounting study programs today also offer curriculum

courses of expertise in information systems auditing. This course is not only offered at the undergraduate level but is also offered at the master's and doctoral levels.

Information systems auditing courses are specific and require basic skills at an advanced level in information technology development, while accounting learning curricula do not contain details regarding technical information system development courses. Meanwhile, the information system audit process demands competency regarding information systems in a more technical direction. Information systems auditing competencies also include the ability to develop IT governance to match the needs of the entity. Therefore, the information system audit material developed in the accounting study program in practice has three learning focuses. First, information system audit material focuses on the use of audit applications in the financial statement audit process. Second, the information system audit material focuses on the information system audit process itself, and the third is a combination of the two materials previously described.

The difference in information system audit material offered by various universities in this accounting study program is interesting to be studied more deeply because successful curriculum development is curriculum development tailored to industry needs. A study on the development of a syllabus for information systems audit material is needed. The curriculum must adapt to the increasingly competitive businesses and industries [4]. Curriculum development aims to adapt education to social change and explore new knowledge [5]. The failure of a study program in curriculum development is because the study program cannot adapt to the environment's needs, especially the needs of graduates who are constantly developing dynamically. The development sometimes goes extremely fast, while a new curriculum will be implemented. Therefore, it is crucial for academics to involve graduate users in developing the curriculum to have competencies that follow industrial needs.

One of the sources that can be used as a reference for curriculum development is the result of research (experimental data) [6]. To continually improve the curriculum, the Ministry of Research, Technology, and Higher Education has made various research development programs based on research results so that Indonesian universities can reach the top World Class University (WCU) rankings. Based on the WCU ASEAN ranking, only three universities have entered the 500 WCU. Based on the Ministry of Research and Technology's performance reports, the ranking of universities in Indonesia is still below Singapore and Malaysia. This spurs all elements in higher education in Indonesia to improve the relevance, quantity, and quality of education. Currently, the achievement based on the 2019 Ministry of Research and Technology's

performance report results has only reached 82.90% of the total target achievement. One of them is by preparing information system audit practitioners who can compete in the audit service industry, especially in ASEAN.

The development of curriculum and material syllabus based on research results has been conducted by researchers in Indonesia and world researchers. Previous researchers who reviewed the development of accounting and auditing curricula have been conducted by [7] [8] [9] [10] [11]. However, previous studies conducted by [7] [8] [9] [11] focuses on updating the accounting syllabus with an information system technology approach and has not yet related to the relevance of the syllabus based on practitioners' perceptions. Meanwhile, another study by [10] [12] examined the relevance of the syllabus based on the perceptions of academics and practitioners, but the syllabus developed is not a syllabus that relates to the information system technology approach.

This research is a development from previous research to fill the unavailability of research on the relevance of developing an information system audit syllabus required by users of S1 accounting graduates. Based on the description above, this research is interesting and important to know the different perceptions of academics and practitioners regarding the information system audit syllabus developed.

1.1. Literature Review

1.1.1. Social Cognitive Theory and Model Development for Information Systems Audit Learning

The social cognitive theory explains that human behavior can be formed from imitating a person or a condition and situation he is facing. Albert Bandura developed this theory in the 1970s, where this theory states that learning is a cognitive process in a social context and can occur through observation or instruction. The learning process obtained in lectures is a replication of the knowledge gathering process students need in facing the industrial world's challenges. The more similar a learning process is to the realities of tasks that auditors will face in the future, it shows the quality of the learning is because it can match the needs of the graduate users of the accounting study program.

An information system audit is a systematic process conducted to determine that the information system used by an entity can produce quality information and support the achievement of the entity's goals. Information system audits are conducted by someone who has competence in auditing and information technology. Information system audit services are needed in relation to auditing services for financial statements. Financial report auditors must have sufficient confidence that the accounting information system owned by the entity can produce

quality information in the financial statements. Therefore, the competence of financial statement auditors has also developed to gain knowledge about the technical preparation of accounting information systems. Planning regarding the appropriate information system audit learning method will be contained in the information system audit syllabus. The design of this syllabus should involve social interaction between academics and practitioners so that the level of relevance of the syllabus to the needs of graduate users will be even higher. This interaction can take the form of the involvement of information systems audit practitioners in the development of the current curriculum.

1.1.2. Differences in Perceptions of Practitioners and Academics Regarding the Relevance of the Syllabus to Industry Needs

Economic globalization has brought about significant changes in industrial processes. One of these changes is marked by the increasingly massive use of information technology. The development of information technology is currently very much needed because information is a vital economic resource that is owned to achieve company goals. The importance of information systems integrated with the company's business strategy encourages company owners to organize them well. One of the company's information systems is related to the accounting information system. Through this system, the company can obtain historical financial report information and other information made by management accountants as a tool to predict, design, and evaluate business processes.

In practice, the information systems built by companies are often less relevant and do not follow the company's needs, so the information generated cannot be useful in making strategic decisions. Therefore, an information system audit is needed to ensure the quality of the information produced, especially financial information. The need for information system audits encourages public accountants as auditing professionals to have competence regarding information system audits, including to be able to compete in professional audit services at the ASEAN level. Auditor competence in using information technology has a significant positive influence on the success of the e-audit system [13].

To produce professionals in information system auditing, the pre-audit education process obtained in tertiary institutions is required to have an excellent quality education. Study programs that can prepare graduates who can be valuable and ready to solve problems in the world of work must always collaborate with practitioners in preparing their curriculum. Curriculum development in accordance with industry needs must also be conducted in detail, including determining the material syllabus per course offered by the study program. The course syllabus must reflect the

general and specific competencies that this profession expects; therefore, the development of the syllabus must at least approach industrial conditions.

Differences between theory and field practice are frequent and unavoidable. The practical development of the business, which is constantly changing, demands the development of theory which is also relevant to current conditions. Often graduates feel that the learning theories that have been obtained in higher education are unused or irrelevant to industrial needs. This gap occurs when academics are stagnant and unable to develop learning media relevant to industry needs. Developing an information system audit syllabus that can predict and follow the conditions of the needs of graduate users will always involve practitioners in developing the syllabus. Thus, there will be no difference in perceptions about the level of importance of material between practitioners and academics. Based on the description above, the following research hypothesis was proposed:

H1 = There is no difference in perceptions between practitioners and academics regarding the relevance of information systems audit learning materials.

2. METHODS

This research employed descriptive quantitative research methods. The population in this study are practitioners and academics in the fields of accounting, auditing, and information systems in Indonesia. The sampling method used was purposive sampling. The sample in this study amounted to 33 people consisting of 16 practitioners and 17 academics. The instruments in this study were developed from the results of previous research conducted [14]. The research produced an overview of the information system audit material resulting from Focus Group Discussion activities with speakers who have competence in auditing, education, information systems, and governance. Furthermore, from this general description, literature studies related to information system audit materials were obtained from various textbooks and information system audit guides from related professional organizations. The instrument in this study was also developed by conducting literature on the existing information system audit syllabus at state universities in Indonesia.

This research questionnaire uses a Likert scale of 1-7. Data were analyzed using non-parametric test analysis. Hypothesis testing in this study used the One-way ANOVA to see the differences between the two groups of participants, namely practitioners and academics. The level of significance in this study was 5%. The assumptions that must be met in the One-way ANOVA test are the normality and homogeneity tests. This study used the Kolmogorov Smirnov test for normality and Levene's homogeneity tests.

3. RESULTS AND DISCUSSION

3.1. Research Results

This study aims to examine differences in the perceptions of practitioners and academics regarding the relevance of the syllabus of the information system audit course developed by the author based on the results of a literature study. The number of respondents in this study amounted to 33 people. Table 1 below describes the research respondents.

Table 1. Research Respondent Data

Description	Number of Participants
Academic Respondents	17
Practitioner Respondents	16
Total	33

Respondents in this study filled out the questionnaire within the specified time. The development of the questionnaire was based on the results of previous research conducted by [14]. The information system audit developed material is based on the primary material as follows.



Figure 1. Information System Audit Material

The information system audit material described in Figure 1 consists of 7 (seven) main studies, namely: 1) Basic Concepts and Needs for Information System Audit Services; 2) Information System Governance and Management; 3) Information System Development; 4) System Operation, Maintenance and Service Management; 5) Information Protection; 6) Information System Audit Standards; and 7) Information System Audit Process. The subject matter of this study is an overview of the information system audit material, which is then developed into a material syllabus from meetings 1 (one) to 14 (fourteen). Furthermore, respondents are asked to fill in the level of relevance of the material to the needs of the industrial world.

Table 2. Table Styles

Variable: Perception Syllabus					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2,215	1	2,215	,127	,724
Within Groups	541,967	31	17,483		
Total	544,182	32			

The F-count value in this study is equal to 0,127 with a significance of 0.724. The significance value is above 0.05, which indicates that there is no significant difference in perceptions of the relevance of the information system audit course material between practitioners and academics. Thus hypothesis 1 in this study states that there is no difference in perceptions between practitioners and academics regarding the relevance of information system audit learning materials is accepted.

3.2. Discussion

One of the successes of a study program is measured by the absorption of graduates into the workforce. The absorption of the workforce must also be accompanied by high-quality graduates. This quality will reflect the ability of graduates to implement their knowledge in work practices. Learning at the university level that is in line with the needs of the world of work is very necessary. Therefore, the study program must develop a curriculum following the general competencies and specific competencies required. These competencies will be obtained by establishing a course syllabus relevant to industry needs.

Current industry needs are closely related to the effective use of information technology in all business activities, including financial reporting. The financial statements that the company presents will, of course, be used as the basis for making economic decisions. Therefore, the financial statements must meet the relevant elements: reliable, timely, and accurate. Quality financial reports will be generated from a quality information system. The information system audit process is needed to ensure that the information in the financial statements can provide added value for users of financial statements.

The information system audit process will support the work process of the financial statement audit. Therefore, the information systems auditor profession is the most needed and in demand. Public accountants are currently starting to develop their competence in information systems through various information system auditor certification programs. The increasing need for information system auditing services encourages various accounting study programs to provide information systems audit courses. However, there are various obstacles in preparing the curriculum, one of which is the adjustment of the rapid development of practice with the

understanding of the teaching staff regarding changes in practice in the field.

4. CONCLUSIONS

The results showed no differences in perceptions regarding the relevance of the information system audit syllabus. The implication of this research can be used as the basis for undergraduate accounting study programs in Indonesia in developing a curriculum that suits industry needs. This study only uses a small number of respondents. Therefore, further research may use a larger sample.

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