

FROM UNDERSTANDING TO DOING IN AUTOCOUNT: USAGE CAPABILITY AND TECHNICAL PROBLEM- SOLVING AMONG UNIVERSITI PENDIDIKAN SULTAN IDRIS (UPSI) STUDENTS

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Abstract: *This study aims to examine the relationship between the level of understanding of AutoCount accounting software and technical skills among accounting students at the Universiti Pendidikan Sultan Idris (UPSI). The methodology involved was a quantitative survey using a well-structured questionnaire comprising five major sections. Purposive sampling was used to select 160 undergraduate accounting students from Semester 4 to 8. Data analysis was performed using SPSS version 27, comprising descriptive analysis, Pearson correlation, and simple linear regression. The results show that the foundational knowledge level of students regarding AutoCount is very high, with 85% of students achieving high scores. The levels of their usage capability, usage efficiency, and technical problem-solving skills were found to be high to moderately high. The instrument demonstrated high reliability. Results of the inferential analysis indicated the existence of a significant but weak positive correlation between foundational knowledge and usage efficiency and a significant moderate positive correlation between usage capability and technical problem-solving skills. The study concludes that student understanding and practical capability in the use of AutoCount contribute significantly to the development of their technical skills. The results signify that practical software training must be more deeply integrated into the accounting curriculum to enhance graduate employability and professional readiness.*

Keywords: *Accounting software, AutoCount, Technical skills, Student understanding*

Introduction

The importance of accounting software and its strategic role in the modern context of the digital economy cannot be overestimated. Applications like AutoCount have become very essential in the management of financial transactions, the generation of reports and ensuring efficiency in operations. This particularly applies to the small and medium-sized enterprises (SMEs), which are the main pillars of the Malaysian national economy. The technological change has a deeper effect on the accounting education, whereby it is required to provide the graduates with not only a good command of the accounting theory but also the ability to function with the industry-standard software. To the accounting students, a sound knowledge of these applications is a skill that is of paramount importance to ensure employability and prepare the students to face the dynamic needs of the professional world.

The key issue that the given study deals with is the possible discrepancy between the theoretical level of students studying accounting and the technical skills demanded by the industry. One of the issues, which is becoming an increasing concern as reported by researchers like Noor Lela and Suraini (2016), shows a lack of alignment between the ability of accounting graduates and the professional skills required by employers. Burhanudin et al. (2021) revealed the same sentiment and stated that educational processes can be inefficient in equipping graduates with appropriate employment skills. In particular, even though students can understand the principles of accounting, they do not have enough practical experience with popular software like AutoCount, which can make the process of integration into the job environment more difficult. Based on this, this paper explores how the knowledge of students on AutoCount software is related to their technical literacy.

To resolve this problem, this study establishes four main objectives: (1) to determine the level of the background knowledge of student on the use of AutoCount software; (2) to determine their ability to use the essential modules of the software; (3) to determine their efficiency in accounting task that involves use of AutoCount software; and (4) to establish their technical problem-solving skills associated with its use. These aims are aimed at giving a broad-based view of the student competence, and identification of areas that may be improved in the curriculum.

The importance of this study is passed on to some major stakeholders. To the accounting student, the results can be used to shed light on the need to take the initiative and build software competencies that will make them more marketable. In the case of higher education institutions, especially Sultan Idris University of Education (UPSI), the proposed research provides helpful information on the efficiency of the existing accounting curriculum and can inform the adoption of more practical and hands-on training in the use of software. Lastly, in the case of the accounting industry, this study will give a better understanding of the technical skill level of entry-level graduates, and hence, the design of the training programs will be informed, and the relationship between academia and industry will be built. To base this exploration on the current information, the next section examines the literature on the subject.

Literature Review

In this section, the researcher will examine the available body of knowledge that is germane to the objectives of the study. It begins with an analysis of the changing role of accounting software in educational institutions and its effect on graduate employability. It then outlines the essence of software understanding and technical skills in relation to accounting students. It is also in the theoretical frameworks underlying the relationship between understanding and

development of practical skills that the review interacts, to lead to the identification of the research gap that this research aims to fill.

Accounting Software in Higher Education

The accounting profession has changed tremendously, based on manual operations to a digitally-based environment. The change requires a parallel change in accounting education, where focus on digital literacy and software skills is brought to the fore. Accounting software integration into the program is not an additional task anymore, but a part of equipping students with the skills which enable them to meet the requirements of the modern labor environment. A study conducted by Abou-El-Sood (2025) on QuickBooks® use proves that students claim an improved learning process, improvement in engagement, and interest in a subject that is commonly viewed as difficult. On the same note, Abu Bakar et al. (2024) create a connection between digital awareness in terms of familiarity with such software as SQL and MyOB and academic performance in students. These studies highlight a point in the literature that practical software training is key to having competent, competitive, and employable graduates. According to Machera and Machera (2017), employers are becoming more and more satisfied to recruit graduates who already have these skills, which means that there is less need to invest a lot of time in practical training.

Conceptualizing Student Understanding of AutoCount Software

This paper will conceptualise the student knowledge of AutoCount as a multi-level process of cognition, which is consistent with the postulates of the Bloom Taxonomy. It goes beyond memorization of functions to include an understanding of concepts, the capability of using functions to define tasks, as well as the ability to examine processes in the software. Basic knowledge, including awareness of the purpose of various modules (e.g. General Ledger, Sales), would be the bottom tier of the taxonomy. Greater understanding levels consist of the possibility to analyze the flow of transactions and describe the functionality of core features. It is proven in the study by Mustafa (2015) that the hands-on workshops that are organized in a structured way can greatly help students to increase their knowledge and practice in data entry in AutoCount. Furthermore, research like that of Aziz et al. (2022) indicates that other issues, like perceived usefulness and ease of use of a system, directly relate to the degree of acceptance and understanding of a user. Thus, the practical exposure and effective training play a very crucial role in developing the understanding of students.

Defining Technical Skills in Accounting Education

Technical skills in the accounting context are the provable capacity to utilize specialised knowledge, techniques and practices in executing accounting-related activities. These skills, as defined by Madros (2001), entail the ability to operate certain tools and processes. In the times of Industry 4.0, technical skills have been broadened to include the ability to work with data analytics, automation, and knowledge of advanced Accounting Information Systems (AIS). Tsiligiris and Bowyer (2021) and Nik Salleh et al. (2023) note that data analysis and system management should be added to the set of skills of future accountants since bookkeeping is not the only significant task to be performed. This highlights a dire necessity to see accounting programs change and provide students with practical skills that are technology-focused and relevant to the practice in these days and age.

The Relationship between Software Understanding and Technical Skills

Constructivist theory is used to explain the theoretical basis of the relationship between software knowledge and technical skills acquisition. This theory of learning was developed by theorists, including Vygotsky (as cited by Voon and Amran, 2021), according to which learners actively build knowledge by means of their experience and interaction with the surrounding world. In this regard, students cannot receive information passively about AutoCount; they develop a conceptual knowledge and technical practical skills by actively, physically interacting with the software. When the students directly use the software to enter transactions, create reports and troubleshoot problems, they build up a meaningful knowledge of how the software actually works and how it can be used in real-world accounting situations. This learning process is active and converts theoretical knowledge into technical mastery.

It is on the basis of the existing literature review that the research gap has been identified. Though numerous literature reviews have been conducted to determine the overall use of accounting software in education, limited research has been conducted on AutoCount in the context of Malaysian higher education. Moreover, there is a lack of research that aims at empirically determining the connection between the degree of student understanding of a certain software package and the corresponding level of technical competency. This paper aims to address this gap by giving a closer look at the AutoCount software to students of accounting in UPSI, directly exploring the correlation between their background knowledge and central ability with their technical efficiency and problem-solving capabilities. With the theoretical and empirical background set, the following section describes the methodology that will be used to fill this research gap.

Methodology

The research design used in this study was a quantitative survey design to test the relationship between the knowledge of accounting students about AutoCount software and their technical skills in an empirical study. The selected methodology made it possible to collect structured data pertaining to a specific sample in a systematic way and conduct statistical tests to verify the hypotheses formulated by the study, as well as answer the research questions in a rigorous and objective way.

The study involved a purposive sampling technique and a survey method. The population of the study comprised the undergraduate accounting students in semesters four to eight of the Sultan Idris University of Education (UPSI). This was a target group since this group was specifically targeted, since they had been exposed to AutoCount software via their curriculum and therefore their responses would be informed based on pertinent experience. The non-probability sampling technique enabled the researchers to use participants who had the particular features needed to generate important information for the study.

Respondents completed an online questionnaire (Google Forms) on the basis of a five-part questionnaire, which was constructed in this research. This instrument was divided into the following:

- Section A: Demographics- This part gathered background data about the respondents.
- Section B: Background Knowledge - This part tested the fundamental knowledge of the students about the functions and concepts of AutoCount by giving them ten questions on the topic in the form of True/False questions.
- Section C: Usage Capability – This part measured the capacity of the students to utilize the core modules of the software on the basis of an eight-item, five-point Likert scale.

- Section D: Usage Efficiency- This part tested students on their ability to use the software in accounting processes with an 8-item 5-point Likert scale.
- Section E: Technical Problem-Solving- This part tested how well the student recognized and solved technical problems with a 10-item, five-point Likert scale.

A pilot study was done to guarantee the validity and reliability of the instrument, and thirty respondents fulfilling the sample criteria were used. Expert lecturers in the accounting field first validated the questionnaire and gave their perceptions on how it can be improved. Then the reliability of the Likert-scale sections was measured by the use of Cronbach's Alpha. The findings indicated the great reliability of the tool, and the Alpha values are: Usage Capability =0.977, Usage Efficiency =0.936, and Technical Problem-Solving Ability =0.966.

The completed questionnaire was handed out to the target sample through an online medium, i.e., Google Forms. On gathering, the data were collated and examined through the Statistical Package of the Social Sciences (SPSS) version 27. The data analysis comprised two main stages. In the first stage, descriptive statistics (frequency, percentage, mean, and standard deviation) were used to summarise the respondents' demographic characteristics and to describe students' levels of comprehension and technical ability. Second, the hypotheses were tested using inferential analysis, which included Pearson correlation and simple linear regression to establish the nature and strength of the relationship between the key variables. The findings of such analytic processes are reported in the section below.

Findings

This part of the paper gives the findings of the data analysis performed to answer the research questions. It starts with the description of the demographic situation of the 160 respondents, and then the descriptive analysis of the main variables: the basic knowledge of students, their ability to use it efficiently, their efficiency, and their ability to solve problems. Lastly, it provides the inferential statistics of the hypothesis tests relating these variables to each other.

Profile of Respondents

The sample size used in the study was 160 undergraduate accounting students. The demographic information showed that most of the female respondents were the majority (55.6%). The respondents were aged between 19 and 25 years, with 22 years forming the highest number (32.5 %). The participants mainly belonged to semester 6 (35.0%) and semester 4 (33.1%). Of the large majority (93.1%), they learned about AutoCount in their university courses, meaning that the main way of exposure to the software is via formal courses.

Table 1: Demographic Profile of Respondents (N = 160)

Demographic Characteristic	Category	Frequency (n)	Percentage (%)
Gender	Male	71	44.4
	Female	89	55.6
Age	19–21 years	44	27.5
	22 years	52	32.5
	23–25 years	64	40.0
Semester	4	53	33.1
	6	56	35.0
	8	42	26.3
	Semesters 2, 3, & 7	9	5.6

Demographic Characteristic	Category	Frequency (n)	Percentage (%)
Primary Mode of Learning	University Class	149	93.1
	External Course	10	6.3
	Industry Training	1	0.6

Descriptive Analysis of Key Variables

The initial research aim was to seek the underlying knowledge of AutoCount among the students. As demonstrated in the analysis of the knowledge test (Section B), 85 percent of the students scored between 80% and 100%, which can be interpreted as a level of understanding of 'Very High'. It is shown that most students are well acquainted with the basics of the software and its functionality.

In order to answer the following research objectives, descriptive statistics were used in calculating the self-reported usage capability, efficiency, and problem-solving skills of students. The average score of all three constructs was more than 3.70 on a 5-point scale. The highest rating was the usage capability, then the usage efficiency and the technical problem-solving. It can be implied that although students are confident in their skills to utilize the basic functions of the software, their skills in using it effectively and solving technical problems are a little worse, but at a moderately high level.

Table 2: Descriptive Statistics of Key Constructs (N = 160; 1–5 scale)

Construct	k	α	Mean	SD	Interpretation
Usage capability	8	0.977	4.22	0.524	High
Usage efficiency	8	0.936	3.96	0.491	Moderately high
Technical problem-solving	10	0.966	3.72	0.536	Moderately high

Note. α = Cronbach's alpha; k = number of items. Values reflect averaged scale scores (higher = better).

Inferential Analysis and Hypothesis Testing

The two hypotheses of the study were tested with the aid of inferential statistics.

The first hypothesis (H1) was that there was a significant correlation between the foundational knowledge and the efficiency of usage. Pearson correlation and simple linear regression were used. The results from this analysis are shown in Table 3.

Table 3: Correlation and Regression for H1 (Foundational Knowledge → Usage Efficiency) (N = 160)

Statistic	Value	95% CI	p
Pearson r	0.194	[0.040, 0.341]	0.014
Regression β (unstd.)	0.591	[0.120, 1.062]	0.014
R ²	0.038	—	—

Note. Two-tailed tests; CI = confidence interval; α = Cronbach's alpha (where applicable). Report exact p where available.

The correlation between foundational knowledge and usage efficiency was found to be significant but weak ($r = 0.194$, $p = 0.014$). The regression analysis also supported the role of foundational knowledge as a predictor of the efficiency of use ($p = 0.014$), but it only accounts for 3.8 per cent of the variance ($R^2 = 0.038$). This has a β coefficient of 0.591, which shows that

with a one-unit rise in the foundational knowledge score, the usage efficiency would rise by 0.591 units. According to these results, the null hypothesis (Ho1) was rejected.

The second hypothesis (H2) proposed a significant relationship between usage capability and technical problem-solving skills. The results from this analysis are presented in Table 4.

Table 4: Correlation and Regression for H2 (Usage Capability → Technical Problem-Solving) (N = 160)

Statistic	Value	95% CI	p
Pearson r	0.549	[0.431, 0.649]	< .001
Regression β (unstd.)	0.702	[0.538, 0.866]	< .001
R ²	0.302	—	—

Note. Two-tailed tests; CI = confidence interval; α = Cronbach's alpha (where applicable). Report exact p where available.

The findings suggest that there is a significant moderate positive relationship ($r = .549$, $p < .001$) between the ability of students to use AutoCount modules and the ability to resolve technical issues. The regression model was also significant ($p < .001$), and usage capability was seen to explain significant variance of 30.2 % in technical problem-solving skills ($R^2 = 0.302$). The coefficient of $\beta = 0.702$ indicates that the technical problem-solving skill is expected to improve by an average of 0.702 units as the usage capability increases by one unit. As such, the null hypothesis (Ho2) was also rejected.

The results give the basis for the following discussion on their implications in the quantitative sense of the word.

Discussion and Conclusion

The current study was intended to test the connection between the knowledge of students regarding AutoCount software and the acquisition of technical skills in accounting students at UPSI. The empirical findings of the study prove the statistically significant positive correlations between foundational knowledge and operational efficiency with the software and more significant positive associations between hands-on ability and technical problem-solving competence. These findings are placed within the literature that has been done until now, the implications of the study on practice, the limitations of the study and a conclusion made at the end of the discussion (Synthesis of the findings).

Discussion of Findings

The initial major result turned out to be a significant but weak correlation between the background knowledge and operational effectiveness of students working with AutoCount (H1). This is a low but meaningful relationship that shows that although background knowledge is an indispensable condition, it does not guarantee efficiency. The residual variance is probably explained by variables like repeated practice, exposure to solving problems, and the learning aptitude of an individual. The finding is consistent with the Taxonomy of Bloom, which states that one has to grasp the information first and then apply it and with the report by Romli and Yahya (2023), who associated perceived performance with underlying comprehension. As a result, basic knowledge forms a key, but not a comprehensive, foundation on which effectiveness in practice can be grounded.

The latter, stronger result found the moderate positive correlation between the ability to use and the possibility to solve technical issues among students (H2). This finding is highly in line with the constructivist theory, which focuses on active learning. The difference in the findings between the weaker H1 finding highlights that practical ability is a more effective predictor of problem-solving aptitude as compared to theoretical knowledge of efficiency. Since the modules of the software can be explored by students, as they are exposed to these modules first-hand, they put together viable insights that they will use to troubleshoot the software, and this therefore confirms the argument that efficient acquisition of skills comes as a result of direct practice. This fact correlates with the issues expressed by Machera and Machera (2017) about the lack of hands-on problem-solving skills among graduates because of their lack of exposure to the software environment.

Implications of the Study

The findings of this study have several important implications for key stakeholders in accounting education:

- For Accounting education Students: Students are encouraged to be enthusiastic in mastering accounting software like AutoCount to become more employable and gain a more technical level of skills that are demanded in the modern environment.
- For Higher Education Institutions: Universities should incorporate practical and hands-on software training courses into the accounting course, with the removal of the intro courses to include problem-based learning assignments replicating real-world experiences.
- For the Accounting Industry: The industry needs to improve its relationship with academia by making available to them updated software and case studies to ensure that the graduates are well-equipped with the technical expertise to go to work on the first day.

Limitations and Future Research

This paper is limited in a number of ways. To begin with, the sample was obtained in one university (UPSI), and this may limit the ability to generalize the results to the entire student population of all Malaysian accounting students. Second, the information on technical skills was self-reported, which preconditioned the possible personal bias. The research can be improved in the future by increasing the sample size to cover a variety of higher educational institutions and introducing performance-driven tests to have a more objective evaluation of the technical proficiency of the students. Also, future research might examine how different instructional methods, like project-based learning and traditional lectures, would influence the growth of software proficiency.

Conclusion

To sum up, the current research is a solid piece of empirical evidence that the knowledge of the students and their practical abilities to use AutoCount software are closely connected with the acquisition of the necessary technical skills. The results validate the fact that basic knowledge serves as a prerequisite, but it is the real-world experience of the software that best develops the higher-order competencies of efficiency and technical problem solving. To allow future accountants to develop and enhance them to the next level as a technology driven profession, the accounting training needs to put more emphasis on practical software training as a way of ensuring that the gap between the classroom theory and the real world is narrowed and also create graduates that are well prepared, well skilled and confident to handle the modern world of employment.

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