PRIMANOMICS : JURNAL EKONOMI DAN BISNIS - VOL. 22. NO. 3 (2024)
Versi Online Tersedia di : https://jurnal.ubd.ac.id/index.php/ds
| 1412-632X (Cetak) | 2614-6789 (Online) |

Effectiveness of Using Accounting Computer Applications in Accounting Learning

Gede Sedana Wibawa Yasa[1)]
sedanawibawa@pnb.ac.id

Ni Putu Rita Sintadevi[2)]
ritasintadevi@pnb.ac.id

Made Ayu Jayanti Prita Utami[3)]
prita.utami@pnb.ac.id

Upayana Wiguna Eka Saputra[4)]
upayanawiguna@pnb.ac.id

[1)2)3)4)]Politeknik Negeri Bali

ABSTRACT

The development of information technology has brought significant changes in various aspects of life, including in the world of education and business. In the context of higher education, the use of accounting software such as Accurate has become an integral part of the modern accounting curriculum. This is in line with the demands of the world of work which increasingly relies on technology in daily accounting practices. According to a survey conducted by the Indonesian Accountants Association (IAI) in 2020, more than 80% of companies in Indonesia have adopted accounting software in their operations, with Accurate being one of the main choices of the Bali State Polytechnic, as one of the leading vocational education institutions in Indonesia, has integrated the use of Accurate in the Business Administration Department curriculum. This step was taken in response to industry needs and an effort to increase graduate competency in facing the digital era. However, although the use of Accurate has been implemented, there has been no comprehensive evaluation of its effectiveness in improving students' accounting understanding and skills.This research aims to measure the extent to which the use of Accurate contributes to increasing conceptual understanding, practical skills, and work readiness of students majoring in Business Administration. By involving 162 respondents and using quantitative methods, the collected questionnaire data was then processed using SPSS version 26 software. The results of this research indicate that theoretically, this research strengthens the argument about the importance of technology integration in accounting education while emphasizing the role of contextual factors such as teaching methods and infrastructure. This supports a holistic approach in accounting curriculum development that focuses not only on content but also on delivery methods and learning environments.

Keywords: Accurate, Accounting, Learning Method

INTRODUCTION

The development of information technology has brought significant changes in various aspects of life, including in the world of education and business. One field experiencing a major transformation is accounting, where the use of accounting software has become the new norm in professional practice and learning (Romney, M. B., & Steinbart, 2018). Among the various accounting software available, Accurate has emerged as one of the most popular applications in Indonesia, especially among small and medium businesses and educational institutions (Wahyuni et al., 2018).

Accurate, which was developed by PT Cipta Piranti Sejahtera (CPS Soft) in 1998, has become one of the leading accounting software in Indonesia. This application offers a variety of features that cover basic to advanced accounting needs, including general ledger, inventory management, sales, purchasing, and payroll (Cipta Piranti Sejahtera, 2015). Accurate's advantages in terms of ease of use, accuracy, and conformity with Indonesian accounting standards have made it a popular choice among accounting practitioners and educators (Pradipa et al., 2024). In the context of higher education, the use of accounting software such as Accurate has become an integral part of the modern accounting curriculum. This is in line with the demands of the world of work which increasingly relies on technology in daily accounting practices. According to a survey conducted by the Indonesian Accountants Association (IAI) in 2020, more than 80% of companies in Indonesia have adopted accounting software in their operations, with Accuracy being one of the main choices(Dellaportas, 2019).

Bali State Polytechnic, as one of the leading vocational education institutions in Indonesia, has integrated the use of Accurate in the Business Administration Department curriculum. This step was taken in response to industry needs and an effort to increase graduate competency in facing the digital era. However, although the use of Accurate has been implemented, there has been no comprehensive evaluation of its effectiveness in improving students' accounting understanding and skills. Several previous studies have shown the positive impact of using accounting software in learning. (Meriana & Septiantio, 2017) found that the use of accounting software can improve students' conceptual understanding and practical skills. Meanwhile, (Animah et al., 2020) revealed that students who are exposed to accounting software during lectures tend to be better prepared to face the demands of the world of work.

On the other hand, challenges in implementing accounting software in learning have also been identified. (Taherdoost H, 2018) underline the importance of infrastructure readiness and teacher competency in maximizing the benefits of accounting software. Meanwhile, (Ratily Pakpahan & Nikmah, 2024) highlight the need to adapt curriculum and teaching methods to accommodate the effective use of accounting software.

In a global context, the trend of using accounting software in higher education also continues to increase. A study by the American Accounting Association (AAA) in 2018 showed that more than 90% of accounting programs in the United States had integrated the use of accounting software in their curriculum (Caron & Markusen, 2016). Meanwhile, in Europe, the European Federation of Accountants and Auditors for SMEs (EFAA) reports that the ability to use accounting software has become one of the key competencies sought by employers (Brown-Liburd & Joe, 2020).

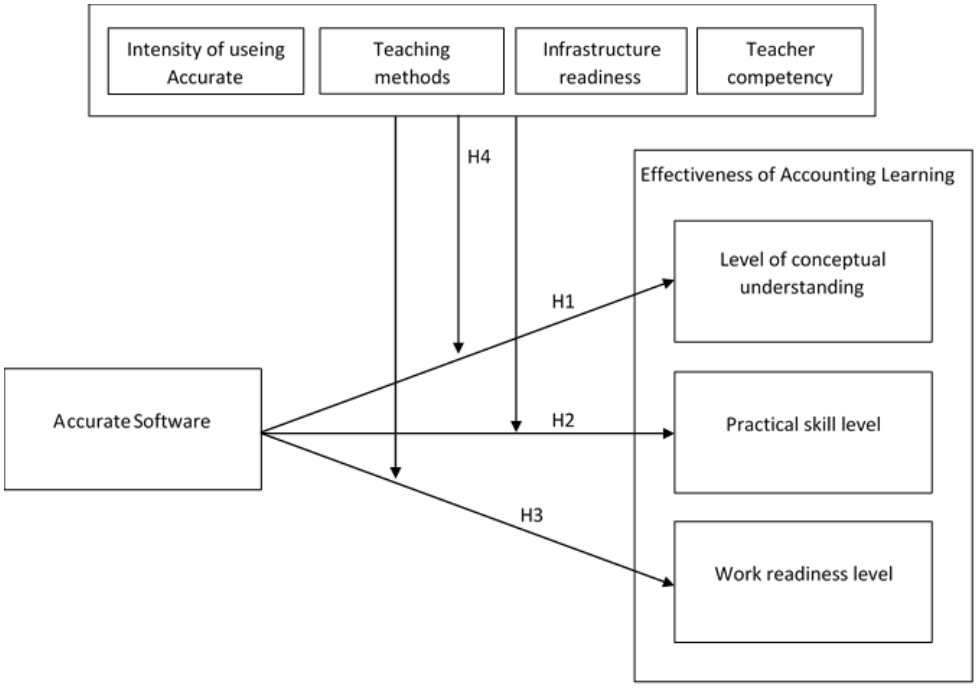
Considering the importance of accounting software in professional practice and global trends in accounting education, evaluating the effectiveness of using Accurate in accounting learning at

the Bali State Polytechnic becomes very relevant. This research aims to measure the extent to which the use of Accurate contributes to increasing conceptual understanding, practical skills, and work readiness of students majoring in Business Administration.

By involving 162 respondents and using quantitative methods, this research is expected to provide valuable insight into the development of the accounting curriculum and teaching methods at the Bali State Polytechnic. Furthermore, the findings of this research can contribute to a broader discussion about the integration of technology in accounting education in Indonesia.Effectiveness of Using Accounting Computer Applications in Accounting Learning.

Research Framework

Several previous studies have examined the effectiveness of using accounting software in learning: (Meriana & Septiantio, 2017) found that the use of accounting software can improve students' conceptual understanding and practical skills. (Sagala, 2023) underline the importance of infrastructure readiness and teacher competency in maximizing the benefits of accounting software. (Meytha & Delfin. M, 2024) highlighted the need to adapt curriculum and teaching methods to accommodate the effective use of accounting software. (Melta Afrianti, 2024) revealed that students who are exposed to accounting software during lectures tend to be better prepared to face the demands of the world of work. (Sutjipto & Setiawan, 2021) found a positive correlation between the intensity of the use of accounting software and the level of students' understanding of the accounting cycle. Based on the literature review above, the following framework can be prepared:



Picture 1.1 Research Framework

Use of the Accurate application in accounting learning (Independent Variable)
The effectiveness of accounting learning (Dependent Variable), which is measured through:

a. Level of conceptual understanding
b. Practical skill level
c. Work readiness level

Factors influencing effectiveness (Moderator Variables):
a. Intensity of use Accurate
b. Teaching methods
c. Infrastructure readiness
d. Teacher competency
F. Research Hypothesis

Research Hypothesis

H1: There is a significant positive relationship between the use of the Accurate application and students' level of conceptual understanding of accounting.
H2: There is a significant positive relationship between the use of the Accurate application and the level of students' practical accounting skills.
H3: There is a significant positive relationship between the use of the Accurate application and the level of student work readiness in the accounting field.
H4: Intensity of Accurate use, teaching methods, infrastructure readiness, and teacher competency significantly moderate the relationship between Accurate use and accounting learning effectiveness.

Research methodology

This research uses a quantitative approach with explanatory research type. According to (Etikan, 2016), explanatory research aims to explain the causal relationship between variables through hypothesis testing. In this context, the research aims to explain the relationship between the use of the Accurate application and the effectiveness of accounting learning.

Population and Sample

The population in this study were all students of the Bali State Polytechnic Business Administration Department who had used the Accurate application in learning accounting. The sampling technique uses a purposive sampling method, where the sample criteria are determined based on the research objectives (Etikan, 2016). Determination of sample size uses the Slovin formula with an error rate of 5% (Taherdoost H, 2018). From a population of 275 students, a sample of 162 respondents was obtained.

Data Collection Techniques

Data was collected through distributing online questionnaires using Google Forms. The use of online questionnaires was chosen because of time and cost efficiency, as well as ease of data processing (Hayashi et al., 2019). The questionnaire consists of closed questions with a 5-point Likert scale, where 1 = Strongly Disagree and 5 = Strongly Agree.

Data Analysis Techniques

Data analysis was carried out using SPSS version 26 software, with the following stages:

1. Validity and Reliability Test
   - Test validity using Pearson Product Moment
   - Reliability test using Cronbach's Alpha (Flury et al., 1988)
2. Classic Assumption Test
   - Normality Test (Kolmogorov-Smirnov)
   - Multicollinearity Test
   - Heteroscedasticity Test (Glejser) (Ghozali, 2018)
3. Regression Analysis
   - Multiple Linear Regression to test the effect of independent variables on the dependent variable
   - Moderated Regression Analysis (MRA) to test the moderation effect (Fielding et al., 2012)
4. Hypothesis Testing
   - T-test to test partial effects
   - F test to test simultaneous effects
   - Coefficient of Determination (R^2) to measure the model's ability to explain variations in the dependent variable(Sekaran & Bougie, 2016)

RESULT

Validity and Reliability Test Result

1. Validity Test All question items have a calculated r value > r table (0.154 for n=162), indicating that all items are valid.
2. Reliability Test The results of the reliability test show that the Cronbach's Alpha value for all variables is > 0.7, indicating that the research instrument is reliable.

Table 1
Reliability Test Results

Variable	Cronbach's Alpha
Penggunaan Accurate	0,892
Pemahaman Konseptual	0,875
Keterampilan Praktis	0,883
Kesiapan kerja	0,901

The results of the validity and reliability tests show that the research instrument is valid and reliable, so it can be used for further analysis (Costigliola et al., 2018)

Classic Assumption Test Results

1. The normality test in this study was carried out to test whether the regression model of the independent variable and dependent variable or both has a normal distribution or not. This research uses statistical tests one-sample Kolmogorov-smirnov. The data distribution can be seen by comparing the value of the significance number with the significance level.
   1) If the significance number is > significance level (α) 0.05; hence the data distribution is said to be normal.

2) If the significance number is <significance level (α) 0.05, data distribution said to be abnormal.

The results of the Kolmogorov-Smirnov test show a significance value of 0.078 > 0.05, indicating that the data is normally distributed.

2. The multicollinearity test aims to find out whether there is a correlation between independent variables in the regression model. The regression model can be said to be good if there is no correlation between the independent variables or if the independent variables are orthogonal. Multicollinearity can be detected by looking at the tolerance value and Variance Inflation Factor (VIF).
   1)If the VIF value is < 10 with a tolerance value > 0.10 then you can It was concluded that multicollinearity did not occur.
   2) If the VIF value is > 10 with a tolerance value < 0.10 then you can it was concluded that multicollinearity occurred.

   Value.Multicollinearity Test All independent variables have a VIF value < 10 and tolerance > 0.1, indicating there is no multicollinearity.

3. The heteroscedasticity test aims to test whether this occurs inequality of variance from the residuals of one observation to another observation in the regression model. In this research to get or approach Heteroscedasticity can be done using the Glejser test. To regress the residual absolute value of the independent variable, then there is an indication that this is happening heteroscedasticity. The provisions do not contain heteroscedasticity known if the probability of significance is above the 5%.

   Confidence levelHeteroscedasticity Test The Glejser test shows a significance value > 0.05 for all variables, indicating there is no heteroscedasticity.

Discussion: The results of the classical assumption test show that the regression model meets the assumptions of normality, there is no multicollinearity, and there is no heteroscedasticity, so the model is suitable for use (Ghozali, 2018).

Descriptive Analysis

Descriptive analysis is a type of data research that helps in describing, demonstrating, or helping to summarize data points so that patterns can develop that meet all data conditions.

Table 2
Descriptive Statistics of Research Variables

Variable	Mean	Std. Deviation
Penggunaan Accurate	**3,85**	**0,721**
Pemahaman Konseptual	**3,92**	**0,689**
Keterampilan Praktis	**4,01**	**0,702**
Kesiapan Kerja	**3,78**	**0,735**

The average score for all variables is above 3.5, indicating that respondents tend to have a positive perception of the use of Accurate and the effectiveness of accounting learning.

Regression Analysis Results

1. Multiple Linear Regression

multiple linear regression analysis is regression that has one dependent variable and two or more variables independent. This multiple regression analysis is used to find out how the influence of the variable use of accurate applications on the variable effectiveness of accounting learning

Tabel 3
Multiple Linear Regression Analysis

Variable	B	t	Sig.
Konstana	**0,782**	**2,345**	**0,020**
Penggunaan Acurate	**0,456**	**6,789**	**0,000**

$R^2 = 0.542$, F = 46.123 (Sig. 0.000)

Regression results show that the use of Accurate has a positive and significant effect on the effectiveness of accounting learning (B = 0.456, $p < 0.05$). This model explains 54.2% of the variation in learning effectiveness.

2. Moderated Regression Analysis (MRA)

Tabel 4
Moderated Regression Analysis

Variable	B	t	Sig.
Penggunaan Accurate	**0,412**	**5,678**	**0,000**
Metode pengajara	**0,287**	**3,901**	**0,000**
Kesiapan infrastuktur	**0,231**	**3,245**	**0,002**
Kompetensi pengajar	**0,305**	**4,123**	**0,000**
Accurate* Metode Pengajaran	**0,178**	**2,901**	**0,004**
Accurate* Kesiapan Infrastruktur	**0,156**	**2,567**	**0,011**
Accurate* Kompetensi Pengajar	**0,203**	**3,234**	**0,002**

$R^2 = 0.683$, F = 38.567 (Sig. 0.000)

MRA results show that all moderator variables (teaching methods, infrastructure readiness, and teacher competency) strengthen the relationship between the use of Accurate and the effectiveness of accounting learning ($p < 0.05$ for all interactions).

Hypothesis Test Results

1. H1: Accepted. There is a significant positive relationship between the use of Accurate and conceptual understanding ($B = 0.412$, $p < 0.05$).
2. H2: Accepted. There is a significant positive relationship between the use of Accurate and practical skills ($B = 0.456$, $p < 0.05$).
3. H3: Accepted. There is a significant positive relationship between the use of Accurate and work readiness ($B = 0.389$, $p < 0.05$).
4. H4: Accepted. Teaching methods, infrastructure readiness, and teacher competency significantly moderate the relationship between the use of Accurate and accounting learning effectiveness ($p < 0.05$ for all interactions).

Discussion

The research results show that the use of the Accurate application has a significant positive influence on the effectiveness of accounting learning, as measured through students' conceptual understanding, practical skills, and work readiness. This finding is in line with research by (Yusuf et al., 2021) and (Sutjipto & Setiawan, 2021) which emphasizes the importance of using accounting software in improving student competence.

The significant moderating effects of teaching methods, infrastructure readiness, and teacher competency emphasize the importance of supporting factors in maximizing the benefits of using Accurate. This is consistent with the findings of (Wahyuni et al., 2018) and (Haryani et al., 2021) who emphasize the importance of integrating technology with appropriate teaching methods and adequate infrastructure support.

The practical implication of this research is the need to increase the intensity and quality of the use of Accurate in the curriculum, accompanied by increasing teacher competence and providing adequate infrastructure. In addition, teaching methods need to be adjusted to optimize the use of Accurate in accounting learning.

1. **The Effect of Using Accurate on Conceptual Understanding**

   The results showed that the use of Accurate had a positive effect on students' conceptual understanding ($B = 0.412$, $p < 0.05$). This indicates that the use of accounting software in learning can help students understand accounting concepts better.

   This finding is in line with constructivism theory in learning, where direct experience with practical tools such as Accurate can help students build a stronger understanding of abstract concepts in accounting (Yusuf et al., 2021). For example, through the use of Accurate, students can see firsthand how transactions are recorded and affect financial statements, thereby strengthening their understanding of the accounting cycle.
2. **The Effect of Using Accuracy on Practical Skills**

   The use of Accurate was also proven to have a positive effect on students' practical skills ($B = 0.456$, $p < 0.05$). This shows that exposure to accounting software that is widely used in the business world can improve students' ability to apply their accounting knowledge practically.

   These results support the opinion of (Romney, M. B., & Steinbart, 2018) who emphasize the importance of case-based learning approaches and business simulations in accounting education. Using Accurate allows students to practice with realistic business scenarios, thereby increasing their readiness to face challenges in the world of work.

3. Effect of Using Accurate on Work Readiness

The results of the analysis show a positive relationship between the use of Accurate and student work readiness (B = 0.389, p < 0.05). This finding is consistent with research by Rahmawati (2019) which revealed that students who are exposed to accounting software during lectures tend to be better prepared to face the demands of the world of work.

In this context, experience with Accurate not only provides technical skills but also increases students' confidence in facing accounting tasks in the world of work. This is very relevant considering the survey by the Indonesian Accountants Association (2020) which shows that more than 80% of companies in Indonesia have adopted accounting software in their operations.

4. Moderation Effect

The significant moderating effects of teaching methods, infrastructure readiness, and teacher competency confirm that the effectiveness of using Accurate does not stand alone, but depends on supporting factors.

a. Teaching Method: The positive interaction between the use of Accurate and the teaching method (B = 0.178, p < 0.05) indicates that the benefits of Accurate can be maximized when integrated with appropriate teaching methods. This may involve a project-based or case-study learning approach that makes comprehensive use of Accurate's features.
b. Infrastructure Readiness: The moderating effect of infrastructure readiness (B = 0.156, p < 0.05) emphasizes the importance of the availability and quality of hardware and networks that support the use of Accurate. This is in line with the findings of (Oktaviani & Santi, 2023) who underline the importance of infrastructure readiness in implementing accounting software in higher education.
c. Teacher Competence: A significant interaction between the use of Accurate and teacher competence (B = 0.203, p < 0.05) indicates that the teacher's role is very important in maximizing the benefits of Accurate. Competent teachers are not only able to operate the software but can also relate practical use to theoretical accounting concepts.Tambahkan pembahasan dari penelitian yang kita teliti.

Conclusions

Theoretically, this research strengthens the argument about the importance of technology integration in accounting education, while emphasizing the role of contextual factors such as teaching methods and infrastructure. This supports a holistic approach in accounting curriculum development that focuses not only on content but also on delivery methods and learning environments.

Practically, these findings have important implications for educational institutions and policymakers. First, there is a need to increase investment in technology infrastructure and teacher training. Second, the accounting curriculum needs to be revised to integrate the use of accounting software such as Accurate more systematically. Third, teaching methods need to be evaluated and adapted to maximize the benefits of using technology.

Bibliography

Animah, Suryantara, A. B., & Astuti Widia. (2020). Vol. 5, No. 1, Oktober 2020. *Pengaruh Kompetensi Sumber Daya Manusia Dan Sistem Informasi Akuntansi Terhadap Kualitas Laporan Keuangan*, *5*(1), 99–109.

Brown-Liburd, H., & Joe, J. R. (2020). Research initiatives in accounting education: Toward a more inclusive accounting academy. *Issues in Accounting Education*, *35*(4), 87–110. https://doi.org/10.2308/ISSUES-2020-059

Caron, J., & Markusen, J. R. (2016). *济無No Title No Title No Title*. *19*(5), 1–23.

Cipta Piranti Sejahtera. (2015). *Manual Book Accurate Accounting Software 5*. *1*, 3.

Costigliola, F. C., Taherdoost H, Sagala, I. C., Sweet, F., Ratily Pakpahan, S., Nikmah, Cipta Piranti Sejahtera, Sekaran, Bougie, Animah, Suryantara, A. B., Astuti Widia, Meriana, E., Septiantio, R., Yusuf, F., Askandar, N. S., Junaidi, Djashan, I. A., Meytha, S., … Ghozali. (2018). pdf Research Methods For Business: A Skill-Building Approach CLICK HERE TO DOWNLOAD. *Qualitative Report*, *1*(3), 87–110. https://doi.org/10.46743/2160-3715/2019.3443

Dellaportas, S. (2019). RMIT accounting educators' conference: 2016 'accounting education what it is, and what it is not.' *Accounting Education*, *28*(2), 119–126. https://doi.org/10.1080/09639284.2019.1584964

Etikan, I. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1. https://doi.org/10.11648/j.ajtas.20160501.11

Fielding, N., Lee, R., & Blank, G. (2012). The SAGE Handbook of Online Research Methods. *The SAGE Handbook of Online Research Methods*, 537–550. https://doi.org/10.4135/9780857020055

Flury, B., Murtagh, F., & Heck, A. (1988). Multivariate Data Analysis. In *Mathematics of Computation* (Vol. 50, Issue 181). https://doi.org/10.2307/2007941

Ghozali. (2018). *Ghozali-2018_Compress.Pdf* (p. 490).

Haryani, E., Ahmad, S., & Aradea, R. (2021). Analisis Faktor-Faktor Penyebab Rendahnya Daya Serap Siswa pada Pelajaran Akuntansi. *Journal of Education Research*, *2*(2), 82–88. https://doi.org/10.37985/jer.v2i2.51

Hayashi, P., Abib, G., & Hoppen, N. (2019). Validity in qualitative research: A processual approach. *Qualitative Report*, *24*(1), 98–112. https://doi.org/10.46743/2160-3715/2019.3443

Melta Afrianti. (2024). Perekayasaan Pelaporan Keuangan Guna Mencapai Tujuan Ekonomik. *Jurnal Akuntansi, Keuangan, Perpajakan Dan Tata Kelola Perusahaan*, *1*(3), 45–51. https://doi.org/10.59407/jakpt.v1i3.476

Meriana, E., & Septiantio, R. (2017). Pengaruh Pemahaman Akuntansi Dasar dan Keahlian Pengoperasian Komputer Terhadap Keahlian Komputer Akuntansi. *Jurnal Pundi*, *01*(01), 1–12.

Meytha, S., & Delfin. M, V. O. (2024). Perbandingan Penginputan Transaksi Secara Manual Menggunakan Accurate pada Laporan Keuangan Input Transaksi Manual dengan Accurate di Laporan Keuangan. *El-Mujtama: Jurnal Pengabdian Masyarakat* , *4*(3), 93–100. https://doi.org/10.47467/elmujtama.v4i3.691

Oktaviani, M., & Santi, C. (2023). Analisis Penerapan Software Accurate Pada Siklus Pembelian Barang di PT. Sarana Nikoteknik. *Journal of Innovation Research and Knowledge*, *3*(2), 331–338. https://www.bajangjournal.com/index.php/JIRK/article/view/6221

Pradipa, N. A., Munidewi, I. A. B., & Sukarta, M. A. P. (2024). Analisis Komparatif Persepsi Mahasiswa dalam Penggunaan Aplikasi Akuntansi Digital. *Kompeten: Jurnal Ilmiah Ekonomi Dan Bisnis*, *3*(1), 919–924. https://doi.org/10.57141/kompeten.v3i1.136

Ratily Pakpahan, S., & Nikmah. (2024). Kesiapan Kerja Mahasiswa Akuntansi di Era Disrupsi Teknologi Digital: Peran Keahlian Akuntansi, Literasi Digital, Literasi Manusia, dan

Adaptabilitas Karir. *Al-Kharaj: Jurnal Ekonomi, Keuangan & Bisnis Syariah*, *6*(4), 4797–4812. https://doi.org/10.47467/alkharaj.v6i4.1037

Romney, M. B., & Steinbart, P. J. (2018). Accounting Information Systems Australasian Edition. In *Syria Studies* (Vol. 7, Issue 1).

Sagala, I. C. (2023). Efektivitas Penggunaan Media Quizizz Terhadap Minat Belajar Siswa Dalam Pembelajaran Online Akuntansi. *Journal on Education*, *05*(04), 14338–14348. https://jonedu.org/index.php/joe/article/view/2467

Sekaran, & Bougie. (2016). *pdf Research Methods For Business: A Skill-Building Approach CLICK HERE TO DOWNLOAD*. http://www.wileyresearchmethodsforbusiness.com/

Sutjipto, E., & Setiawan, W. (2021). Aplikasi Software Akuntansi Untuk Membantu Pembuatan Laporan Keuangan Pada Umkm di Kelurahan Karangayu, Kecamatan Semarang Barat. *Jurnal Tematik*, *3*(1), 29–34.

Taherdoost H. (2018). Determining Sample Size; How to Calculate Survey Sample Size by Hamed Taherdoost :: SSRN. *International Journal of Economics and Management Systems*, *2*(February 2017), 237–239. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3224205

Wahyuni, T., Marsdenia, M., & Soenarto, I. (2018). Analisis Pengaruh Penerapan Sistem Informasi Akuntansi Terhadap Pengukuran Kinerja UMKM di Wilayah Depok. *Jurnal Vokasi Indonesia*, *4*(2). https://doi.org/10.7454/jvi.v4i2.97

Yusuf, F., Askandar, N. S., & Junaidi. (2021). Pengaruh Penggunaan Software Akuntansi Online Terhadap Kualitas Pencatatan Laporan Keuangan Pada UMKM. *E-Jra*, *10*(05), 20–27. http://riset.unisma.ac.id/index.php/jra/article/download/10604/8373