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Acceptance of the e-Ledger Application in the Accounting Profession Within the Framework of the Theory of Planned Behavior: A Field Study on Accounting Professionals*

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Abstract

Purpose: *This study examines accounting professionals' intentions toward the e-Ledger application, implemented by the Turkish Revenue Administration (TRA) during the digital transformation process, using the Theory of Planned Behavior (TPB) framework.*

Methodology: *The research sample comprises accounting professionals working in Istanbul. The study collected data from 646 participants using both online and face-to-face surveys. The data were analyzed using partial least squares structural equation modeling (PLS-SEM) in SmartPLS 4, and seven research hypotheses were tested. Reliability and validity analyses (Cronbach's Alpha, composite reliability, AVE, Fornell–Larcker criterion, and HTMT) were conducted to confirm the model's robustness.*

Findings: *The results indicate that six hypotheses were supported, while one was rejected. All variables, except perceived behavioral control, have a significant direct effect on intention, with attitude toward use exerting the strongest influence. Perceived behavioral control was also found to indirectly and positively affect intention through attitude toward use.*

Scope and Limitations: *Due to time and population constraints, the field research is limited to accounting professionals operating in Istanbul and focuses exclusively on the E-Ledger application.*

Originality / Value: *The study contributes to the literature by revealing the direct and indirect mechanisms driving the adoption and acceptance of the e-Ledger application in the accounting profession.*

Keywords: Theory of Planned Behavior; e-Ledger; Intention; Intention to Use the e-Ledger Application

JEL Codes: C44; M15; M48; M49; O33

* An earlier version of this study was presented at the 9th IERFM Economic Research and Financial Markets Congress, and its abstract was published in the conference proceedings book.

1. Introduction

Today, the accounting profession is undergoing a significant digital transformation process. As part of this transformation, numerous software and web-based applications are being integrated into business and operational processes. Some of these applications are integrated into business processes through mandatory use by accounting professionals and taxpayers. In contrast, others are adopted by users for reasons such as "increasing job performance, being perceived as useful, the influence of the social environment, and individuals' beliefs in their ability to use the application". Digital applications such as "e-declaration, e-invoice, e-archive invoice, e-ledger, e-waybill, e-ticket, e-PR, e-expense note, e-insurance policy, e-insurance commission expense document, and e-notification" have significant areas of usage today (Akın Turğay, 2024, p. 28). For this reason, this study will identify and examine the factors affecting the intention to use the E-Ledger application, which the Turkish Revenue Administration (TRA) implemented as a digital accounting application.

Unlike technologies that are adopted on a fully voluntary basis, the e-Ledger operates within a regulation-constrained environment in Türkiye, as its use is legally mandatory for specified taxpayer groups. Accordingly, in the present study, behavioral intention is not conceptualized solely as an unrestricted decision to adopt or reject the system. Rather, it also reflects accounting professionals' willingness and psychological acceptance to use the e-Ledger in the performance of their professional activities. This distinction is theoretically significant because the Theory of Planned Behavior (TPB) extends the Theory of Reasoned Action by incorporating perceived behavioral control, thereby enabling the explanation of behaviors that are not entirely under an individual's volitional control. Therefore, the principal research question addressed in this study can be formulated as follows:

"To what extent do the TPB variables—attitude toward behavior, subjective norm, and perceived behavioral control—directly and indirectly explain accounting professionals' intention to use the e-Ledger application in a regulation-constrained digital accounting environment?"

Within the scope of this research, we first present explanatory information on the e-ledger application. Next, the second section explains the TPB, which forms the theoretical foundation of the research model, and the theory's development process.

In the third section, the scope, limitations, data collection method, and sampling method of the study will be described. Subsequently, the research model will be introduced, and the research findings will be analyzed and evaluated within the scope of the research question. Specifically, in the structural model section, the study will present model fit values and hypothesis test results.

2. Literature Review

2.1. The e-Ledger Application and Basic Explanatory Information

In this section, the e-ledger application will be explained in general terms. Additionally, it is appropriate first to outline the legal foundations of the e-ledger application.

Pursuant to Article 172 of the Turkish Tax Procedure Law (TPL) No. 213, taxpayers obliged to keep ledgers can be listed as follows:

- Economic public enterprises,
- Commercial companies,
- Farmers,
- Self-employed professionals,
- Economic enterprises belonging to foundations and associations, and
- Artisans and tradespeople.

Merchants are divided into two groups regarding ledger-keeping as "first-class merchants and second-class merchants" (TPL, art. 176):

- First-class merchants are obliged to keep ledgers based on the balance sheet method.
- Second-class merchants are obliged to keep ledgers based on the operating account method.

Legal entities subject to corporate tax, organizations working for public benefit, commercial companies, and enterprises exceeding a certain sales volume must keep a "journal, general ledger, and inventory ledger" based on the balance sheet method. Second-class merchants, by contrast, must keep only an operating account ledger; they record revenues on the right side and expenses on the left side of this ledger. In addition, enterprises must keep different ledgers depending on their activity type. For instance, industrial enterprises must keep manufacturing and finishing operations ledgers; self-employed professionals must keep self-employment earnings ledgers; and farmers must keep farmer operating ledgers (Gökçen & Özdemir, 2016, p. 142). The fundamental purpose of keeping ledgers is stated in Article 171 of the TPL as "to monitor and determine the tax-related wealth and capital status, activity results, and tax obligations of taxpayers".

The E-Ledger, developed for the purposes listed in Article 171 of the TPL, can be defined as a comprehensive set of digital ledgers that allows taxpayer real persons and public and private sector legal entities to carry out their tax and other transactions electronically. It yields the same legal consequences as ledgers kept on paper, and the fundamental objectives of the e-ledger application are listed below (Erdoğan, 2020, p. 28; Güldoğan & Usul, 2021, p. 22):

- To ensure that accounting transactions are conducted in an electronic environment,
- To provide speed and efficiency in business processes,
- To help reduce the workload of accounting professionals,
- To facilitate archiving and submission processes,
- To enable the creation of standard accounting data,
- To ensure the transfer of financial data to the digital environment,
- To allow for the enhancement of information security,
- To provide accounting professionals with the opportunity to perform transactions independent of time and location,
- To enable tax audits to be conducted digitally,
- To facilitate compliance with legislation.

In Türkiye, Article 64 of the Turkish Commercial Code (TCC) No. 6102 is the primary legal regulation that provides the legal framework for the transition to the e-ledger application. This

article makes it legally possible to keep commercial ledgers electronically. Furthermore, for e-ledgers to gain legal validity, they must be kept in accordance with standards set by the Revenue Administration (TRA), along with opening and closing approvals. In this context, the formatting of e-ledgers and the principles and procedures to be followed were regulated through the Electronic Ledger General Communiqués Serial No. 1 and 2, the TPL General Communiqué Serial No. 421, and the TPL Circular No. 67. Based on these communiqués and Circular No. 67, e-ledgers must be prepared in the XBRL-GL (eXtensible Business Reporting Language – Global Ledger) format, signed with an e-signature (for real persons) or financial seal (for legal entities), and submitted to the TRA along with a certificate (berat) file. E-ledgers become downloadable after the TRA approves them with a financial seal; ledgers without a certificate are invalid. The TRA also approves the opening and closing of ledgers electronically. The e-ledger file and certificates must be stored electronically for 10 years (TCC No. 6102, art. 85). This obligation simultaneously prohibits taxpayers who issue e-ledgers from keeping ledgers on paper.

Taxpayers subject to the simple taxation method, self-employed professionals, and taxpayers who keep ledgers based on an operating account method execute their accounting records electronically via the "Ledger Declaration System". Through this system, income, expense, personnel, inventory, and fixed asset transactions are digitally recorded, and tax declarations can be prepared electronically (Tektüfekçi, 2019, p. 47).

Table 1
Thresholds for E-Ledger Use in Enterprises and Enterprises Obliged to Use e-Ledger

Category	Description
Enterprises Obliged to Use E-Ledger	Taxpayers obliged to use e-invoice must use the e-ledger application. Some of these enterprises are: • Healthcare providers that have signed contracts with the Social Security Institution. • Taxpayers who have obtained a license from the Energy Market Regulatory Authority. • Taxpayers engaged in the trade of vegetables and fruits as brokers or merchants. • Taxpayers manufacturing sugar as defined in the Sugar Law No. 4634. • Taxpayers engaged in the manufacturing, importing, or exporting of iron and steel (HS Code 72) and articles of iron or steel (HS Code 73). • Taxpayers registered in the Fertilizer Tracking System created by the Ministry of Agriculture and Forestry. • Taxpayers exceeding the revenue limit within the scope of TPL General Communiqué No. 535 (e.g., Gross sales revenue of 3 million TL and above; Intermediary service providers, internet advertisers, and real estate/motor vehicle traders with gross sales revenue of 500 thousand TL and above). • Enterprises subject to independent audit according to TCC No. 6102. • Taxpayers deemed risky by the TRA. • Companies keeping ledgers on a balance sheet basis within the scope of TPL and TCC.
Enterprises Optionally Using E-Ledger	• Public institutions and organizations subject to Law No. 5018.

Category	Description
Enterprises Not Obliged to Use E-Ledger, but Obliged to Keep Records via the Ledger Declaration System	• Taxpayers subject to the simple taxation method. • Self-employed professionals. • Those who keep ledgers according to the operating account method.

Resource: Adapted from GİB, 2025; TÜRMOB, 2023; TPL General Communiqué Serial No. 535; Public Financial Management and Control Law No. 5018, Add. Art. 4; TCC No. 6102, Art. 397.

The e-Ledger application provides numerous benefits to enterprises and accounting professionals. Some of these advantages include (Erdoğan, 2020, pp. 28-33; Gökçen & Özdemir, 2016, p. 150):

- Reducing archiving and stationery costs,
- Providing environmental benefits by decreasing paper usage,
- Eliminating the obligation for notary certification,
- Accelerating business and operational processes,
- Creating remote access convenience,
- Providing the opportunity for instant and continuous auditing,
- Increasing effectiveness in combating tax evasion,
- Enabling the creation of clear, comparable, and standardized financial reports through the XBRL infrastructure.

However, the application also presents certain disadvantages. Software and technical hardware costs can be high, especially for small enterprises. Additionally, training and technical support are critical to using the system accurately.

2.2. Theory of Planned Behavior and Its Theoretical Background

2.2.1. Theory of Reasoned Action

The Theory of Reasoned Action is a socio-psychological approach developed by Fishbein and Ajzen to explain individuals' decisions regarding a specific behavior through the relationships among attitude, subjective norm, and behavioral intention. The theory assumes that individuals make behavioral decisions by evaluating available information in a rational and systematic manner (Sezgin et al., 2019, p. 310). In the TRA, behavioral intention is the most immediate antecedent of behavior, and it is primarily shaped by attitude toward the behavior and subjective norm (Ajzen, 1991, pp. 181–182; Yılmaz, 2006, p. 19).

Behavioral intention can be described as a motivational construct that reflects the extent to which an individual is willing to perform a specific behavior and how much effort they plan to exert to perform that behavior. In general, the stronger the intention, the more likely the behavior is to be performed. However, whether behavioral intention is translated into actual behavior depends on the extent to which the behavior is under the individual's volitional control (Ajzen, 1991, pp. 181–182).

One of the TRAis principal limitations is its assumption that behavior is under the individual's volitional control. In practice, however, non-motivational factors such as time, money, skills,

opportunities, and cooperation from others may influence behavior. Such factors may constrain the degree of actual control an individual possesses over performing the behavior (Ajzen, 1991, pp. 181–182). For this reason, the Theory of Planned Behavior (TPB) was developed by incorporating perceived behavioral control into the model to address the TRA's limitation in explaining behaviors not fully under volitional control (Ajzen, 1991, pp. 181–183). This theoretical distinction is particularly important in the context of the e-Ledger examined in this study. In the present research, intention to use is not treated as an unrestricted decision to adopt or reject the e-Ledger application; rather, it is conceptualized as accounting professionals' willingness and psychological acceptance to use the e-Ledger in performing their professional activities. This approach aligns with the TPB, which proposes that perceived behavioral control helps explain intention and behavior in situations where behavior is not entirely under volitional control (Ajzen, 1991, pp. 181–186).

2.2.2. Theory of Planned Behavior

The Theory of Planned Behavior (TPB) extends the Theory of Reasoned Action. The key difference between the two theories is that the TPB includes perceived behavioral control. This extension was introduced to account for situations in which individuals lack complete volitional control over their behavior (Ajzen, 1991, pp. 181–183). Perceived behavioral control refers to an individual's perception of how easy or difficult it is to perform a particular behavior. This perception encompasses not only past experiences but also an assessment of the resources, opportunities, barriers, and constraints that may facilitate or impede behavior (Ajzen, 1991, pp. 183–185).

Within the TPB, intention represents the motivational readiness to perform a behavior. Three conceptually distinct determinants explain the formation of intention: attitude toward the behavior, subjective norm, and perceived behavioral control. A more favorable attitude and subjective norm, together with greater perceived behavioral control, are expected to strengthen the intention to perform the behavior. However, the relative importance of these three variables in explaining intention may vary by behavior and context (Ajzen, 1991, pp. 188–189; Özer & Yılmaz, 2010, p. 38).

Within the theory's belief-based structure, attitude toward the behavior is associated with behavioral beliefs, subjective norm with normative beliefs, and perceived behavioral control with control beliefs. Behavioral beliefs reflect evaluations of the likely consequences of performing the behavior; normative beliefs reflect expectations regarding whether significant referent individuals or groups approve or disapprove of the behavior; and control beliefs reflect perceptions of the resources and barriers that may facilitate or impede its performance (Ajzen, 1991, pp. 189–197). Accordingly, the TPB considers not only favorable or unfavorable evaluations of a behavior but also social pressure and individuals' perceived control over the behavior.

Attitude toward the behavior refers to the degree to which an individual evaluates a particular behavior favorably or unfavorably (Ajzen, 1991, pp. 188–189; Kayhan & Çakmak, 2020, p. 767). Subjective norm reflects the perceived social pressure exerted by individuals or groups who are important to the individual regarding whether the behavior should or should not be performed (Ajzen, 1991, pp. 188–189). Perceived behavioral control, in turn, refers to the perceived ease or difficulty of performing the behavior and is influenced by the individual's past experiences,

available resources and opportunities, and anticipated barriers (Ajzen, 1991, pp. 183–185). Therefore, perceived behavioral control should not be reduced solely to an individual's self-efficacy; rather, it should be conceptualized as a broader construct encompassing the control conditions that facilitate or constrain behavior performance (Ajzen, 1991, pp. 183–185).

This characteristic of the TPB is theoretically important in technology-use contexts in which adoption decisions are not entirely voluntary or are constrained by external conditions. According to Ajzen (1991, pp. 185–186), when a behavior is under an individual's complete volitional control, intention may be largely sufficient to explain the behavior; however, as volitional control decreases, perceived behavioral control becomes increasingly important. In the present study, intention to use the e-Ledger is conceptualized not as an unrestricted voluntary choice to adopt or reject the application, but as accounting professionals' willingness and level of acceptance of its use in their professional activities. Thus, even when regulatory conditions restrict the scope of voluntary choice, the TPB provides an appropriate theoretical framework for examining the extent to which attitude, subjective norm, and perceived behavioral control explain intention to use the e-Ledger (Ajzen, 1991, pp. 181–189).

In line with this theoretical framework, Table 2 presents studies in accounting and finance that used the TPB, along with the key relationships tested.

Table 2
National and International Studies on the Theory of Planned Behavior

Year	Author	Research Topic	Hypothesis and Relationship	Support
2010	Özer & Yılmaz	An Application of Accountants Information Technology Usage with the Theory of Planned Behavior	ATU→ I SN → I PBC → I I → AU PBC → AU	Supported Supported Supported Supported Not Supported
2011	Özer & Yilmaz	Comparison of the Theory of Reasoned Action and the Theory of Planned Behavior: An Application on Accountants' Information Technology Usage	ATU → I SN → I PBC → I	Supported Supported Supported
2016	Thorhauge et al.	Accounting for the Theory of Planned Behavior in Departure Time Choice	PBC → I ATU → I SN → I PBC → SN ATU → SN ATU → PBC	Supported Supported Supported Supported Supported Not Supported
2018	Santos & Almeida	To Pursue a Career in Accounting or Not: A Study Based on the Theory of Planned Behavior	ATU → I SN → I PBC → I	Supported Supported Supported
2018	Santos et al.	Students' Intention to Pursue a Career in Accounting from the Perspective of the Theory of Planned Behavior	ATU → I SN → I PBC → I	Supported Supported Supported

Year	Author	Research Topic	Hypothesis and Relationship	Support
2019	Tashakor et al.	Environmental Management Accounting Practices in Australian Cotton Farming: The Use of the Theory of Planned Behaviour	ATU → I SN → I PBC → I SN → ATU SN → PBC	Supported Not Supported Supported Supported Supported
2020	Owusu et al.	Whistleblowing Intentions of Accounting Students: An Application of the Theory of Planned Behaviour	ATU → IWI ATU → EWI SN → IWI SN → EWI PBC → IWI PBC → EWI	Supported Not Supported Supported Not Supported Not Supported Supported
2020	Kayhan & Çakmak	Analyzing the Effects of Whistleblowing Intentions on Revealing Fraud in Financial Reporting: A Theory of Planned Behavior Perspective	ATU → IWI ATU → EWI SN → IWI SN → EWI PBC → IWI PBC → EWI	Supported Not Supported Not Supported Not Supported Supported Supported
2020	Yücenurşen	An Investigation of Students' Careers in the Accounting Profession in the Planned Behavior Theory Perspective: An Ampiric Study	ATU → I PBC → I SN → I	Supported Not Supported Supported
2022	Toraman	User Acceptance of Digital Turkish Lira (DTL): Investigation in the Framework of Technology Acceptance Model (TAM) and Planned Behaviour Theory (PBT))	ATU → I SN → I PBC → I PBC → ATU SN → ATU	Supported Supported Supported Supported Supported
2022	Duman & Yücenurşen	Financial Decision-Making Processes of Family Companies: A Research Within the Framework of the Theory of Planned Behavior	ATU → I SN → I PBC → I	Supported Supported Not Supported
2020	Söylemez & Taşkın	Determinants of Customer' Intention to Use M-Banking Apps: A Cross-Nation Study	ATU → I SN → I PBC → I	Supported Supported Supported
2025	Özer et al.	Examining the Factors Affecting the Intention to Become an Accounting Professional within the Framework of the Theory of Planned Behavior	ATAP → IBAP SN → IBAP PBC → IBAP	Supported Supported Supported

Resources: Translated abbreviations adapted from original source: PBC: Perceived Behavioral Control; IWI: Internal Whistleblowing Intention; ATU: Attitude Toward Use; EWI: External Whistleblowing Intention; I: Intention; IBAP: Intention to Become an Accounting Professional; ATAP: Attitude Toward the Accounting Profession; AU: Actual Use; SN: Subjective Norm. Adapted from Duman & Yücenurşen, 2022; Kayhan & Çakmak, 2020; Owusu et al., 2020; Özer & Yilmaz, 2011; Özer & Yilmaz, 2010; Özer et al., 2025; Santos & Almeida, 2018; Santos et al., 2018; Söylemez & Taşkın, 2020; Tashakor et al., 2019; Thorhauge et al., 2016; Toraman, 2022; Yücenurşen, 2020.

2.2.3. Hypothesis Development

According to the TPB, an individual's intention to perform a particular behavior is explained by attitude toward the behavior, subjective norm, and perceived behavioral control. Attitude toward the behavior refers to the individual's positive or negative evaluation of the behavior; subjective norm refers to perceived expectations and social pressures in the social environment regarding performing the behavior; and perceived behavioral control refers to the extent to which performing the behavior is perceived as easy or difficult. Within the framework of the theory, strengthening these three variables in a positive direction is expected to contribute to a stronger behavioral intention. However, the relative influence of these variables on intention may vary depending on the behavior under investigation and the research context (Ajzen, 1991, pp. 188–189).

These fundamental TPB relationships have also been empirically examined in relation to the use of information technologies in the accounting profession. Studies conducted by both Toraman (2022, pp. 365–371) and Özer and Yılmaz (2010, pp. 40–49) among accounting and finance professionals found that attitude, subjective norm, and perceived behavioral control exert significant effects on intention to use (Özer & Yılmaz, 2010, pp. 40–42, 47–49). Based on these theoretical and empirical foundations, it was appropriate to investigate the direct relationships among the core TPB variables in explaining intention to use the e-Ledger application. Accordingly, the research hypotheses developed on this basis are presented below:

H2: Accounting professionals perceived behavioral control toward the TRA E-Ledger application has a direct effect on their intention to use the application.

H3: Accounting professionals' attitude toward use of the TRA e-Ledger application has a positive effect on their intention to use the application.

H5: Accounting professionals' subjective norms toward the TRA e-Ledger application affect their intention to use the application.

The research model was not limited to the fundamental direct relationships with intention proposed by the TPB; it also incorporated the role of perceived behavioral control in forming attitude toward the behavior. This relationship is not one of the core paths specified in the original TPB model. Nevertheless, extended applications of the TPB in the context of technology acceptance have examined the effect of perceived behavioral control on attitude toward the behavior. Toraman (2022, pp. 366, 371) incorporated the effect of perceived behavioral control on attitude toward the behavior into the research model and found this relationship to be positive and statistically significant.

Given the integrated nature of the e-Ledger application with technical and professional processes, accounting professionals' perceived control over their ability to use the system can be considered not only in terms of their intention to use it, but also in terms of how they evaluate the application. In other words, perceiving oneself as competent and in control in using the application may shape one's evaluation of the application. In this study, this relationship is not treated as a modification of the core TPB model, but rather as an extended path intended to

provide a more detailed examination of the relationships among the theory's variables in the context of the e-Ledger. Accordingly, the following hypothesis was developed:

H1: Accounting professionals perceived behavioral control toward the TRA E-Ledger application affects their attitude toward using the application.

The second relationship extended in the research model concerns the association between subjective norm and attitude toward the behavior. In the TPB, subjective norm is treated as an independent antecedent of behavioral intention. It reflects the extent to which an individual considers the expectations of people or groups important to them regarding the behavior (Ajzen, 1991, pp. 188–189). However, because professional activities occur within a social and institutional environment, colleagues' and other important reference groups' views may influence not only intention but also individuals' evaluations of the application. Özer and Yılmaz (2010, pp. 40–41), in their study of accountants' use of information technologies, also noted that reference groups such as colleagues, managers, and professional organizations may influence accounting professionals' subjective norms regarding technology use.

Empirical studies conducted in the context of technology acceptance further demonstrate that this relationship can be tested directly. In Toraman's (2022, pp. 366–371) study, the effect of subjective norm on attitude toward the behavior was incorporated into the research model, and the relationship was positive and significant. Accordingly, the following hypothesis was developed:

H4: Accounting professionals' subjective norms toward the TRA e-Ledger application have a positive effect on their attitude toward use of the application.

Another important aspect in which the research model differs from the standard TPB structure is the examination of the mediating role of attitude toward the behavior. Within the TPB, attitude toward the behavior is regarded as one of the principal determinants of behavioral intention (Ajzen, 1991, pp. 188–189). Research on the use of information technologies in the accounting profession also indicates that a positive attitude strengthens intention to use (Özer & Yılmaz, 2010, pp. 40–49). At the same time, empirical findings in the technology acceptance literature suggest that perceived behavioral control and subjective norm may also influence attitude toward the behavior (Toraman, 2022, pp. 366- 371).

Considering these relationships together makes it possible to examine attitude toward the behavior not only as an independent antecedent of intention to use, but also as a mechanism through which perceived behavioral control and subjective norm are transmitted to intention to use. This approach enables the identification of indirect effects that may arise through attitude toward the behavior, in addition to the direct effects of perceived behavioral control and subjective norm on intention. Thus, rather than treating the three core determinants of intention in the TPB merely as parallel independent variables, the research model also evaluates the indirect relationships that may arise among these variables. Within this framework, the following mediation hypotheses were developed:

H6: Accounting professionals' attitude toward use of the TRA e-Ledger application mediates the relationship between perceived behavioral control and intention to use the application.

H7: Accounting professionals' attitude toward use of the TRA e-Ledger application mediates the relationship between subjective norm and intention to use the application.

3. Methodology

3.1. Research Sample, Scope, Limitations, and Data Collection

The study aimed to identify the factors influencing accounting professionals' intention to use the e-Ledger application, introduced by the Revenue Administration (GİB) as one of the digital accounting applications in Türkiye. Within this scope, participants' intention to use the e-Ledger application was evaluated in accordance with the variables addressed in the TPB framework and the measurement criteria related to these variables.

The study's target population consisted of Certified Public Accountants (CPAs), Public Accountants (PAs), CPA trainees, accounting specialists, and assistant specialists working in enterprise accounting departments, as well as office staff employed in CPA offices or in enterprise accounting departments throughout Türkiye. However, the lack of a common, up-to-date population list covering all these groups made it difficult to conduct the study at the national level. In addition, given the geographical size of the target population and the study's time and cost constraints, the accessible population was limited to professionals engaged in accounting-related activities in Istanbul.

To assess the numerical adequacy of the sample size reached in the study, the researchers used sample size criteria developed for large populations. According to the sample size table developed by Krejcie and Morgan (1970, pp. 608–610), the required sample size increases gradually as the population size increases, and for very large populations, it stabilizes slightly above 380. In the relevant table, the required sample size for a population of 1,000,000 is reported as 384. The 646 valid questionnaire responses obtained in the present study indicate that the sample size was numerically adequate in this respect. Nevertheless, a large sample size alone does not demonstrate that the sample is representative of the target population or that the research findings can be generalized to all accounting professionals in Türkiye.

The study used the survey method as its data collection technique. The researchers administered the questionnaires to participants engaged in accounting-related professional activities in Istanbul through both online and face-to-face methods. Participants were selected using convenience sampling, a non-probability sampling method. Convenience sampling is a non-probability sampling method in which practical criteria such as accessibility, geographical proximity, availability during the research period, and willingness to participate are considered when selecting individuals from the target population. Because individuals in the target population do not have an equal probability of being selected under this method, the sample's representativeness may be limited, and caution is required when generalizing the findings to a broader population (Etikan et al., 2016, pp. 2–4). Accordingly, evaluate the findings in the context of data from 646 accounting professionals in Istanbul reached through convenience sampling. The fact that the study was conducted only in Istanbul and that participants were not selected through a probability sampling method constitutes one of the principal limitations of the study in terms of external validity and the generalizability of the findings to accounting professionals throughout Türkiye. Nevertheless, the sample size obtained allows the relationships among the

variables specified in the research model to be empirically evaluated within the current sample. Ethics approval for the study was obtained from the İstanbul Nişantaşı University Social and Human Sciences Ethics Committee (meeting date: 6 November 2025; decision no. 2025-12), and informed consent was obtained from the participants.

3.2. Measurement Instrument and Scale Adaptation

The measurement instrument used in this study was adapted from the scale used by Toraman (2022, pp. 70–71) to examine user acceptance of Metaverse technology within the Technology Acceptance Model and the TPB. In the source study, measurement items related to attitude toward the behavior, subjective norm, perceived behavioral control, and intention to use were included within the TPB framework, and participants' evaluations were obtained using a five-point Likert scale. In the present study, the TPB items originally presented in English were transferred into a Turkish application form and adapted to the context of e-Ledger use while preserving their core conceptual meanings. Participants evaluated the statements in the measurement instrument on a five-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree.

In measurement instruments developed within the TPB framework, items should be formulated in a manner conceptually consistent with the behavior under investigation. Ajzen (2006, pp. 2–3) states that direct measurement items should align with the behavioral criterion being examined and be formulated to reflect the individual's own evaluation. Ajzen (2006, pp. 3–5) also notes that data obtained from pilot testing may be used to evaluate the reliability and validity of items in newly developed measurement instruments. In the present study, however, the measurement instrument was not developed from scratch; instead, it was adapted from scale items previously used in an empirical study. Therefore, we did not conduct a separate pilot study or seek expert opinion during the adaptation process. We evaluated the psychometric adequacy of the measurement instrument in the e-Ledger context using reliability, convergent validity, and discriminant validity analyses based on data from the main research sample.

3.3. Research Model and Variables

This research examines the factors affecting adoption and usage acceptance of the E-Ledger application implemented by TRA, and the research model is structured as illustrated in Figure 1. Although the literature uses various models to determine intention, this study measures intention based on the TPB (Ajzen, 1991, pp. 1-5; Schierz et al., 2010, pp. 210-213).

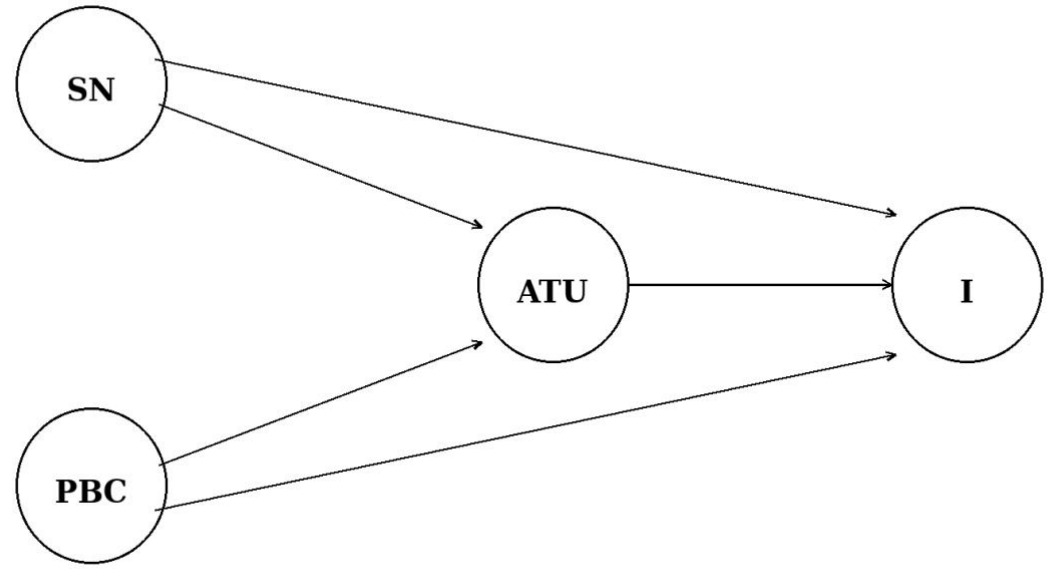


Figure 1. Research Model Framework

Resources: Adapted from the conceptual framework of the TPB variables: Perceived Behavioral Control (PBC), Attitude Toward Use (ATU), Subjective Norm (SN), and Intention (I).

3.4. Data Analysis Method and Rationale for the Use of PLS-SEM

Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to analyze the relationships among the constructs included in the research model. PLS-SEM is a variance-based structural equation modeling approach that enables theoretical models to be evaluated from a predictive perspective, examines the explained variance in endogenous constructs, and tests extended relationships derived from established theories across different research contexts (Hair et al., 2019, pp. 3–4). This study primarily identifies the relationships that explain accounting professionals' intention to use the e-Ledger application within the TPB framework and evaluates the direct and indirect effects specified in the research model simultaneously. Accordingly, the PLS-SEM approach was considered appropriate for both the structure of the research model and the study's explanatory focus.

In addition to the fundamental TPB relationships among attitude toward the behavior, subjective norm, perceived behavioral control, and intention to use, the research model also includes the effects of perceived behavioral control and subjective norm on attitude toward the behavior. Furthermore, the research model tests the mediating role of attitude toward the behavior in the relationships between perceived behavioral control and intention to use, as well as between subjective norm and intention to use. PLS-SEM enables the simultaneous evaluation of direct and indirect structural relationships within a model and the examination of mediation effects within the structural model (Hair et al., 2019, p. 13). Therefore, the choice of method was based not merely on the features of the software employed, but on its compatibility with the theoretical model and the research objective.

A small sample size was not a determining rationale for using PLS-SEM in this study. Although PLS-SEM can be applied to small samples, it has no restriction on use with large samples. Nevertheless, an adequate sample size alone should not justify selecting PLS-SEM (Hair et al., 2019, pp. 4–5). Given that the present study includes 646 valid questionnaire responses, the methodological choice was based primarily on the study's explanatory objective, the simultaneous evaluation of structural relationships, and the examination of the direct and indirect effects specified in the extended TPB model, rather than sample size.

The research data were analyzed using SmartPLS 4 software. In the PLS-SEM analysis, the reliability and validity of the measurement model were evaluated first, followed by an examination of the path relationships among the constructs in the structural model. When evaluating the structural model, consider multicollinearity among the predictor constructs, the explained variance of the endogenous constructs, and the statistical significance of the structural path coefficients jointly (Hair et al., 2019, pp. 10–13).

The nonparametric bootstrapping procedure was used to determine the statistical significance of the path coefficients and indirect effects in the structural model, and the analyses used 5,000 bootstrap subsamples. Within the PLS-SEM framework, bootstrapping enables evaluation of the statistical significance of path coefficients and the indirect effects in mediation models (Hair et al., 2019, p. 13).

4. Findings

4.1. Demographic Data of the Study

When the demographic characteristics of the survey participants are examined, 74.15% of participants are aged 30 or above, and 78.17% have at least five years of professional experience. This distribution indicates that a substantial proportion of the research data was obtained from participants with considerable professional experience. In terms of educational attainment, 86.38% of the participants hold a bachelor's, master's, or doctoral degree, while 52.63% hold the title of Certified Public Accountant (SMMM). Taken together, these findings suggest that the sample includes participants with sufficient educational and professional experience to evaluate the research subject. However, a final assessment of the dataset's reliability and validity should be made in conjunction with the results of the reliability and validity analyses conducted for the measurement model.

Table 3
Demographic Data of the Research

Demographic Data		Frequency	Percentage (%)
Respondent's Age	20 Years and Under	19	2,94
	21 – 29 Years	148	22,91
	30 – 39 Years	197	30,5
	40 – 49 Years	163	25,23
	50 – 59 Years	86	13,31

Demographic Data		Frequency	Percentage (%)
	60 Years and Over	33	5,11
	Total	646	100
Respondent's Gender	Male	429	66,41
	Female	217	33,59
	Total	646	100
Respondent's Educational Attainment	Primary School	0	0
	Middle School	0	0
	High School	37	5,73
	Associate Degree	51	7,89
	Bachelor's Degree	449	69,5
	Master's Degree	104	16,1
	Doctorate	5	0,78
	Total	646	100
Respondent's Professional Experience	Less Than 2 Years	50	7,74
	2 Years – Less Than 5 Years	91	14,09
	5 Years – Less Than 10 Years	96	14,86
	10 Years – Less Than 15 Years	106	16,41
	15 Years – Less Than 20 Years	113	17,49
	20 Years and Over	190	29,41
	Total	646	100
Respondent's Position within the Company / Institution	Budget and Reporting Specialist	1	0,15
	CEO (General Manager)	5	0,77
	CFO (Finance Manager)	6	0,93
	Financial Planning and Analysis Specialist	1	0,15
	Financial Affairs Manager	2	0,31
	Accounting Department Manager	55	8,51
	Accounting Supervisor	5	0,77
	Assistant Accounting Specialist	1	0,15
	Accounting Specialist	16	2,48
	Certified Public Accountant	340	52,64

Demographic Data		Frequency	Percentage (%)
	CPA Trainee	69	10,69
	Accounting Office Staff	137	21,21
	Tax and Reporting Specialist	8	1,24
	Total	646	100
Professional Titles Held by the Respondent	Certified Public Accountant	340	52,63
	CPA Trainee	187	28,95
	Auditor	31	4,8
	Those Without Any Professional Title	88	13,62
	Total	646	100

4.2. Reliability and Validity Analyses of the Study

In the first stage of the PLS-SEM analysis process, the measurement model of the study was evaluated. Within this scope, the reliability and validity of the research constructs were examined based on indicator loadings, internal consistency reliability, convergent validity, and discriminant validity criteria. After establishing the adequacy of the measurement model, the evaluation of the structural model was undertaken.

Table 4
Reliability and Validity Analyses of the Research

Measurement Criteria / Items	VIF Values	Factor Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	Mean	Standard Deviation
I1: I consider using the TRA E-Ledger application among digital accounting applications.	5.255	0.942	0.963	0.966	0.901	3.964	1.128
I2: I will probably use the TRA E-Ledger application among digital accounting applications soon.	5.359	0.938				3.989	1.099

Measurement Criteria / Items	VIF Values	Factor Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	Mean	Standard Deviation
I3: I would like to use the TRA E-Ledger application among digital accounting applications.	7.343	0.955				3.952	1.100
I4: I plan to use the TRA E-Ledger application among digital accounting applications.	8.251	0.961				3.927	1.114
ATU1: Using the TRA E-Ledger application in my future transactions is valuable to me.	3.178	0.921	0.941	0.941	0.894	3.972	1.083
ATU2: Conducting accounting processes by using the TRA E-Ledger application in the future is important.	6.277	0.959				3.995	1.148
ATU3: The idea of conducting accounting processes by using the TRA E-Ledger application in the future interests me.	6.049	0.956				3.937	1.161
PBC1: The TRA E-Ledger application is easy to use.	2.238	0.915	0.828	0.892	0.741	3.822	1.189

Measurement Criteria / Items	VIF Values	Factor Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	Mean	Standard Deviation
PBC2: Whether I use the TRA E-Ledger application for my work and transactions is entirely my choice.	1.583	0.755				3.491	1.385
PBC3: If I am sure about using the TRA E-Ledger application, I can use it.	2.303	0.902				3.930	1.109
SN1: It is important to me that professional colleagues think I should use the TRA E-Ledger application.	3.011	0.916	0.922	0.923	0.865	3.899	1.099
SN2: Most professional colleagues whose opinions I value would approve of my using the TRA E-Ledger application.	4.026	0.943				3.943	1.102
SN3: My professional colleagues and acquaintances use the TRA E-Ledger application.	3.585	0.930				3.994	1.067

When evaluating research reliability, the internal consistency and homogeneity were verified by examining the "Cronbach's Alpha coefficient and Composite Reliability value" of the research variables. To establish internal consistency, the Composite Reliability calculated based on the outer loadings of the variables must be greater than 0.70 and the Cronbach's Alpha coefficient must be greater than 0.70. When the values in Table 4 are examined, the Cronbach's Alpha values

are 0.82 and above, and the Composite Reliability values are 0.89 and above, demonstrating that research reliability and internal consistency are satisfied at a very high level.

In quantitative research, validity values must also be thoroughly considered to ensure the findings are generalizable to the target population. To ensure validity of the results, both convergent and discriminant validity values must be examined. Convergent validity is defined as the degree to which a measurement correlates positively with alternative measurements of the same construct. The research examines convergent validity through the factor loadings of the measurement criteria for each variable and the Average Variance Extracted (AVE) values. For research variables to satisfy convergent validity, the factor loading (an item's ability to explain the variable) must be 0.60 or above, and the AVE must be 0.50 or above. When examining the factor loadings in Table 4, all items have factor loadings of 0.75 or higher; moreover, the outer loadings of most measurement criteria are 0.90 or higher, which significantly strengthens explanatory power. AVE values of 0.74 and above also support strong convergent validity.

Before analyzing discriminant validity, evaluate the outer model variance inflation factor (VIF) values and the p-values of outer model factor weights to support structural robustness. To ensure the structural validity of the model used within the scope of the research, VIF values for each measurement criterion should be below 10, and the p-values for outer model factor weights should be less than 0.05. As can be seen from the VIF values in Table 4, there is no multicollinearity problem regarding the measurement criteria included in the model. In addition, the p-values for the outer model factor weights are less than 0.05, confirming structural validity.

Discriminant validity analysis must be used to distinguish a variable from other variables. Three main indicators guide discriminant validity assessment: the Cross Loadings Table, the Fornell-Larcker Criterion Table, and the Heterotrait-Monotrait Ratio (HTMT) Coefficients Table. Data regarding discriminant validity are presented in the following tables.

Table 5
Cross Loadings Table

Measurement Criteria	PBC	ATU	I	SN
PBC1	***0.915***	0.757	0.710	0.704
PBC2	***0.755***	0.412	0.377	0.388
PBC3	***0.902***	0.669	0.602	0.664
ATU1	0.690	***0.921***	0.746	0.710
ATU2	0.692	***0.959***	0.787	0.715
ATU3	0.719	***0.956***	0.789	0.712
I1	0.656	0.779	***0.942***	0.692
I2	0.584	0.704	***0.938***	0.667
I3	0.674	0.820	***0.955***	0.729
I4	0.668	0.798	***0.961***	0.711
SN1	0.662	0.693	0.664	***0.916***

Measurement Criteria	PBC	ATU	I	SN
SN2	0.677	0.723	0.710	***0.943***
SN3	0.634	0.687	0.684	***0.930***

A cross loading occurs when a measurement criterion used within the scope of the research has a higher explanatory power for an alternative variable rather than the variable to which it is theoretically assigned. Therefore, when evaluating whether the measurement criteria in the study exhibit cross-loading cross-contamination, the factor loading for the measurement criterion's own variable is expected to be at least 0.1 points higher than the factor loading for any other variable. As can be seen from the analysis results in Table 5, each measurement item possesses an explanatory power (factor loading) that is at least 0.1 points higher in its own designated variable compared to other variables, indicating satisfactory item-level discriminant validity.

Table 6
Fornell-Larcker Criterion Table and Correlation Analysis Results Between Variables

Variables	PBC	ATU	I	SN
PBC (Perceived Behavioral Control)	**0.861**			
ATU (Attitude Towards Use)	0.741	**0.946**		
I (Intention)	0.682	0.819	**0.949**	
SN (Subjective Norm)	0.707	0.754	0.738	**0.930**

The Fornell-LarThe table presents the relationship between the average variance extracted (AVE) of each variable and its correlations with other constructs. This table also incorporates the direct correlations between variables. Based on the table, if the square root of a variable's AVE (shown on the diagonal) is greater than its correlations with all other variables, this indicates that discriminant validity is established at the construct level. Based on the analysis results in Table 6, all diagonal values for the variables are the highest in their respective columns and rows. Therefore, in terms of the values in the Fornell-Larcker Criterion table, it can be stated that construct-level discriminant validity is successfully achieved in the research.

Table 7
HTMT Coefficients Table

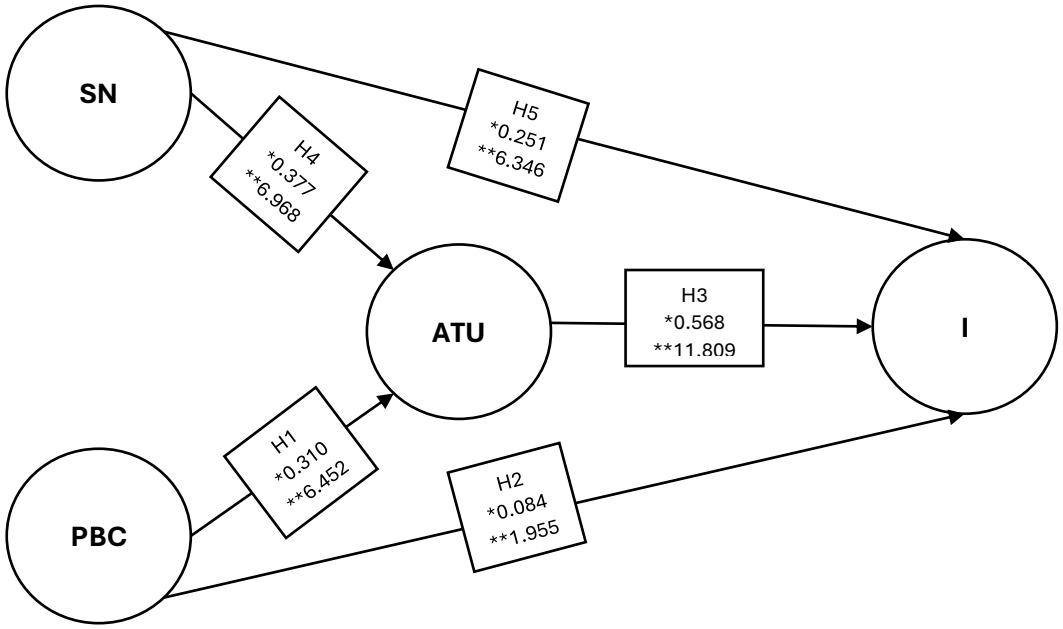
Variables	PBC	ATU	I	SN
PBC				
ATU	0.804			
I	0.729	0.848		
SN	0.776	0.709	0.782	

While determining the HTMT coefficient: the average of the correlation values for the measurement criteria belonging to all variables in the model is calculated, and this average is ratioed to the geometric mean of the correlations calculated for the measurement criteria of the same variable. These coefficients are used to evaluate the accuracy of the Fornell-Larcker Criterion and to measure similarities between variables. Theoretically, the HTMT coefficient

should be below 0.90 for closely related variables and below 0.85 for distinctly related variables. When examining the HTMT coefficients in Table 7, all coefficients are 0.85 or below. From this point of view, considering the cumulative analysis results in Table 5, Table 6, and Table 7, it can be stated with confidence that discriminant validity is fully established in the research.

4.3. Structural Model

The dependent and independent variables included in the research model are schematized to test the proposed path relationships. The dependent variable is intention, while the independent variables are the foundational variables derived from the TPB. These core independent constructs comprise "subjective norm, attitude toward use, and perceived behavioral control".



Note: *Indicates the path coefficients of the hypotheses. **Indicates the t-values of the hypotheses.

Figure 2. T-Statistic Values and Path Coefficients

The H1–H7 hypotheses, developed in accordance with the theoretical framework and relevant literature, were tested within the study's structural model using the PLS-SEM method. Figure 2 presents the path coefficients, t-values, and significance levels for the hypothesis tests.

Table 8
Model Fit Values

Fit Indices	Model Fit Values
SRMR	0.043
Chi-square	2,285.732
NFI	0.904

Before moving to the structural path results, we must evaluate whether the overall model fit is achieved for the research data. In this regard, Table 8 presents the model fit values obtained via SmartPLS 4. The SRMR (Standardized Root Mean Square Residual) and NFI (Normed Fit Index)

values indicate the suitability of the structural model for the data. An NFI above 0.90 and an SRMR below 0.08 indicate good model-data fit. Considering the values in Table 8, it can be stated that model fit is successfully achieved in this research.

Table 9
Hypothesis Tests for the Structural Model

Hypothesis	Path Relationship	Path Coefficient	t-Value	p-Value	Hypothesis Supported (p < 0.05)
H1	PBC → ATU	0.310	6.452	0.000	Yes
H2	PBC → I	0.084	1.955	0.051	No
H3	ATU → I	0.568	11.809	0.000	Yes
H4	SN → ATU	0.377	6.968	0.000	Yes
H5	SN → I	0.251	6.346	0.000	Yes

Table 9 shows the results of the 5 direct hypothesis tests formulated to measure the interaction of research variables within the structural model. Three important indicators are taken into consiDerivation when deciding on the acceptance or rejection of hypotheses: the p-value, the t-value, and the path coefficient. To accept a hypothesis, $p < 0.05$ must be met at a 0.95 confidence level. The t-value indicates statistical significance, showing the extent to which latent variables explain observed criteria. Critical t-values must be above ±1.96 for $p < 0.05$ (Turğay, 2022). Statistically insignificant paths are excluded or interpreted carefully, whereas the path coefficient determines the strength and direction of the explanation. Across these values, 4 out of 5 direct research hypotheses were accepted, while 1 was rejected.

The results show that perceived behavioral control (PBC) does not directly affect intention (I). However, the major advantage of Structural Equation Modeling (SEM) is that it also evaluates indirect effects through mediating constructs. When considering the indirect relationships (Hypothesis H6), we found that perceived behavioral control affects intention indirectly through attitude toward use, showing that attitude toward use strongly mediates this path ($t = 5.439$, $p = 0.000$).

In addition, Table 9 shows that attitude toward use ($t = 11.809$; path coefficient = 0.568) has strong direct explanatory power for intention. This result proves that attitude toward use is the most important and robust antecedent of intention, as frequently emphasized in the academic literature. Furthermore, t-values and path coefficients for hypotheses H1, H4, and H5 show that the independent variables explain the dependent variable to a significant extent and confirm strong, positive, and statistically significant relationships.

Table 10
Indirect Effects

Hypothesis	Path Relationship	Path Coefficient	t-Values	p-Values	Hypothesis Supported (p < 0.05)
H6	PBC → ATU → I	0.176	5.439	0.000	Yes
H7	SN → ATU → I	0.214	6.104	0.000	Yes

The results in Table 10 show that the attitude toward us variable has a strong, significant mediating effect in the relationship between perceived behavioral control, subjective norm, and intention, thereby enhancing the total effects of these independent variables on the dependent construct, intention.

Table 11
R^2 Values of the Variables

Variables	R^2	Adjusted R^2
ATU (Attitude Toward Use)	0.678	0.677
I (Intention)	0.707	0.706

The R^2 value indicates how well the independent variables explain the dependent variable, expressed as a percentage. If the R^2 value is below 0.25, the explanation rate is considered weak; if it is between 0.50 and 0.75, it is considered moderate; and if it is 0.75 and above, it indicates a strong explanation rate. In this research, the R^2 (0.707) and Adjusted R^2 (0.706) values obtained for intention indicate a moderate-to-high level of explanation; however, an R^2 value of even 0.10 can be considered sufficient in micro-scale empirical studies (Yıldız, 2021). Therefore, the R^2 values are fully acceptable considering the existing literature. The critical target variable for this research model remains intention.

5. Discussion

The empirical findings obtained from the structural equation modeling analysis provide significant insights into the technology acceptance dynamics of accounting professionals during the digital transformation process. By evaluating the TRA E-Ledger application through the lens of the TPB, this study elucidates how individual attitudes, environmental influences, and control beliefs interact to shape professional intentions.

The most striking result of the structural path analysis is that attitude toward use (ATU) is the primary and strongest determinant of intention (I), with a path coefficient of 0.568 and a t-value of 11.809. This outcome shows that an accounting professional's deliberate evaluation of the E-Ledger application's value, importance, and utility is the primary driver of their intention to adopt the system. When professionals view the digital application as an asset that improves operational efficiency, reduces manual workload, and automates tracking processes, their intent to use it increases substantially. This strong impact of attitude supports the core assertions of the TPB. It aligns with prior empirical accounting literature, such as findings by Özer and Yılmaz (2010), Santos and Almeida (2018), and Toraman (2022), which consistently position attitude toward use as the most critical antecedent of technological intention.

In contrast to the strong direct effect of attitude, the direct path from perceived behavioral control (PBC) to intention (I) was statistically unsupported (H2 rejected: path coefficient = 0.084, t = 1.955, p = 0.051). This indicates that a professional's self-efficacy, or internal belief in the ease of use and individual choice, does not automatically translate into direct behavioral intention in this setting. A key explanation for this phenomenon lies in the E-Ledger system's regulatory nature. Because the application carries mandatory usage thresholds enforced by the Revenue Administration (TRA) for a substantial portion of businesses, absolute voluntary choice is constrained. Consequently, simply possessing the technical capability or resources to operate

the application is insufficient to form an autonomous intention. This result aligns with similar findings in the TPB literature, where the direct path of PBC was found to be insignificant, notably in studies by Thorhauge et al. (2016), Yücenurşen (2020), and Duman and Yücenurşen (2022).

However, the structural modeling approach successfully reveals a deeper indirect mechanism through mediation analysis (H6 accepted: path coefficient = 0.176, t = 5.439). Although perceived behavioral control does not directly affect intention to use, it exerts a significant and positive indirect effect by shaping attitude toward use. This finding indicates that when an accounting professional believes that the e-Ledger application is easy to use and that they possess the necessary skills to manage it, they are more likely to develop a positive attitude toward the system. This more favorable attitude, in turn, substantially strengthens their intention to use the application. This full mediation effect shows that technical competence and system user-friendliness matter not only as mechanical determinants, but also as factors that shape users' psychological acceptance and cognitive evaluation of the system.

Furthermore, subjective norms (SN) exerted both a direct and indirect positive influence on intention. The direct path (SN → I) yielded a path coefficient of 0.251 (t = 6.346), while the indirect path via attitude toward use (SN → ATU → I) produced a path coefficient of 0.214 (t = 6.104). These results indicate that the professional social network, including colleagues, peer networks, and respected institutional opinions, plays a dual role in the digital transformation process. Social pressure and professional consensus not only directly persuade practitioners to intend to use the e-ledger system, but they also indirectly reshape individual mindsets, helping practitioners cultivate a more favorable inner attitude toward digital accounting technologies. The dual significance of subjective norms aligns with the findings of Özer and Yılmaz (2011) and Söylemez and Taşkın (2020), supporting the view that accounting environments are collaborative, institutionalized ecosystems in which peer behavior and regulatory approvals strongly guide technological adoption.

Ultimately, the structural model has strong explanatory power, with the independent variables explaining 70.7% of the variance in intention (R^2 = 0.707) and 67.8% of the variance in attitude toward use (R^2 = 0.678). These high R^2 values confirm that adapting the TPB specifically to the operational realities of the E-Ledger application yields a highly effective and theoretically sound model for understanding digital transition patterns within the professional accounting framework.

6. Conclusion

The global technological transformation process has gained momentum more rapidly, significantly influenced by the pandemic. Along with necessary lockdowns, both individuals and enterprises have digitized their operations, accelerating a digital transformation process already underway. The shift of many business and operational processes to the electronic environment has increased the use of electronic applications integrated into business processes and laid the groundwork for individuals to intend to use them.

The e-ledger application is one such electronic application. In Turkey, the e-ledger application was first introduced in 2011, with its legal framework established by the Tax Procedure Law (TPL) General Communiqué (Serial No. 1). However, use became mandatory for certain taxpayer

groups as of January 1, 2014. Nevertheless, alongside intensive digital transformation, many companies have started using the application voluntarily to speed up transactions and reduce workloads, rather than out of sheer obligation. Although the Revenue Administration (TRA) initially developed the application, numerous institutions and organizations have since developed e-ledger software solutions, made them available for use, and integrated them into the TRA's system through integrator companies.

Within the scope of the research, the factors affecting accounting professionals' intention to use the e-ledger application developed by the TRA were examined and evaluated through the variables of the TPB. The measurement criteria were adapted to the e-ledger application, and researchers collected data through a questionnaire administered to accounting professionals. The research results were analyzed based on 646 complete questionnaire responses. The analyses showed that the results are both reliable and valid. The study tested 7 research hypotheses and accepted 6.

The results showed that "attitude toward use and subjective norm" directly and strongly affect intention. Furthermore, it showed that this strong effect is also due to the interrelationship of these variables with intention. From this perspective, accounting professionals' positive attitude toward the TRA e-ledger application, along with their social environment's positive approach to it, positively affects their intention to use it.

Another significant finding is the absence of a direct effect between perceived behavioral control and intention. However, an effect can sometimes be indirect rather than direct. Hypothesis tests of indirect relationships indicate that perceived behavioral control affects intention through attitude toward use. Accounting professionals' belief in their ability to use the application leads them to develop a positive attitude toward it. This, combined with other positive factors constituting the attitude, further strengthens attitude toward use and ultimately directs the professional toward intention.

Declarations

Ethics Approval	**Ethics approval for this study was obtained from the İstanbul Nişantaşı University Social and Human Sciences Ethics Committee (meeting date: 6 November 2025; decision no. 2025-12). Written or informed consent was obtained from all participants.**
Conflict of Interest	The author declares no conflict of interest.
Funding	This research received no specific grant from funding agencies in the public, commercial, or non-for-profit sectors.
Author Contributions	İlyas Turğay: Conceptualization, Methodology, Data Collection, Formal Analysis, Writing – Original Draft, Writing – Review & Editing. The author has read and approved the final version of the manuscript.
Data Availability Statement	The data supporting the findings of this study are available from the corresponding author upon reasonable request. The data are not publicly available due to privacy and confidentiality considerations related to the participants.
Use of AI and AI-Assisted Technologies	The author declares that no artificial intelligence (AI) or AI-assisted technologies were used to prepare this manuscript. The author is solely responsible for all ideas, analyses, interpretations, and conclusions presented in this manuscript.

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