MANAGEMENT
2025, Vol. 29, No. 2
www.management-poland.com
DOI: 10.58691/man/214037

BARIŞ GÜNTÜRKÜN
HASAN SADIK TATLI

Factors Affecting the Acceptance of Mobile Technologies in SMEs: Evidence from Top Management Perspectives

Abstract

Research background and purpose: The research aims to determine the factors affecting the adoption and use of mobile technologies by top managers. The research sample consists of top managers in SMEs.
Design/methodology/approach: Data were obtained from SME managers in Turkey. Within the scope of the research, 204 survey data were collected from top managers in SMEs. SmartPLS 3 were used to analyze the data.
Findings: It has been determined that factors such as usefulness, social impact, and self-efficacy positively affect the intention to use mobile technologies. In addition, behavioral intention had a significant and strong effect on actual usage. It has been determined that the intention to use mobile technologies has a mediating role in the effect of factors on actual usage for mobile usage, social impact and technology self-efficacy. According to the findings, hedonic and mobile ease of use did not affect the behavioral intention of actual use, either directly or indirectly.
Value added and limitations: The research results provide important insights into the factors that are crucial for upper-level SME managers to utilize mobile technologies. The originality of this research lies in its integrated approach, combining the perspectives of top managers of Turkish SMEs with the UTAUT theoretical framework to explain their behavioral intentions toward adopting mobile technologies for business purposes. Therefore, the findings uniquely represent the adoption intentions of SME executives in Turkey.

Keywords: *mobile technology, SME, top management team, UTAUT*

JEL Classification: O32, O33, L25

Received: 2025-08-14; **Revised:** 2025-10-26; **Accepted:** 2025-11-06

Bariş Güntürkün
Business Management, İstanbul Beykent University, Turkey
ORCID: 0000-0002-4989-9673

Hasan Sadık Tatlı ✉
Management Information Systems, İstanbul Galata University, Adres: Cihangir, Sıraselviler Cd. No:65, 34433, Beyoğlu, Turkey; email: hasansadiktatli@gmail.com
ORCID: 0000-0003-1918-3188

1. Introduction

Top Management Team, (TMT) serve as the primary decision-making bodies within organizations. The top management decides to implement a change or a new process in a business and spreads throughout the company (Graham et al., 2015). In addition, the Turkish economy consists of companies emphasizing Small and Medium-Sized Enterprises (SMEs) (TUIK, 2023). It is known that ownership and decision-making in SMEs in Turkey are largely carried out by top managers or business owners (Ar & İskender, 2005). Therefore, top management's decision-making behavior plays a decisive role in shaping a business's strategic orientation and its adaptability to innovation.

The rapid proliferation of mobile business applications in recent years has created significant opportunities and sparked discussions about digital transformation in businesses. Among these discussions, one of the most striking issues is the adoption process of new technologies (Kamal et al., 2020). Studies on this process in the literature generally focus on the Technology Acceptance Model (TAM) and its improved version, the Unified Technology Acceptance and Use Theory (UTAUT) (Alhalafi & Veeraraghavan, 2023; Ali & Warraich, 2023; Chen et al., 2023; Menon & Shilpa, 2023). However, one of the fundamental questions that remains to be answered is "How will SMEs adopt mobile technologies in economic structures where intense competition is experienced?" (Wu & Wang, 2005). In this context, the issue of which factors affect the decision of top management to use mobile technologies in business processes stands out as an important area to be investigated.

There is a tradition in literature research to conduct research through employees or direct interlocutors of new technology. This research tradition may ignore that TMT (Top Management Team) are the dominant decision-making mechanism (Zeynel, 2024). Additionally, a rare number of studies in literature investigate the intention of TMT to use or adopt new technologies (Uzkurt et al., 2024). As a known fact, the decision to implement an innovation in SMEs will be directly the decision of upper-level managers or owners (Ozer, 2023; Coşkun, 2023). However, the fact that research does not examine the tendencies of TMTs may constitute a deficiency in the technology acceptance model.

From this perspective, this research aims to identify the factors affecting the level of mobile technology usage by top managers in Turkish SMEs. This research focuses on the attitudes of top management towards the use of mobile technology in SMEs in Türkiye. The study is among the studies to examine the combination of these three research perspectives (mobile technology, SMEs, and top management). It provides empirical evidence on the factors that influence mobile technology adoption and distinguishes itself from the literature by demonstrating the ineffectiveness of hedonic and ease-of-use factors. The fundamental hypothesis of this research is that

intention to use mobile technologies plays a mediating role in the impact of factors such as usefulness, Social impact, hedonic and personal competence on actual usage. Therefore, the direct and mediating effects of each dimension on actual usage were also evaluated.

Depending on the research question, the results of this research may help establish a connection between Upper Echelons Theory (UET) and the UTAUT. The findings obtained from the study are important in determining to what extent SME managers have adopted mobile technologies (Kim & Han, 2009). Target users' acceptance or resistance to mobile technologies can offer future opportunities (Gulacti, 2020). In addition, the results may have a motivating effect in designing meaningful development activities to promote Information Technologies (IT) structuring and digitalization transformation in SMEs and to support implementation decisions (North et al., 2020). This will contribute to the evaluation of managerial awareness and leadership orientation as a strategic element in SMEs' digital transformation processes.

Additionally, depending on the research question, the results of this research may help establish a connection between UET and the technology acceptance model. In this context, this study can fill a theoretical gap in the literature by explaining how managers' cognitive assessments and perceptions of technology translate into digital strategies at the organizational level. When mobile technologies are adopted and used within the business, the speed of managers accessing data and, therefore, their decision-making speed will be positively affected (Alzghoul et al., 2024). Furthermore, the effective use of mobile business applications can indirectly contribute to business performance by accelerating information flow, increasing flexibility, and strengthening managerial coordination. For example, the productivity of businesses is expected to increase with factors such as remote management and mobile working (Grant et al., 2013). This could create a digitalization momentum that could create a competitive advantage, particularly for SMEs operating in resource-constrained environments. It could also guide policymakers in designing training and support mechanisms to strengthen SME managers' attitudes toward technology.

The structure of this research is organized as follows: The first section provides a detailed conceptual and theoretical framework for the acceptance of mobile business applications, and discusses the Unified UTAUT and the Upper Tiers Theory, which form the theoretical foundations of the study. In the same section, the research hypotheses are developed based on relevant literature. The second section describes the research method, sampling structure, data collection process, and measurement tools. The fourth section presents the data analysis and findings, demonstrating the model's statistical validity and the results of hypothesis testing. Finally, the fifth section presents the research results, theoretical and practical contributions, discussions, and recommendations for future research.

2. Theoretical background

SMEs play a critical role in many economies. Their innovation, flexibility, creativity, efficiency, and local presence are crucial to their success. Today, SMEs can manage their business processes more effectively through mobile technologies and applications (Varga, 2021). Mobile broadband systems (MBS) provide a critical infrastructure for accessing mobile technologies. MBS is a system that provides high-speed internet access to tablet and smartphone users and is delivered to remote users by mobile service providers (Jha & Saha, 2022). Mobile technologies enable SMEs to obtain real-time market information and enhance speed, flexibility, and efficiency in business processes (Alderete, 2017). Tools businesses use through mobile technologies include mobile customer relationship management (mCRM), mobile project management, mobile marketing, mobile analytics, mobile point-of-sale (mPOS) systems, mobile wallets, and mobile collaboration tools (Stocchi, 2022). These technologies increase businesses' productivity, efficiency, and customer interaction, while accelerating decision-making processes regardless of location and strengthening strategic flexibility (Oanh, 2021).

However, technology adoption by SMEs is not solely dependent on technological factors. UTAUT provides an important theoretical basis. According to UTAUT, constructs such as usefulness, ease of use, social impact, and hedonic factors determine individuals' intentions to use technology and actual use (Venkatesh et al., 2003). In this context, the attitudes and behaviors of top managers play a decisive role in the adoption and dissemination of mobile technologies.

When it comes to the role of top management, UET offers an important explanation. UET proposes that an organization's strategic decisions and innovation adoption processes are determined by the demographic, psychological, and experiential characteristics of top managers (Hambrick & Mason, 1984). In SMEs, top managers' perception of technology risk, level of innovation, education, and experience (Tatlı, 2022) directly impact the adoption and implementation of mobile technologies. Therefore, managers' characteristics emerge as a critical variable in explaining the organization's speed and effectiveness of technology adoption.

Therefore, in our research, we rely on the UTAUT and UET frameworks to understand mobile technology adoption; these theories are discussed below. UTAUT examines constructs such as perceived usefulness, ease of use, social impact, and hedonic factors that determine individuals' technology use intentions and actual usage behaviors (Venkatesh et al., 2003). On the other hand, UET emphasizes the role of top managers' demographic, psychological, and experiential characteristics in organizational decision-making and innovation adoption (Hambrick & Mason, 1984). Studies on mobile technology adoption in SMEs in Turkey are limited, and most have addressed only technological factors; the impact of top managers' individual characteristics has been largely overlooked (e.g., Uzkurt at al., 2024; Başarir-Özel &

Mardikyan, 2017). In this context, our research offers a unique contribution to the literature by examining the adoption of mobile technologies in Turkish SMEs from the perspective of top managers. This perspective allows for a holistic assessment of both technological factors and managerial characteristics, offering a new perspective on these factors compared to previous studies.

2.1. Unified Theory of Acceptance and Use of Technology Model

The TAM is one of the most widely accepted and empirically supported theoretical frameworks in IT. This model is based on the Theory of Reasoned Action put forward by Fishbein and Ajzen (1975). The theory examines how individuals' attitudes shape their behaviors (Chang, 2010)—at the same time, explaining TAM, Han (2019) based his model on Davis's (1985) model to explain users' adoption and use of new technology. This model focuses on the main factors that affect individuals' decisions to accept and use technology.

According to TAM, perceived usefulness and ease of use are two basic determinants of adopting new technologies (Han, 2019). Perceived ease of use refers to individuals' beliefs that they can use technology effortlessly. The fact that technology is easy to learn and apply increases the likelihood of individuals adopting it. Venkatesh and Davis (2000) also empirically demonstrated that perceived ease of use is an important factor in technology acceptance.

Additionally, Davis's (1993) extended TAM study identified perceived enjoyment as a strong predictor of intention to use the likelihood of eventually adopting the technology. According to Bruner and Kumar (2005), perceived pleasure means the degree to which new technology is perceived as enjoyable, entertaining, and exciting. On the other hand, the Mobile Technology Acceptance Model (MTAM) was first developed by Ooi and Tan (2016), who adapted it to the needs of mobile technologies for information technology research. To capture the characteristics of mobile technology, MTAM, consisting of mobile usefulness and ease of use, was developed from references to previous mobile technology studies (Lew et al., 2020).

The Unified Technology Acceptance and Use of Technology, whose original abbreviation is UTAUT, appears to be an advanced model that has evolved since researchers started examining the TAM approximately thirty years ago. The components or factors of this model are behavioral intention (BI), actual use (ACT), social impact (SI), hedonic, (HE), technology self-efficacy (TSE), mobile ease of use (MEU), and mobile usefulness (MU). Some theories offer a psychological perspective on human behavior, while others may focus on adopting new technologies. Depending on the type of models, these theories can be applied in various research areas, such as information systems and mobile technologies. As researchers continue to examine technology acceptance, more concepts and approaches can be developed (Marikyan & Papagiannidis, 2023).

Compeau and Higgins (1995) explain that technology acceptance in terms of information technologies is largely explained by the TAM and the combined TAM. While TAM and MTAM emphasize the importance of cognitive response in predicting behavior (Venkatesh et al., 2003), they have also focused on system features and attributes in determining innovation adoption. Venkatesh et al. (2003) created a unified technology model by integrating the basic structures that predict behavioral intention and usage to provide a holistic understanding of technology acceptance. It set the goal of developing acceptance theory. To achieve this goal, seminal acceptance literature was reviewed to reveal theoretical and contextual similarities and differences between technology acceptance theories originating from three research streams: social psychology and behavioral psychology. From a management perspective, technology acceptance is explained by different theories. TAM and the UTAUT emphasize the importance of cognitive response in predicting behavior (Marikyan & Papagiannidis, 2023).

2.2. Upper Echelons Theory

UET focuses on the structure of a firm's Top Management Team and the strategic decision-making processes of managers. Large companies are managed through strategic decisions made by competent groups such as the board of directors and C-level managers (General Manager and Deputy General Manager) (Hambrick, 1995; Lamba, 2014). On the other hand, most small businesses with SME status are family companies. In other words, the company's top management consists of the company owner or owners. The top management may include the company owner and partners or relatives. Even in this case, it is known that the decision-making authority lies with the TMT (Hambrick & Mason, 1984).

UET suggests that top managers' backgrounds, experiences, and values (TMT members) significantly influence their strategic choices. The composition of TMT is essential in this context. Team dynamics and decision-making examine the dynamics within TMTs, such as conflict resolution and decision-making processes. Effective teamwork is critical to making sound strategic decisions when considering technology and TMT; the most important issue is seen as digital transformation. As technology continues to reshape industries and organizations, the role of TMTs in leading digital transformation efforts is among the new areas of study (Carpenter et al., 2004; Aslan, 2021).

2.3. Relationships between concepts and hypothesis development

TRA (Theory of Reasoned Action) is introduced as an intention model examined under the title of social psychology to explain general human behavior (Fishbein & Ajzen,

1975). TRA argues that individuals' social behavior depends on their attitudes (Davis et al., 1989). Davis (1989) developed the TAM using TRA as a theoretical basis. This model aims to determine the cognitive and affective factors that are effective in end users' acceptance of information technologies (Davis et al., 1989).

In the study of the impact of mobile shopping applications usage, stated that TAM is frequently used in the literature to predict the use of various information technologies such as online shopping, mobile shopping, and e-mail. It was stated in the same study that perceived usefulness, perceived ease of use and perceived enjoyment, which are the basic structures of TAM, were examined. The effects of these structures on actual use and intention to use were examined (Ünalan et al., 2019).

The usefulness of mobile technologies is evaluated according to their advantages, efficiency-increasing effect, time savings, and rapid completion of work. The first dimension of the TAM is perceived usefulness. It shows the level of belief that business performance will improve by using a technological solution (Davis, 1989). Perceived usefulness is important in strengthening the user's relationship with technology and trust in mobile technology solutions (Giovannini et al., 2015).

An and Yim, (2023) found in their research that perceived usefulness has a strong positive effect on behavioral intention. Papakostas et al. (2022) found that the usefulness of mobile augmented reality technologies increases intention to use. Similarly, research by Al-Rahmi et al. (2022) found that the usefulness of mobile learning tools increases intention to use mobile learning technologies. As can be seen, previous studies in various fields have demonstrated that usefulness increases intention to use. This finding, along with similar conclusions from other studies, reinforces the predictive power of TAM and provides the audience with a sense of reassurance about the model's effectiveness (Hess et al., 2014).

H1a. Mobile technology usefulness (MU) positively affects intention to use (BI)

Perceived ease of use refers to the degree to which the user expects to use the technology. The fact that mobile technologies do not require effort is a degree of ease of use (Davis et al., 1989). Accordingly, it is emphasized that perceived ease of use has a significant and positive effect among potential adopters of the technology. Likewise, it has been stated that managers are more likely to adopt online solutions when technology is easy to use (Guriting & Ndubisi, 2006; Tanos et al., 2024). Similarly, based on Lau et al. (2003) and Zubir et al. (2024), it was concluded that perceived ease of use was significant. Ramayah (2002) stated that perceived ease of use significantly impacts the development of initial willingness to use Internet banking. Similarly, a study found that there is a positive causality between perceived ease of use and intention to use and actual use (Shanmugam et al., 2014; Alshammari & Babu, 2025). According to the information above, MU is expected to affect ACT. Therefore, the research hypothesis is as follows:

H1b. Mobile technology usefulness positively affects actual usage

Various theoretical and empirical studies have demonstrated that the MEU of mobile technologies has a positive effect on individuals' intention to BI It was suggested that how easy a technology is perceived to be to use is an important factor affecting the intention to use that technology. In this model, the low effort required to use the technology is associated with individuals developing positive attitudes toward technology (Maheshwari, 2021). Also empirically tested the effect of the perception of ease of use on behavioral intention and showed that this relationship continues strongly.

Similar results have been achieved in various studies conducted in the context of mobile technologies. In the study conducted by Wu and Wang (2005), it was determined that the perception that mobile commerce applications are easy to use increases users' intentions to use these technologies. In addition, in a study conducted by Lu et al. (2003), it was determined that ease of use is effective in individuals' decision-making processes in the adoption of wireless internet technologies. Based on these findings, it was concluded that how easy mobile technologies are perceived to be to use by users significantly affects the behavioral intention that leads them to use these technologies (Hwang et al., 2024; Tomas & Immerzeel, 2025). According to the information above, MEU is expected to affect BI. Therefore, the research hypothesis is as follows:

H2a. Mobile technology ease of use positively affects intention to use

Users' perceived ease of use in mobile applications and devices is a critical factor that directly influences their effective use of technology. When users perceive mobile technologies as difficult or complex, they are less willing to adopt and use them (Faqih, 2022). In the context of mobile technologies, perceived ease of use is a key determinant of actual use (Hossain et al., 2024). For example, perceived ease of use in mobile applications increases users' intention to adopt the technology and their actual usage levels (Agárdi & Alt, 2024; Erdoğan, 2023). Research by Yenilmez (2024) also found that perceived ease of use is a significant factor in the use of blockchain technologies in Turkish SMEs. Therefore, the research hypothesis is as follows:

H2b. Mobile technology ease of use positively affects actual usage

UTAUT is a frequently used framework for predicting mobile technology use and has been expanded over time with additional factors such as social impact. SI is defined as an element in which individuals' intentions to use technology are shaped by the opinions of important people in their environment. In the literature, it has been demonstrated in numerous studies that the guiding influence of the social environment and reference groups on individuals is a determinant of technology use intention (Venkatesh & Davis,

2000; Wu & Wang, 2005; Agrebi & Jallais, 2015; Shahzad et al., 2024). It has been stated that individuals' intentions to use these technologies, especially in mobile business applications, can be affected by the general perception of technology by friends, family, colleagues, and society.

In a study conducted by Agrebi and Jallais (2015), the effect of social impact on usage intention was examined in detail, and it was concluded that this relationship was significant. Similarly, in the study conducted by Natarajan et al. (2017), the social impact variable was integrated into the model, and the attitudes and intentions of individuals towards mobile business applications were analyzed. These studies show that social norms and the expectations of others serve as an important source of motivation in the process of individuals adopting mobile technologies. According to the information above, SI is expected to affect the BI (Hameed et al., 2024). Therefore, the research hypothesis is as follows:

H3a. Social impact positively affects intention to use

Social impact is a motivating factor in an individual's adoption and use of new technologies. It can also be described as the fact that important people in an individual's life (family, friends) make them feel the need to use a particular technology. With this Social impact, individuals can be expected to develop behavioral tendencies towards technology use (Tatlı et al. 2024). Managers, co-workers, other individuals in the sector, and subordinates can create social impact. Studies have argued that social impact effectively shapes individuals' technology use (Joa and Magsamen-Conrad, 2022; Dwivedi et al., 2019). Research also suggests that social impact is important for the use of mobile business applications in SMEs (Pentina et al. 2012; Nayati Utami et al. 2019). The hypothesis developed based on previous research results and theoretical knowledge is as follows:

H3b. Social impact positively affects actual usage

Hedonic motivation, or hedonic use, refers to the pleasure, entertainment, and sensory gratification dimensions of using a technology. Also included as "Hedonic Motivation" within the UTAUT2 framework, it is observed that users intend to adopt a technology not only for its functional benefits but also for the enjoyment/fun they derive from using it (Venkatesh et al., 2012). Particularly in the context of mobile technologies, users' entertainment-focused or pleasant experience-oriented use ("hedonic use") positively influences adoption intention (Albelbisi et al., 2021; Nikolopoulou et al., 2024). For example, if a mobile application not only facilitates business processes but also provides the user with an enjoyable experience, it can increase their intention to use that technology.

Therefore, explaining top managers' intention to adopt mobile technologies into business processes through hedonic use perceptions contributes to the literature both theoretically and practically. Various theoretical approaches, and studies support the positive impact of hedonic factors (HE) on individuals' BI (Taufique et al., 2024; Alam et al., 2024; Qu & Wu, 2024; Rahayu et al., 2025; Dinh & Park, 2025). This finding has been confirmed across different mobile applications and different user types. However, information on the hedonic use of top managers is limited. In this context, when individuals find technology entertaining, engaging and satisfying, it increases their desire to use this technology, and hedonic factors are considered as an element that directly directs this intention (Chen et al., 2011). According to the information above, HE is expected to affect BI. Therefore, the research hypothesis is as follows:

H4a. Hedonic factors positively affect intention to use

Hedonic factors relate to the sense of personal satisfaction, entertainment, or enjoyment derived from using a technology and are considered an essential source of motivation that shapes users' behavior towards technology (Venkatesh, 2000; Davis et al., 1992). In the context of mobile technologies, users tend to adopt them not only for functionality or efficiency, but also for the level of enjoyment and satisfaction they derive from the experience. Especially for top managers, hedonic satisfaction experienced while using mobile applications in business processes can increase the intention to use technology and actual usage behavior (Yanit et al., 2023). The literature has shown that an enjoyable and satisfying usage experience in mobile business applications enables users to become engaged with the technology and use it regularly (Noerman et al., 2025). In this context, it can be assumed that hedonic factors will increase the usage level of mobile technologies among top managers of SMEs. Thus, the hypothesis formed is as follows:

H4b. Hedonic factors positively affect actual usage

The intention to use a particular technology is greatly influenced by the perceived level of self-efficacy towards the technology. TSE is used to describe the self-belief that individuals can use technology adequately. It has been explained by social psychological models that the individual's perception of control over their own behavior and their expectation of success is effective in the formation of behavioral intention. In the studies developed by Ajzen and Fishbein (1975) and Gu et al. (2009), this relationship has been modeled within the framework of the Theory of Reasoned Action. According to this theory, individuals' intention to perform a particular behavior is formed because of a rational evaluation process; individuals foresee the consequences of their actions and evaluate these consequences in line with their own beliefs (Ramli et al., 2024; Almahri & Saleh, 2025).

In addition, it has been suggested that social pressure is a secondary determinant that shapes an individual's behavioral intention (Fishbein & Ajzen, 1975). When evaluated within this framework, it is assumed that individuals with high technological self-efficacy have stronger intentions to use mobile technologies. Because these individuals tend to evaluate possible outcomes more positively due to their belief that they can use technology effectively. Thus, a positive attitude toward technology and a high perception of self-efficacy becomes a factor that directly increases the intention to use (Shao et al., 2025). According to the information above, TSE is expected to affect BI. Therefore, the research hypothesis is as follows:

H5a. Technology self-efficacy positively affects intention to use

Gu et al. (2009) modeled the relationship between attitudes and choices by the contract. Used the theory of reasoned action. This model provides a social psychological framework that has proven useful. It explains many types of behavior. The behavioral attitude characterizes human behavior as intentional and rational. Use intention assumes that individuals consider the consequences of their actions and act accordingly. It ensures that these consequences are evaluated in line with their beliefs and behaviors regarding the consequences of their actions. Fishbein and Ajzen (1975) argue that the intention to use is a function of two primary determinants, at least one of which is personal, social impact, and the person's nature. The personal factor is the individual's attitude towards behavior. The other determinant of intention is the personal perception of social pressure to perform or not to perform the behavior (Gu et al., 2009). The effect of TSE on perceived ease of use and perceived usefulness directly and indirectly increases usage intention (Chahal & Rani, 2022). In this context, increasing TSE can strengthen individuals' positive attitudes and usage intentions towards technology. According to the information above, TSE is expected to affect ACT. Therefore, the research hypothesis is as follows:

H5b. Technology self-efficacy positively affects actual usage

Perception of ease of use indicates the expected benefit of using mobile technology (Natalia & Tesniwati, 2021). How much effort a new technology requires indicates a degree of ease of use (Davis et al., 1989). Technology adoption may occur when perceived ease of use has a significant and positive impact (Wilson et al., 2021). This indicates that managers have a high rate of adopting mobile technologies in situations where it requires less effort or is easier to learn. According to Guriting and Ndubisi (2006) and Lau et al. (2003), the perception of ease of use was at significant levels. Ramayah (2002) evaluated the perception of convenience as significantly impacting the development of the initial willingness to use online banking. It was stated that there is a same-directional

causality between intention to use and perception of ease of use (Shanmugam et al., 2014). According to the information above, the BI mediation is expected to affect MU on a ACT. Therefore, the research hypothesis is as follows:

H6. Intention to use mediates the effect of mobile technology usefulness on actual usage

Various theoretical and empirical studies have shown that the relationship between MEU and ACT of mobile technologies is indirectly affected by BI (Upadhyay et al., 2022; Unal & Uzun, 2021; Soomro & Habeeb, 2024). In this context, the ease with which individuals perceive technology use causes them to develop positive attitudes toward technology; these attitudes, in turn, transform into behavioral intention and shape final usage behavior (Davis, 1989). The indirect effect of this variable on usage intention is considered as important as the direct effect of ease of use.

In longitudinal studies conducted by Venkatesh and Davis (2000), it was shown that ease of use primarily shapes usage intention rather than directly affecting usage behavior, and this intention turns into actual usage behavior over time. In their study examining mobile commerce applications, Wu and Wang (2005) stated that ease of use positively affects users' intentions towards technology and indirectly affects usage behavior. Therefore, the hypothesis that usage intention mediates the relationship between ease of use and actual usage is as follows:

H7. Intention to use mediates the effect of mobile technology ease of use on actual usage

It has been frequently emphasized in the technological acceptance literature that the effect of social impact (SI) on individuals' ACT of technology is primarily realized indirectly by shaping their BI. In the Causal Action Theory developed by Fishbein and Ajzen (1975), it was stated that an individual's behavior is not directly directed but primarily directed through behavioral intention, and it was suggested that social pressures play an important role in this intention. In this context, it has been shown that the guidance and expectations coming from individuals' social environments strengthen their intentions to use technology, and this intention turns into usage behavior (Ajzen & Fishbein, 1980). Gu et al. (2009), Yunior & Augustine (2024) and Ghose et al. (2025). It was determined that social impact affects individuals' attitudes and intentions toward using technology rather than direct usage behavior, and this effect is reflected in behavior indirectly. In this context, it is stated that the contribution of social impacts to actual technology use is largely shaped by individuals' intentions to use. Therefore, it was concluded that usage intention plays a mediating role in the relationship between social impact and usage behavior.

According to the information above, BI mediation is expected to affect social impact SI on ACT. Therefore, the research hypothesis is as follows:

H8. Intention to use mediates the effect of social impact on actual usage

In the studies conducted, it has been observed that users' hedonic and psychological expectation levels are not considered, especially in technology acceptance (Taufiqu et al., 2024), for example, when they prefer mobile technologies based on their technical features and smart solutions. Hedonic elements are addressed in studies focusing on attitudes toward accepting new technologies (Sharma et al., 2025) and the intention to use them. It has been determined that in these studies, factors belonging to the technology acceptance model, innovation diffusion model (IYM) and technology use and acceptance theory are generally examined. In addition, the criteria that will define consumers' hedonic, social and psychological benefits when choosing mobile technologies are discussed in this dimension of the literature. (Çolak & Kagnicioglu, 2018; Taufiqu et al., 2024; Alam et al., 2014; Chun et al., 2012). They integrated the adoption of technology with social impact, perceived technical features, self-esteem, hedonic entertainment and beneficial use factors and measured acceptance intention using the technology acceptance model. Lau et al. (2016) examined smartphone purchasing intention using a model integrated with subjective norms and perceived pleasure. According to the information above, BI mediation is expected to affect HE on ACT. Therefore, the research hypothesis is as follows:

H9. Intention to use mediates the effect of hedonic factors on actual usage

Self-efficacy refers to the capacity to implement the necessary actions to achieve a specific goal (Al-Adwan et al., 2025). In this context, self-efficacy measures an individual's perception of their skills, not their current skills, and focuses on their personal assessment of how they can complete a specific task (Bandura, 1982). According to Compeau and Higgins' (1995) definition of technology effectiveness, it is a personal assessment of an individual's ability to use technology. According to this definition, technological self-efficacy is aimed at assessing the potential for future success (Deng & Liu, 2025). As emphasized by Torkzadeh and Koufteros (1994), technological self-efficacy focuses on individual differences and the ability to explore technologies. Believing in oneself stands out as an important factor in deciding to use technology in terms of technology self-efficacy and greatly affects trust and behavior towards technologies (Chen et al., 2011). According to the information above, BI mediation expected to affect TSE on ACT. Therefore, the research hypothesis is as follows:

H10. Intention to use mediates the effect of technology self-efficacy on actual usage

The positive effect of BI on individuals' ACT of technology has long been emphasized within the framework of Technology Acceptance (Aini et al., 2025) and is supported by various empirical studies. In this model developed by Davis (1989), it is suggested that

individuals' intentions to use technology determine their actual use behaviors. In this context, it has been shown that individuals with a strong intention to use technology are more likely to convert this intention into actual use over time.

Studies conducted by Venkatesh and Davis (2000) have also empirically proven that behavioral intention directly or indirectly affects usage behavior. These studies have shown that, especially in environments where technology use is adopted over time, individuals first develop intentions and then convert this intention into usage behavior (Ezeudoka & Fan, 2024). A study conducted by Wu and Wang (2005) in the context of mobile commerce applications has revealed that usage intention results in users actively using the technology. Lu et al. (2003), in a study on the adoption of wireless internet technologies, determined that usage intention shapes the final usage decisions of individuals. In line with these results, it was concluded that behavioral intention is an important factor in determining the actual technology usage behaviors of users (Efendi et al., 2024). According to the information above, BI is expected to affect ACT. Therefore, the research hypothesis is as follows:

H11. Behavioral intention has a positive effect on actual usage

A conceptual model of the research was created to test the hypotheses listed above. The conceptual model is presented in Figure 1. A review of previous studies reveals that the factors influencing the adoption of mobile business applications by top managers in Turkish SMEs have not been comprehensively addressed within the UTAUT and Upper Echelon Theory frameworks. In particular, the effects of mobile usability, perceived ease of use, social impact, hedonic factors, and technology self-efficacy on both intention to use and the resulting usage behavior have not been comprehensively examined in previous research (Venkatesh et al., 2003; Hambrick & Mason, 1984; Yılmaz & Arslan, 2022). To address this gap, our study was designed as a model that combines these variables and aims to explain the adoption and use of mobile business applications by top managers from both theoretical and practical perspectives.

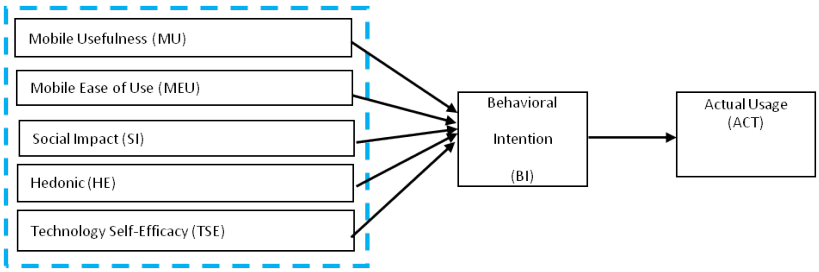

Figure 1. **Conceptual framework**

Source: own study

3. Materials and methods

In this study, SmartPLS 3 program was preferred for data analysis. SmartPLS 3 uses a partial least squares (PLS)-based structural equation modeling approach and offers different advantages than traditional covariance-based SEM programs. Especially in cases where the sample size is limited, the data are not normally distributed, or the model contains complex and many structural relationships, PLS-SEM provides more robust and flexible results (Hair et al., 2019).

PLS-SEM focuses on increasing the explanatory power of the model and is more suitable for generating theoretical explanations in line with the purpose of the research. Therefore, SmartPLS 3 was preferred for multivariate and structurally complex studies such as technology acceptance among managers using mobile business applications. In addition, SmartPLS 3's support for advanced statistical techniques such as bootstrapping and discriminant validity and its ability to easily perform critical checks such as multiple linear correlation analysis (VIF) are among the reasons for its preference (Ringle et al., 2015).

Data collection for this study was conducted via the Google Form platform in November 2023. The survey questions were prepared as an online form and delivered digitally to participants in managerial and business-owner positions in very small, small, and medium-sized enterprises across Turkey. A link was shared for participants to complete the survey. According to data from the Turkish Statistical Institute (TurkStat), the number of SMEs operating in Turkey in 2023 was approximately 3.7 million, and these enterprises constitute 99.7% of the Turkish economic structure. Furthermore, SMEs provide 70.5% of total employment. Therefore, the target population of the study, the number of SME managers and owners, is quite large, and the sample size for the study was selected from this large universe (TUIK, 2023). A total of 204 surveys were collected, and 196 were considered valid for analysis based on data quality and deficiencies. 8 surveys were deleted due to incomplete responses and marking only one response. This sample size was evaluated in light of principled approaches in the literature regarding sample selection and size.

The adequacy of the sample size for structural equation model analyses was assessed using G*Power 3.1 to estimate power. Assuming five independent variables, one mediator variable, and one dependent variable in the model, a minimum of 80 participants was determined to be sufficient at 80% power and $\alpha = 0.05$. This result supports the adequacy of the sample size for structural model analyses conducted with SmartPLS.

3.1. Measurements

The study's measurement tool is based on the one adapted by Lew et al. (2020). Furthermore, as in the extended TAM (Venkatesh et al., 2012), various researchers

contributed to the development of the scale's dimensions (see Appendix 1). For the Turkish form of the scale, studies of different researchers were used (Appendix 1).

The scale includes basic dimensions such as technology use intention, actual use, social impact, hedonic use, technology self-efficacy, and mobile ease of use. In particular, the scale was developed for mobile wallet applications, but its validity and reliability have been proven in studies examining the acceptance of mobile technologies in different sectors. Therefore, it was preferred as a suitable tool for evaluating managers' technology acceptance and use of mobile business applications in our study. The Turkish forms of the scale can be easily adapted to the intended use. As seen in previous studies, they have been applied to different topics (e.g., Oye et al., 2014; Wang et al., 2020; Rejali et al., 2023; Tatlı et al., 2024; Sharma et al., 2025). The scale consists of 31 items and 7 dimensions. Mobile usefulness of 5 items; mobile ease of use, 4 items; social impact, 5 items; hedonic use, 4 items; technology self-efficacy, 4 items; behavioral intention, 5 items; and actual use, 4 items. A 5-point Likert-type scale was used for data analysis. This thesis used a scale of 1- strongly disagree, 2- disagree, 3- undecided, 4- agree, and 5- strongly agree.

3.2. Participants and procedure

The main purpose of the research is to investigate an improved conceptual model regarding the acceptance of mobile technologies by decision-makers in SMEs, especially on the management floor. It explains how individual effort, social impact, performance expectation and hedonic factors affect SME managers' mobile technology acceptance and use. A comprehensive understanding of this model will provide valuable information about the factors affecting mobile technology acceptance. Target users' acceptance or resistance to mobile technologies offers opportunities for the future. Additionally, understanding these variables can motivate the design of meaningful training activities to promote and implement the structuring of SMEs' IT infrastructure and digitalization transformation.

In the research, adult employees, especially participants who are employers or managers in very small (1 - 49 employees), small (50-99 employees) and medium (100-249 employees) sized enterprises, were reached throughout Turkey. Convenience sampling technique was used to determine the sample of the data. The convenience sampling technique saves cost and time in collecting data in samples that are difficult to reach. Frequency data for the demographic questions asked to the participants in the first part of the survey are found in Table 6. According to this data, 41% of the participants are women, and 59% are men. All participants in this research are managers and company owners. 20% are Company Owners, and 14.4% are Top Managers. 100% of the participants were in managerial positions. When evaluated in terms of age groups, the highest rate of participants between the ages of 31 and 50 is 68.2%. The education

percentage of the participants is 59% university graduates and 29.2% graduates. When Table 6 is examined on a sector basis, it is seen that the Telecom sector is 40.5%, and the Service Sector follows it with 31.3%.

4. Findings

This section systematically presents the main findings of the study. The results of analyses related to scale reliability and validity, such as factor loadings, internal consistency, structural validity, and discriminant validity, are detailed, as are the statistical values supporting the explanatory and predictive power of the model. Furthermore, the significance of direct and indirect relationships between variables is assessed through hypothesis testing.

Table 1. **Factor loadings and VIF values**

	ACT	BI	HE	MEU	MU	SI	TSE	VIF
gk4	0.949							3.006
gk1	0.938							5.871
gk3	0.937							4.023
dn2		0.883						3.123
dn3		0.954						3.893
dn4		0.921						3.894
dn5		0.882						4.340
he1			0.932					5.721
he2			0.927					4.763
he3			0.881					3.398
he4			0.896					2.819
mk1					0.945			5.202
mk2					0.930			4.471
mk3					0.898			3.276
mk4					0.868			2.497
mkk1				0.935				4.844

mkk2				0.930				5.060
mkk3				0.928				4.351
mkk4				0.914				4.312
se1						0.916		2.729
se4						0.915		2.715
se5						0.841		1.922
to1							0.921	3.999
to2							0.905	3.485
to3							0.937	4.643
to4							0.905	3.435

Source: own study

The validity of the scale was supported by factor loadings and multicollinearity analyses. The items in the scale showed high factor loadings in the relevant dimensions (range 0.84 - 0.95), which confirms the structural validity of the measurement tools (Hair et al., 2017; Lew et al., 2020). The seven dimensions in the model were defined as Actual Usage (ACT), Behavioral Intention (BI), Hedonic Usage (HE), Mobile Ease of Use (MEU), Usefulness of Mobile Technology (MU), Social Impact (SI) and Technology Self-Efficacy (TSE). Multiple collinearity (VIF) analyses showed values ranging from 1.92 to 5.87, and since it was acceptable within these limits, there was no high multicollinearity problem in the model (Hair et al., 2019; Kock, 2015). These results show that the model is suitable for reliable and valid measurement among managers who use mobile business applications.

Table 2. **Internal consistency and structural validity values of the scales**

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
ACT	0.936	0.938	0.959	0.886
BI	0.931	0.936	0.951	0.829
HE	0.931	0.942	0.950	0.827
MEU	0.945	0.950	0.960	0.859
MU	0.931	0.934	0.951	0.829

SI	0.870	0.884	0.920	0.794
TSE	0.937	0.938	0.955	0.841

Source: own study

Internal consistency reliability and convergent validity analyses were performed for the constructs included in the model. Cronbach's Alpha values ranged between 0.870 and 0.945 for all constructs, which is above the recommended lower limit of 0.70 (Nunnally & Bernstein, 1994). Similarly, rho_A and composite reliability values were found to be in the range of 0.884–0.950 and 0.920–0.960, respectively, and all values exceeded 0.70 (Hair et al., 2017). These results show that the scales have high internal consistency. The average variance explained values used in the convergent validity assessment also ranged between 0.794 (SI) and 0.886 (ACT) for all constructs. Since all AVE values are above the threshold value of 0.50, the constructs have sufficient convergent validity (Fornell & Larcker, 1981). These findings reveal that the model meets the reliability and validity criteria for the measurement model.

Table 3. **Discriminant validity**

Fornell- Larcker							
	ACT	**BI**	**HE**	**MEU**	**MU**	**SI**	**TSE**
ACT	0.941						
BI	0.619	0.911					
HE	0.722	0.502	0.909				
MEU	0.761	0.554	0.747	0.927			
MU	0.676	0.621	0.612	0.698	0.911		
SI	0.670	0.603	0.657	0.689	0.685	0.891	
TSE	0.733	0.568	0.662	0.690	0.633	0.593	0.917
HTMT							
	ACT	**BI**	**HE**	**MEU**	**MU**	**SI**	**TSE**
ACT							
BI	0.660						
HE	0.766	0.529					

MEU	0.805	0.585	0.788				
MU	0.725	0.664	0.647	0.741			
SI	0.731	0.664	0.711	0.749	0.760		
TSE	0.783	0.606	0.704	0.733	0.677	0.647	

Source: own study

To test whether the discriminant validity was achieved among the constructs used in the study, Fornell-Larcker criterion and Heterotrait-Monotrait (HTMT) ratio analyses were performed.

Firstly, according to the Fornell-Larcker criterion, the square root of the average variance explanation (AVE) value of a construct should be greater than its correlations with other constructs (Fornell & Larcker, 1981). The findings show that the square root of the AVE of each construct is greater than its correlations with other constructs. This result shows that the constructs in the model are separated from each other, and that discriminant validity is provided according to the Fornell-Larcker criterion.

In addition, HTMT ratios were also evaluated. HTMT is a method that tests the validity between the constructions more sensitively, and it is accepted that discriminant validity is achieved if the values are below 0.85 (in some cases 0.90) (Henseler et al., 2015). According to the analysis results, all HTMT values remained below this threshold value. This indicates that there is a high level of discriminant validity between the constructions in the model. As a result, the findings obtained in line with both the Fornell-Larcker criterion and the HTMT analysis reveal that the constructs in the research model are significantly separated from each other, and discriminant validity is achieved.

In addition, the explanatory power and predictive power of the structural model were evaluated. R^2 values were found to be 0.472 for BI and 0.383 for Actual Usage from the dependent variables. These values show that the model explains 47.2% and 38.3% of the variance in the relevant variables, respectively (Hair et al., 2017). The Q^2 values examined to determine the predictive power of the model were obtained as 0.365 for BI and 0.330 for ACT. Q^2 values greater than 0 show that the model has predictive power and especially values above 0.15 mean moderate predictive power (Hair et al., 2017). When the f^2 values revealing the effect size between variables are examined, the effect of the BI variable on ACT is found to be high ($f^2 = 0.620$); The effects of HE ($f^2 = 0.000$) and MEU ($f^2 = 0.001$) variables on BI are negligible. On the other hand, the effects of MU ($f^2 = 0.066$), SI ($f^2 = 0.055$) and TSE ($f^2 = 0.039$) variables on BI have small effect sizes. For the f^2 value, 0.02 is accepted as small, 0.15 as medium and 0.35 as large effect levels (Cohen, 1988). The findings show that the model is sufficiently valid in terms of both explanatory and predictive value.

Table 4. **Total and indirect effects**

Total effects				
	Original Sample (O)	**T Statistics**	**P Values**	**Hypotheses**
MU -> BI	0.291	2.605	0.009	H1a-Supported
MU -> ACT	0.180	2.479	0.014	H1b-Supported
MEU_ -> BI	0.035	0.351	0.726	H2a-Not Supported
MEU_ -> ACT	0.021	0.341	0.733	H2b-Not Supported
SI -> BI	0.264	3.117	0.002	H3a-Supported
SI -> ACT	0.163	2.698	0.007	H3b-Supported
HE -> BI	-0.018	0.213	0.831	H4a-Not Supported
HE -> ACT	-0.011	0.215	0.830	H4b-Not Supported
TSE -> BI	0.216	2.358	0.019	H5a-Supported
TSE -> ACT	0.134	2.275	0.023	H5b-Supported
Indirect effects				
MU -> BI -> ACT	0.180	2.479	0.014	H6-Supported
MEU_ -> BI -> ACT	0.021	0.341	0.733	H7-Not Supported
SI -> BI -> ACT	0.163	2.698	0.007	H8-Supported
HE -> BI -> ACT	-0.011	0.215	0.830	H9-Not Supported
TSE -> BI -> ACT	0.134	2.275	0.023	H10-Supported
BI -> ACT	0.619	7.701	0.000	H11-Supported

Source: own study

According to the research results, it was determined that BI had a significant and strong effect on ACT ($\beta = 0.619$, $p < 0.001$). The effects of HE on both BI and ACT were not found to be significant (BI → ACT: $\beta = -0.011$, $p = 0.830$; HE → BI: $\beta = -0.018$, $p = 0.831$).

MEU variable has no significant effect on both direct ACT and BI. (MEU → ACT: $\beta = 0.021$, $p = 0.733$; MEU → BI: $\beta = 0.035$, $p = 0.726$). MU has significant positive effects on both BI and ACT. (MU → BI: $\beta = 0.291$, $p = 0.009$; MU → ACT: $\beta = 0.180$,

p = 0.014). Similarly, Social impact SI was found to have significant positive effects on both behavioral intention (β = 0.264, p = 0.002) and actual usage (β = 0.163, p = 0.007). TSE variable also exhibited significant positive effects on both BI and ACT (TSE → BI: β = 0.216, p = 0.019; TSE → ACT: β = 0.134, p = 0.023).

When the indirect effects were examined, it was seen that the variables of MU, Social impact SI and TSE had significant positive indirect effects on ACT via BI (β = 0.180, p = 0.014; β = 0.163, p = 0.007; β = 0.134, p = 0.023, respectively). This shows that these variables indirectly support actual usage behaviors by increasing users' intention to use technology. On the other hand, the indirect effects of HE and MEU on usage via behavioral intention were not significant.

5. Discussion

The results of this study have practical implications that SME executives and business owners can evaluate. The perceived usefulness of mobile business applications was found to positively affect behavioral intention and serve as a mediating factor for the acceptance of mobile technologies. Similarly, mobile usefulness and self-efficacy were identified as factors that positively affect behavioral intention. Furthermore, the study revealed that hedonic factors and perceived ease of use did not have a significant effect on mobile technology acceptance and mediating role. These findings provide valuable insights into perceptions and capabilities and guidance for adoption and usage.

It can be said that more research is needed to address the acceptance of mobile technologies in terms of SMEs. Considering that the decision makers on the management floor are usually company owners or managers, this research fulfills the necessity of investigating the acceptance of mobile technologies among the TMT. The research explores the factors influencing managers' acceptance of mobile technologies in SMEs. The basic hypothesis suggests that SME TMT adopt mobile technologies when evaluating performance expectations, social impact, individual or organizational effort, and self-efficacy factors.

In this context, discussion topics and suggestions can be made on the study results. The impact of mobile technology on business performance can be considered a separate research topic. In the research, how mobile technologies can contribute to increasing efficiency and ensuring business sustainability in SMEs, and at this point, the effect of mobile technologies on business performance can be examined in more depth. The exploratory study of Van Akkeren & Harker (2002) revealed that SME owners and managers are distant from new technologies due to the lack of trust in the IT sector and the cost of technologies.

The impact of demographic factors can be evaluated in depth. This study addressed the current situation. Instead of taking pictures of where they are now, future researchers

can examine future trends in mobile technology use. In this context, there is a need for research to be conducted from a proactive perspective to provide a greater understanding of future technological developments and how SMEs will adopt and use mobile technologies. This study guides possible future research on the acceptance of mobile technology use by managers in SMEs. Another research topic could be the importance of cost and investment budget in Mobile Technology Acceptance. In-depth research on the subject could help SMEs use mobile technologies more efficiently. The research focused on SME company owners or managers. Reaching out to participants and getting them to respond to the survey was a significant effort. The high average age of the sample and the fact that they were among business owners caused some imbalances and issues in the scale responses. This was identified during the analysis and led to the removal of nine survey results from the analysis. The decision to evaluate only SMEs and their managers and company owners during the survey invitation process was a strategic one. However, it did create a limitation in accessing a larger participant mass.

Behavioral intention significantly and strongly influenced actual usage in this study. It has been established that the intention to utilize mobile technologies plays a mediating role in the relationship between social impact, technological self-efficacy, and actual utilization of mobile technologies. The results showed that neither hedonic nor mobile ease of use had a direct or indirect impact on the behavioral intention of actual use.

If we briefly touch upon the results found in similar studies, Eze et al. (2019) found that mobile technology adoption has an impact on SMEs. The other study done in Italy stated 28 Italian SMEs that have adopted mobile internet applications (Balocco et al., 2009). A survey was conducted on 174 SMEs in Uganda; they optimized their business processes by aligning mobile technology applications to increase customer service and productivity (Muhanguzi & Kyobe, 2014). This study shows that managers' behavioral intentions and facilitating conditions, such as performance expectancy, effort expectancy, social impact, and self-efficacy, directly affect technology acceptance (Yawised et al., 2025). Self-efficacy affects the TAM in which the research was conducted. However, hedonic motivation was not found to have a significant moderating effect on the relationship between competitive advantage and mobile commerce adoption (Salimon et al., 2023). This research explores a conceptual model designed to explain the acceptance of mobile technologies in SMEs, particularly at the top management level. The study allows an understanding of the impact of individual effort, social impact, technological self-efficacy, performance expectancy and hedonic factors on the acceptance and use of mobile technology by managers in SMEs (Tarhini et al., 2019; Nuryyev et al., 2020). Statistical analyses using the UTAUT for mobile-based solutions have evaluated the impact of factors such as ease of use, usefulness, self-efficacy, and hedonic factors on the behavioral intention to use mobile technologies (Seethamraju et al., 2018; Parhamnia, 2022; Alowayr, 2022; Alderete et al., 2024; Ali & Arshad, 2016)

Two significant points might be mentioned in the context of these findings: The usage of mobile technology can be encouraged by top management's influence in firms, as they are inclined to embrace digital technologies and encourage their employees to use them. Businesses can operate more sustainably and make better use of their resources in this way. Similarly, the helpful, user-friendly, and even exciting superior features of mobile technologies and commercial applications made possible by them can increase the adoption of mobile technology.

6. Conclusions

When SMEs' top managers perceive mobile technologies as easy to use and valuable for business purposes, are satisfied with using them, receive support from the social environment, and consider themselves individually competent to use technology solutions, their tendency to use them increases. A high intention to use ensures that companies use mobile applications for business purposes. Within the framework of these findings, it is possible to mention two important points: The fact that company managers are prone to digital technologies and encouraging company members to use mobile technologies can motivate the use of mobile technologies with the influence of top management in companies. In this way, companies can use their resources more effectively and operate sustainably. Likewise, the fact that mobile technologies and business applications offered through these technologies have useful, easy-to-use, and even exciting superior features can expand the use of mobile technology.

The general findings of current academic studies on the adoption of mobile and digital technologies in SMEs in 2023 and 2024 support the theoretical and practical contributions of the study. In such studies, the generally accepted theories of the TAM and the UTAUT are frequently applied and analyzed. Research reveals that performance expectation, social impact, and individual self-confidence are important determinants of the acceptance of mobile/digital technologies in SMEs (Yawised et al., 2025; Tarhini et al., 2019). The effects of ease of use and hedonic motivation vary according to sectoral and contextual differences but are generally limited for decision-makers at the top management level (Salimon et al., 2023; Seethamraju, 2018). In this regard, demonstrating parallelism with the findings obtained in the study is important for adapting the research's theoretical models to different contexts. These results are consistent with the study's findings that usefulness, social impact, and technological self-efficacy have significant positive effects on both intention to use and actual use. Furthermore, the OECD (2024) report, which reveals next-generation digitalization trends and the effectiveness of SMEs in developing digital strategies, supports the increasing importance of the role of top management in the digital transformation process of SMEs. While the findings on the ineffectiveness of hedonic motivation have been addressed in mixed ways in various studies, there is evidence suggesting limited impact, particularly in business life, where

social impact and performance-based expectations are at the forefront (Widagdo & Roz, 2024; Salimon et al., 2023). This study offers a valuable contribution, demonstrating that practical applications, particularly in the development of digital technology strategies driven by top management, should focus on utility, social impact, and self-confidence.

In conclusion, the current study makes an original contribution to the literature by comprehensively examining top managers' perceptions and behaviors toward mobile technologies in the context of SMEs in Turkey. The study adapts the UTAUT and TAM literature to Turkey's unique market conditions and, using the UET perspective, reveals how the individual characteristics and decision-making processes of top managers shape mobile technology adoption. This approach offers concrete recommendations for managerial decision-making processes and practical applications.

In this context, factors such as performance expectations, social impact, and technological self-efficacy are emphasized as critical variables in ensuring technology acceptance. Furthermore, from the UET perspective, it demonstrates that top management characteristics and strategic preferences should be considered in the design of digitalization policies and SME support programs. Thus, the study makes a valuable contribution to both the development of the academic field and to the role of digital transformation in business performance.

However, these findings have other limitations. The research results cover the SMEs' top management level. Therefore, it cannot explain the technology acceptance process of large enterprises. Although this research worked with the TMT, some characteristics of the TMT were ignored. For example, manager education level, sector of activity, work experience, etc. Another limitation of the research is ownership status. Company owners are in a superior position in the decision-making mechanism. The direct impact of company owners' use of mobile technology has not been evaluated. Finally, another indicator is the sector in which it operates. The level of acceptance of mobile technology may also vary by sector. Since these factors are ignored in the research, they constitute a limitation of the research.

Authors' contribution

B.G. and H.S.T.: article conception, theoretical content of the article, research methods applied, conducting the research, data collection, analysis and interpretation of results and draft manuscript preparation.

Declaration of Generative AI and AI-assisted technologies in the writing process

While preparing this work, the authors did not use any tool/service.

References

Ada, S., & Tatlı, H. S. (2013). Akıllı telefon kullanımını etkileyen faktörler üzerine bir araştırma [A study on the factors affecting smartphone usage]. In *Proceedings of the XV. Akademik Bilişim Sempozyumu* (Antalya, Turkey). http://ab.org.tr/ab13/bildiri/74.pdf

Agárdi, I., & Alt, M. A. (2024). Do digital natives use mobile payment differently than digital immigrants? A comparative study between generation X and Z. *Electronic Commerce Research*, *24*(3), 1463-1490. https://doi.org/10.1007/s10660-022-09537-9

Agrebi, S., & Jallais, J. (2015). Explain the intention to use smartphones for mobile shopping. *Journal of Retailing and Consumer Services, 22*, 16–23. https://doi.org/10.1016/j.jretconser.2014.09.003

Aini, Q., Manongga, D., Rahardja, U., Sembiring, I., & Li, Y. M. (2025). Understanding behavioral intention to use of air quality monitoring solutions with emphasis on technology readiness. *International Journal of Human–Computer Interaction, 41*(8), 5079-5099. https://doi.org/10.1080/10447318.2024.2357860

Ajzen, I, & Fishbein, M. (1975). A Bayesian analysis of attribution processes. *Psychological Bulletin 82*(2), 261-277. https://doi.org/10.1037/h0076477

Al-Adwan, A. S., Meet, R. K., Anand, S., Shukla, G. P., Alsharif, R., & Dabbaghia, M. (2025). Understanding continuous use intention of technology among higher education teachers in emerging economy: Evidence from integrated TAM, TPACK, and UTAUT model. *Studies in Higher Education, 50*(3), 505-524. https://doi.org/10.1080/03075079.2024.2343955

Alam, S. S., Ahmed, S., Kokash, H. A., Mahmud, M. S., & Sharnali, S. Z. (2024). Utility and hedonic perception-Customers' intention towards using of QR codes in mobile payment of Generation Y and Generation Z. *Electronic Commerce Research and Applications, 65*, 101389. https://doi.org/10.1016/j.elerap.2024.101389

Al-Azmi, M. T., Retnani, W. E. Y., Putra, J. A., & Afrianto, E. (2024). Analysis of user acceptance factors in kai access mobile application using the unified technology of acceptance and use of technology (UTAUT) method. *LOREM: Computational Engineering and Computer Information Systems, 1*(1), 36-47.

Alderete, M. V. (2017). Mobile broadband: a key enabling technology for entrepreneurship?. *Journal of Small Business Management, 55*(2), 254-269. https://doi.org/10.1111/jsbm.12314

Alhalafi, N., & Veeraraghavan, P. (2023). Exploring the challenges and issues in adopting cybersecurity in Saudi smart cities: Conceptualization of the cybersecurity-based UTAUT model. *Smart Cities, 6*(3), 1523-1544. https://doi.org/10.3390/smartcities6030072

Ali, I., & Warraich, N. F. (2024). Use and acceptance of technology with academic and digital libraries context: A meta-analysis of UTAUT model and future direction. *Journal of Librarianship and Information Science*, *56*(4), 965-977. https://doi.org/10.1177/09610006231179716

Ali, R. A., & Arshad, M. R. M. (2016). Understanding intention to use mobile learning: A perspective of the extended unified theory of acceptance and use of technology. *International Journal of Advanced and Applied Sciences (IJAAS), 3*(7), 81-88. http://dx.doi.org/10.21833/ijaas.2016.07.013

Almahri, F. A. A. J., & Saleh, N. I. M. (2025). Insights into technology acceptance: A concise review of key theories and models. *Innovative and Intelligent Digital Technologies; Towards an Increased Efficiency: Volume 2*, 797-807. https://doi.org/10.1007/978-3-031-71649-2_67

Alowayr, A. (2022). Determinants of mobile learning adoption: Extending the unified theory of acceptance and use of technology (UTAUT). *The International Journal of Information and Learning Technology, 39*(1), 1-12. https://doi.org/10.1108/IJILT-05-2021-0070

Al-Rahmi, A. M., Al-Rahmi, W. M., Alturki, U., Aldraiweesh, A., Almutairy, S., & Al-Adwan, A. S. (2022). Acceptance of mobile technologies and M-learning by university students: An empirical investigation in higher education. *Education and Information Technologies*, *27*(6), 7805-7826. https://doi.org/10.1007/s10639-022-10934-8

Alshammari, S. H., & Babu, E. (2025). The mediating role of satisfaction in the relationship between perceived usefulness, perceived ease of use and students' behavioural intention to use ChatGPT. *Scientific Reports, 15*(1), 7169. https://doi.org/10.1038/s41598-025-91634-4

Alzghoul, A., Khaddam, A. A., Abousweilem, F., Irtaimeh, H. J., & Alshaar, Q. (2024). How business intelligence capability impacts decision-making speed, comprehensiveness, and firm performance. *Information Development, 40*(2), 220-233. https://doi.org/10.1177/02666669221108438

An, S., Eck, T., & Yim, H. (2023). Understanding consumers' acceptance intention to use mobile food delivery applications through an extended technology acceptance model. *Sustainability*, *15*(1), 832. https://doi.org/10.3390/su15010832

Ar. A. A. & İskender H. (2005). Türkiye'de Kobi'ler ve Kobi'lerde planlama, uygulama ve denetim [SMEs in Turkey and planning, implementation and control in SMEs]. *Mevzuat Dergisi, 87*(5).

Aslan, M. (2021). Örgüt yapısının tekrar incelenmesi [Organizational structure revisited]. *Business & Management Studies: An International Journal, 9*(1), 282–294. https://doi.org/10.15295/bmij.v9i1.1769

Balocco, R., Mogre, R., & Toletti, G. (2009). Mobile internet and SMEs: A focus on the adoption. *Industrial Management & Data Systems, 109*(2), 245-261. https://doi.org/10.1108/02635570910930127

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*(2), 122–147. https://doi.org/10.1037/0003-066X.37.2.122

Basarir-Ozel, B., & Mardikyan, S. (2017). Factors affecting E-commerce adoption: A case of Turkey. *The International Journal of Management Science and Information Technology (IJMSIT)*, (23), 1-11.

Çakır, İ. & Kazançoğlu, İ. (2020). Sanal market alışverişi yapma niyetinde genişletilmiş teknoloji kabul modeli bileşenleri ile risk algılarının etkisi [The effect of risk perceptions on the intention to online grocery shopping with extended technology acceptance model components]. *Manisa Celal Bayar Üniversitesi Sosyal Bilimler Dergisi*, *18*, 305–326. https://doi.org/10.18026/cbayarsos.685067

Carpenter, M. A., Geletkanycz, M. A., & Sanders Gerard, Wm. (2004). Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition. *Journal of Management, 30*(6), 749-778. https://doi.org/10.1016/j.jm.2004.06.001

Chahal, J., & Rani, N. (2022). Exploring the acceptance for e-learning among higher education students in India: combining technology acceptance model with external variables. *Journal of Computing in Higher Education, 34*(3), 844-867. https://doi.org/10.1007/s12528-022-09327-0

Chang, S. H. Chou, C. H. & Yang, J. M. (2010). The literature review of technology acceptance model: A study of the bibliometric distributions, *PACIS 2010 Proceedings 158,* 1635.

Chen, J., Wang, T., Fang, Z., & Wang, H. (2023). Research on elderly users' intentions to accept wearable devices based on the improved UTAUT model. *Frontiers in Public Health, 10,* 1035398. https://doi.org/10.3389/fpubh.2022.1035398

Chen, K. Chen, J. V. & Yen, D. C. (2011). Dimensions of self-efficacy in the study of smart phone acceptance. *Computer Standards and Interfaces, 33*(4), 422-431. https://doi.org/10.1016/j.csi.2011.01.003

Chun, H. Lee, H. & Kim, D. (2012). The integrated model of smartphone adoption: Hedonic and utilitarian value perceptions of smartphones among Korean college students. *Cyberpsychology, Behavior, and Social Networking, 15*(9), 473-479. https://doi.org/10.1089/cyber.2012.0140

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Çolak, H., & Kağnıcıoğlu, C. H. (2018, May 24–25). *Identification of prominent criteria in the selection of new generation smartphones: An application in Anadolu University* (pp. 442–448). 4th Global Business Research Congress, İstanbul. http://doi.org/10.17261/Pressacademia.2018.931

Compeau, D. R., & Higgins, C. A. (1995). Computer self-efficacy: Development of a measure and initial test. *MIS Quarterly, 19*(2), 189–211. https://doi.org/10.2307/249688

Coşkun, B. (2023). KOBİ'lerde modern yönetim tekniklerinin uygulanması: Van Organize Sanayi Bölgesi örneği [Implementation of modern management techniques in SMEs: The case of Van Organized Industrial Zone] [Unpublished master's thesis]. Bartın University.

Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance. *MIS Quarterly, 13*(3), 319- 340. https://doi.org/10.2307/249008

Davis, F.D. Bagozzi, R.P. & Warshaw, P.R. (1989). User acceptance of computer technology: A comparison of two. *Management Science, 35*(8), 982- 1001. https://doi.org/10.1287/mnsc.35.8.982

Deng, Y., & Liu, H. (2025). To overcome test anxiety in online assessment: unpacking the mediator roles of techno competencies, teacher support, self-efficacy, and autonomy. *BMC Psychology, 13*(1), 192. https://doi.org/10.1186/s40359-025-02545-y

Dinh, C. M., & Park, S. (2024). How to increase consumer intention to use Chatbots? An empirical analysis of hedonic and utilitarian motivations on social presence and the moderating effects of fear across generations. *Electronic Commerce Research*, *24*(4), 2427-2467. https://doi.org/10.1007/s10660-022-09662-5

Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M., & Williams, M. D. (2019). Re-examining the unified theory of acceptance and use of technology (UTAUT): Towards a revised theoretical model. *Information Systems Frontiers*, *21*(3), 719-734. https://doi.org/10.1007/s10796-017-9774-y

Efendi, B., Ekasari, S., Sani, I., Wakhidah, E. N., & Munizu, M. (2024). Analysis of the influence of behavioral intention, perceived ease of use and perceived usefulness on actual usage of digital wallet customers. *JEMSI (Jurnal Ekonomi, Manajemen, dan Akuntansi), 10*(1), 209-214. https://doi.org/10.35870/jemsi.v10i1.1897

Erdoğan, G. (2023). Mobil alışveriş uygulamalarında algılanan faydanın öncülü ve sonuçları [Antecedent and consequences of perceived usefulness in mobile shopping applications]. *Gazi İktisat ve İşletme Dergisi*, *9*(2), 162-177. https://doi.org/10.30855/gjeb.2023.9.2.004

Eze, S. C., Chinedu-Eze, V. C., Bello, A. O., Inegbedion, H., Nwanji, T., & Asamu, F. (2019). Mobile marketing technology adoption in service SMEs: A multi-perspective framework. *Journal of Science and Technology Policy Management, 10*(3), 569-596. https://doi.org/10.1108/JSTPM-11-2018-0105

Ezeudoka, B. C., & Fan, M. (2024). Determinants of behavioral intentions to use an E-Pharmacy service: Insights from TAM theory and the moderating influence of technological literacy.

Research in Social and Administrative Pharmacy, 20(7), 605-617. https://doi.org/10.1016/j.sapharm.2024.03.007

Faqih, K. M. (2022). Factors influencing the behavioral intention to adopt a technological innovation from a developing country context: The case of mobile augmented reality games. *Technology in Society*, *69*, 101958. https://doi.org/10.1016/j.techsoc.2022.101958

Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research. Addison-Wesley.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50. https://doi.org/10.1177/002224378101800104

Ghose, P., Bhuiyan, M. R. I., Hasan, M. N., Rakib, S. H., & Mani, L. (2025). Mediated and moderating variables between behavioral intentions and actual usages of fintech in the USA and Bangladesh through the extended UTAUT model. *International Journal of Innovative Research and Scientific Studies, 8*(2), 113-125. https://doi.org/10.53894/ijirss.v8i2.5130

Giovannini, S., Xu, Y., & Thomas, J. (2015). Luxury fashion consumption and Generation Y consumers: Self, brand consciousness, and consumption motivations. *Journal of Fashion Marketing and Management, 19*(1), 22-40. https://doi.org/10.1108/JFMM-08-2013-0096

Graham, J. R., Harvey, C. R., & Puri, M. (2015). Capital allocation and delegation of decision-making authority within firms. *Journal of Financial Economics*, *115*(3), 449-470. https://doi.org/10.1016/j.jfineco.2014.10.011

Grant, C. A., Wallace, L. M., & Spurgeon, P. C. (2013). An exploration of the psychological factors affecting remote e-worker's job effectiveness, well-being and work-life balance. *Employee Relations, 35*(5), 527-546. https://doi.org/10.1108/ER-08-2012-0059

Gu, J. C., Lee, S. C., & Suh, Y. H. (2009). Determinants of behavioral intention to mobile banking. Expert *Systems with Applications,* 36(9), 11605-11616. https://doi.org/10.1016/j.eswa.2009.03.024

Gulacti, S. (2020). Finansal teknoloji kullanıcılarını etkileyen faktörlerin teknoloji kabul modeli ile belirlenmesi [Determining the factors affecting financial technology users using technology acceptance model]. (Master's thesis), Gümüşhane University.

Guriting, P., & Oly Ndubisi, N. (2006). Borneo online banking: evaluating customer perceptions and behavioural intention. *Management Research News, 29*(1/2), 6-15. https://doi.org/10.1108/01409170610645402

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2017). *Multivariate Data Analysis* (7th edition). Pearson.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Sage Publications.

Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2019). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Sage.

Hambrick, D. C. & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review, 9*(2),193-206. https://doi.org/10.2307/258434

Hambrick, D. C. (1995). Fragmentation and the other problems Ceos have with their top management teams. *California Management Review, 37*(3), 110-127. https://doi.org/10.2307/411658

Hameed, I., Akram, U., Khan, Y., Khan, N. R., & Hameed, I. (2024). Exploring consumer mobile payment innovations: An investigation into the relationship between coping theory factors, indi-

vidual motivations, social impact and word of mouth. *Journal of Retailing and Consumer Services,* 77, 103687. https://doi.org/10.1016/j.jretconser.2023.103687

Hamid, A. A., Razak, F. Z. A., Bakar, A. A., & Abdullah, W. S. W. (2016). The effects of perceived usefulness and perceived ease of use on continuance intention to use e-government. *Procedia Economics and Finance, 35,* 644-649. https://doi.org/10.1016/S2212-5671(16)00079-4

Han, M. C. (2019). Instant messaging chat bot: your new best friend? In Smart marketing with the internet of things. IGI Global, 164-184.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science, 43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Hess, T. J., McNab, A. L., & Basoglu, K. A. (2014). Reliability generalization of perceived ease of use, perceived usefulness, and behavioral intentions. *MIS Quarterly, 38*(1), 1-28.

Hossain, M., Hossain, A., & Manik, M. H. (2024). Assessment of Customers' Satisfaction in Mobile Banking Services: The Mediating Role of Ease of Use. *Transnational Business and Management*, *2*(2), 43-64. https://doi.org/10.33182/tbm.v2i2.3432

Hwang, C., Jin, B., Song, L., & Feng, J. (2024). Factors influencing older adults' intention to use virtual fitting room technology during the COVID-19 pandemic. *Journal of Fashion Marketing and Management: An International Journal, 28*(3), 444-459. https://doi.org/10.1108/JFMM-10-2022-0210

Jha, A. & Saha, D. (2022). Mobile broadband for inclusive connectivity: What deters the high-capacity deployment of 4G-LTE innovation in India?. *Inf Syst Front 24,* 1305–1329. https://doi.org/10.1007/s10796-021-10128-6

Joa, C. Y., & Magsamen-Conrad, K. (2022). Social influence and UTAUT in predicting digital immigrants' technology use. *Behaviour & Information Technology*, *41*(8), 1620-1638. https://doi.org/10.1080/0144929X.2021.1892192

Kamal, S. A., Shafiq, M., & Kakria, P. (2020). Investigating acceptance of telemedicine services through an extended technology acceptance model (TAM). *Technology in Society, 60,* 101212. https://doi.org/10.1016/j.techsoc.2019.101212

Kim, B., & Han, I. (2009). What drives the adoption of mobile data services? An approach from a value perspective. *Journal of Information Technology, 24,* 35-45. https://doi.org/10.1057/jit.2008.28

Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration (IJEC)*, *11*(4), 1-10.

Lamba, M. (2014). Karar vermeyi etkileyen yapısal faktörler bakımından yönetim ve organizasyon teorilerinin incelenmesi [Study of the management and organization theories in terms of the structural factors affecting decision-making], *KMÜ Sosyal ve Ekonomik Araştırmalar Dergisi 16* (27), 8-18.

Lau, M. M., Lam, A. Y., & Cheung, R. (2016). Examining the factors influencing purchase intention of smartphones in Hong Kong. *Contemporary Management Research, 12*(2), 213-224, https://doi.org/10.7903/cmr.13836

Lew, S. Tan, G. W. H. Loh, X. M. Hew, J. J. & Ooi, K. B. (2020). The disruptive mobile wallet in the hospitality industry: An extended mobile technology acceptance model. *Technology in Society,* 101430. https://doi.org/10.1016/j.techsoc.2020.101430

Lu, J., Yu, C. S., Liu, C., & Yao, J. E. (2003). Technology acceptance model for wireless Internet. *Internet Research, 13*(3), 206–222. https://doi.org/10.1108/10662240310478222

Maheshwari, G. (2021). Factors affecting students' intentions to undertake online learning: an empirical study in Vietnam. *Education and Information Technologies, 26*(6), 6629-6649. https://doi.org/10.1007/s10639-021-10465-8

Marikyan, D. & Papagiannidis, S. (2023). *Unified theory of acceptance and use of technology: A review.* TheoryHub Book.

Menon, D., & Shilpa, K. (2023). Chatting with ChatGPT: Analyzing the factors influencing users' intention to use the Open AI's ChatGPT using the UTAUT model. *Heliyon, 9*(11). https://doi.org/10.1016/j.heliyon.2023.e20962

Muhanguzi, S., & Kyobe, M. (2014). Aligning work practices, mobile technology and strategy for performance improvement: the case of SMEs in Uganda. *The Electronic Journal of Information Systems in Developing Countries, 60*(1), 1-22. https://doi.org/10.1002/j.1681-4835.2014.tb00423.x

Natalia, O., & Tesniwati, R. (2021). The effect of perception of trust, perception of ease of use, perception of benefits, perception of risk and perception of service quality on interest in using mobile banking bank independent in Bekasi City. *International Journal of Science, Technology & Management, 2*(5), 1722-1730. https://doi.org/10.46729/ijstm.v2i5.344

Natarajan, T., Balasubramanian, S. A., & Kasilingam, D. L. (2017). Understanding the intention to use mobile shopping applications and its influence on price sensitivity. *Journal of Retailing and Consumer Services, 37*, 8-22. https://doi.org/10.1016/j.jretconser.2017.02.010

Nayati Utami, H., Siti Astuti, E., Maulani Ramadhan, H., Trialih, R., & Alief Aprilian, Y. (2019). The interests of small-and medium-sized enterprises (SMEs) actor in using mobile commerce in effort to expand business network. *Journal of Science and Technology Policy Management*, *10*(3), 493-508. https://doi.org/10.1108/JSTPM-08-2018-0081

Nikolopoulou, K.; Gialamas, V.; Lavidas, K. (2020). Acceptance of mobile phone by university students for their studies: An investigation applying UTAUT2 model. *Educ. Inf. Technol. 25*, 4139–4155, https://doi.org/10.1007/s10639-020-10157-9

Noerman, T., Riyadi, Yuliaji, E. S., & Natasha, C. A. M. (2025). The impacts of social influence and hedonic motivation on experience and continuance intention of using AI in SMEs' HRM. *Cogent Business & Management*, *12*(1), 2542422. https://doi.org/10.1080/23311975.2025.2542422

North, K., Aramburu, N., & Lorenzo, O. J. (2020). Promoting digitally enabled growth in SMEs: A framework proposal. *Journal of Enterprise Information Management*, *33*(1), 238-262. https://doi.org/10.1108/JEIM-04-2019-0103

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.

Nuryyev, G., Wang, Y. P., Achyldurdyyeva, J., Jaw, B. S., Yeh, Y. S., Lin, H. T., & Wu, L. F. (2020). Blockchain technology adoption behavior and sustainability of the business in tourism and hospitality SMEs: An empirical study. *Sustainability, 12*(3), 1256. https://doi.org/10.3390/su12031256

Oanh, N. (2021, 20 Ekim). *The 7 best mobile CRM software: Reviews and comparison.* https://www.appvizer.com/magazine/customer/client-relationship-mgt/mobile-crm

OECD (2024). SME Digitalisation to manage shocks and transitions: 2024 OECD D4SME survey. *OECD SME and Entrepreneurship Papers*, No. 62, OECD Publishing, Paris, https://doi.org/10.1787/eb4ec9ac-en.

Ooi, K. B., & Tan, G. W. H. (2016). Mobile technology acceptance model: An investigation using mobile users to explore smartphone credit card. *Expert Systems with Applications*, *59*, 33-46. https://doi.org/10.1016/j.eswa.2016.04.015

Oye, N. D., A. Iahad, N., & Ab. Rahim, N. (2014). The history of UTAUT model and its impact on ICT acceptance and usage by academicians. *Education and Information Technologies*, *19*(1), 251-270. https://doi.org/10.1007/s10639-012-9189-9

Ozer, E. Y. (2023). Muhasebe bilgi sisteminin işletme yönetim kararları üzerindeki etkileri: TRC3 bölgesindeki KOBİlere yönelik bir araştırma [Effects of accounting information system on business management decisions: A research for SMEs in TRC3 region]. (PHD thesis), Hasan Kalyoncu University, Turkey.

Papakostas, C., Troussas, C., Krouska, A., & Sgouropoulou, C. (2023). Exploring users' behavioral intention to adopt mobile augmented reality in education through an extended technology acceptance model. *International Journal of Human–Computer Interaction*, *39*(6), 1294-1302. https://doi.org/10.1080/10447318.2022.2062551

Parhamnia, F. (2022). Investigating mobile acceptance in academic library services based on Unified Theory of Acceptance and Use of Technology Model (UTAUT-2). *The Journal of Academic Librarianship, 48*(5), 102570. https://doi.org/10.1016/j.acalib.2022.102570

Park, Y., & Chen, J. V. (2007). Acceptance and adoption of the innovative use of smartphone. *Industrial Management & Data Systems*, *107*(9), 1349-1365. https://doi.org/10.1108/02635570710834009

Pentina, I., Koh, A. C., & Le, T. T. (2012). Adoption of social networks marketing by SMEs: Exploring the role of social impacts and experience in technology acceptance. *International Journal of Internet Marketing and Advertising*, *7*(1), 65-82. https://doi.org/10.1504/IJIMA.2012.044959

Qu, K., & Wu, X. (2024). ChatGPT as a CALL tool in language education: A study of hedonic motivation adoption models in English learning environments. *Education and Information Technologies*, *29*(15), 19471-19503. https://doi.org/10.1007/s10639-024-12598-y

Rahayu, F. S., Nastiti, P., & Arthajanvian, T. (2025). The role of hedonic motivation in influencing TikTok use and how it relates to generation z characteristics. *Advances in Human-Computer Interaction*, *2025*(1), 5971465. https://doi.org/10.1155/ahci/5971465

Ramli, A. A. R., Safaria, S., & Rizki, M. N. (2024). Analysis of using behavior on the GoHalalGo application: UTAUT model approach. *Formosa Journal of Sustainable Research, 3*(4), 755-770. https://doi.org/10.55927/fjsr.v3i4.8739

Rejali, S., Aghabayk, K., Esmaeli, S., & Shiwakoti, N. (2023). Comparison of technology acceptance model, theory of planned behavior, and unified theory of acceptance and use of technology to assess a priori acceptance of fully automated vehicles. *Transportation Research Part A: Policy and Practice*, *168*, 103565. https://doi.org/10.1016/j.tra.2022.103565

Ringle, C. M., Wende, S., & Becker, J. M. (2015). SmartPLS 3. SmartPLS GmbH, Boenningstedt. *Journal of Service Science and Management, 10*(3), 32-49.

Salimon, M. G., Kareem, O., Mokhtar, S. S. M., Aliyu, O. A., Bamgbade, J. A., & Adeleke, A. Q. (2023). Malaysian SMEs m-commerce adoption: TAM 3, UTAUT 2 and TOE approach. *Journal of Science and Technology Policy Management, 14*(1), 98-126. https://doi.org/10.1108/JSTPM-06-2019-0060

Seethamraju, R., Diatha, K. S., & Garg, S. (2018). Intention to use a mobile-based information technology solution for tuberculosis treatment monitoring–applying a UTAUT model. *Information Systems Frontiers, 20,* 163-181. https://doi.org/10.1007/s10796-017-9801-z

Shahzad, M. F., Xu, S., & Baheer, R. (2024). Assessing the factors influencing the intention to use information and communication technology implementation and acceptance in China's education sector. *Humanities and Social Sciences Communications, 11*(1), 1-15. https://doi.org/10.1057/s41599-024-02777-0

Shanmugam, A. Savarimuthu, M. T. & Wen, T. C. (2014). Factors affecting Malaysian behavioral intention to use mobile banking with mediating effects of attitude. *Academic Research International, 5*(2), 236-253.

Shao, C., Nah, S., Makady, H., & McNealy, J. (2025). Understanding user attitudes towards AI-enabled technologies: An integrated model of Self-Efficacy, TAM, and AI Ethics. *International Journal of Human–Computer Interaction, 41*(5), 3053-3065. https://doi.org/10.1080/10447318.2024.2331858

Sharma, S., Singh, G., & Pratt, S. (2025). Applying a technology acceptance model to understand digital-free tourism. *Tourism Recreation Research*, *50*(2), 229-246. https://doi.org/10.1080/02508281.2023.2252680

Sharma, S., Virani, S., Saini, J. R., & Rautela, S. (2025). Determinants of adoption of virtual reality as a teaching aid in higher education: the mediating role of hedonic motivation. *Journal of Applied Research in Higher Education*. ahead-of-print https://doi.org/10.1108/JARHE-07-2024-0327

Soomro, S.A. & Habeeb, Y.O. (2025). Impact of perceived ease of use on impulsive buying behaviour through mobile commerce with hedonic and utilitarian effects. *Asia-Pacific Journal of Business Administration, 17(3),* 796-813. https://doi.org/10.1108/APJBA-11-2023-0563

Stocchi, L., Pourazad, N., Michaelidou, N., Tanusondjaja, A., & Harrigan, P. (2022). Marketing research on Mobile apps: past, present and future. Journal of the Academy of Marketing Science, 1-31. https://doi.org/10.1007/s11747-021-00815-w

Tanos, M., Man, N., & Nawi, N. (2024). Perceived ease of use, perceived usefulness, and intention to use e-commerce platforms by agribusiness owners in Malaysia: A review. *International Journal of Academic Research in Business and Social Sciences, 14*(2), 666-678. http://dx.doi.org/10.6007/IJARBSS/v14-i2/20488

Tarhini, A., Alalwan, A. A., Shammout, A. B., & Al-Badi, A. (2019). An analysis of the factors affecting mobile commerce adoption in developing countries: Towards an integrated model. *Review of International Business and Strategy, 29*(3), 157-179. http://dx.doi.org/10.1108/RIBS-10-2018-0092

Tatli H. S., Bıyıkbeyi T., Gençer Çelik, G, & Öngel, G. (2024). Paperless technologies in universities: Examination in terms of unified theory of acceptance and use of technology (UTAUT). *Sustainability 16*(7), 2692. https://doi.org/10.3390/su16072692

Taufique, K. M. R., Sabbir, M. M., Quinton, S., & Andaleeb, S. S. (2024). The different impact of utilitarian and hedonic attributes on web-based retail shopping behaviour through the lens of extended technology acceptance model. *International Journal of Retail & Distribution Management, 52*(4), 443-460. https://doi.org/10.1108/IJRDM-08-2023-0505

Tomas, F. & Immerzeel, J. (2025). Chatbots in eyewitness interviews: perceived usefulness and ease of use drive intent to use conversational agent. *Journal of Criminal Psychology,* Vol. ahead-of-print, https://doi.org/10.1108/JCP-11-2024-0110

Torkzadeh, G., & Koufteros, X. (1994). Factorial validity of a computer self-efficacy scale and the impact of computer training. *Educational and Psychological Measurement, 54*(3), 813-821. https://doi.org/10.1177/0013164494054003028

TÜİK, (2023, 22 Aralık). Küçük ve orta büyüklükteki girişim istatistikleri [Statistics of small and medium-sized enterprises], 2022. 4 Nisan 2023 TÜİK (tuik.gov.tr)

Unal, E., & Uzun, A. M. (2021). Understanding university students' behavioral intention to use Edmodo through the lens of an extended technology acceptance model. *British Journal of Educational Technology, 52*(2), 619-637. https://doi.org/10.1111/bjet.13046

Ünalan, M. Yapraklı, T. Ş. & Kaçer, Z. (2019). Mobil alışveriş uygulamalarının kullanımını etkileyen faktörler ve bu faktörlerin memnuniyet ve kullanma niyeti üzerindeki etkisi [Factors influencing the usage of mobile shopping applications and the impact of these factors on satisfaction and intention to use]. *Akademi Sosyal Bilimler Dergisi, 6*(17), 391-408.

Upadhyay, N., Upadhyay, S., Abed, S. S., & Dwivedi, Y. K. (2022). Consumer adoption of mobile payment services during COVID-19: Extending meta-UTAUT with perceived severity and self-efficacy. *International Journal of Bank Marketing, 40*(5), 960-991. https://doi.org/10.1108/IJBM-06-2021-0262

Uzkurt, C., Ekmekcioglu, E. B., Ceyhan, S., & Hatiboglu, M. B. (2024). Digital technology use of SMEs during the COVID-19 pandemic in Turkey: Mobile applications' role on motivation and job performance. *Kybernetes, 53*(4), 1354-1373. https://doi.org/10.1108/K-08-2022-1189

Van Akkeren, J., & Harker, D. (2002). Mobile data technologies and SME adoption and Diffusion: an empirical study of barriers and facilitators. *Australasian Journal of Information Systems, 9*(2). https://doi.org/10.3127/ajis.v9i2.187

Varga, J. (2021). Defining the economic role and benefits of micro, small and medium-sized enterprises in the 21st century with a systematic review of the literature. *Acta Polytechnica Hungarica*, 18(11), 209-228.

Venkatesh, V. Morris, M. G. Davis, G. B. & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, 425-478. https://doi.org/10.2307/30036540

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science, 46*(2), 186–204. https://doi.org/10.1287/mnsc.46.2.186.11926

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. MIS Quarterly, 36(1), 157-178. https://doi.org/10.2307/41410412

Wang, H., Tao, D., Yu, N., & Qu, X. (2020). Understanding consumer acceptance of healthcare wearable devices: An integrated model of UTAUT and TTF. *International Journal of Medical Informatics*, *139*, 104156. https://doi.org/10.1016/j.ijmedinf.2020.104156

Wilson, N., Keni, K., & Tan, P. H. P. (2021). The role of perceived usefulness and perceived ease-of-use toward satisfaction and trust which influence computer consumers' loyalty in China. *Gadjah Mada International Journal of Business, 23*(3), 262-294. https://doi.org/10.22146/gamaijb.32106

Wu, J. H., & Wang, S. C. (2005). What drives mobile commerce?: An empirical evaluation of the revised technology acceptance model. *Information & Management, 42*(5), 719-729. https://doi.org/10.1016/j.im.2004.07.001

Yanit, M., & Wan, F. (2023). Right agent, wrong level of hedonism: How high (vs low) hedonic values in AI-performed tasks lead to decreased perceptions of humanlikeness, warmth, and less consumer support. *Computers in Human Behavior*, *147*, 107870. https://doi.org/10.1016/j.chb.2023.107870

Yawised, K., Apasrawirote, D., Chatrangsan, M., & Muneesawang, P. (2025). Extending UTAUT-2 towards acceptance by SMEs of the mobile application platform "Tripper Notifier Application". *Journal of Science and Technology Policy Management*. ahead-of-print https://doi.org/10.1108/jstpm-02-2024-0072

Yenilmez, B. (2024). Türkiye'deki KOBİ'lerin blockchain teknolojisine adaptasyonu ile ilgili görüşleri [Views of SMEs in Turkey on adaptation to blockchain technology]. *Üçüncü Sektör Sosyal Ekonomi Dergisi,* 59(2), 993–1007. https://doi.org/10.15659/3.sektor-sosyal-ekonomi.24.06.2386

Yörük, T. ve Özçetin, S. (2021). Çevrimiçi öğrenmeye yönelik özyeterlik ölçeğinin Türkçeye uyarlanması [Adaptation of online learning self-efficacy scale into Turkish]. *Kahramanmaraş Sütçü İmam Üniversitesi Sosyal Bilimler Dergisi*, 18 (3), 1640-1657. https://doi.org/10.33437/ksusbd.983825

Yunior, M. C., & Augustine, Y. (2024). The influence of social impact, relative advantage, user satisfaction on cloud-based e-learning with behavioral intention as a mediating variable. *Technium Soc. Sci. J., 56*(1), 36-50. https://doi.org/10.47577/tssj.v56i1.10742

Zeynel, E. (2024). *Örgütsel davranış açısından öznel iyi oluşun önemi*. Örgütsel Davranış Araştırmaları, 196-206

Zubir, M. H. H., & Abdul Latip, M. S. (2024). Factors affecting citizens' intention to use e-government services: assessing the mediating effect of perceived usefulness and ease of use. *Transforming Government: People, Process and Policy, 18*(3), 384-399. https://doi.org/10.1108/TG-04-2023-0040

Appendix

Mobile Usefulness	Mk1. I find mobile business technologies advantageous.	Venkatesh et al., (2012), Lew et al., (2020), Çakır & Kazançoğlu (2020)
	Mk2. Using mobile business technologies would improve my effectiveness in daily life.	
	Mk3. Using mobile business technologies saves time when making work.	
	Mk4. Using mobile business technologies enhances my productivity.	
	Mk5.Using mobile business technologies enables me to complete work faster.	
Mobile Ease of Use	Mkk1. I think using mobile business technologies is easy for me.	Venkatesh et al., (2012), Lew et al., (2020), Çakır & Kazançoğlu (2020)
	Mkk2. I think learning to use mobile business technologies is easy.	
	Mkk3. I think finding what I need through mobile business technologies is easy.	
	Mkk4. I think becoming skillful at using mobile business technologies is easy.	

Social impact	Se1. Most of my colleagues frequently use mobile business technologies for work.	Venkatesh et al., (2012), Lew et al., (2020), Çakır & Kazançoğlu (2020) Ada & Tatlı (2013)
	Se2. Most of the people I communicate with use mobile business technologies for work.	
	Se3. Most people in my group use mobile business technologies.	
	Se4. Many people I communicate with regularly use mobile business technologies.	
	Se5. Most of my friends frequently use mobile business technologies for work.	
Hedonic	He1. I find using mobile business technologies for work fun.	Venkatesh et al., (2012), Lew et al., (2020), Çakır & Kazançoğlu (2020)
	He2. I find using mobile business technologies for work pleasant.	
	He3. I find using mobile business technologies for work exciting.	
	He4. I find using mobile business technologies for work entertaining.	
Technology Self-Efficacy	To1. I feel confident in my ability to figure out what to do when a feature does not work in mobile business technologies.	Venkatesh et al., (2012), Lew et al., (2020) Yörük & Özçetin (2021)
	To2. I feel confident turning to an online discussion group about mobile business technologies.	
	To3. I feel confident understanding the terms or words needed to use mobile business technologies.	
	To4. I feel confident learning advanced features of mobile business technologies.	
Behavioural Intention	Dn1. I am likely to use mobile business technologies in the near future.	Venkatesh et al., (2012), Lew et al., (2020), Çakır & Kazançoğlu (2020)
	Dn2. Given the opportunity, I will use mobile business technologies.	
	Dn3. I am willing to use mobile business technologies in the near future.	
	Dn4. I intend to use mobile business technologies when the opportunity arises.	
	Dn5. I will think about using mobile business technologies.	
Actual Usage	Gk1. I enjoy using mobile business technologies.	Venkatesh et al. (2003), Park & Chen (2007), Ada & Tatlı, (2013)
	Gk2. I feel comfortable using mobile business technologies.	
	Gk3. I like exploring new things using mobile business technologies.	
	Gk4. Being someone who uses mobile business technologies is a good thing.	