Asian Journal of Management Analytics (AJMA)
Vol. 5, No. 2 2026: 243-252

# The Behavioral Accounting Approach to Examining Modern Accounting Practices in the Industry 4.0 Era

Amril[1]*, Helmy Syamsuri[2], Wardatul Wahidah. R[3]
[1]Universitas Muhammadiyah Makassar
[2]Sekolah Tinggi Ilmu Ekonomi YPUP Makassar
[3]STAI DDI Maros
**Corresponding Author:** Amril amril.arifin@unismuh.ac.id

A R T I C L E I N F O

*Keywords:* Behavioral Accounting, Modern Accounting, Industry 4.0, Behavioral Factors, Digital Transformation

*Received : 18, December*
*Revised : 20, February*
*Accepted: 22, April*



A B S T R A C T

This study aims to analyze modern accounting practices in the industry 4.0 era through a behavioral accounting approach. Digital transformation in accounting systems, such as the use of ERP and cloud-based reporting, not only brings technical changes but also creates dynamics in individual and organizational behavior that impact the quality of financial reporting. This study uses a qualitative approach with a case study design. Data were collected through in-depth interviews with financial managers, accounting staff, and internal auditors directly involved in the implementation of modern accounting systems, supported by relevant documentation. Data analysis was conducted through data reduction, thematic presentation of findings, and drawing conclusions by linking the research findings to behavioral accounting theory. The results indicate that attitudes toward technology, work motivation, organizational culture, professional ethics, and cognitive biases significantly influence the effectiveness of modern accounting practices.

## INTRODUCTION

Rapid technological advancements in the era of the Fourth Industrial Revolution have brought about significant changes in various aspects of life, including accounting practices (Bhaktiningsih & Surbakti, 2024). Digital transformation through the use of artificial intelligence, big data analytics, cloud accounting, blockchain, and Enterprise Resource Planning (ERP) systems has transformed the way organizations record, process, and report financial information (Manurung et al., 2025). Modern accounting is no longer merely manual and administrative in nature; rather, it has evolved into an integrated, real-time strategic information system. This shift requires accounting professionals to enhance their technical skills and develop the ability to adapt (Dalimunthe & Nasution, 2023).

However, technological advancements do not automatically guarantee the quality of accounting practices. Behind sophisticated systems, humans still play a dominant role as decision-makers, information managers, and interpreters of financial data. It is in this context that the behavioral accounting approach becomes relevant (Prasetyo, 2019). Behavioral accounting emphasizes that accounting practices are influenced not only by standards, regulations, and technology, but also by individual behavioral factors and social dynamics within organizations. Perceptions, attitudes toward change, work motivation, organizational pressure, ethical values, and cognitive biases can influence how accounting systems are operated and how financial information is presented (Onesta et al., 2025).

The industry 4.0 era actually exacerbates this complexity. Massive digitalization requires accountants to adapt to technology-based systems, yet not all individuals possess the same level of readiness (Sumarna, 2020). Resistance to change, uncertainty regarding job automation, and limited digital competencies can impact the effectiveness of implementing modern accounting practices (Halim, 2024). Furthermore, the use of increasingly sophisticated technology also opens new avenues for the risk of data manipulation and misuse of information if not balanced by strong professional integrity and ethics (Indirman et al., 2024).

Previous studies have largely focused on technical and systemic aspects when examining modern accounting, such as the adoption of information technology and the implementation of international standards. However, in-depth studies that integrate a behavioral accounting approach to understanding accounting practices in the Industry 4.0 era remain relatively limited. In fact, the interaction between technology and human behavior is key to determining the success of accounting transformation. Without an understanding of behavioral factors, organizations risk experiencing a gap between their technology investments and the quality of the resulting financial reporting (Bangun et al., 2025).

Therefore, this study is important for examining how the behavioral accounting approach can be used to understand modern accounting practices in the industry 4.0 era. This study aims to explore the role of attitudes, motivation, organizational culture, professional ethics, and cognitive biases in shaping the quality of technology-based accounting practices. Thus, this study not only contributes theoretically to the development of behavioral accounting but also provides practical implications for organizations in managing digital transformation more effectively and sustainably.

## LITERATURE REVIEW

### *The Concept of Behavioral Accounting*

Behavioral accounting is a branch of accounting that examines the relationship between accounting systems and human behavior. This approach emerged in response to the limitations of traditional accounting approaches, which tend to view individuals as rational actors who always make decisions based solely on economic logic. In reality, accounting practices are influenced by perceptions, attitudes, motivations, social pressures, and other psychological factors. Behavioral accounting emphasizes that accounting information is not merely produced mechanically through a system, but is processed and interpreted by individuals with different cognitive backgrounds and values. Therefore, the quality of accounting practices depends heavily on the behavioral characteristics of those who carry them out (Hanlon et al., 2022).

### *Modern Accounting Practices*

Modern accounting is an integrated, technology-based information system designed to provide relevant, reliable, and timely financial information for decision-making. The development of international standards such as IFRS, the implementation of good corporate governance, and the integration of digital systems have transformed accounting practices into more complex and strategic endeavors (Batubara, 2019). Modern accounting practices are no longer limited to recording transactions but encompass data analysis, risk management, internal controls, and technology-based reporting. In this context, an individual's ability to adapt to system changes is a critical factor in determining the effectiveness of accounting practices.

### *The Industry 4.0 Era and the Digital Transformation of Accounting*

The Industry 4.0 era is characterized by the integration of digital technologies such as artificial intelligence, big data, blockchain, the Internet of Things (IoT), and cloud computing across various sectors, including accounting (Azzahra, 2020). This digital transformation enables the automation of recording processes, real-time data analysis, and improved transparency and efficiency in financial reporting. However, digitization also demands a shift in mindset and human resource competencies. The successful implementation of technology-based accounting systems heavily depends on individuals' readiness to adopt innovations and the organization's ability to foster a culture that supports change (Maulana et al., 2023).

***Theory of Planned Behavior (TPB)***

The Theory of Planned Behavior, developed by Ajzen, explains that individual behavior is influenced by intention, which is formed from attitudes toward the behavior, subjective norms, and perceived behavioral control (Albayati et al., 2023). In the context of modern accounting practice, attitudes toward the use of technology, social pressure within organizations, and self-efficacy in operating digital systems can influence the effectiveness of technology-based accounting implementation. This theory provides a foundation for understanding how psychological factors shape the professional behavior of accountants in the face of change in the industry 4.0 era.

## METHODOLOGY

This study employs a qualitative approach using a case study design to examine modern accounting practices through the lens of behavioral accounting in the Industry 4.0 era. This approach was chosen because the study aims to gain an in-depth understanding of how behavioral factors such as attitudes toward digital technology, work motivation, organizational culture, professional ethics, and perceptions of change influence the implementation of technology-based accounting systems such as ERP and cloud accounting. The research focuses not only on the technical aspects of the systems but also on the behavioral dynamics of the individuals carrying out these accounting practices.

This study was conducted at several companies operating in Makassar, specifically in the banking and services sectors that have implemented digital-based accounting systems. The research subjects include several institutions, such as Bank Rakyat Indonesia (BRI) Makassar Branch, Bank Negara Indonesia (BNI) Makassar Branch, Bank Mandiri Makassar Branch, and PT Telkom Indonesia in the Makassar region, representing service companies that have adopted technology-based accounting systems. The selection of the research location and subjects is based on the rapid development of digital transformation and the high level of information technology adoption in accounting systems within these companies.

Research informants were selected through purposive sampling, specifically financial managers, accounting staff, internal auditors, or other parties directly involved in the digital transformation process. Data was collected through semi-structured in-depth interviews and supported by relevant organizational documentation. Data analysis was conducted through data reduction, thematic presentation of findings, and drawing conclusions by linking interview results to behavioral accounting theory. Data validity was ensured through source triangulation and member checking techniques to ensure the credibility and consistency of the research interpretation.

**RESEARCH RESULT**

Based on in-depth interviews with several informants—including financial managers, accounting staff, and internal auditors it was found that the implementation of modern digital-based accounting practices in the Industry 4.0 era is strongly influenced by individual behavioral factors and organizational dynamics.

The first informant (a Financial Manager) stated that digital transformation through the use of ERP systems and cloud-based reporting has improved the efficiency and transparency of financial reporting. However, he emphasized that the success of these systems is highly dependent on the readiness of human resources. According to him, "The system is advanced, but if people are unwilling to learn and not open to change, the results will still not be optimal." This statement indicates that attitudes toward technology are a key factor in the implementation of modern accounting.

The second informant (Accounting Staff) revealed that at the beginning of the digital system's implementation, there was a fear of making mistakes and concerns about changes to work procedures. He noted that adaptation required time and ongoing training. After receiving guidance, he felt more confident and able to utilize the system's features to improve the accuracy of record-keeping. This demonstrates that motivation and organizational support play a crucial role in fostering adaptive behavior toward technological innovation.

Meanwhile, the third informant (Internal Auditor) highlighted ethical considerations and managerial pressure in modern accounting practices. They explained that although the system is automated, the final decision still rests with the individual inputting and verifying the data. Under certain conditions, there is pressure to present reports in line with management's expectations. According to him, "Technology helps, but integrity remains the primary determinant." This statement shows that professional ethics remain a central element in maintaining the quality of financial reporting.

Some informants also acknowledged the presence of subjective bias in the accounting estimation and decision-making processes, particularly when determining provisions or asset valuations. Previous work experience and perceptions of risk often influence professional judgment, even though the system provides comprehensive historical data. These findings suggest that digitization does not entirely eliminate the influence of psychological factors in accounting practice.

Overall, the interview results indicate that modern accounting practices in the Industry 4.0 era are a combination of technological sophistication and individual behavioral qualities. Attitudes toward change, motivation, organizational culture, and professional ethics are key determinants in establishing the effectiveness and integrity of modern accounting practices.

## DISCUSSION

Research findings indicate that modern accounting practices in the Industry 4.0 era cannot be understood solely as a digital-based technical transformation, but rather as a social process involving individual behavioral factors and organizational dynamics. These findings align with the behavioral accounting perspective, which asserts that accounting systems are influenced by the psychological, cognitive, and social aspects of their practitioners.

First, attitudes toward technology have proven to be a key determinant in the effectiveness of modern accounting system implementation. Individuals with a positive perception of digitalization demonstrate faster adaptation and more optimal system utilization. Conversely, resistance to change slows down the system integration process and reduces the quality of technology use. In the context of behavioral theory, this can be explained through the concept of attitude toward change, where acceptance of innovation is highly dependent on an individual's perception of benefits and readiness.

Second, organizational motivation and support are key factors in shaping accountants' professional behavior. Training, clear supervision, and a rewards system enhance a sense of responsibility and attention to detail in the preparation of financial statements. This finding reinforces the motivation theory in behavioral accounting, which states that work behavior is influenced by incentive systems and the organizational environment. Digital transformation without strengthening human resource capacity risks resulting in changes that are merely administrative in nature, rather than substantive improvements in the quality of reporting.

Third, professional ethics remain the cornerstone of modern accounting practice. Although systems have become automated and rely on real-time data, the final decision still rests with the individuals operating those systems. Managerial pressure or specific interests can influence professional judgment, so the objectivity of financial reports remains dependent on the accountant's integrity. This underscores that technology does not replace ethical values but merely serves as a tool to support the decision-making process.

Fourth, findings regarding the presence of cognitive biases in estimation and judgment indicate that subjectivity remains inherent in modern accounting practices. Past experiences, risk perceptions, and personal beliefs influence the interpretation of available data. The behavioral accounting perspective explains that accounting decisions are often not entirely rational because they are influenced by cognitive limitations (bounded rationality).

Overall, this discussion confirms that the success of modern accounting practices in the Industry 4.0 era is determined not only by technological sophistication but by the interaction between digital systems and human behavior. Therefore, the behavioral accounting approach is relevant and essential for comprehensively understanding the dynamics of accounting practices. Effective digital transformation must be accompanied by the strengthening of adaptive attitudes, the enhancement of competencies, and the internalization of professional ethical values within the organization.

## CONCLUSIONS AND RECOMMENDATIONS

This study concludes that modern accounting practices in the Industry 4.0 era are not only influenced by the sophistication of the technological systems used, but are also strongly determined by individual behavioral factors and organizational dynamics. The behavioral accounting approach has proven relevant in explaining that attitudes toward technology, work motivation, organizational culture, professional ethics, and cognitive biases play a significant role in shaping the quality of accounting practices.

The research findings indicate that a positive attitude toward digitalization and adequate organizational support drive the effectiveness of implementing modern accounting systems. Conversely, resistance to change and managerial pressure have the potential to affect the objectivity and integrity of financial reporting. Although accounting systems have been automated and are based on real-time data, the final decision still rests with the individuals operating the system, making ethical values and professionalism the primary determining factors.

Thus, accounting transformation in the Industry 4.0 era must be understood as an integrative process between technology and human behavior. Improving the quality of modern accounting practices requires not only technological investment but also the strengthening of competencies, a shift in mindset, and the establishment of an organizational culture that upholds transparency and accountability.

Based on the research findings, several recommendations can be proposed. First, future research is advised to use a quantitative or mixed-methods approach to empirically test the influence of behavioral factors on the quality of modern accounting practices.

Second, future research could expand its scope to various sectors, such as manufacturing, SMEs, and government agencies, including in the Makassar region and other areas, to obtain more comprehensive results.

Third, it is recommended to include additional variables such as transformational leadership, digital literacy, and technostress to enrich the analysis from a Behavioral Accounting perspective.

Fourth, future research could examine the use of specific technologies such as ERP, artificial intelligence (AI), and cloud accounting in enhancing the quality of accounting decision-making while considering ethical aspects and cognitive biases.

Fifth, future research is also expected to integrate value-based approaches, such as ethics-based accounting or Sharia accounting, to strengthen integrity and accountability in modern accounting practices.

## ADVANCED RESEARCH

This research is limited by its use of a qualitative case study approach, making the results contextual and not broadly generalizable. Furthermore, the research focused on a few companies in Makassar City and the limited number of informants may have contributed to subjectivity in data interpretation, despite triangulation.

This research is also limited to a Behavioral Accounting perspective and does not integrate in-depth quantitative analysis. Therefore, future research is recommended to use a quantitative or mixed-methods approach, expand the research subjects and sectors, and add variables such as digital literacy, leadership, and technostress. Furthermore, studies related to the use of technologies such as AI and cloud accounting need to be developed to enrich research in the field of modern accounting.

## ACKNOWLEDGMENT

The author expresses gratitude to Allah SWT for all His blessings and grace, which have enabled this research to be successfully completed. The author also extends his deepest gratitude to all research informants who took the time to provide valuable information during the interview process. Thanks are also extended to the institution's leadership and academic colleagues who provided support, feedback, and motivation throughout the preparation of this research. The author also extends the highest appreciation to their family for their prayers, moral support, and patience. May this research contribute to the development of accounting science, particularly from a behavioral accounting perspective in the Industry 4.0 era.

## REFERENCES

Albayati, H., Alistarbadi, N., & Rho, J. J. (2023). Assessing engagement decisions in NFT Metaverse based on the Theory of Planned Behavior (TPB). Telematics and Informatics Reports, 10(December 2022). https://doi.org/10.1016/j.teler.2023.100045.

Azzahra, B. (2020). Akuntansi 4.0: Penggerak Nilai Berkelanjutan Perusahaan Melalui Kecerdasan Buatan & Analisis Teknologi di Era Disrupsi. JRAK, 16(2).

Bangun, R. B., Manullang, R. M. V, & Simamora, S. A. (2025). Akuntansi Manajemen Strategis di Tengah Digitalisasi: Analisis Literatur tentang Perubahan, Manfaat, dan Hambatan. Jurnal Akademik Ekonomi Dan Manajemena, 2(4), 148–159. https://doi.org/10.61722/jaem.v2i4.7276.

Batubara, Z. (2019). Akuntansi dalam pandangan islam. JAS (Jurnal Akuntansi Syariah), 3(1), 66–77.

Bhaktiningsih, T. Y., & Surbakti, L. P. (2024). Akuntansi Manajemen Strategis dalam Era Digital : Review Literatur Tentang Transformasi Dan Inovasi. JIMEA | Jurnal Ilmiah MEA (Manajemen, Ekonomi, Dan Akuntansi), 8(3), 1547–1557.

Dalimunthe, A. F., & Nasution, J. (2023). Akuntansi Dalam Era Industri 4 . 0 : Studi Kasus Kantor Jasa Akuntan PT Eriadi Fatkhur Rokhman di Medan Al-Kharaj : Jurnal Ekonomi , Keuangan & Bisnis Syariah. Al-Kharaj : Jurnal Ekonomi , Keuangan & Bisnis Syariah, 5(1), 284–293. https://doi.org/10.47467/alkharaj.v5i1.1192.

Halim, F. V. (2024). Akuntan Digital : Pentingnya Pengetahuan Teknologi terhadap Peran Profesi Akuntansi dalam Menghadapi Era Industry 4 . 0 dan Society 5 . 0. J-CEKI : Jurnal Cendekia Ilmiah, 4(1), 1627–1639.

Hanlon, M., Yeung, K., & Zuo, L. U. O. (2022). Behavioral Economics of Accounting : A Review of Archival Research on Individual Decision Makers. Behavioral Economics of Accounting, 39(2), 1150–1214. https://doi.org/10.1111/1911-3846.12739.

Indirman, V., Valdiansyah, R. H., & Rahayu, S. (2024). Akuntansi Manajemen Strategis Dalam Perspektif Revolusi Industri 5.0. Jurnal Revenue : Jurnal Akuntansi, 5, 848–858. https://doi.org/10.46306/rev.v5i1.497.

Manurung, A., Sangapan, L. H., Paryanti, A. B., & Manurung, A. H. (2025). Tren dan Arah Penelitian Akuntansi Keuangan : Sebuah Systematic Literature Review Tahun 2010-2025. Dinasti Accounting Review, 3(1), 12–24. https://doi.org/10.38035/dar.v3i1.

Maulana, M. A., Fajar, B. A., & Arifin, N. A. (2023). Ada Apa Dengan Profesi Akuntan di Era Transformasi Digital ? Indonesian Journal of Taxation and Accounting, 1(2), 48–63.

Onesta, R. A., Putri, S. R., Naillah, N., Widiawati, S., & Apriliani, A. P. (2025). Akuntansi Keberlanjutan di Indonesia : Tantangan Implementasi dan Perspektif Teori Akuntansi. PENG : Jurnal Ekonomi Dan Manajemen, 2(2), 3841–3848.

Prasetyo, W. (2019). Akuntansi 4.0: Belajar Transdisipliner Momong, Among, Ngemong. Jurnal Riset Dan Aplikasi: Akuntansi Dan Manajemen, 3(April), 217–228. https://doi.org/10.18382/jraam.v3i3.217.

Sumarna, A. D. (2020). Akuntansi Dalam Industri 4.0: Studi Kasus Kantor Jasa Akuntan (KJA) Di Wilayah Kepulauan Riau. KRISNA: Kumpulan Riset Akuntansi, 11(2), 100–109.