# STUDENT'S PERCEPTION ON TECHNOLOGY UTILIZATION IN ACCOUNTING EDUCATION AND THEIR PERCEIVED ACADEMIC PERFORMANCE

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## Abstract

This study was conducted to determine the significant difference between the respondents' perceived usefulness, ease of use, and attitude towards using technology in accounting education and their perceived academic performance when grouped according on their profile. The researchers administered the adapted and modified questionnaires to Bachelor of Science in Accountancy and Bachelor of Science in Management Accounting students in gathering the needed data. Inclined with this, Independent Sample T test and Pearson Correlation Coefficient were utilized to determine the significant difference and relationship between variables. The results indicate that there is no significant distinction between how technology usage in accounting education is perceived, relative to respondents' gender, across the three variables and perceived academic performance. However, a significant difference occurs in respondents' year level in ease of use, attitude towards using technology and no significant difference between usefulness and perceived academic performance. Furthermore, there is no significant relationship between usefulness and ease of use of technology and perceived academic performance. Meanwhile, attitude towards using technology was found to have significant relationship with the respondents' perceived academic performance. Therefore, the researchers recommend students and educational institutions to utilize technology in studying accounting courses to enhance overall academic performance.

***Keywords***: technology utilization, accounting education, perceived academic performance

## Introduction

The rise of technology is a recurring occurrence, spanning across generations. Technology exerts a significant impact on people worldwide, touching every aspect of life, including communication, access to information, work, and transportation. From the fundamental aspects to the most advanced aspect of life, technology is present. Moreover, the Certified Public Accountants Licensure Examination (CPALE) is considered one of the most challenging board exams in the Philippines (Maivizhi, 2023). The CPALE passing rates throughout the years is just a clear proof of how complex accounting is.

The influence and benefits of technology, specifically to education, hold diverse viewpoints from the students when it comes to integration of technology in accounting education. The researchers observed that despite of the presence or prevalence of technology in modern academia, numerous accountancy students continue to struggle in the program. The CPALE passing rate does not indicate any good changes, year after year. As a result, the researchers decided to conduct this study to determine the viewpoints regarding the usefulness, ease of use, and attitude in using technology in accounting education and the perceived academic performance of the students of Baliuag University which can also enables the university administration in identifying the areas of improvements when it comes to implementing the proper and accurate teaching approach.

This study aims to provide information to the accounting professor about the perception of students to the technology utilization in accounting courses and their perceived academic performances. It can give them knowledge about the perceptions of their students about technology and their performances during classes and how they can provide an effective way of teaching of accounting courses that help the students to excel, improve, and gain knowledge or skills that can help them when answering their quizzes and examinations or doing their activities and performance tasks. Also, to determine the difference of technology utilization in accounting education and perceived academic performance when the respondents are grouped according to their profile.



## Review of Related Literature

The researchers provided several literatures written by various authors in order to establish a solid foundation for the study's chosen topic. By providing different literatures that are associated to the students' perception of technology utilization in accounting education and their perceived academic performance. This section of the study provides the readers with a variety of distinct concepts.

### Perception in Technology Utilization in Accounting Education

Accounting education plays a vital role in an accounting career journey, it focuses on getting students ready for roles as professional accountants (Wann, 2023). Technology has completely changed how students learn and use accounting in their studies. Accounting education before mainly used books and doing math by hand. However, nowadays technology has introduced tools like computer spreadsheets, and specialized accounting software, making math calculations much more precise and efficient. Technology has brought accounting education into the modern age, giving students the skills and tools, they need to succeed in today's digital financial world (Mason, 2023).

According to Skhephe & Matashu (2021), accounting classes need to keep up with fast-changing technology, which affects how we live every day. This study looked at what accounting teachers think about using technology in their classes during Covid-19. To do this, the researchers talked to accounting teachers and chose ten of them to ask questions. The results showed that letting students bring their own gadgets to class breaks the school's rules. Also, when teachers use technology the right way in class, it can help students learn in different and better ways. The researchers suggested that teachers must use technology in accounting if they want to stay updated in the field. They also suggest changing school rules to encourage using technology in class, but in an organized and smart way. The researchers also recommend letting students use their own gadgets to make learning better. School principals should make plans to support using technology in school. This relates to this study as it discusses about perception of the students in technology utilization in accounting education that can help to learn and do their accounting tasks or activities.

## Usefulness

As time has advanced, global technological advancements have significantly impacted every individual. The enhancement of productivity and efficiency through technology is a compelling rationale for its widespread use. Technology is omnipresent, easily accessible to nearly everyone. In the field of education, many educational institutions have already embraced technology as an integral part of their teaching methodologies or approaches. This adoption is aimed at ensuring improved learning experiences for students, ultimately benefiting every learner. Technology has already had a beneficial impact on the academic settings due to the advantages associated with its use. According to the study of Gioiosa & Kinkela (2019), the integration of activities with the help of technology related to accountancy has a positive impact on the overall process of students' learning and skills development. This is why the study concluded that if instructors want to provide more assistance to students throughout their education, utilization of technology is a must. In addition, this claim was support by the study of Krasodomska & Godawska (2019) as they claimed that students tend to produce better performance when they are engaged in a learning process with the utilization of technology in accounting courses.

## Ease of Use

The integration and adoption of technology have had a significant influence on the field of accounting. Presently, individuals heavily rely on technology to carry out accounting tasks, whether within the business sector or in educational settings. According to a study conducted by Lugbom, Nwosu, & Ibitroko (2020), technology usage enhances students' interest in learning accounting programs. Additionally, technology serves as a platform for creating diverse learning resources and promoting collaborative learning, which makes the learning experience more engaging compared to traditional teaching methods. Consequently, students are more inclined to use technology for studying accounting due to its positive impact on both professors and students' performance. This shift in preference towards technology in learning is why millennials today favors its use, as it offers numerous advantages that outshines traditional methods, particularly from the perspective of the current generation (Handoyo & Anas, 2019).



## Attitude Towards Using

Chinese undergraduate students' attitudes toward technology-based self-directed learning were influenced by their acceptance of technology and their level of technical self-efficacy. The study also looked into whether these associations were mediated by learning motivation. To complete questionnaires about their attitudes about technology acceptance, technological self-efficacy, attitude toward technology-based self-directed learning, and learning motivation, a total of 332 undergraduate students enrolled in a college English course were recruited. The findings showed that students' attitudes toward technology-based self-directed learning were correlated with their acceptance of technology and level of technological self-efficacy. The results also showed that the relationships between technology acceptance, technical self-efficacy, and attitude toward technology-based self -directed learning were mediated by learning motivation. In particular, students who demonstrated higher levels of technological acceptance and self-efficacy exhibited stronger attitudes toward technology-based self-directed learning. In order to show the relationship between students' perceptions of technological settings and their attitudes toward technologically based self-directed learning, this study emphasized the role of learning motivation as a mediating mechanism (Pan, 2020).

## Perceived Academic Performance

Academic performance is the accomplishment of learning objectives. The impact of social media on student performance in school is insignificant. It turned out that, in comparison to non-users, frequent social media users typically spent less time learning. In addition to this, most students agree that instructors should use social media sites like the social media platform for collaboration and interaction (Alalwan et al., 2019).

In this current period of globalization, technology has become one of the instruments used in numerous countries, particularly developing countries such as Nigeria (Olusola-Fadumiye et al., 2021). Furthermore, computer technology is widely used for playing games, writing documents, communicating, and solving mathematical problems. It is frequently utilized in teaching subjects regarding accounting, particularly in senior secondary schools, when analyzing data and ensuring the

accuracy of the balance of accounts (Rader et al., 2018). On the other hand, the traditional approach of chalk and talk that has been used in educational purposes for many years has resulted in pupils in senior secondary achieving an average academic performance in Nigeria. It has also become an issue in the academic performance of financial accounting students in Ekiti State schools (Yusuf et al., 2020). With sufficient knowledge of how to use technology, it is possible to avoid numerous issues in financial accounting, such as fraud, embezzlement, and misappropriation (Wanyama et al., 2018). This is significant to the study as it emphasizes the importance of technology in accounting studies. Because accounting involves a computer in both school and workplace, it will assist students, professors, and administrators devise a more effective way to practice individual competencies in studying accounting technology.

## Theoretical Framework

### Technology Acceptance Theory

Technology Acceptance Theory also supported this study. It was developed by Davis et al. (1989) and is applicable and inclined with the variables tackled, providing the right approach to the overall study. Davis et al. (1989) established this idea, which is regarded as a tool for studying and solving why one individual may use technology while another does not. However, before technology can be adapted, users must acquire and enhance the essential skills and expertise to keep up with current innovations. Furthermore, this can only be accomplished by increasing each user's overall capacity and skills (Davis et al., 1989). These steps are required, but it will not be a simple process due to potential hindrances such as high technology costs and skill-related inequalities that may arise, preventing it from producing user opportunities (Davis et al., 1989). To reap the benefits of technology, consumers must adopt, accept, and employ whatever technology is accessible, which means that modifications with current and available technology are required to achieve excellent technical performance (Straub et al., 2001; as cited by Skhephe and Matashu, 2021).

Technology Acceptance Theory is relevant and applicable in learning accounting subjects with supplemental technology usage. As of the present, there are a lot of online applications or



software that can be utilized in learning accounting. Although recent technologies are used in teaching accounting, students still find it ineffective due to their learning styles and method preferences. This theory will give findings on why students prefer technology while others do not in learning accounting-related subjects. This theory also states that when operators are presented with cutting-edge technology, several factors influence their decision regarding when and how to use it, just like what other university professors do, using online accounting education tools and systems.

## Conceptual Framework

The main concept of this study is to determine the perception of technology utilization in accounting education and the perceived academic performance of the respondents of the study when they are grouped according to their demographic profile, who are students of Bachelor of Science in Accountancy and Bachelor of Science in Management Accounting of the College of Business Administration and Accountancy Department during the School Year 2023-2024, and to know the significant difference among the variables in the utilization of technology in accounting education.

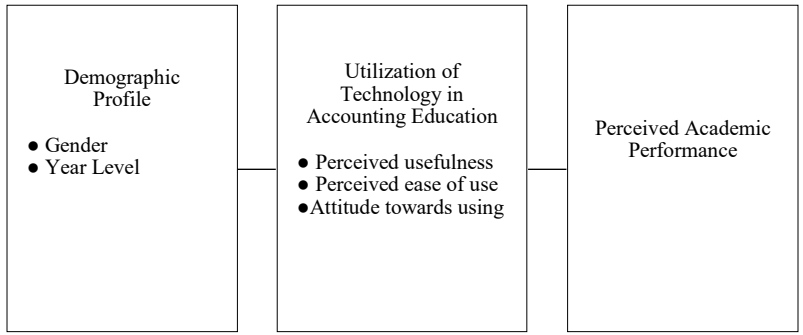


***Figure 1.*** Paradigm of the Study.

## Statement of the Problem

This study aims to determine the perception of technology utilization in accounting education and perceived academic performance of Bachelor of Science in Accounting and Bachelor

of Science in Management Accounting students of College of Business Administration and Accountancy of Baliuag University in the School Year 2023-2024.

Specifically, this research study seeks answers to the following problems:

1. How may the demographic profile of the respondents be described in terms of:
   1.1. Gender; and
   1.2. Year Level?

2. How may the perception of technology utilization in accounting education be described in terms of:
   2.1. Usefulness;
   2.2. Ease of use; and
   2.3. Attitude towards using?

3. How may the perceived academic performance of the respondents be described?

4. Is there a significant difference in the utilization of technology in accounting education when the respondents are grouped according to their profile?

5. Is there a significant difference in the perceived academic performance of the respondents when they are grouped according to their profile?

6. Is there a significant relationship between technology utilization in accounting education and the perceived academic performance?

**Hypotheses of the Study**

$Ho_1$: There is no significant difference in the utilization of technology in accounting education when the respondents are grouped according to their profile.

$Ho_2$: There is no significant difference in the perceived academic performance of the respondents when they are grouped according to their profile.



$Ho_3$: There is no significant relationship between technology utilization in accounting education and perceived academic performance.

## Method

**Research Design**

This study utilized a quantitative method in order to see the perception of students in technology utilization in accounting education and perceived academic performance when they are grouped according to their profile.

The descriptive-comparative design helps to describe or to know the differences between groups without affecting the independent variable (Cantrell, 2011; Busayo, 2020 as cited by Mangoma, 2023). This study is also comparative in nature because it seeks to know and find the differences on students' perception on technology utilization in accounting education and their perceived academic performance when the respondents are grouped according to their profile, if there's any.

**Participants of the Study and Sampling Procedure**

The researchers consider the students of Bachelor of Science in Accountancy (BSA) and Bachelor of Science in Management Accounting (BSMA) from the College of Business Administration and Accountancy (CBAA) Department to be the participants in the study. The students are the ideal respondents for the researchers because of their capability, availability, and accessibility. They also have the accounting courses that talks about the topic in the study which is the accounting education.

Participants of the study were identified by asking permission from the College of Business Administration and Accountancy (CBAA) Department of Baliuag University. The researchers use a Slovin's Formula and a stratified random sampling technique. First, the researchers determine the total population of the respondents, and after determining the total population, the researchers calculate the minimum sample size of the total population using the Slovin's formula.

**Table 1.** Distributions of Respondents from BSA Students per Gender and Year Level

| Year Level | Population | | Respondents | | Percentage |
|---|---|---|---|---|---|
| | Female | Male | Female | Male | |
| Level I | 28 | 10 | 21 | 7 | 22.40 |
| Level II | 9 | 7 | 6 | 5 | 8.80 |
| Level III | 48 | 12 | 35 | 9 | 35.20 |
| Level IV | 45 | 12 | 33 | 9 | 33.60 |
| **Total** | **130** | **41** | **95** | **30** | **100** |

**Table 2.** Distributions of Respondents from BSMA Students per Gender and Year Level

| Year Level | Population | | Respondents | | Percentage |
|---|---|---|---|---|---|
| | Female | Male | Female | Male | |
| Level I | -0- | 1 | -0- | 1 | 7.70 |
| Level II | 2 | 1 | 2 | 1 | 23.07 |
| Level III | 6 | 3 | 6 | 3 | 69.23 |
| **Total** | **8** | **5** | **8** | **5** | **100** |

The minimum sample size of this study is 126 respondents, calculated using the Slovin's Formula. However, the total number of respondents to be use for this study is 138, which is the seventy-five percent (75%) of the total population, where 125 respondents are from the course of Bachelor of Science in Accountancy, and 13 respondents are from the course of Bachelor of Science in Management Accounting. The result from the seventy-five percent (75%) of the total population will be use because it is higher than the minimum sample size that calculated using Slovin's Formula to gather more accurate and credible data.

## The Instrument

The study gathered the needed data through the dissemination of online and printed questionnaires. This strategy was implemented to ensure that the respondents will properly answer every question given by the researchers. The questionnaire used



in this study was adapted and modified from the past researches entitled, "Understanding perceptions of academics towards technology acceptance in accounting education" by Al-Hattami (2023); "Digital Videos in Accounting Education: A Study on Perceived Use and Satisfaction in the Light of Connectivism" by da Costa, da Silva, Marques, Nasu, & Nogueira (2021); "Mediating effect of use perceptions on technology readiness and adoption of artificial intelligence in accounting" by Damerji & Salimi (2021); and "Perceptions of the Usefulness of Virtual Learning Environments in Accounting Education: A Comparative Evaluation of Undergraduate Accounting Students in Spain and England" by Gavira and Omoteso (2015) for measuring the perceived usefulness of technology in accounting education.

The questionnaire comprised three sections. The first section focused on gathering demographic information from respondents, including their gender, and year level. The second section evaluated the perception in technology utilization in accounting education, consisting of three subsections: usefulness, ease of use, and attitudes toward technology utilization with nine (9) questions each subsection. Lastly, the third section evaluated the perceived academic performance of the respondents, consisting fifteen (15) questions. In total, the questionnaire contained forty-two (42) questions related to the variables under investigation in this study. Respondents were asked to express their opinions on a 4-point Likert Scale, ranging from 1 (Strongly Disagree) to 4 (Strongly Agree) for questions regarding the evaluation of attitude towards technology utilization in accounting education.

## Data Gathering Procedure

The respondents of this study are the students of the Bachelor of Science in Accountancy and Bachelor of Science in Management Accounting from the College of Business Administration and Accountancy (CBAA) Department. The researchers addressed the permission letter to the Dean of the College of Business Administration and Accountancy Department for conducting the study. However, the researchers asked to note the survey questionnaires together with the permission letter and go to the Dean or Secretary of the Department to ask for approval of surveying the ideal respondents or students of the College of Business Administration and Accountancy (CBAA) Department.

The researchers distributed the survey questionnaire personally and virtually to the Bachelor of Science in Accountancy and Bachelor of Science in Management Accounting students from the CBAA Department of Baliuag University with the reason of not all respondents might not be available in the given schedules of personal gathering data, and it will also save a lot of time for gathering data. Researchers also explained the purpose of the survey being conducted, the study itself, and as well as how the respondents will answer the questionnaires.

**Ethical Consideration**

Informed Consent. The researchers ask the respondents if they are willing to be part of the study. The researchers give information to the respondents about their rights when they answer the survey questionnaires. The researchers verbally inform the respondents that all their personal information will be protected throughout the data gathering. Importantly, researchers also explain the purpose of the study and ensure that the respondents are informed that they have all the rights to decline their involvement in the study.

Anonymity and Confidentiality. All personal information of the respondents is kept and stay anonymous to other people. Rest assured that all the data gathered from the respondents are maintained at the highest level of confidentiality under the Data Privacy Act of 2012. All data gathered, whether it is personal information or responses from the respondents, will only be used for academic purposes.

Honesty, Sympathy, and Respect. In this research study, all the respondents are fully respected by the researchers. They are also be reliable in gathering the data or information from the respondents. The researchers are needed to direct or guide each respondent to properly answer the survey questionnaires given to them while conducting the data gathering.

**Data Analysis and Statistical Treatment**

The researchers use the Likert scale as their measuring instrument for the research study. The Likert scale is a four-point scale that can be rated by the respondents without neutral points to gather more reliable data.



*Perception in Technology Utilization's Usefulness; Ease of Use; Attitude Towards Using;*

| Point | Scale | Description | Verbal Interpretation |
|---|---|---|---|
| 4 | 3.26 – 4.00 | Strongly Agree | Acceptable |
| 3 | 2.51 – 3.25 | Agree | Slightly Acceptable |
| 2 | 1.76 – 2.50 | Disagree | Slightly Unacceptable |
| 1 | 1.00 – 1.75 | Strongly Disagree | Unacceptable |

*Perceived Academic Performance*

| Point | Scale | Description | Verbal Interpretation |
|---|---|---|---|
| 4 | 3.26 – 4.00 | Strongly Agree | Excellent Performance |
| 3 | 2.51 – 3.25 | Agree | Good Performance |
| 2 | 1.76 – 2.50 | Disagree | Poor Performance |
| 1 | 1.00 – 1.75 | Strongly Disagree | Failing Performance |

To interpret the data gathered, the researchers used the following:

1. Frequency and Percentage are use to describe the demographic profile of the respondents.

2. Mean and Standard deviations are use to describe the variables being studied.

3. Independent Samples T-test is used to determine if there's statistically significant difference between the respondents' perception in technology utilization in accounting education and their perceived academic performance when they are grouped according to their profile.

4. One-Way ANOVA is used to determine if there's statistically significant difference between the perception of technology utilization in accounting education and perceived academic performance across year levels.

5. Pearson Product-Moment Correlation Coefficient (r) is used to determine if technology utilization in accounting education significantly correlates with the perceived academic performance.

## Results and Discussions

**Table 4.** Frequency and Percentage Distribution of Respondents according to Gender

| Gender | Frequency | Percentage |
|---|---|---|
| Male | 37 | 26.8 |
| Female | 101 | 73.2 |
| **Total** | **138** | **100** |

Table 4 presents the distribution of respondents according to their gender. Among the 138 respondents, 101 (73.2%) are females and 37 (26.8%) are males.

**Table 5.** Frequency and Percentage Distribution of Respondents according to Year Level

| Year Level | Frequency | Percentage |
|---|---|---|
| Level I | 29 | 21.0 |
| Level II | 13 | 9.4 |
| Level III | 54 | 39.1 |
| Level IV | 42 | 30.4 |
| **Total** | **138** | **100.0** |

Table 5 presents the distribution of respondents according to their year level. Among the 138 respondents, 29 (21.0%) are from the first-year level, 13 (9.4%) are from the second-year level, 54 (39.1%) are from the third-year level, and the other 42 (30.4%) are from the fourth-year level.



**Table 6.** Mean and Standard Deviation Interpretation for Respondents' Perception on Technology Utilization in Accounting Education in terms of Usefulness

| Usefulness | Mean | SD | Interpretation |
|---|---|---|---|
| 1. I think adopting and using technology (Excel or Accounting Software) into accounting education is very much helpful for students. | 3.83 | 0.417 | Acceptable |
| 2. Using technology in accounting education would enable me to accomplish tasks/activities more quickly. | 3.71 | 0.455 | Acceptable |
| 3. Using technology in accounting education is beneficial to my learning. | 3.64 | 0.482 | Acceptable |
| 4. I think using technology (Excel or Accounting Software) in accounting education would improve my academic performance. | 3.61 | 0.519 | Acceptable |
| 5. The use of technology (Excel or Accounting Software) in accounting education is particularly suitable to learn accounting courses. | 3.59 | 0.493 | Acceptable |
| 6. Technology utilization in accounting education would increase my productivity. | 3.50 | 0.570 | Acceptable |
| 7. Using technology in accounting education would enhance my effectiveness on tasks/activities in our accounting classes. | 3.50 | 0.530 | Acceptable |
| 8. The use of technology (Excel or Accounting Software) help me to remember the main points of the content taught, making it easier when answering my accounting tasks/activities. | 3.39 | 0.609 | Acceptable |
| 9. The use of technology in accounting education enhances the feedback I get from my accounting professors. | 3.35 | 0.588 | Acceptable |
| **Overall Weighted Mean** | **3.57** | **0.518** | **Acceptable** |

Table 6 presents the mean and standard deviation of the respondents' perception of the usefulness of technology utilization in accounting education. Results show that the respondents perceive this to have an acceptable level of usefulness based on the overall mean of 3.57 and standard deviation of 0.518. All the perceived usefulness obtained a mean score that can be interpreted as an "Acceptable." "I think adopting and using technology (Excel or Accounting Software) into accounting education is very much helpful for students" with mean score of 3.83 and standard deviation of 0.417; "Using technology in accounting education would enable me to accomplish tasks/activities more

quickly" with mean score of 3.71 and standard deviation of 0.455; "Using technology in accounting education is beneficial to my learning" with mean score of 3.64 and standard deviation of 0.482; "I think using technology (Excel or Accounting Software) in accounting education would improve my academic performance" with mean score of 3.61 and standard deviation of 0.519; "The use of technology (Excel or Accounting Software) in accounting education is particularly suitable to learn accounting courses" with mean score of 3.59 and standard deviation of 0.493; "Technology utilization in accounting education would increase my productivity" with mean score of 3.50 and standard deviation of 0.570; "Using technology in accounting education would enhance my effectiveness on tasks/activities in our accounting classes" with mean score of 3.50 and standard deviation of 0.530; "The use of technology (Excel or Accounting Software) help me to remember the main points of the content taught, making it easier when answering my accounting tasks/activities" with mean score of 3.39 and standard deviation of 0.609; and "The use of technology in accounting education enhances the feedback I get from my accounting professors" with mean score of 3.35 and standard deviation of 0.588.

**Table 7.** Mean and Standard Deviation Interpretation for Respondents' Perception on Technology Utilization in Accounting Education in terms of Ease of Use

| Ease of Use | Mean | SD | Interpretation |
|---|---|---|---|
| 1. I find it convenient to use technology (Excel or Accounting Software) in accounting education. | 3.62 | 0.556 | Acceptable |
| 2. Overall, I find using technology (Excel or Accounting Software) in accounting education possible and easy. | 3.50 | 0.570 | Acceptable |
| 3. I think technology utilization in accounting education provides helpful guidance in performing or doing the accounting tasks or activities. | 3.49 | 0.544 | Acceptable |
| 4. It would be easy for me to become skillful in solving accounting cases with the use of technology (Excel or Accounting Software). | 3.49 | 0.607 | Acceptable |
| 5. I find accounting lessons flexible to interact with the use of technology (Excel or Accounting Software). | 3.46 | 0.515 | Acceptable |

Continued.



**Table 7.** Continuation

| Ease of Use | Mean | SD | Interpretation |
|---|---|---|---|
| 6. I find accounting lessons would be clear/ understandable with the use of technology (Excel or Accounting Software) in class. | 3.41 | 0.612 | Acceptable |
| 7. I find it easy to recover from errors encountered in solving accounting cases with the use of technology (Excel or Accounting Software). | 3.41 | 0.624 | Acceptable |
| 8. I find it easy to get the technology (Excel or Accounting Software) to do what I want it to do in my accounting lessons and activities. | 3.41 | 0.589 | Acceptable |
| 9. It is easy for me to remember how to perform or do tasks/activities using technology (Excel or Accounting Software) in solving accounting cases. | 3.21 | 0.699 | Slightly Acceptable |
| **Overall Weighted Mean** | **3.45** | **0.591** | **Acceptable** |

Table 7 presents the mean and standard deviation of the respondents' perception of the ease of use of technology utilization in accounting education. Results show that the respondents also perceive this as acceptable in terms of ease of use based on the overall mean of 3.45 and standard deviation of 0.591. Furthermore, all the indicators for perceived ease of use received an interpretation of "Acceptable." "I find it convenient to use technology (Excel or Accounting Software) in accounting education" with mean score of 3.62 and standard deviation of 0.556; "Overall, I find using technology (Excel or Accounting Software) in accounting education possible and easy" with mean score of 3.50 and standard deviation of 0.570; "I think technology utilization in accounting education provides helpful guidance in performing or doing the accounting tasks or activities" with mean score of 3.49 and standard deviation of 0.544; "It would be easy for me to become skillful in solving accounting cases with the use of technology (Excel or Accounting Software)" with mean score of 3.49 and standard deviation of 0.607; ". I find accounting lessons flexible to interact with the use of technology (Excel or Accounting Software)" with mean score of 3.46 and standard deviation of 0.515; "I find accounting lessons would be clear/ understandable with the use of technology (Excel or Accounting Software) in class" with mean score of 3.41 and standard deviation of 0.612; "I find it easy to recover from errors encountered in solving accounting cases with the use of technology (Excel or Accounting Software)" with mean score of 3.41 and standard

deviation of 0.624; "I find it easy to get the technology (Excel or Accounting Software) to do what I want it to do in my accounting lessons and activities" with mean score of 3.41 and standard deviation of 0.589. However, except for one indicator for perceived ease of use is interpreted as "Slightly Acceptable" which is "It is easy for me to remember how to perform or do tasks/ activities using technology (Excel or Accounting Software) in solving accounting cases," with mean score of 3.21 and standard deviation of 0.699.

**Table 8.** Mean and Standard Deviation Interpretation for Respondents' Perception on Technology Utilization in Accounting Education in terms of Attitude towards Using

| Indicators | M | SD | Interpretation |
|---|---|---|---|
| 1. I think using technology in accounting education is a good idea. | 3.57 | 0.511 | Acceptable |
| 2. Adopting and using technology (Excel or Accounting Software) into accounting education would make accounting classes more interesting. | 3.39 | 0.585 | Acceptable |
| 3. I have positive perceptions about technology usage in accounting education. | 3.36 | 0.553 | Acceptable |
| 4. I think technology utilization in accounting education made me feel more actively involved in the learning process of accounting lessons. | 3.31 | 0.577 | Acceptable |
| 5. My satisfaction with the accounting lessons increased due to the use of the technology (Excel or Accounting Software) in our class. | 3.30 | 0.585 | Acceptable |
| 6. I like working with technology in solving accounting cases and reviewing for exams. | 3.30 | 0.623 | Acceptable |
| 7. I think technology utilization in accounting education made it more comfortable for me to participate in class discussion. | 3.29 | 0.653 | Acceptable |
| 8. I think working with technology (Excel or Accounting Software) in solving accounting cases and reviewing for exams is fun. | 3.29 | 0.686 | Acceptable |
| 9. I remained more attentive when answering my accounting tasks/activities with the use of technology. | 3.16 | 0.675 | Slightly Acceptable |
| **Overall Weighted Mean** | **3.33** | **0.605** | **Acceptable** |



Table 8 shows the mean and standard deviation of the respondents' perception of technology utilization in accounting education in terms of attitude toward use. Results show that the respondents perceive this variable to be "Acceptable" as well based on the overall mean of 3.33 and standard deviation of 0.605. Furthermore, all the indicators for the perceived attitude towards using received an interpretation of "Acceptable." "I think using technology in accounting education is a good idea" with mean score of 3.57 and standard deviation of 0.511; "Adopting and using technology (Excel or Accounting Software) into accounting education would make accounting classes more interesting" with mean score of 3.39 and standard deviation of 0.585; "I have positive perceptions about technology usage in accounting education" with mean score of 3.36 and standard deviation of 0.553; "I think technology utilization in accounting education made me feel more actively involved in the learning process of accounting lessons" with mean score of 3.31 and standard deviation of 0.577; "My satisfaction with the accounting lessons increased due to the use of the technology (Excel or Accounting Software) in our class" with mean score of 3.30 and standard deviation of 0.585; "I like working with technology in solving accounting cases and reviewing for exams" with mean score of 3.30 and standard deviation of 0.623; "I think technology utilization in accounting education made it more comfortable for me to participate in class discussion" with mean score of 3.29 and standard deviation of 0.653; "I think working with technology (Excel or Accounting Software) in solving accounting cases and reviewing for exams is fun" with mean score of 3.29 and standard deviation of 0.686, and except for one which is "I remained more attentive when answering my accounting tasks/ activities with the use of technology" with mean score of 3.16 and standard deviation of 0.675. This statement is interpreted as "Slightly Acceptable."

**Table 9.** Mean and Standard Deviation Interpretation for Respondents' Perceived Academic Performance

| Perceived Academic Performance | Mean | SD | Interpretation |
|---|---|---|---|
| 1. Even when I have difficulty in understanding the learning materials, I continue to study hard. | 3.41 | 0.587 | Excellent |
| 2. I pay attention and listen during the discussion. | 3.22 | 0.589 | Good |
| 3. I exert more effort when I do difficult assignments and activities. | 3.20 | 0.602 | Good |
| 4. I excel in accomplishing my homework and activities because they help me improve my skills in every courses. | 3.12 | 0.629 | Good |
| 5. I made myself ready in all of my courses. | 3.04 | 0.666 | Good |
| 6. I am confident that I will pass all of my exams. | 3.01 | 0.656 | Good |
| 7. I am confident that I can make realistic study plans. | 2.92 | 0.640 | Good |
| 8. I actively participate in every discussion. | 2.87 | 0.682 | Good |
| 9. I understand the learning materials very well. | 2.87 | 0.637 | Good |
| 10. I start our activities and projects as soon as they are assigned. | 2.86 | 0.769 | Good |
| 11. I find it easy to understand the learning materials. | 2.86 | 0.657 | Good |
| 12. I am confident that I will get good grades in every courses. | 2.84 | 0.653 | Good |
| 13. Solving accounting problems and cases become part of my hobby. | 2.64 | 0.648 | Poor |
| 14. I often feel that I understand the learning materials more than other students. | 2.59 | 0.761 | Poor |
| 15. I don't worry so much about the exams that it interferes with my studying. | 2.54 | 0.766 | Poor |
| **Overall Weighted Mean** | **2.93** | **0.663** | **Good** |

Table 9 shows the mean and standard deviation of the respondents' perceived academic performance. Results show that based on the overall mean, the respondents have a good performance with overall mean of 2.93 and standard deviation of 0.663. Most of the indicators of perceived academic performance received an interpretation of "Good." "I pay attention and listen during the discussion" with mean score of 3.22 and standard deviation of 0.589; "I exert more effort when I do difficult assignments and activities" with mean score of 3.20 and standard deviation of 0.602; "I excel in accomplishing my homework and activities because they help me improve my skills in every courses" with mean score of 3.12 and standard deviation of 0.629; "I made myself ready in all of my courses" with mean score of 3.04 and standard deviation of 0.666; "I am confident that I will pass all of my exams" with mean score of 3.01 and standard deviation of 0.656; "I am confident that I can make realistic study plans" with mean score of 2.92 and standard deviation of 0.640; "I actively participate in every discussion" with mean score of 2.87 and standard deviation of 0.682; "I understand the learning materials very well" with mean score of 2.87 and standard deviation of 0.637; "I start our activities and projects as soon as they are assigned" with mean score of 2.86 and standard deviation of 0.769; "I find it easy to understand the learning materials" with mean score of 2.86 and standard deviation of 0.657, and "I am confident that I will get good grades in every courses" with mean score of 2.84 and standard deviation of 0.653. Only one statement received an interpretation of "Excellent" and this is "Even when I have difficulty in understanding the learning materials, I continue to study hard" with mean score of 3.41 and standard deviation of 0.587. However, three indicators received an interpretation of "Poor." These include the following: "Solving accounting problems and cases become part of my hobby" with mean score of 2.64 and standard deviation of 0.648; "I often feel that I understand the learning materials more than other students" with mean score of 2.59 and standard deviation of 0.761, and "I don't worry so much about the exams that it interferes with my studying" with mean score of 2.54 and standard deviation of 0.766.

**Table 10.** Independent Samples t-Test Results on the Perception on Technology Utilization in Accounting Education among Female and Male Respondents

| | Group | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Female | | | Male | | | | | |
| | *M* | *SD* | *n* | *M* | *SD* | *n* | *t* | *df* | *p* |
| Usefulness | 3.56 | .364 | 101 | 3.58 | .351 | 37 | -.280 | 136 | .780 |
| Ease of use | 3.35 | .194 | 101 | 3.36 | .141 | 37 | -.260 | 136 | .795 |
| Attitude toward using | 3.32 | .461 | 101 | 3.36 | .419 | 37 | -.412 | 136 | .681 |

Independent samples t-tests were conducted to compare the male and female respondents in terms of their perception of the technology utilization in accounting education in terms of the three factors, namely, usefulness, ease of use, and attitude towards using.

From the table, it can be seen that there is no significant difference in the perception of technology utilization among the male and female respondents in terms of usefulness [$t(136) = -.280$, $p = .780$]. Likewise, when it comes to perceived ease of use, the perceptions of the two groups also do not differ [$t(136) = -.260$, $p = .795$]. Furthermore, when the two groups were compared when it comes to their attitude towards using the technology in accounting, it was found that they also do not significantly differ [$t(136) = -.412$, $p = .681$].

This means that the perception of the use of technology in accounting education is not affected by the respondents' gender. To support the result of the study, according to the study of Hanif & Imran (2022), this found that there is no significant difference between males and females or there is no influence regarding the gender of the respondents about the perception of the technology utilization in accounting education. Moreover, it also shows both genders display equal levels of technological confidence in using technology.



**Table 11.** One-way Analysis of Variance of the Perception on Technology Utilization in Accounting Education across Year Levels

| Variable | Source | SS | df | MS | F | p |
|---|---|---|---|---|---|---|
| Usefulness | Between Groups | .185 | 3 | .062 | .471 | .703 |
| | Within Groups | 17.507 | 134 | .131 | | |
| | **Total** | 17.692 | 137 | | | |
| Ease of use | Between Groups | 1.035 | 3 | .345 | 13.490 | .000 |
| | Within Groups | 3.426 | 134 | .026 | | |
| | **Total** | 4.461 | 137 | | | |
| Attitude towards using | Between Groups | 1.610 | 3 | .537 | 2.770 | .044 |
| | Within Groups | 25.962 | 134 | .194 | | |
| | **Total** | 27.572 | 137 | | | |

A series of one-way ANOVA was conducted to compare the perception of technology utilization in accounting education across the four-year levels.

From the table, it can be seen that there is no significant difference in the perceptions of the groups in terms of usefulness [$F(3,134) = .471$, $p = .703$]. This means that the year level of the respondents does not affect their perception of usefulness of technology utilization. This result supported by the study of Krasodomska & Godawska (2019), where shows that the year level of the respondents does not affect their perceived usefulness of technology utilization in accounting education as their study claimed that students tend to produce better performance when they engaged with the utilization of technology in accounting courses when it comes to their learning process.

On the other hand, it was found that there is a significant difference in the perceptions of the groups in terms of ease of use

[$F(3,134) = 13.490$, $p < .001$]. Therefore, the year level can affect a student's perceived ease of use of technology in accounting. Furthermore, a Tukey post hoc analysis was done to further examine the differences in the groups. It was found that the third-year students ($M = 3.25$, $SD = .247$, $N = 54$) have significantly lower levels of perceived ease of use compared to the first-year students ($M = 3.42$, $SD = .050$, $N = 29$) [($MD = .177$, $p < .001$)], and the fourth-year students ($M = 3.43$, $SD = .020$, $N = 42$) [($MD = .187$, $p < .001$)]. The findings of this study contradict Hanif and Imran's (2022) study, which discovered that students aged 18 to 25, who are undergraduate students, consistently had higher levels of technological competence and self-confidence regardless of their year level.

Lastly, it was found that there is also a significant difference in the groups' attitudes toward use [$F(3,134) = 2.770$ $p = .044$]. Therefore, the year level can affect a students' attitude towards the use of technology in accounting. Specifically, a Tukey post hoc analysis was done to further examine the differences in the groups. It was found that the third-year students ($M = 3.39$, $SD = .307$, $N = 54$) have a significantly higher level of attitude compared to the first-year students ($M = 3.12$, $SD = .486$, $N = 29$) [($MD = .101$, $p = .039$)]. The result of the study is contradicted by the study of Pan (2020), which explains that undergraduate students of various year levels show that when it comes to attitudes toward using technology, students who demonstrated higher levels of technological acceptance and self-efficacy exhibited stronger attitudes toward technology across all students in their undergraduate years.



**Table 12.** Independent Samples t-Test Results on the Perceived Academic Performance among Female and Male Respondents

| | Group | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Female | | | Male | | | | |
| | *M* | *SD* | *n* | *M* | *SD* | *n* | *t* | *df* | *p* |
| Perceived academic performance | 2.92 | .384 | 101 | 2.96 | .491 | 37 | -.529 | 136 | .598 |

Another independent samples t-test was conducted to compare the male and female respondents in terms of their perceived academic performance.

It can be seen that there is no significant difference in the perceived academic performance of the male and female respondents [$t(136) = -.529$, $p = .598$]. The finding is supported by the study of Yu (2021), which found that neither males nor females reported significant differences in online learning outcomes. Even though it discussed various preferences of the two genders, it concludes that females and males have no significant difference when using online learning methods.

**Table 13.** One-way Analysis of Variance of the Perceived Academic Performance across Year Levels

| Variable | Source | SS | df | MS | F | p |
|---|---|---|---|---|---|---|
| Perceived Academic Performance | Between Groups | .576 | 3 | .192 | 1.122 | .343 |
| | Within Groups | 22.923 | 134 | .171 | | |
| | **Total** | 23.498 | 137 | | | |

A one-way ANOVA was conducted to compare the perceived academic performance across the four-year levels.

From the table, it can be seen that there is no significant difference in the perceptions of the four year levels [$F(3,134) = 1.122$, $p = .343$]. This means that the year level of the respondents does not affect their perceived academic performance. The result obtained from this contradicts the study of Yusuf et al. (2020), where the study of these authors claimed that senior secondary schools use traditional approach of chalk and talk when teaching accounting subjects that is utilize for many years has resulted for the senior secondary schools have average academic performance. The findings showed that there is no significant difference in the perceived academic performance of the four-year levels and it does not affect the respondents' perceived academic performance whether they are in first, second, third, or fourth-year level

**Table 14.** Pearson Product-Moment Coefficient Table for the Respondents' Perception on the Technology Utilization in the Accounting Education and their Perceived Academic Performance

| Variable | Statistical Treatment | Perceived Academic Performance |
|---|---|---|
| Usefulness | Pearson Correlation | .145 |
| | Sig. | .089 |
| | N | 138 |
| Ease of Use | Pearson Correlation | -.096 |
| | Sig. | .264 |
| | N | 138 |
| Attitude towards using | Pearson Correlation | .341** |
| | Sig. | .000 |
| | N | 138 |



Pearson product-moment correlation coefficients were computed to determine the relationship between the respondents' perceived academic performance and their perception of the technology utilization in the accounting program based on the three variables, namely, usefulness, ease of use, and attitude towards using.

Results show that there is no significant relationship between their perceived usefulness of technology utilization and their perceived academic performance in the accounting courses ($r = .145$, $N = 138$, $p = .089$). The result contradicts the study of Krasodomska & Godawska (2019) as they claimed that students have better academic performance when they utilize technology in learning process of the accounting courses. The result of the study shown that there is no significant relationship between the usefulness of technology and perceived academic performance of the respondents in accounting courses. Concisely, with or without the utilization of technology in accounting education, this won't affect the academic performance of the entire students even its utilization has positive impact to others.

Likewise, there is also no significant relationship between their perceived ease of use of technology utilization and their perceived academic performance in the accounting courses ($r = -.096$, $N = 138$, $p = .264$). The findings of the study contradict the claim of the study of Gnaji (2020), where the more students easily use technology, the more they believe it would be translated into their academic performance, and based on the results derived from the responses of this study, the ease of use of the respondents towards using accounting-related technology or program has no significant relationship with their academic performance.

On the other hand, the last variable, attitude toward using, was found to have a significant relationship with the students' perceived academic performance. There is a weak positive significant relationship between these variables ($r = .341$, $N = 138$, $p < .001$). This is conclusive because of the computed $p$-value. This means that if the attitude of the student towards the use of technology improves, their perceived academic performance in accounting courses also improves. The findings

presented is inclined with the study of Abbas et al. (2020), which claimed that the attitude towards using technology or programs has a direct and significant relationship with academic performance. Consistent with the obtained outcomes, Abbas et al. (2020) study yielded similar findings, suggesting a direct relationship or impact of users' attitudes towards accounting-related programs or technology on their academic performance.

## Conclusions

The findings revealed that respondents' levels of usefulness, ease of use, and attitude toward the use of technology in accounting education are acceptable. It concluded a significant relationship exists between such factors when employing accounting software-related technology. The findings suggest that students can utilize accounting software effectively, enhancing their learning experience in accounting courses.

In terms of respondents perceived academic success, the results demonstrate good performance, which leads to them performing well in school.

In terms of gender, the study found no significant difference in how males and females perceive the use of technology. According to the findings, respondents' gender did not affect their perceptions of usefulness, ease of use, or attitude toward technology use. Moreover, there is a significant difference in how technology is regarded across different year levels, particularly in terms of ease of use and attitude toward usage, with no significant differences identified in terms of usefulness.

Furthermore, the results show no significant difference in respondents assessed academic performance based on gender or year level. The conclusion is that these two characteristics are unrelated to the respondents' academic success at school.

In addition, the study shows no significant relationship between technology's perceived usefulness and academic performance in the accounting program. This implies no association among these variables, implying that responders can thrive academically regardless of their perception or learning style. Also,



the findings indicate that there is no notable correlation between students' perception of how easy it is to utilize technology and their perceived academic achievements in accounting courses.

The study concludes that the ease or difficulty associated with technology usage does not influence students' academic performance outcomes. Hence, students are capable of achieving success irrespective of the level of ease with which they navigate technology in their courses. Lastly, there is a positive relation between students' attitudes toward utilizing technology and their perceived academic performance. This suggests that as students enhance their attitude regarding the use of technology in accounting, there is a favorable enhancement in their academic achievements. This observation serves as a positive indication that improving technology-related attitudes positively impacts the academic performance of accounting students.

## Recommendations

Since the study identified the significant difference of student’s perception on technology utilization in accounting education and their perceived academic performance when they are grouped according to their profile, the researchers suggested the following:

1. Students with accountancy courses, in any gender and year level should utilize technology in studying or learning every lesson tackled in the program. They can utilize technology as a convenient source of study materials to widen their knowledge that leads to better academic performance. Furthermore, students must eliminate distractions, stay academically engaged, and utilize learning methods such as teaching fellow students or practice problem solving to enhance understanding and retention of accounting lessons. On the other hand, to prevent having poor academic performance, students are recommended to seek assistance when needed.

2. Accounting professors in Baliuag University should encourage the students to utilize technology in accounting subjects to ensure their proficiency. In addition, accounting software can be utilized in learning to improve the academic performance of students since it is not only promoting professor efficiency but also increases student class engagements. Consequently, professors' use of technology prepares students for the digital workforce, equipping them with essential technological accounting skills to navigate the evolving landscape of accounting careers.

3. School Administration should continue the use of excel and accounting software to equip students for their future career. Also, they are encouraged to introduce more accounting software other than SAP Business One to enhance students' practical and accounting skills and knowledge.

4. Future Researchers should consider more variables and factors that can affect the perceived academic performance of the students when it comes to technology utilization in accounting education. Also, this study can give some theories and methodologies that everyone can use in the future research.



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