



ISSN: 2617-6548

URL: [www.ijirss.com](http://www.ijirss.com)



## Decoding digital technology adoption in the accounting profession through theoretical lenses

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### Abstract

Digitalisation accounting remains in its early yet evolving stage, resulted in limited theoretical support for its adoption within accounting profession and arising the gap in identifying and aligning suitable theories which can suit with industry specific environment. This study aims to decode the use of digital technology adoption theories in accounting research and to analyse key variables examined in digital technology adoption past studies. A two-phase of Systematic Literature Review (SLR) was conducted. The first SLR phase reviewed studies on technology adoption within the accounting profession by identifying commonly used theories. The second SLR phase focused on Technology-Organization-Environment (TOE) framework, extracting key constructs employed by prior researchers in examining factors influencing technology adoption. A total of 65 relevant articles were reviewed. The findings revealed that commonly used theories in this domain include the Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Technology Acceptance Model (TAM), Task-Technology Fit (TTF), and the Technological-Organisational-Environmental (TOE) framework. This review also identified approximately over 60 variables across various studies that used the TOE framework, with fewer than 30 variables deemed most relevant and applicable for future research in the accounting profession. This study provides a structured understanding of digital technology adoption theories and key constructs within accounting domain, highlighting the limited theoretical application despite the field still at nascent phase. The identification of relevant theories and constructs offers a clearer foundation for future empirical research and theory development within accounting research. The findings also offer useful guidance for accounting practitioners, firms including audit, taxation, and advisory services, and policymakers in considering and prioritising relevant factors for digital technology adoption decision.

**Keywords:** Digital technology, Digitalisation accounting, Technology adoption theories, TOE framework.

DOI: 10.53894/ijirss.v9i4.11440

**Funding:** This study received no specific financial support.

**History: Received:** 16 January 2026 / **Revised:** 3 March 2026 / **Accepted:** 6 February 2026 / **Published:** 3 April 2026

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**Competing Interests:** The authors declare that they have no competing interests.

**Authors' Contributions:** All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

**Transparency:** The SLR process, including the article selection and retention process, as well as article reading, summarising into matrix literature table, and analysing the theories and variables, was conducted by the first author. The write up of the manuscript was carried out by the first and second authors. Meanwhile, the review and refinement of the manuscript were carried out by the third and fourth authors..

**Acknowledgments:** This paper was written and analysed as part of the main author's PhD research, financially supported by the Ministry of Higher Education (MoHE), Malaysia, and Universiti Teknologi MARA (UiTM), Malaysia. Special thanks are extended to the Department of Accounting and Finance, Faculty of Management (FM), and Universiti Teknologi Malaysia for providing the grant for publication fees. The grant was provided by the Research Management Centre (RMC), Universiti Teknologi Malaysia, Johor Bahru, Johor (Vote No. Project: Q.J130000.3829.42J19, UTM Encouragement Research). Appreciation is also extended to the Faculty of Management, Universiti Teknologi Malaysia, Johor Bahru, Johor.

**Publisher:** Innovative Research Publishing

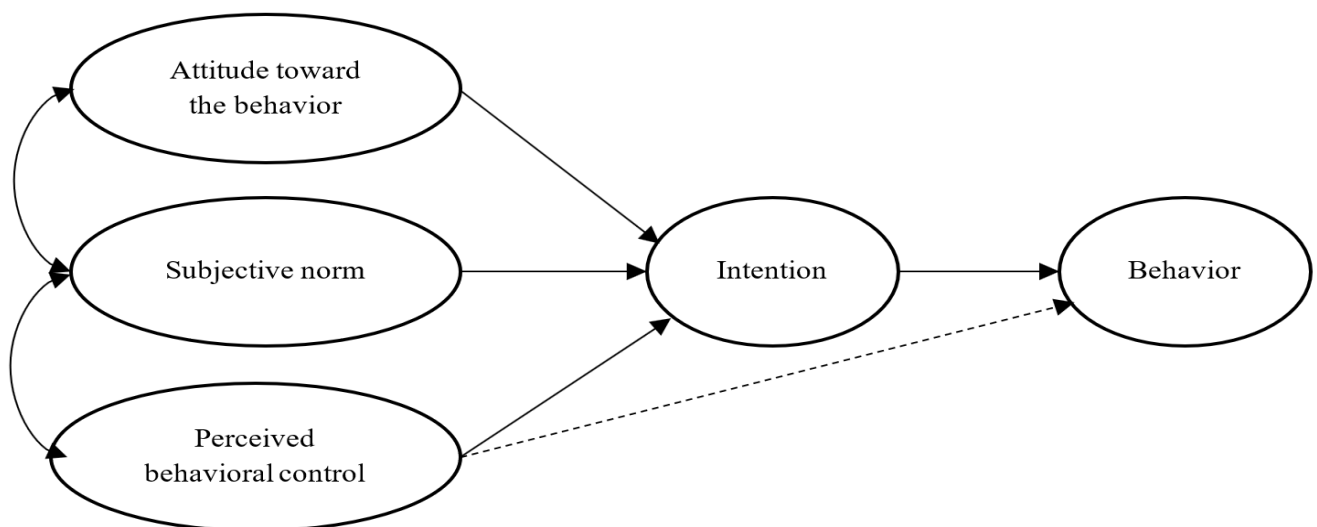
## 1. Introduction

The digitalisation of accounting is a nascent and developing field within the accounting research area. As the profession progressively incorporates modern technologies into its practices, it is imperative to comprehend the theoretical foundations underpinning this transformation. Despite substantial research on technology adoption in information systems, its implementation and application within the accounting industry remain constrained.

Moll and Yigitbasioglu [1] and Tiron-Tudor, et al. [2] in their scoping and bibliometric analyses, emphasise the transformative impact of disruptive technologies, including AI, cloud computing, big data, and blockchain on the accounting sector. This transition signifies a wider trend in technology adoption research, which has evolved from focusing solely on person and organizational viewpoints, as noted by Mohamed [3] to include other industries, such as accounting. It is essential to evaluate which theories are most appropriate to support research on technology adoption, regardless of whether the emphasis is on individual or organizational levels.

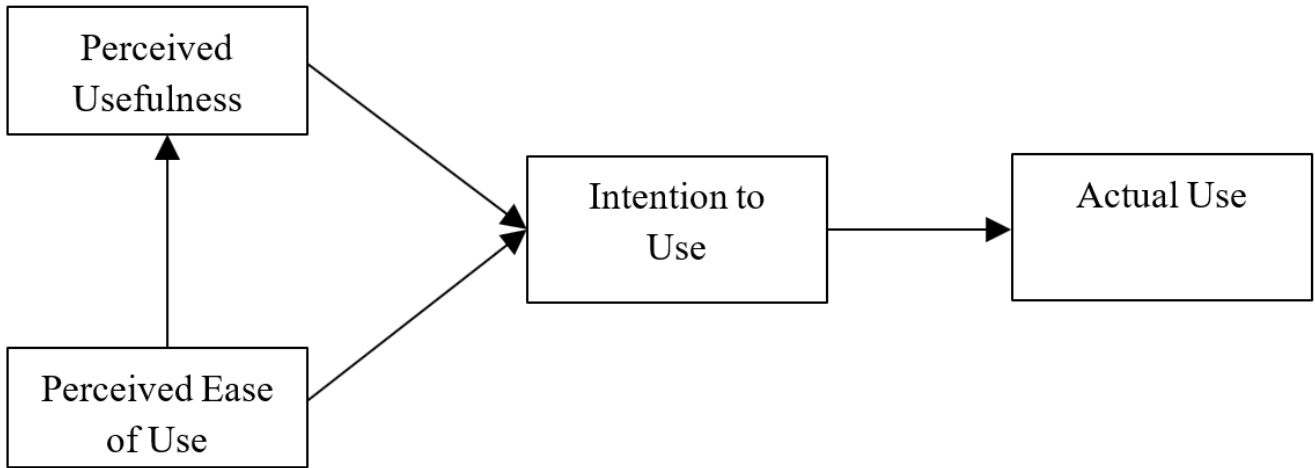
In the realm of technology adoption research, several of the most commonly applied theories are Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Technology Acceptance Model (TAM), and Task Technology Fit (TTF) model. The TRA was established by [4] to better understand the general human behavior, more specifically on behavioural intention and volitional behaviour associated with technology adoption positing that attitudes and subjective norms as determinants that shaped individual intention and acts [4]. Figure 1 illustrates the TRA, which emphasises the relationship between individual attitudes, subjective norms, and behavioral intention in decision-making.

further refined the TRA in 1985 to address limitations predicting behavior as it is not solely under individual's control [4, 5]. Figure 2 illustrates the TPB), which emphasises how individuals' attitudes, perceived social pressure (subjective norms), and perceived control over the behavior influence their intention to adopt digital technologies. This modification was mainly because individuals may encounter internal barriers (eg: confidence, skills, abilities) and external barriers (eg: opportunities, resource availability), that affect their ability to carry out intended behaviors. TPB makes it more suitable to understand individuals' behaviour and provides a more comprehensive framework.



**Figure 1.** Theory of Reasoned Action (TRA) developed. Source: Hale, et al. [4].

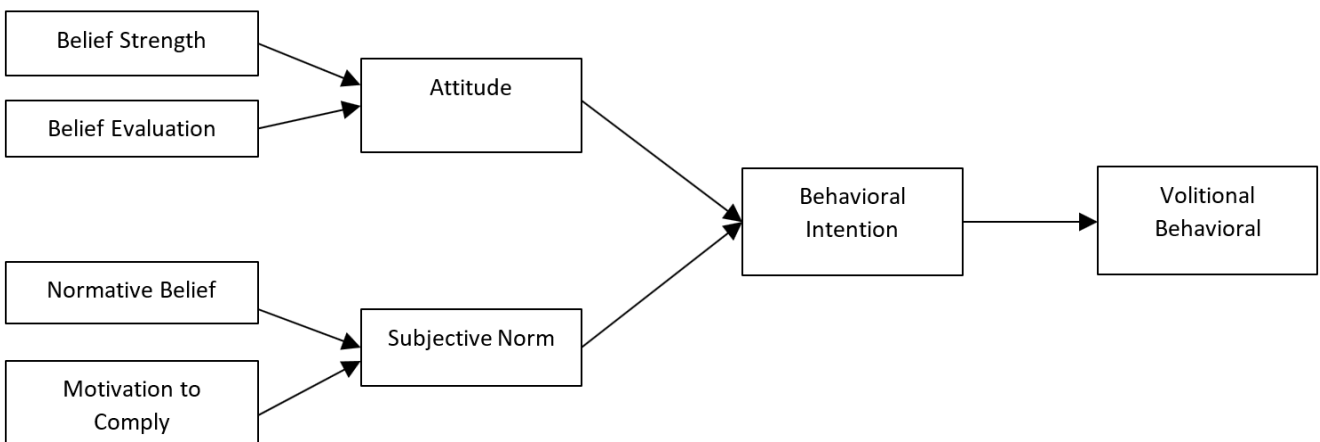
Building upon the theoretical foundations of TRA and TPB, TAM emerged in 1989, developed by Fred Davis to explain individual behaviour in the context of technology adoption [6, 7]. The researcher explained the revolution of TAM, as TAM 1 adapts from TRA and proposed two key variables: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) as key factors of users' attitudes toward technology and their intention to use it. The original TAM primarily emphasised PU and PEOU, offering a limited scope of influencing factors. To address this, Venkatesh and Davis later extended the model by incorporating additional determinants, such as subjective norms, image, job relevance, output quality, and result demonstrability, as key drivers of technology adoption intention [6].



**Figure 2.**  
Theory of Planned Behaviour (TPB) established.  
Source: Ajzen [8]

TAM 2 also highlights technology experience and technology voluntariness as moderating variables between subjective norms and behavioral intention [6]. In 2008, Venkatesh and Bala introduced TAM 3, by adding new determinants of perceived ease of use such as computer playfulness, perception of external control, computer self-efficacy, perceived enjoyment computer anxiety, and objective usability, and combining elements from TAM2 to provide a more comprehensive framework [6, 9]. Figure 3 shows the original TAM framework, which continues to be relevant and commonly used in recent studies on technology adoption.

Simultaneously, the TTF model, proposed by Goodhue and Thompson [10] emphasised the alignment between technology capabilities and task requirements, other aspects beyond psychological behaviour, which suggest that technology positively impacts performance when well-suited to the tasks it supports [11]. In addition to focusing on individual determinants that influence a person’s decision to adopt technology, many studies have also examined technology adoption at the organisational or firm level. The Technology-Organization-Environment (TOE) framework has emerged as one of the most widely used theoretical models for research conducted at the firm level. TOE Framework was first developed by Tornatzky and Fleischer [12] in their book titled 'The Processes of Technological Innovation' [11]. The framework provides a holistic view of technology adoption within organisations by considering three critical contexts: technological characteristics, organisational readiness, and external environmental factors.



**Figure 3.**  
Technology Acceptance Model (TAM).  
Source: Marikyan and Papagiannidis [6]

Despite the availability of several acknowledged theories, like TRA, TPB, TAM, and TOE, their application within the accounting profession remains limited due to the relatively new nature of digital accounting research. Therefore, there is a need to explore and identify the relevant theories and technological constructs commonly used in digitalisation studies,

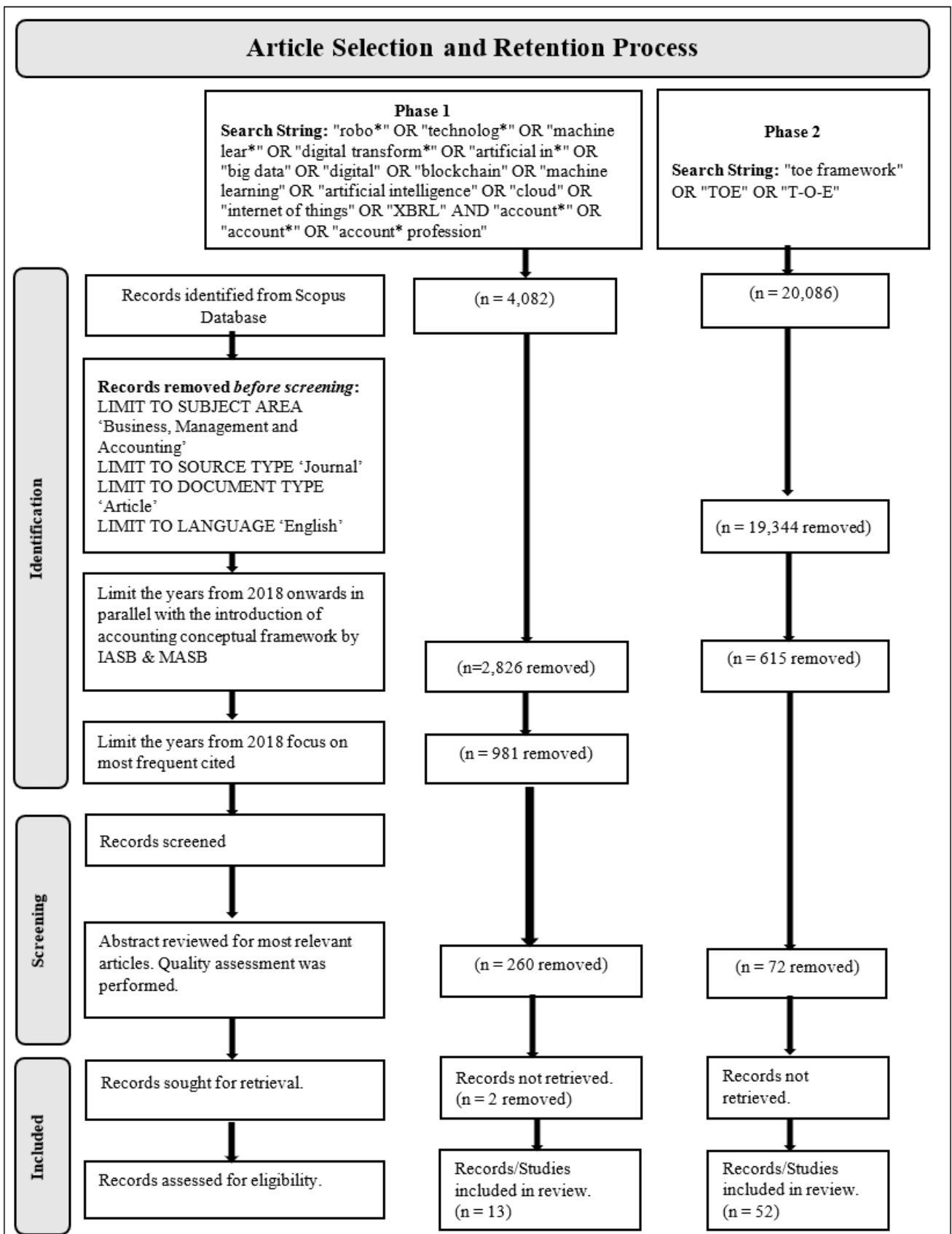
particularly those that can be adapted and applied within the accounting profession. Thus, the present study aims to decode the use of digital technology adoption theories in accounting research and to analyse key variables which act as determinants in digital technology adoption past studies. By understanding which theoretical models or theories are frequently employed in existing research, scholars and practitioners can better align future studies with appropriate frameworks, ensuring relevance and rigor in addressing the unique challenges of accounting digital transformation.

## **2. Research Methodology**

As the accounting profession progressively incorporates modern technologies into its practices, it is imperative to comprehend the theoretical foundations that underpin this transformation. While digitalisation in accounting is still emerging, understanding relevant theoretical foundations to support their advancement is ultimately crucial. This study employed a two-phase Systematic Literature Review (SLR) approach. Systematic Literature Review (SLR) is conducted to gain a comprehensive understanding of a specific research topic or area through the critical analysis, synthesis, and evaluation of existing literature [13, 14]. The detailed methodology is presented in Figure 4.

During the first phase, the researcher searched for articles that focused broadly on technology adoption in accounting, while the second phase specifically examined the TOE framework. The first phase of the SLR was designed to explore how theories such as TRA, TPB, TAM, TTF and TOE have been applied in accounting-related digitalisation studies.

These theories were selected because they predominantly address individual-level technology adoption, which remains a common focus in much of the existing literature. However, given the need to understand technology adoption at the organisational level as well, particularly in the context of accounting firms, commercial industry and public sector, the second phase of the review focused on studies applying the TOE framework.



**Figure 4.** Article Selection and Retention Process.  
 Source: PRISMA 2020 Flow Diagram, Page, et al. [15].

This two-phase approach allowed the study to comprehensively cover both individual and organisational perspectives in understanding digital technology adoption within the accounting profession. During the identification process, the researcher applied several screening criteria, including limiting the search to specific document types such as journal

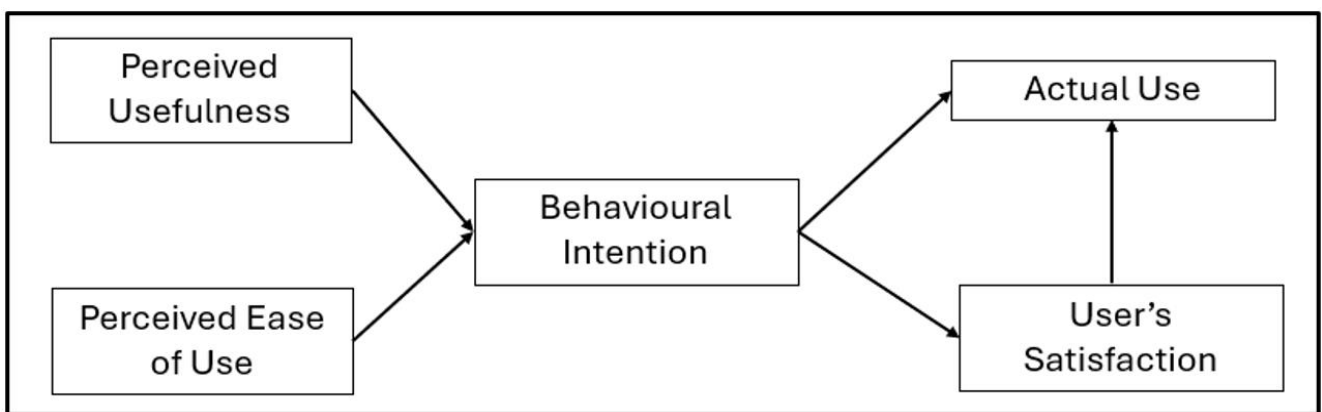
articles, restricting the subject area to Business, Management, and Accounting, selecting only English-language publications, and prioritising highly cited and recent studies. In addition, a quality assessment was conducted to ensure the relevance and rigor of the selected articles. As a result, 13 articles were identified in the first phase and 52 in the second phase, yielding a total of 65 articles for the review. The researcher then summarised and analysed the articles to ensure the proposed objectives can be achieved.

### 3. Review of Literatures

Robust frameworks for assessing the factors driving technology adoption are provided by established theories such as TRA, TPB, TAM, TTF, and TOE. Researchers in various domains, including accounting, can benefit from these models when trying to comprehend the widespread adoption of digital technologies.

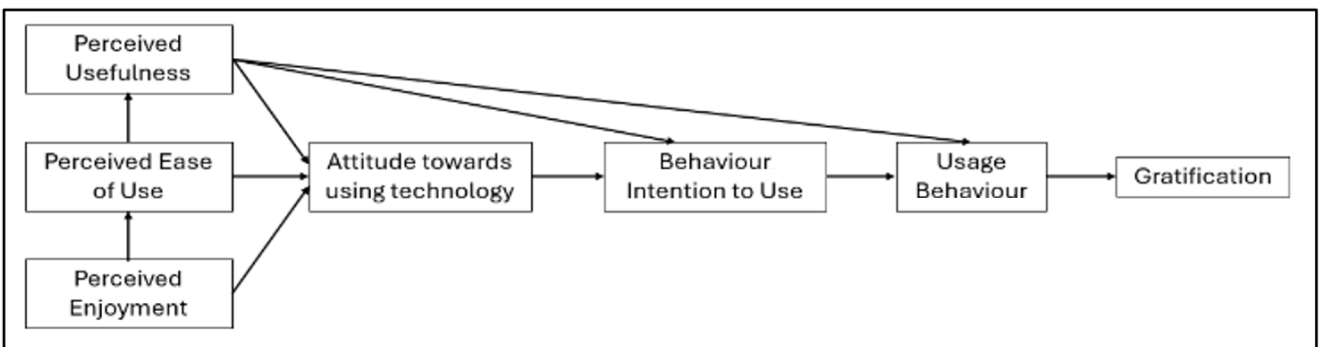
#### 3.1. Phase 1: Review of Individual-Level Technology Adoption Theories

The first phase of the Systematic Literature Review (SLR) was conducted to explore how widely used technology adoption theories such as the Theory of Reasoned Action (TRA), Theory of Planned Behaviour (TPB), Technology Acceptance Model (TAM), Task-Technology Fit (TTF), and Technology-Organization-Environment (TOE) have been applied in accounting-related digitalisation studies. These theories were chosen because they primarily focus on individual-level acceptance and usage, which remains a dominant theme in much of the existing literature on technology adoption.



**Figure 5.** Utilisation of TAM, TRA, TPB for Behavioural Intention to use AI in management accounting. Source: Vărzaru [16].

A study by Vărzaru [16] aimed to evaluate employees’ attitudes toward the use of financial information systems in government offices in North Sumatra, Indonesia, demonstrated through Figure 6. Interestingly, the results showed that perceived usefulness was not a significant determinant of users’ attitudes. This was attributed to the users’ inability to directly observe or benefit from the advanced features offered by the AIS, leading to a generally low attitude toward technology use. Similarly, perceived ease of use was also found to be insignificant, likely due to the respondents’ limited exposure or lack of opportunity to interact with the system, preventing them from evaluating its usability.

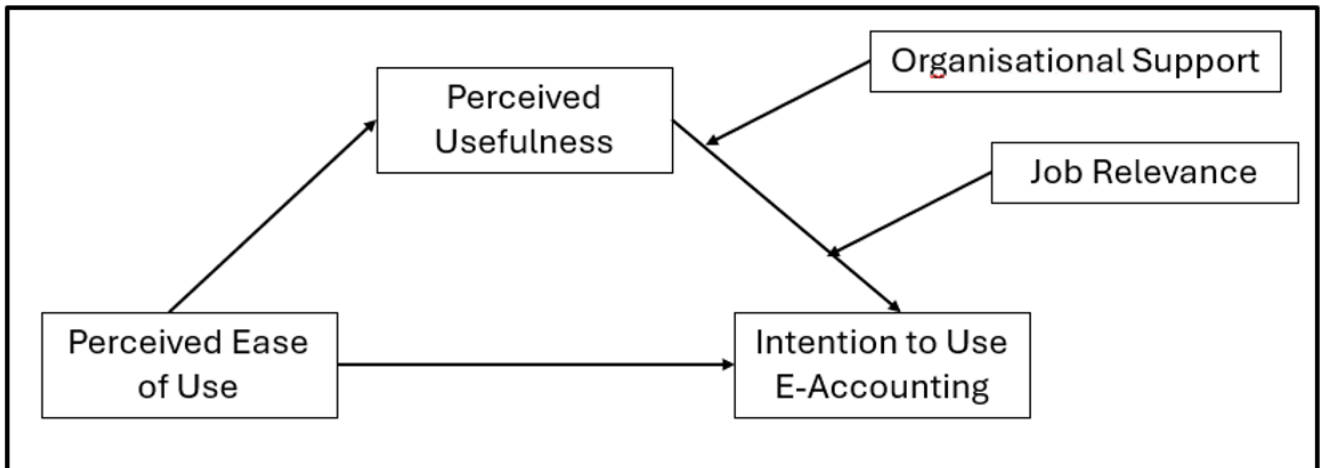


**Figure 6.** Utilisation of TAM, TRA and TPB for Accounting Technology Adoption. Source: Silaban [17]

The utilisation of TAM, TRA and TPB are widely used among individual units of analysis, explaining human behaviour concerning psychological, social and personality behaviour. Figure 5 illustrates a study by Vărzaru [16] which examined two key variables, perceived usefulness and perceived ease of use, act as predictors of both the intention to use and actual usage of AI among management accountants in Romanian organisations. The findings revealed that among the dimensions of perceived usefulness, rapidity and innovation were the most significant in influencing intention. Overall, both perceived usefulness and perceived ease of use were found to have a significant impact on behavioural intention, which

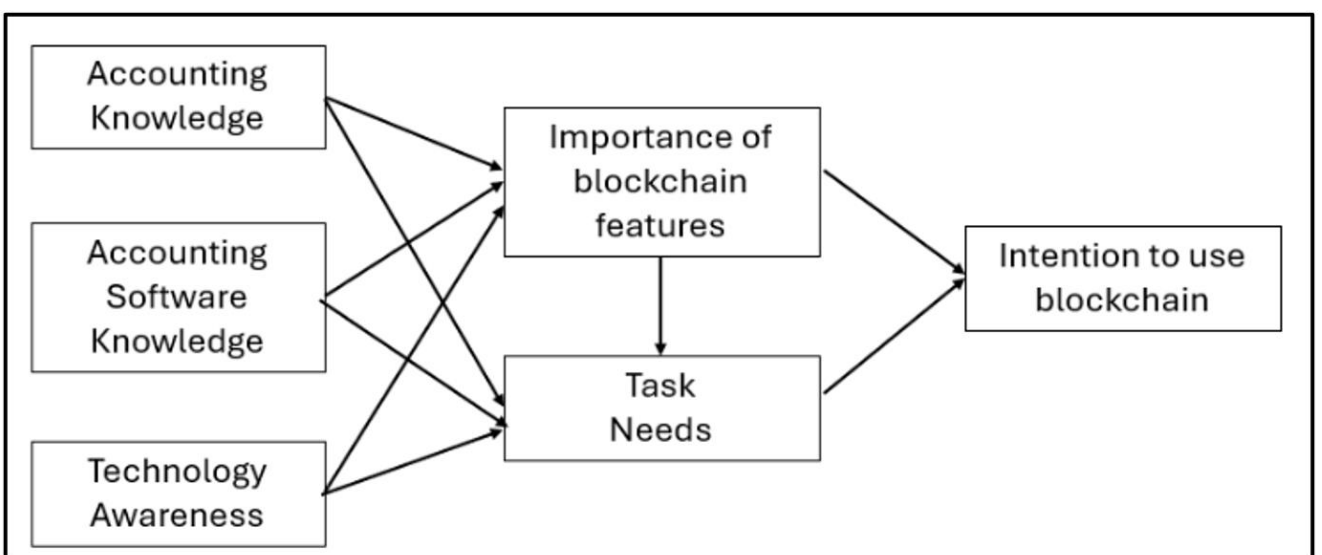
in turn influenced the actual use of AI among management accountants. The study recommended conducting longitudinal research to track the ongoing acceptance and adoption of AI among managerial accountants over time. Additionally, the researcher suggested incorporating other potential determinants to better understand the factors influencing AI adoption. The proposed framework may also be extended to other professional groups, such as auditors, managers, financial accountants, and tax consultants

Furthermore, the study revealed that both perceived usefulness (PU) and perceived ease of use (PEOU) did not significantly influence the intention to use the technology. This may be because the current job scope involved minimal technological engagement, making it difficult for users to perceive any meaningful impact on their work performance or motivation to adopt the system. The findings suggest that future studies should consider incorporating additional variables beyond PU and PEOU, such as job relevance and user experience, to better explain technology adoption in public sector accounting environments.



**Figure 7.**  
Utilisation of TAM for e-accounting adoption intention.  
Source: AlNasrallah and Saleem [18].

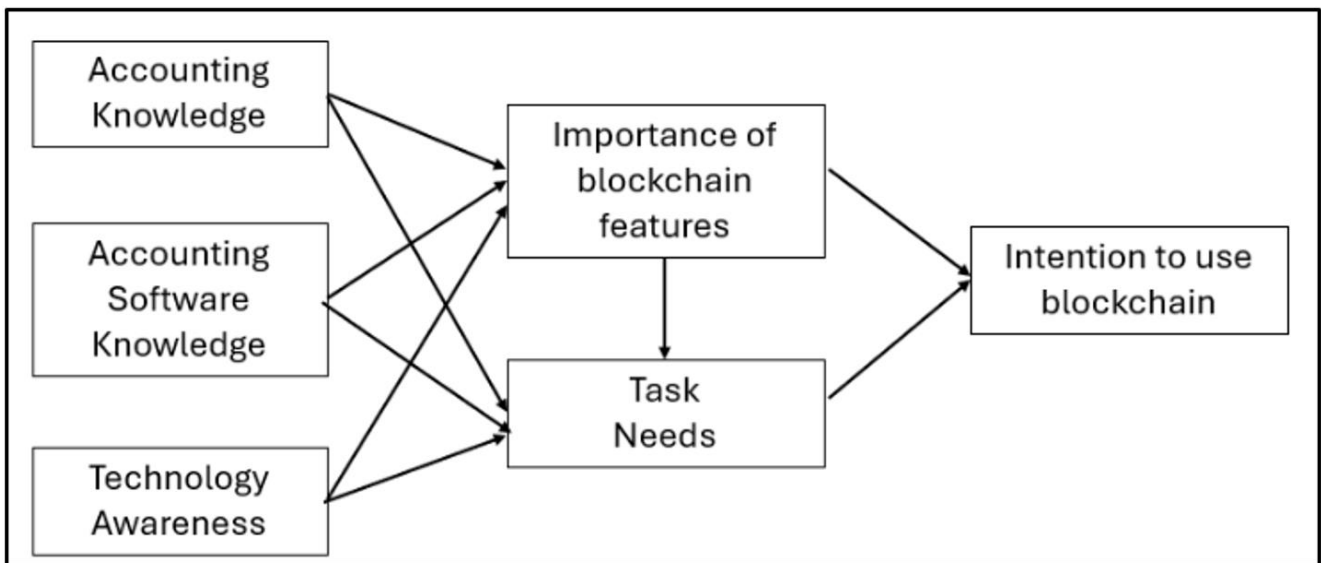
Figure 7 shows a study by AlNasrallah and Saleem [18] empirically examined PU and PEOU as determinants of the intention to use e-accounting (digital transformation) among accounting professionals in Saudi Arabia, with job relevance and organisational support as moderating variables. The results indicated that the relationship between PU and intention to use was stronger when job relevance was high. Similarly, greater organisational support significantly enhanced the influence of PU on the intention to adopt e-accounting. However, the researcher recommended conducting future studies using qualitative approaches such as interviews, observations, and focus group discussions, to gain deeper insights. The study also proposed the inclusion of four additional variables in future frameworks: user satisfaction, organisational structure, prior training, and employee commitment.



**Figure 8.**  
Utilisation of TTF for Intention to Use Blockchain.  
Source: Li and Juma'h [19].

TAM, TRA, and TPB are among the established theories that largely concentrate on the psychological behavior of individuals, specifically from the viewpoint of individual accountants or auditors. Consequently, these theories may

inadequately encompass the overall dynamics of digitalisation as the current situation necessitates an examination of the significance of technological variables, as emphasised by the TTF model, in clarifying the technological context of embracing technology within organisations.



**Figure 9.** Utilisation of TTF for Intention to Use Blockchain.  
Source: Li and Juma'h [19].

Figures 8 and Figure 9 provide examples of accounting studies that utilise the Task-Technology Fit (TTF) framework. TTF allows researchers to examine how individuals adopt and use technology to complete accounting tasks. However, this theory is typically applied after the system has been used, as it focuses on actual usage. Therefore, it may not be suitable for evaluating a system prior to its implementation, especially when the goal is to explore the features and suitability of specific technologies. For future research, Li and Juma'h [19] proposed that fit could serve as a mediating variable in auditors' acceptance of blockchain technology. Additionally, the features of blockchain could be further explored beyond the scope of the current study, and alternative measurements may be considered for certain variables within the framework.

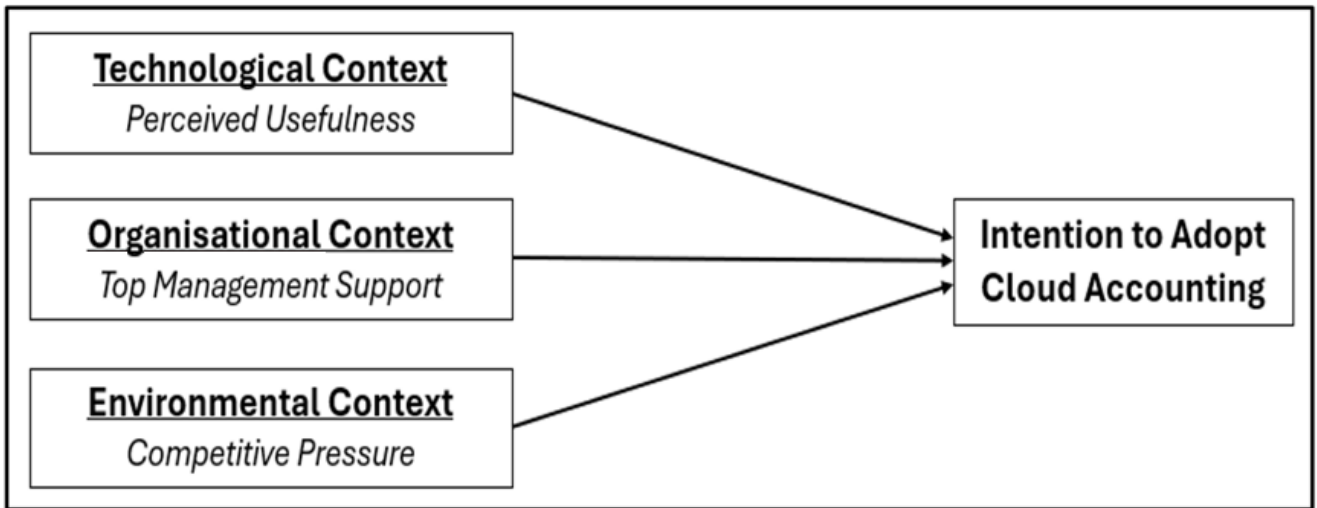
### 3.2. Phase 2: Review of Organisational-Level Adoption Using the TOE Framework

In line with the objectives of this review, the second phase was specifically focused on studies that applied the TOE framework, as it provides a broader perspective on technology adoption at the organisational level. This focus was essential given the nature of the accounting profession, which involves firm-level decisions, structures, and strategies, particularly in audit and non-audit firms, commercial entities, and public sector organisations. By shifting the lens from individual to organisational context, the second phase complemented the initial review and enabled a more holistic understanding of digital technology adoption within the accounting domain.

Technological Context refers to the availability, suitability, and characteristics of existing and emerging technologies that influence an organisation's decision to adopt digital solutions. Organisational Context refers to drivers influenced by organisation's internal factors on decision to adopt digital technologies Environmental Context refers to external factors outside an organisation that influence its decision to adopt digital technologies.

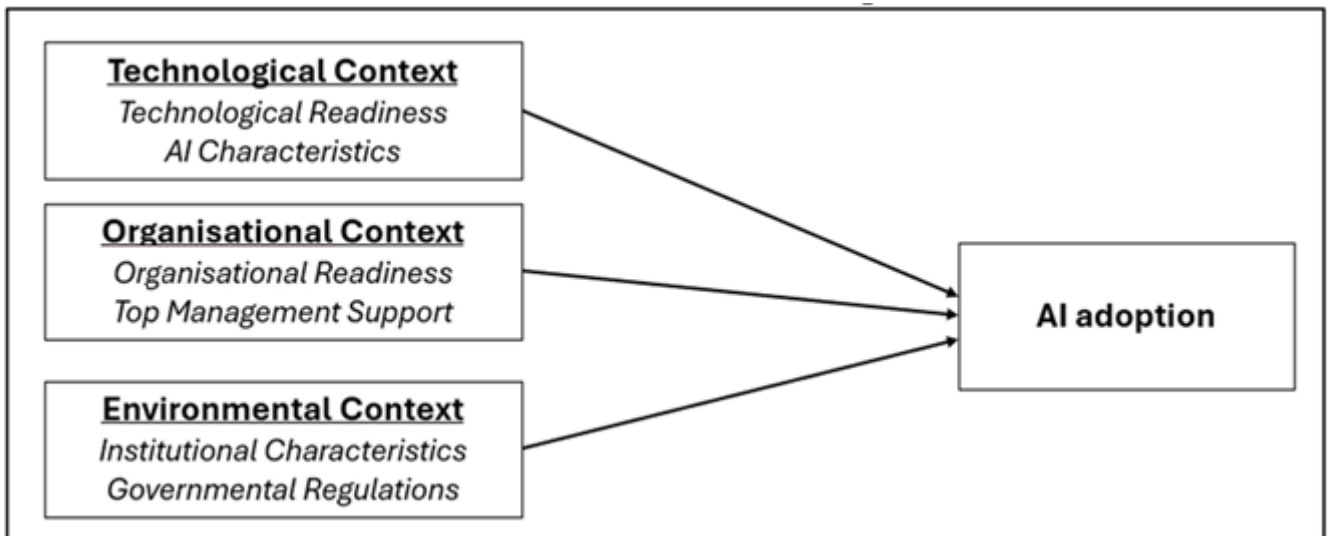
The TOE framework is better suited to explain the drivers of digital usage at the organisational level [3, 12]. They allow for a more comprehensive understanding of how various technological, organisational and environmental factors influence technology adoption. Secondly, as noted by Baker [20] the flexibility of the TOE framework in adapting factors or measures makes it highly suitable. This is further supported by numerous studies that have successfully tested a wide range of variables under the TOE dimensions (see Figure 12), demonstrating its applicability across various situations and contexts, particularly in diverse organisational settings. This adaptability allows future researchers to incorporate the most considerate drivers of technology adoption specific to the accounting profession, ensuring a tailored and context-sensitive analysis. TOE framework able to provide a more holistic understanding of digitalisation within the accounting field.

A quantitative study conducted by Kamal, et al. [21] empirically tested factors that influence the intention to use cloud accounting among Small and Medium Enterprises (SMEs) in Sarawak, Malaysia Figure 10. The study found that PU did not significantly influence the intention to adopt AI, likely due to the low adoption rate among respondents which represented by only 8.59%, who did not perceive clear benefits and were reluctant to act as early adopters. In contrast, top management support and competitive pressure, under the organisational and environmental contexts, played a strong role in driving adoption. For future research, the researcher suggested a comparative study could be conducted to validate the framework or consider alternative respondent groups, such as suppliers or employees, to gain deeper insights into adoption behaviour.



**Figure 10.**  
Utilisation of TOE Framework for Intention to Adopt Cloud Accounting.  
Source: Kamal, et al. [21]

Another study, as shown in Figure 11, was conducted by Mihai and Dutescu [22] who employed a qualitative approach by interviewing practitioners in the finance and accounting industry. This study gathered feedback by qualitatively on the challenges and limitations of AI adoption, mapping the responses into six constructs: technological readiness, AI characteristics, organisational readiness, top management support, industrial characteristics, and governmental regulations. Additionally, another research conducted by Ria [23] had combined the TOE framework with other theories or models. Taib, et al. [24] investigated determinants of cloud accounting adoption in the Indonesian banking industry, focusing on management support and organisational competence. Moreover, Taib, et al. [24] integrated the TOE framework with the Unified Theory of Acceptance and Use of Technology (UTAUT) model to assess the technology readiness and knowledge of future accountants (final-year accounting students) as they prepare to enter a workforce that is increasingly digitalizing the accounting profession.



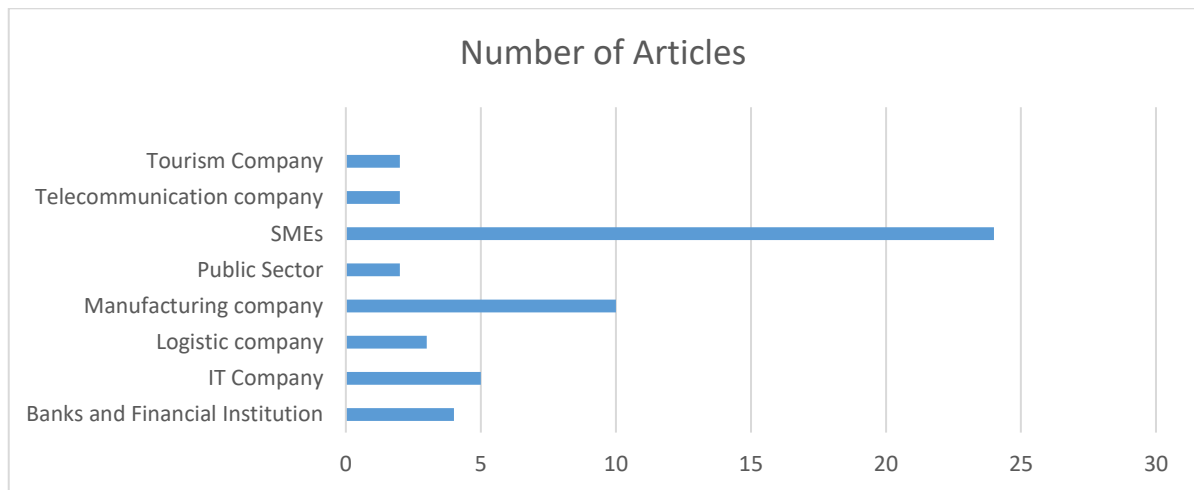
**Figure 11.**  
Utilisation of TOE Framework for AI Adoption in audit firms.  
Source: Mihai and Dutescu [22].

Based on the above discussion, previous studies appear to offer a limited perspective by concentrating on selected constructs rather than addressing all relevant organisational factors. Furthermore, their scope is often confined to specific contexts, such as SMEs, the banking sector, and student populations. To the best of the researcher’s knowledge, there has been limited effort to comprehensively review studies that apply the TOE framework in order to identify variables that have been used across different fields. Therefore, this study aims to review existing literature to explore which constructs have been previously applied and to suggest suitable variables for investigating digital adoption within the accounting profession.

### 3.3. Review of the TOE Framework in Various Research Settings Beyond Accounting

Figure 12 shows that the most widely studied setting is SMEs, with the highest number of articles. Manufacturing companies also appear moderately represented, while tourism, telecommunication, and public sector contexts have received

minimal research attention. This indicates that future studies could explore these less-studied sectors to broaden the application of the TOE framework.



**Figure 12.** Review of the TOE Framework in Various Research Settings Beyond Accounting.

Table 1 summarises the frequency of variables studied under the TOE contexts. Within the Technological Context, the most examined variable is Complexity (26), followed closely by Compatibility (25) and Relative Advantage (23), showing that technology-related perceptions are central in TOE research. In the Organisational Context, Top Management Support (34) emerges as the most influential and frequently studied factor, highlighting the critical role of leadership in technology adoption. Meanwhile, in the Environmental Context, Competitive Pressure (34) dominates, indicating that external market forces strongly drive adoption decisions. Variables such as Hardware/Device Challenges (1), Stack Resources (1), Organisation Agility (1), and Skepticism/Human Replacement (1) are the least explored, suggesting underdeveloped areas for future research. Overall, the data reflects a research trend focusing heavily on managerial and competitive factors over internal cultural or structural aspects.

**Table 1.** Commonly Studied TOE Variables in Technology Adoption Research. (Developed for the Present Study).

| Variables                                 | Frequency | Variables                                 | Frequency |
|---|-----------|---|-----------|
| <b>Technological Context (T)</b>          |           |   |           |
| Complexity                                | 26        | Technology availability/readiness         | 6         |
| Compatibility                             | 25        | Perceived Ease of Use                     | 6         |
| Relative advantage                        | 23        | Perceived Benefits                        | 3         |
| Infrastructure capabilities/ tech ability | 10        | Technology characteristics                | 3         |
| Perceived Usefulness                      | 8         | Hardware/device challenges                | 1         |
| <b>Organisational Context (O)</b>         |           |   |           |
| Top management support                    | 34        | Integration capabilities                  | 2         |
| Organisational resources (cost + expert)  | 24        | Organisational culture                    | 2         |
| Technology competence/knowledge           | 7         | Organisational attitude/ resist to change | 2         |
| organisational commitment                 | 6         | Stack resources                           | 1         |
| Innovation Capabilities                   | 4         | Organisation agility                      | 1         |
| Technology competence                     | 4         | Skepticism/human replacement              | 1         |
| absorptive capability                     | 2         |   |           |
| <b>Environmental Context (E)</b>          |           |   |           |
| Competitive pressure                      | 34        | Trading partner pressure                  | 7         |
| Government regulation/support             | 23        | Customer pressure                         | 6         |
| Vendor support                            | 8         | Customer readiness                        | 2         |

Table 2 was developed to illustrate how frequently specific TOE variables have been applied across prior studies, providing a clearer picture of the research emphasis within each context. By mapping these variables to individual authors, it reflects they are grounded in prior empirical evidence while identifying patterns of consistency and omission. Certain factors such as organisational culture, innovation capabilities, and cost/affordability remain underexplored, suggesting opportunities for further investigation to enrich the understanding of technology adoption dynamics.

**Table 2.**  
Mapping of TOE Framework Variables Across Previous Research. (Developed for the Present Study).

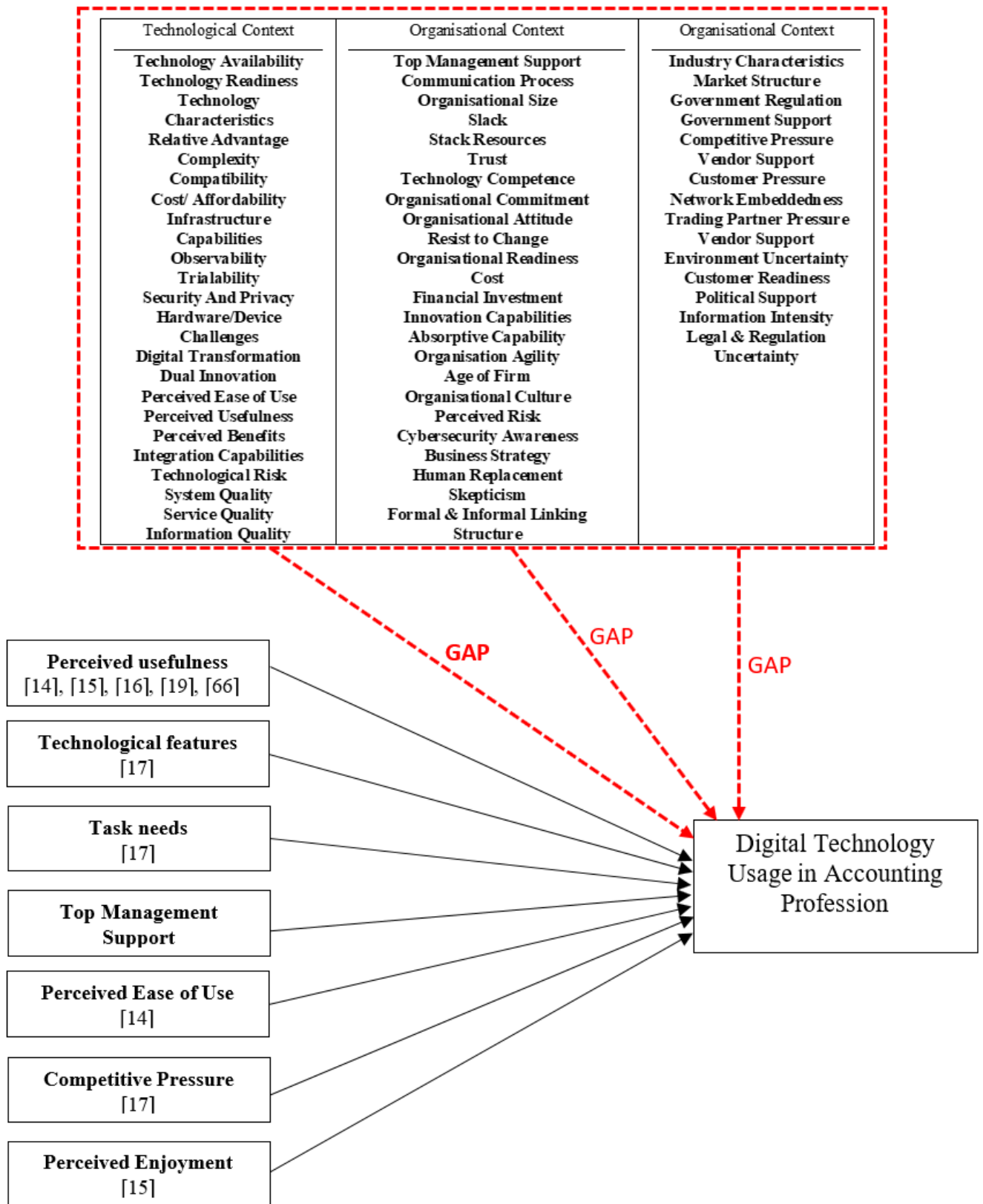
| Author (s)                 | Technology availability | Relative advantage | Perceived Ease of Use | Perceived Usefulness | Perceived Benefits | Compatibility | Top management support | organisational culture | Cost/ Affordability | organisational commitment | Organisational resources | Technology knowledge | Innovation Capabilities | Technology competence | Government support | Competitive pressure |
|----------------------------|-------------------------|--------------------|-----------------------|----------------------|--------------------|---------------|------------------------|------------------------|---------------------|---------------------------|--------------------------|----------------------|-------------------------|-----------------------|--------------------|----------------------|
| Wang, et al. [25]          |                         | /                  |                       |                      | /                  | /             |                        |                        |                     |                           | /                        |                      |                         |                       |                    | /                    |
| Ghobakhloo, et al. [26]    |                         | /                  |                       |                      | /                  |               |                        |                        | /                   |                           | /                        | /                    |                         |                       |                    |                      |
| Alshamaila, et al. [27]    |                         | /                  |                       |                      | /                  | /             |                        |                        |                     |                           | /                        | /                    |                         |                       |                    | /                    |
| Oliveira, et al. [28]      | /                       | /                  |                       |                      | /                  | /             |                        |                        | /                   |                           |                          |                      |                         |                       | /                  | /                    |
| Gangwar, et al. [29]       |                         | /                  | /                     | /                    | /                  | /             |                        |                        |                     | /                         | /                        |                      |                         |                       |                    | /                    |
| Gutierrez, et al. [30]     |                         | /                  |                       |                      | /                  | /             |                        |                        |                     |                           |                          |                      |                         |                       |                    | /                    |
| Ying and Mohamed [31]      |                         | /                  |                       |                      |                    | /             |                        |                        |                     |                           |                          |                      |                         |                       | /                  | /                    |
| Maroufkhani, et al. [32]   |                         |                    |                       |                      | /                  | /             |                        |                        |                     |                           |                          |                      |                         |                       |                    |                      |
| Eze, et al. [33]           |                         |                    |                       |                      | /                  | /             |                        |                        | /                   |                           |                          |                      |                         |                       |                    | /                    |
| Basloom, et al. [34]       |                         |                    | /                     |                      |                    | /             |                        |                        |                     |                           | /                        |                      |                         |                       |                    |                      |
| Gupta, et al. [35]         |                         | /                  |                       |                      |                    | /             |                        |                        |                     |                           | /                        | /                    |                         |                       | /                  | /                    |
| Hashimy, et al. [36]       |                         | /                  |                       |                      |                    | /             |                        |                        |                     |                           | /                        |                      |                         |                       |                    | /                    |
| wael AL-khatib [37]        |                         | /                  |                       |                      | /                  | /             |                        |                        |                     |                           |                          |                      |                         |                       |                    | /                    |
| Maragno, et al. [38]       |                         |                    |                       |                      |                    |               |                        |                        |                     |                           |                          |                      |                         |                       | /                  |                      |
| Xiang, et al. [39]         |                         | /                  |                       |                      |                    | /             |                        |                        |                     |                           |                          |                      |                         |                       |                    |                      |
| Shahzad, et al. [40]       |                         | /                  |                       |                      | /                  | /             |                        |                        |                     |                           |                          |                      |                         |                       | /                  | /                    |
| Baig, et al. [41]          |                         |                    |                       | /                    |                    | /             |                        |                        |                     |                           | /                        |                      |                         |                       | /                  |                      |
| Muhic, et al. [42]         |                         |                    |                       |                      |                    | /             |                        |                        |                     | /                         | /                        |                      | /                       |                       | /                  | /                    |
| Tiwari, et al. [43]        |                         | /                  |                       |                      | /                  | /             |                        |                        |                     |                           |                          |                      |                         | /                     | /                  | /                    |
| Guan, et al. [44]          |                         | /                  |                       |                      | /                  |               |                        |                        |                     |                           | /                        |                      |                         |                       |                    | /                    |
| Ngo, et al. [45]           | /                       |                    |                       |                      | /                  |               |                        |                        |                     |                           |                          | /                    |                         |                       |                    |                      |
| AbuAkel and Ibrahim [46]   |                         |                    |                       |                      |                    | /             |                        |                        |                     |                           |                          |                      |                         |                       |                    |                      |
| Alzoubi, et al. [47]       |                         |                    |                       |                      |                    | /             |                        |                        |                     |                           | /                        |                      |                         | /                     |                    | /                    |
| Collado-Agudo, et al. [48] |                         |                    | /                     | /                    | /                  |               |                        |                        |                     | /                         |                          |                      |                         |                       |                    | /                    |
| Qutaishat, et al. [49]     |                         |                    |                       |                      | /                  | /             | /                      |                        |                     |                           | /                        |                      |                         |                       | /                  | /                    |
| Leong, et al. [50]         |                         |                    | /                     | /                    |                    | /             |                        |                        |                     | /                         | /                        |                      |                         |                       | /                  |                      |
| Agarwal [51]               |                         |                    |                       | /                    |                    |               |                        |                        |                     |                           | /                        |                      |                         |                       |                    |                      |
| Hamadneh, et al. [52]      |                         | /                  |                       |                      | /                  | /             | /                      |                        |                     |                           |                          |                      |                         | /                     | /                  |                      |
| Ganeshkumar, et al. [53]   |                         | /                  |                       |                      | /                  | /             |                        |                        |                     |                           | /                        |                      |                         |                       |                    |                      |
| Iranmanesh, et al. [54]    |                         | /                  |                       |                      | /                  | /             |                        |                        |                     |                           |                          |                      |                         |                       | /                  | /                    |
| Al-Dmour, et al. [55]      |                         |                    |                       |                      |                    | /             |                        |                        |                     |                           |                          |                      |                         |                       | /                  | /                    |
| Homan and Beránek [56]     |                         |                    |                       |                      | /                  | /             |                        |                        |                     |                           |                          |                      |                         |                       |                    | /                    |
| Sharma and Sharma [57]     |                         |                    |                       |                      | /                  | /             |                        |                        |                     |                           |                          |                      |                         |                       |                    | /                    |
| Zhou and Zheng [58]        |                         | /                  | /                     |                      | /                  |               |                        |                        |                     |                           | /                        | /                    |                         |                       |                    | /                    |
| Gupta [59]                 |                         | /                  |                       |                      | /                  | /             |                        |                        |                     |                           |                          |                      |                         | /                     | /                  | /                    |
| Triandini, et al. [60]     |                         |                    |                       |                      |                    |               |                        |                        |                     |                           | /                        |                      |                         |                       | /                  | /                    |
| Hasani, et al. [61]        |                         | /                  |                       |                      | /                  |               |                        |                        |                     |                           | /                        |                      |                         |                       | /                  | /                    |
| Kumar, et al. [62]         |                         |                    | /                     | /                    |                    | /             |                        |                        | /                   |                           |                          |                      | /                       |                       | /                  | /                    |
| Taneja, et al. [63]        |                         |                    |                       |                      |                    | /             |                        |                        |                     | /                         | /                        |                      |                         |                       | /                  | /                    |
| Ansong and Boateng [64]    |                         |                    |                       |                      |                    |               |                        |                        |                     |                           | /                        |                      |                         |                       | /                  |                      |
| Chatterjee, et al. [65]    |                         |                    |                       | /                    | /                  | /             |                        |                        |                     |                           |                          |                      |                         |                       | /                  | /                    |
| Marrucci, et al. [66]      | /                       |                    |                       |                      |                    | /             |                        |                        |                     |                           | /                        |                      |                         |                       |                    | /                    |
| Ansong and Boateng [64]    |                         |                    |                       |                      |                    |               |                        |                        |                     |                           |                          |                      |                         |                       |                    |                      |
| Chatterjee, et al. [65]    | /                       | /                  |                       |                      |                    |               |                        |                        |                     |                           |                          |                      |                         |                       | /                  |                      |
| Ansong and Boateng [64]    |                         | /                  |                       |                      | /                  |               |                        |                        |                     | /                         | /                        |                      |                         |                       |                    | /                    |

The researcher initially identified more than 60 variables when analysing the drivers of the TOE model across various non-accounting contexts. These variables are summarized and visually presented in Figure 12. The figure illustrates the

range of variables that have previously been tested and supported under the TOE framework, as discussed earlier. These variables are organised within the technological, organisational, and environmental categories, and are placed under the research gap to highlight areas that remain unexplored within the accounting profession. As shown in Table 1, the initial list of 60 variables was further analysed and narrowed down to 30 relevant variables. These selected variables were carefully examined and are presented. To better tailor the findings to the accounting profession, further empirical testing on a larger scale is necessary to validate their applicability. Table 2 provides an overview of the variables that have been empirically tested in past studies, highlighting how the TOE framework has been applied across different research contexts outside the accounting domain.

The present study analyses a comprehensive set of variables drawn from the TOE framework to better understand digital technology usage within the accounting profession. These variables include technological factors such as Technology Availability, Vendor Support, Relative Advantage, Perceived Ease of Use, Perceived Usefulness, Perceived Benefits, Infrastructure Capabilities, Absorptive Capability, Technology Characteristics, Complexity, Compatibility, Hardware/Device Challenges, and Integration Capabilities. From the organisational context, the study considers Top Management Support, Organisational Culture, Cost/Affordability, Organizational Commitment, Organisational Resources, Stack Resources, Technology Competence/Knowledge, Innovation Capabilities, Organisational Agility, Resistance to Change, Skepticism/Human Replacement, and Trust. Within the environmental domain, variables such as Government Regulation/Support, Competitive Pressure, and Trading Partner Pressure are examined. These variables were selected based on their relevance and frequent appearance in prior literature and are evaluated in the context of their influence on digital adoption in the accounting profession. The better summary is being visualised through Figure 13.

To the best of the researcher's knowledge, there has been very limited exploration of how potential factors within the context of technological, organisational, environmental drives digital technology usage within accounting profession. This study addresses the limitations and recommendations noted by previous researchers in the literature and proposes an empirical examination of the factors driving technology usage in the public practice sector comprehensively.



**Figure 13.** Author's Overview of Research Gap: Empirical Gap - Limited attempt to relate possible factors (Technological, organisational, and environmental context) that potentially influence digital technology usage in accounting profession.  
 Source: Värzaru [16]; Silaban [17]; AlNasrallah and Saleem [18]; Kamal, et al. [21]; Li and Juma'h [19] and Alwosole, et al. [67].

#### 4. Conclusion

This study set out to explore the theoretical underpinnings and key variables influencing digital technology adoption within the accounting profession, particularly through a systematic literature review (SLR) of both individual-level and organisational-level frameworks. By examining widely used theories such as TRA, TPB, TAM, TTF, and especially the TOE framework, the study provides a comprehensive view of how these models have been applied across various domains,

with a specific focus on their relevance to accounting. A total of 65 relevant articles were analysed in a two-phase review process.

Findings from the first phase review identified commonly used variables in accounting-related digitalisation studies, including perceived usefulness, perceived ease of use, behavioural intention, job relevance, organisational support, user satisfaction, organisational structure, prior training, employee commitment, task-technology fit, and system usability [16-19]. Due to the limitations of individual-level theories in capturing firm-level dynamics, the second phase of the review focused on the TOE framework, extracting variables from prior studies and identifying research gaps for future exploration in accounting contexts.

Despite its contributions, this study has a few acknowledged limitations. Firstly, the review was limited to journal articles indexed in the Scopus database, which may have excluded relevant studies from other academic databases. Secondly, while a comprehensive list of variables was identified from previous research, the study did not conduct empirical testing within the accounting profession itself. Hence, future studies are encouraged to validate these variables through extensive empirical investigation within accounting settings. Thirdly, the literature reviewed only covers publications up to 2024 in which any newer studies published during the analysis and writing process may not have been included. Future research is encouraged to expand and build upon these findings to enhance the theoretical and practical understanding of digital technology adoption in the accounting profession.

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