

Factors Affecting Employees' Intention to Use Telework in the Qazvin Province Tax Administration: The Mediating Roles of Attitude and Normative Influence and the Moderating Role of Perceived Susceptibility

1. Saeed. Sadeghian Gharaghieh¹: Assistant Professor, Department of Management, Payame Noor University, Tehran, Iran
 2. Rouhollah. Sharifi²: Assistant Professor, Department of Management, Payame Noor University, Tehran, Iran

*corresponding author's email: saeed.sadeghian@pnu.ac.ir

ABSTRACT

This study aimed to investigate the effects of perceived ease of use, perceived usefulness, and task–technology fit on employees' intention to use telework, considering attitude and normative influence as mediating variables and perceived susceptibility as a moderating variable. This applied, quantitative, cross-sectional, correlational study was conducted among employees of the Qazvin Province Tax Administration. The statistical population consisted of 300 employees, from whom 200 were selected using simple random sampling; 188 valid questionnaires were returned and analyzed. Data were collected using standardized measures of perceived ease of use, perceived usefulness, task–technology fit, attitude, normative influence, intention to use telework, and perceived susceptibility. All items were rated on a five-point Likert scale. The measurement and structural models were assessed using partial least squares structural equation modeling in SmartPLS, including reliability, convergent and discriminant validity, bootstrapping, mediation, moderation, R^2 , predictive quality, and model-fit indices. Perceived ease of use significantly predicted attitude ($\beta=0.316$, $p<0.001$) and normative influence ($\beta=0.244$, $p<0.001$), but not intention to use telework ($\beta=0.065$, $p=0.208$). Perceived usefulness significantly predicted attitude ($\beta=0.279$, $p<0.001$), normative influence ($\beta=0.277$, $p<0.001$), and intention ($\beta=0.171$, $p=0.010$). Task–technology fit significantly predicted attitude ($\beta=0.194$, $p<0.001$), normative influence ($\beta=0.352$, $p<0.001$), and intention ($\beta=0.148$, $p=0.016$). Attitude ($\beta=0.180$, $p=0.017$) and normative influence ($\beta=0.370$, $p<0.001$) significantly predicted intention. All six indirect effects through attitude and normative influence were significant. Perceived susceptibility significantly moderated the attitude–intention relationship ($\beta=0.122$, $t=2.167$) but not the normative influence–intention relationship ($\beta=0.054$, $t=0.945$). The model explained 56.4% of the variance in intention to use telework. Employees' intention to use telework is shaped by perceived usefulness, task–technology fit, favorable attitudes, and normative influence, while perceived ease of use operates mainly through indirect pathways. Perceived susceptibility strengthens the effect of attitude on telework intention, highlighting the importance of integrating technological, social, and psychological factors in telework adoption.

Keywords: Telework, Behavioral Intention, Perceived Usefulness, Perceived Ease of Use, Task–Technology Fit, Attitude, Normative Influence, Perceived Susceptibility.

Introduction

The expansion of digital infrastructures, cloud-based work environments, collaborative platforms, and organizational information systems has fundamentally transformed the spatial and temporal organization of work.



Article history:
 Received 12 November 2025
 Revised 29 December 2025
 Accepted 17 February 2026
 Published online 20 April 2026

How to cite this article:

Sadeghian Gharaghieh, S., & Sharifi, R. (2026). Factors Affecting Employees' Intention to Use Telework in the Qazvin Province Tax Administration: The Mediating Roles of Attitude and Normative Influence and the Moderating Role of Perceived Susceptibility. *Journal of Management and Business Solutions*, 4(2), 1-22. <https://doi.org/10.61838/jmbs.476>



© 2026 the authors. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

Telework, once considered a peripheral or contingency-based work arrangement, has become an increasingly important component of contemporary organizational design, particularly in knowledge-intensive and service-oriented institutions. The COVID-19 pandemic accelerated this transformation by forcing organizations to adopt remote work at an unprecedented scale, but the continuation of telework beyond the pandemic has increasingly depended on whether employees perceive it as useful, manageable, compatible with their job requirements, and socially supported. Studies examining the evolution of remote work have emphasized that telework is no longer merely an emergency response but rather an organizational arrangement with implications for productivity, flexibility, human resource management, employee well-being, cybersecurity, and employment regulation (1-3). At the same time, the effectiveness and sustainability of telework vary substantially across organizations and occupations, indicating that the existence of technological infrastructure alone is insufficient to guarantee its acceptance or continued use.

Telework can offer considerable organizational and individual advantages, including reduced commuting time, greater flexibility, enhanced continuity of operations, and improved opportunities for employees to integrate work tasks with other responsibilities. However, the realization of these advantages depends strongly on how telework is designed and managed. Research has highlighted the role of managers in shaping new work practices, coordinating geographically dispersed employees, communicating expectations, and creating an organizational climate supportive of remote work (4). Managers' own assessments of innovation compatibility, previous experience with remote work, and satisfaction with telework arrangements can also influence organizational decisions regarding whether telework is adopted or continued (5). Furthermore, telework can create challenges involving employee isolation, mental health, job boundaries, digital fatigue, and changes in social interaction, meaning that employees may evaluate remote work not only on the basis of efficiency but also on its broader consequences for their work experience (6). Consequently, understanding employees' behavioral intention to use telework requires a multidimensional framework capable of accounting for both technological assessments and social-psychological mechanisms.

One of the most established frameworks for explaining technology adoption is the Technology Acceptance Model, which emphasizes perceived usefulness and perceived ease of use as central determinants of technology-related attitudes and behavioral intentions. Perceived usefulness reflects the extent to which individuals believe that using a technological system can improve their performance or facilitate the accomplishment of relevant objectives, whereas perceived ease of use concerns the degree to which using that technology is expected to require little effort. These perceptions have repeatedly been linked to attitudes toward digital systems and subsequent behavioral intentions in a wide range of contexts. For example, research on residential solar electricity adoption has shown that perceived usefulness and perceived ease of use can shape intention through users' attitudes (7). Similar relationships have been observed in digital educational technology, where users' evaluations of usefulness and ease contribute substantially to acceptance of new technological systems (8, 9). These findings are particularly relevant to telework because employees must continually assess whether remote technologies allow them to perform their duties efficiently and whether the systems are sufficiently accessible and uncomplicated for routine use.

Perceived usefulness may be especially important in organizations where employees are accountable for processing information, communicating with colleagues and clients, completing administrative tasks, and meeting formal performance requirements. When employees believe that telework enables them to perform these activities

more effectively, they are more likely to evaluate telework positively and develop stronger intentions to use it. Evidence from digital service adoption supports this general proposition. Studies of digital tax systems have demonstrated that perceived usefulness can influence technology usage through attitude toward use (10), while research on mobile technologies has shown that perceptions of technological benefits remain central to users' adoption intentions (11). Likewise, studies of behavioral intention in virtual environments and customer-oriented technologies have found that perceived benefits and value assessments are important antecedents of willingness to use innovative systems (12, 13). These findings suggest that employees are more likely to adopt telework when they perceive it not merely as technically available but as practically beneficial for fulfilling their occupational responsibilities.

Perceived ease of use is similarly important because organizational technologies that are difficult to learn, operate, or integrate into daily routines may create resistance even when potential benefits are recognized. Ease of use can reduce the cognitive and behavioral costs associated with technological adaptation and may therefore contribute to more favorable attitudes and stronger intentions. Research examining various digital technologies has consistently demonstrated that ease-related perceptions influence technology acceptance directly or through attitudinal mechanisms (7, 10). In contemporary organizational environments, however, the relationship between ease of use and behavioral intention may not always be purely direct. Employees can perceive a system as easy to use without necessarily intending to adopt it if the technology does not support their specific work tasks, does not fit organizational expectations, or lacks social legitimacy. Thus, perceived ease of use should be examined together with broader technological and organizational factors rather than as an isolated determinant of telework acceptance.

This perspective is reinforced by Task–Technology Fit theory, which proposes that technology contributes to favorable outcomes when its capabilities correspond to the requirements of the tasks users must perform. Task–technology fit therefore extends conventional technology acceptance models by shifting attention from general evaluations of a system toward the alignment between technological functionality and work demands. Conceptual developments in the Task–Technology Fit model have emphasized that fit is central to understanding whether technology actually supports individual performance rather than merely being perceived as attractive or user-friendly (14). Meta-analytic evidence further indicates that task–technology fit is systematically related to important technology-use outcomes and should be considered a key construct in technology adoption research (15). The integration of Task–Technology Fit theory with the Technology Acceptance Model has also provided a more comprehensive account of how technological characteristics, task requirements, user perceptions, and behavioral responses interact over time (16).

The relevance of task–technology fit is especially evident in remote work environments because employees depend heavily on digital tools to perform tasks that would otherwise be carried out through face-to-face interaction, physical documentation, direct coordination, or workplace-specific resources. Research conducted during the COVID-19 pandemic demonstrated that task–technology fit played an important role in determining effective information and communication technology use in remote work practices (17). More recent research has similarly shown that organizational technologies can create performance problems when they fail to match actual task requirements, potentially encouraging employees to seek unauthorized or alternative technological solutions (18). In other contexts, task–technology fit has been associated with behavioral intention in live-streaming commerce (19), digital payment adoption (20), logistics-system effectiveness (21), and generative artificial intelligence use (22,

23). These findings indicate that employees are more likely to accept a technological work arrangement when they perceive that the technology meaningfully supports the tasks they are required to perform.

The increasing complexity of organizational technologies has also encouraged scholars to integrate task–technology fit with other socio-technical constructs. For example, recent research has combined technology acceptance, information systems success, and task–technology fit to explain trust formation in mobile banking (24), while other studies have emphasized the interaction between task–technology fit and social-technology fit in technology-enabled performance (25). Such developments reinforce the idea that technology adoption is not determined by technological functionality alone. Employees interpret technology through a broader organizational and social environment in which expectations, norms, managerial support, interpersonal influence, and perceived consequences shape their decisions. This is particularly relevant to telework because remote work is simultaneously a technological arrangement and a social-organizational practice.

Attitude represents an important psychological mechanism through which technological evaluations can be translated into behavioral intention. An employee who believes that telework is useful, easy to use, and compatible with work tasks is likely to develop a more favorable overall evaluation of teleworking. In turn, a positive attitude should strengthen the intention to use remote work arrangements. Empirical studies across technological domains have demonstrated this mediating mechanism. The influence of perceived usefulness and ease of use on behavioral outcomes through attitude has been observed in digital tax systems (10) and renewable-energy technology adoption (7). Similarly, broader technology acceptance research suggests that user attitudes remain a critical explanatory bridge between technological beliefs and subsequent behavioral decisions (8). In the context of telework, this implies that employees' behavioral intentions may not arise automatically from favorable technological characteristics; rather, these characteristics may first shape a general positive or negative orientation toward telework.

Social and normative mechanisms represent another important dimension of telework acceptance. Normative influence refers to the extent to which individuals' perceptions and behaviors are affected by the expectations, opinions, or behaviors of significant others. In organizational settings, supervisors, colleagues, managers, and professional peers may all influence whether employees regard a technology or work arrangement as appropriate, legitimate, or desirable. Evidence from digital technology adoption confirms the importance of social influence in shaping behavioral intention. Research on digital wallets has shown that social influence can play an important role in explaining technology-use intention and can modify the effects of other determinants (26). Studies grounded in unified technology acceptance frameworks have likewise emphasized the importance of socially derived expectations in behavioral adoption decisions (27). For telework, normative influence may be particularly significant because remote work alters patterns of coordination, communication, supervision, and organizational visibility; therefore, employees may look to influential organizational referents when evaluating whether telework is acceptable and appropriate.

The broader socio-technical environment may further determine whether employees develop positive attitudes and intentions toward telework. Employee satisfaction, technological compatibility, and contextual reward systems can influence how workers evaluate new organizational arrangements (28). Moreover, remote working may interact with proactive work behaviors such as job crafting, thereby shaping employees' perceptions of technology and their experience of technologically mediated work (29). This suggests that telework acceptance is not purely a static evaluation of software or hardware but is embedded in employees' evolving interaction with the organization, job

design, and technological environment. Furthermore, the cybersecurity implications of remote work have become increasingly salient, as expanded remote access can create new vulnerabilities and alter organizational data-security risks (30). Such concerns may influence employees' perceptions of both the benefits and risks associated with telework.

In this regard, perceived susceptibility may provide an important moderating perspective. Perceived susceptibility reflects the degree to which individuals believe they may be vulnerable to undesirable consequences when a particular action is or is not taken. In technology-related decisions, perceptions of vulnerability can intensify the salience of existing attitudes and social pressures. When employees believe that failure to adopt telework may expose them to occupational, technological, informational, or organizational disadvantages, positive attitudes toward telework may translate more strongly into behavioral intention. Similarly, susceptibility perceptions may potentially alter the influence of normative expectations by increasing employees' sensitivity to the recommendations or behaviors of others. Research in technology-enabled health contexts has shown that perceived risks and benefits can become important components of users' acceptance of digitally mediated systems (31). Therefore, incorporating perceived susceptibility as a moderator can deepen understanding of why employees with otherwise similar attitudes or social environments may differ in their intention to adopt telework.

The need for an integrated approach is particularly evident in public-sector organizations, where technology adoption decisions are often shaped by formal procedures, legal requirements, organizational hierarchy, data security, and institutional norms. Tax administrations represent a particularly relevant setting because their employees routinely work with confidential financial records, structured digital systems, standardized processes, and extensive communication with taxpayers and other administrative units. The adoption of telework in such organizations therefore requires more than the availability of digital infrastructure. Employees must perceive teleworking technologies as useful and easy to operate, believe that the technologies fit their specific tasks, develop favorable attitudes toward remote work, and perceive organizational and social support for its use. At the same time, employees' perceptions of vulnerability to negative consequences associated with not using telework may strengthen or weaken how these psychological and normative mechanisms influence behavioral intention.

Despite the growing literature on remote work and digital technology adoption, several gaps remain. Much of the telework literature has focused on broad organizational outcomes, managerial practices, legal implications, mental health, or post-pandemic work transformation rather than on an integrated behavioral model of individual telework intention (3, 4, 6). Conversely, substantial technology acceptance research has examined domains such as banking, education, digital payments, electronic commerce, artificial intelligence, taxation systems, and consumer technologies rather than employees' intention to use telework within a governmental tax organization (11, 20, 22, 24). Although research increasingly supports combining technology acceptance and task–technology fit perspectives (15, 16), fewer studies simultaneously examine attitude and normative influence as mediating mechanisms while also considering perceived susceptibility as a boundary condition. Such integration is theoretically useful because it captures technological beliefs, task compatibility, individual evaluation, social influence, and vulnerability perception within a single explanatory framework.

Accordingly, the aim of the present study was to investigate the effects of perceived ease of use, perceived usefulness, and task–technology fit on employees' intention to use telework in the Qazvin Province Tax Administration, considering attitude and normative influence as mediating variables and perceived susceptibility as a moderating variable.

Methods and Materials

The present study employed a quantitative, applied, hypothesis-testing research design. With regard to its logical orientation, the study followed a deductive approach because the proposed relationships among the study variables were derived from existing theoretical foundations and were subsequently examined using empirical data. The research was conducted in a natural organizational setting and therefore constituted a field study. In terms of research strategy, the study was correlational, as it sought to determine the relationships among perceived ease of use, perceived usefulness, task–technology fit, attitude, normative influence, perceived susceptibility, and employees' intention to use telework without experimentally manipulating the study variables. The individual employee was considered the unit of analysis, and the study adopted a cross-sectional time horizon, with all data collected during a single period. More specifically, perceived ease of use, perceived usefulness, and task–technology fit were treated as the principal independent variables, intention to use telework was considered the dependent variable, attitude and normative influence were examined as mediating variables, and perceived susceptibility was incorporated into the conceptual model as a moderating variable.

The statistical population consisted of all employees working in the Qazvin Province Tax Administration. The total population comprised 300 employees. The minimum required sample size was estimated using Cochran's sample size formula and was calculated to be 169 participants. To compensate for possible nonresponse and unusable questionnaires, 200 questionnaires were distributed among eligible employees. Of these, 188 completed questionnaires were returned and were sufficiently complete for inclusion in the final statistical analyses, resulting in a usable response rate of 94.0%. Simple random sampling was used to select the participants because the research aimed to obtain an unbiased representation of employees' perceptions and attitudes. To implement the sampling procedure, each employee in the population was assigned a unique numerical code, and the required participants were randomly selected using the randomization function in Microsoft Excel. Consequently, each member of the population had an equal and independent probability of being selected for participation in the study. The data collection procedure relied on both documentary sources for developing the theoretical framework and a structured questionnaire for collecting quantitative data concerning employees' perceptions, attitudes, and behavioral intentions.

Data were collected using a structured multi-construct questionnaire composed of standardized or previously validated measures adapted to the context of telework among employees of the Tax Administration. All questionnaire items were scored on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Higher scores on each construct indicated a higher level of the corresponding perception, attitude, influence, susceptibility, or behavioral intention. Because some of the original measures had been developed in educational, technological, or other organizational contexts, the wording of the items was adapted where necessary to refer explicitly to telework and work-related activities while preserving the conceptual meaning of the original items.

Perceived usefulness was assessed using the scale developed by Park (2009). The scale consisted of three items designed to determine the extent to which employees believed that using telework would enhance their work performance, productivity, effectiveness, or accomplishment of job-related responsibilities. Responses to the three items were combined to represent the perceived usefulness construct. Previous research has supported the reliability of this measure; Silvestre et al. (2022), for example, reported a Cronbach's alpha coefficient of 0.86, indicating satisfactory internal consistency. In the structural model, this construct was coded as PUS.

Perceived ease of use was measured using the three-item scale developed by Park (2009). The items evaluated employees' perceptions regarding the degree of effort required to learn, understand, and use teleworking technologies and procedures. Higher scores reflected a stronger perception that telework systems were straightforward and easy to use. Evidence from previous research has demonstrated acceptable reliability for this scale, with Silvestre et al. (2022) reporting a Cronbach's alpha coefficient of 0.81. Perceived ease of use was coded as PEA in the statistical analysis.

Task–technology fit was assessed using three items adapted from the standardized measures proposed by Wirdiyanto et al. (2017) and Lin and Huang (2008). The construct represented the extent to which employees perceived teleworking technologies as being compatible with the requirements, characteristics, and responsibilities of their jobs. The items examined whether the available technological facilities and capabilities were appropriate for performing employees' work tasks and whether telework provided the technological functionality required for effective task accomplishment. Higher scores represented a stronger perceived correspondence between job requirements and the technological capabilities associated with telework. Task–technology fit was coded as TTF.

Attitude toward telework was measured using three items adapted from Park's (2009) standardized attitude scale. These items assessed employees' overall favorable or unfavorable evaluation of using telework. Because the original scale had been used in technology-supported learning contexts, its wording was adapted to the organizational telework context. Representative statements included perceptions that “using telework is a good idea” and “using telework is a wise idea.” Higher scores indicated a more favorable attitude toward the use of telework. Previous evidence regarding the internal consistency of this construct has been favorable, with Silvestre et al. (2022) reporting a Cronbach's alpha coefficient of 0.84. The construct was coded as ATI.

Normative influence was assessed using the three-item standardized scale developed by Wu and Chen (2005). The items measured the perceived influence of important social or organizational referents on employees' decisions regarding the adoption and use of telework. In particular, the scale reflected the extent to which employees perceived that individuals or groups important to them, such as colleagues, supervisors, managers, or other organizational members, expected, encouraged, or approved of their use of telework. Higher scores reflected stronger perceived normative pressure or social influence in favor of telework adoption. Normative influence was included as a mediating construct in the proposed model and was coded as NIN.

Intention to use telework was measured using a four-item scale adapted from Pillai and Sivathanu (2020). The original measure assessed behavioral intention toward the use of technology-supported work or learning arrangements, and its wording was adjusted to reflect the organizational context of the present study. The items assessed employees' willingness, plans, and expectations regarding the future use of telework for carrying out job duties and other work-related activities. A representative adapted item was “I intend to use telework for performing my work and other related activities.” Higher scores indicated a stronger behavioral intention to adopt and continue using telework. Pillai and Sivathanu reported a Cronbach's alpha coefficient of 0.87 for the measure, demonstrating satisfactory internal consistency. Intention to use telework constituted the principal dependent variable and was coded as IUT.

Perceived susceptibility was measured using three items adapted from three prior studies. The first item, adapted from Sutarno (2022), reflected employees' perceived vulnerability to negative consequences if telework was not adopted and was operationalized through a statement equivalent to “If I do not use telework, I feel vulnerable to negative consequences.” The second item was adapted from Mallmann and Maçada (2021) and assessed the

extent to which employees perceived that failure to adopt telework could expose their personal or work-related information to potential risks. The third item, adapted from Ang et al. (2022), assessed employees' concern regarding risks associated with not using telework. The three items were combined to represent the overall perceived susceptibility construct, with higher scores indicating a greater perceived vulnerability to adverse consequences associated with non-adoption of telework. Perceived susceptibility was incorporated into the research model as a moderating variable and was coded as PSE.

The face validity of the questionnaire was evaluated before the main data collection. A group of individuals with relevant academic and professional expertise reviewed the questionnaire with respect to the clarity of item wording, appropriateness of terminology, comprehensibility, formatting, consistency of the response scale, and suitability of the items for the organizational and telework context. Based on their evaluations, minor modifications were made where necessary, and the instrument was considered to possess adequate face validity. Reliability was evaluated primarily through internal consistency coefficients. Cronbach's alpha was used as one of the principal reliability indices, with coefficients of 0.70 or higher considered indicative of acceptable internal consistency. In addition, because the study used partial least squares structural equation modeling, the reliability and validity of the measurement model were further evaluated using indicator loadings, Cronbach's alpha, composite reliability, average variance extracted, and discriminant validity criteria.

Data analysis was conducted at both descriptive and inferential levels. Descriptive statistics were first used to summarize the characteristics of the participants and the distributions of the study variables. Demographic characteristics, including gender, educational attainment, and length of service, were summarized using frequencies and percentages, while the principal study constructs were described using appropriate measures of central tendency and dispersion, including the mean and standard deviation. Prior to hypothesis testing, the data were screened for completeness and suitability for subsequent multivariate analysis.

The proposed conceptual model and research hypotheses were examined using partial least squares structural equation modeling (PLS-SEM). This approach was selected because the study simultaneously examined multiple latent constructs, direct relationships, indirect or mediating effects, and a moderating effect within a single structural framework. PLS-SEM was also considered appropriate for a prediction-oriented model involving a relatively complex network of relationships and a sample of 188 respondents. The analyses were performed using SmartPLS software.

The analysis proceeded through evaluation of the measurement model followed by evaluation of the structural model. For the measurement model, indicator reliability was assessed through the standardized outer loadings of the questionnaire items. Internal consistency reliability was evaluated using Cronbach's alpha and composite reliability, with values of at least 0.70 regarded as acceptable. Convergent validity was assessed using the average variance extracted (AVE), with values of 0.50 or higher indicating that a latent construct explained at least half of the variance in its indicators. Discriminant validity was examined to ensure that empirically distinct constructs were adequately distinguishable from one another, using criteria such as the Fornell–Larcker criterion and the heterotrait–monotrait ratio of correlations where appropriate.

Before evaluating the structural relationships, multicollinearity among predictor constructs was examined using variance inflation factor indices. The structural model was subsequently assessed using standardized path coefficients, their direction and magnitude, and statistical significance. The significance of direct and indirect relationships was evaluated through the bootstrapping procedure implemented in SmartPLS. The coefficient of

determination (R^2) was calculated for endogenous constructs to determine the proportion of variance explained by their predictor variables, while effect size coefficients (f^2) were examined to determine the relative contribution of individual predictors to the explained variance of the endogenous variables. Predictive relevance and overall model quality were also evaluated using appropriate PLS-SEM indices.

The mediating roles of attitude and normative influence were tested by examining the significance of the relevant indirect effects between the exogenous variables and intention to use telework. Bootstrapped indirect-effect estimates were used to establish whether the proposed mediation paths were statistically significant. The moderating role of perceived susceptibility was evaluated by constructing the relevant interaction term within the PLS-SEM framework and testing whether the interaction effect significantly altered the strength or direction of the hypothesized relationship with intention to use telework. Where a statistically significant interaction was identified, its coefficient and direction were interpreted to determine whether higher levels of perceived susceptibility strengthened or weakened the focal relationship. Statistical decisions regarding the study hypotheses were made using a significance level of 0.05, and the final interpretation of the model was based jointly on measurement quality, explained variance, effect sizes, predictive adequacy, and the magnitude and statistical significance of the estimated structural paths.

Findings and Results

The final analysis was conducted on 188 valid questionnaires obtained from employees of the Qazvin Province Tax Administration. Before evaluating the measurement and structural models, the distributions of the main study variables were examined using descriptive statistics, skewness, and kurtosis. As shown in Table 1, the mean scores ranged from 3.011 for perceived susceptibility to 3.792 for normative influence. Among the principal telework adoption constructs, normative influence had the highest mean score ($M = 3.792$, $SD = 0.867$), followed by intention to use telework ($M = 3.728$, $SD = 0.965$), perceived ease of use ($M = 3.720$, $SD = 1.045$), task–technology fit ($M = 3.681$, $SD = 0.762$), perceived usefulness ($M = 3.596$, $SD = 0.782$), and attitude toward telework ($M = 3.522$, $SD = 0.861$). Perceived susceptibility had a mean of 3.011 ($SD = 1.030$). The absolute skewness values were below 3 and the absolute kurtosis values were below 5 for all constructs. Therefore, no substantial departure from normality was observed in the distributions of the study variables. Although PLS-SEM does not require multivariate normality, these results provided additional evidence regarding the suitability of the dataset for subsequent analyses.

Table 1. Descriptive Statistics and Distributional Characteristics of the Study Variables

Variable	Minimum	Maximum	Mean	SD	Skewness	Kurtosis
Perceived ease of use	1.00	5.00	3.7196	1.04471	-0.910	-0.082
Perceived usefulness	1.33	5.00	3.5958	0.78150	-0.806	0.696
Task–technology fit	1.00	5.00	3.6806	0.76172	-1.272	1.912
Attitude toward telework	1.00	5.00	3.5215	0.86109	-0.989	0.821
Normative influence	1.00	5.00	3.7921	0.86669	-1.142	1.257
Intention to use telework	1.00	5.00	3.7284	0.96527	-1.176	0.650
Perceived susceptibility	1.00	5.00	3.0111	1.02960	0.248	-1.127

The adequacy of the sample for factor-based analyses was further examined using the Kaiser–Meyer–Olkin (KMO) measure and Bartlett's test of sphericity. The KMO coefficient was 0.864, which was substantially higher than the minimum acceptable value of 0.60 and therefore indicated adequate sampling adequacy. Bartlett's test was also statistically significant, $\chi^2(231) = 3541.043$, $p < 0.001$. Thus, the null hypothesis that the observed

correlation matrix was an identity matrix was rejected, demonstrating that sufficient correlations existed among the indicators to justify latent-variable analysis.

The inferential analyses were subsequently conducted using SmartPLS and the partial least squares structural equation modeling approach. PLS-SEM was appropriate for the present analysis because the conceptual model incorporated multiple simultaneous structural relationships, two mediating constructs, and a moderating variable. The approach also enabled simultaneous evaluation of the reflective measurement model and structural model without imposing a strict multivariate normality requirement.

The reflective measurement model was first assessed in terms of indicator reliability and unidimensionality. All retained indicator loadings exceeded 0.70. Consequently, none of the measurement items required deletion from the model. These findings demonstrated that the indicators associated with each latent construct were sufficiently homogeneous and represented their corresponding constructs adequately.

Internal consistency reliability and convergent validity were subsequently evaluated using Cronbach's alpha, rho_A, composite reliability, and average variance extracted (AVE). The results are presented in Table 2. Cronbach's alpha coefficients ranged from 0.755 to 0.878, rho_A values ranged from 0.759 to 0.883, and composite reliability coefficients ranged from 0.859 to 0.925. All coefficients therefore exceeded the recommended threshold of 0.70. The AVE values ranged between 0.671 and 0.804 and were consequently above the required value of 0.50. In addition, composite reliability exceeded AVE for every construct. Collectively, these findings supported the internal consistency reliability and convergent validity of the reflective measurement model.

Table 2. Reliability and Convergent Validity of the Measurement Model

Construct	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Task-technology fit	0.797	0.797	0.881	0.711
Perceived ease of use	0.755	0.759	0.859	0.671
Perceived usefulness	0.878	0.883	0.925	0.804
Intention to use telework	0.838	0.840	0.892	0.674
Normative influence	0.757	0.770	0.861	0.675
Attitude toward telework	0.830	0.833	0.899	0.748

The individual indicator loadings and their bootstrapped significance statistics are reported in Table 3. Standardized loadings ranged from 0.734 to 0.921 and were therefore uniformly above 0.70. Furthermore, all corresponding t-values were considerably greater than the critical value of 1.96, ranging from 19.720 to 74.169, and all p-values were below 0.001. The findings therefore indicated that every retained indicator contributed significantly to its respective latent construct. No indicator was removed during measurement-model assessment.

Table 3. Indicator Loadings and Their Statistical Significance

Indicator	Construct	Loading	Bootstrap Mean	SD	t	p
ATI1	Attitude	0.909	0.908	0.013	68.450	<0.001
ATI2	Attitude	0.883	0.881	0.014	63.614	<0.001
ATI3	Attitude	0.799	0.798	0.026	30.899	<0.001
IUT1	Intention to use telework	0.835	0.834	0.020	41.290	<0.001
IUT2	Intention to use telework	0.819	0.818	0.019	43.712	<0.001
IUT3	Intention to use telework	0.752	0.747	0.037	20.264	<0.001
IUT4	Intention to use telework	0.873	0.874	0.019	46.579	<0.001
NIN1	Normative influence	0.734	0.730	0.037	19.720	<0.001
NIN2	Normative influence	0.862	0.861	0.017	50.384	<0.001
NIN3	Normative influence	0.862	0.861	0.016	53.805	<0.001
PEA1	Perceived ease of use	0.842	0.843	0.020	42.500	<0.001
PEA2	Perceived ease of use	0.817	0.809	0.036	22.988	<0.001

PEA3	Perceived ease of use	0.798	0.794	0.033	24.391	<0.001
PUS1	Perceived usefulness	0.898	0.897	0.016	56.563	<0.001
PUS2	Perceived usefulness	0.921	0.919	0.012	74.169	<0.001
PUS3	Perceived usefulness	0.870	0.870	0.016	54.952	<0.001
TTF1	Task–technology fit	0.856	0.854	0.024	35.084	<0.001
TTF2	Task–technology fit	0.840	0.836	0.025	34.026	<0.001
TTF3	Task–technology fit	0.834	0.831	0.025	32.919	<0.001

Discriminant validity was evaluated using both the Fornell–Larcker criterion and the heterotrait–monotrait ratio of correlations (HTMT). The results of both procedures are presented in Table 4. According to the Fornell–Larcker criterion, the square root of the AVE for each construct was greater than its correlations with the other constructs. For example, the square roots of the AVE were 0.843 for task–technology fit, 0.819 for perceived ease of use, 0.897 for perceived usefulness, 0.821 for intention to use telework, 0.822 for normative influence, and 0.865 for attitude. These diagonal values exceeded the relevant interconstruct correlations.

The HTMT values ranged from 0.267 to 0.845 and were uniformly below the 0.90 threshold. The highest HTMT value, 0.845, was observed between normative influence and intention to use telework, but remained below the prespecified criterion. Accordingly, both the Fornell–Larcker and HTMT assessments provided evidence that the latent constructs were empirically distinguishable and that adequate discriminant validity had been established.

Table 4. Discriminant Validity of the Measurement Model

Panel A. Fornell–Larcker Criterion

Construct	TTF	PEA	PUS	IUT	NIN	ATI
Task–technology fit (TTF)	0.843					
Perceived ease of use (PEA)	0.207	0.819				
Perceived usefulness (PUS)	0.634	0.310	0.897			
Intention to use telework (IUT)	0.562	0.377	0.588	0.821		
Normative influence (NIN)	0.578	0.403	0.575	0.684	0.822	
Attitude (ATI)	0.436	0.443	0.500	0.573	0.578	0.865

Note. Diagonal values represent the square root of AVE.

Panel B. HTMT Ratios

Construct	TTF	PEA	PUS	IUT	NIN	ATI
Task–technology fit (TTF)	—					
Perceived ease of use (PEA)	0.267	—				
Perceived usefulness (PUS)	0.755	0.372	—			
Intention to use telework (IUT)	0.686	0.469	0.679	—		
Normative influence (NIN)	0.744	0.536	0.703	0.845	—	
Attitude (ATI)	0.536	0.555	0.581	0.687	0.745	—

Overall, the assessment of indicator loadings, internal consistency reliability, convergent validity, the Fornell–Larcker criterion, and HTMT indicated that the reflective measurement model achieved adequate psychometric quality. The analysis therefore proceeded to evaluation of the structural model.

The structural model was evaluated using standardized path coefficients and bootstrapped t-statistics. A path was considered statistically significant at the 5% level when the absolute t-value exceeded 1.96 and at approximately the 1% level when the absolute t-value exceeded 2.58. The direct-effect hypothesis-testing results are presented in Table 5.

Table 5. Direct Structural Relationships and Hypothesis Testing

Hypothesis	Structural Relationship	β	t	p	Result
H1	Perceived ease of use → Attitude	0.316	5.923	<0.001	Supported

H2	Perceived ease of use → Intention to use telework	0.065	1.262	0.208	Not supported
H3	Perceived ease of use → Normative influence	0.244	4.796	<0.001	Supported
H4	Perceived usefulness → Attitude	0.279	3.964	<0.001	Supported
H5	Perceived usefulness → Intention to use telework	0.171	2.577	0.010	Supported
H6	Perceived usefulness → Normative influence	0.277	3.744	<0.001	Supported
H7	Task–technology fit → Attitude	0.194	3.177	<0.001	Supported
H8	Task–technology fit → Normative influence	0.352	4.816	<0.001	Supported
H9	Task–technology fit → Intention to use telework	0.148	2.419	0.016	Supported
H10	Attitude → Intention to use telework	0.180	2.398	0.017	Supported
H11	Normative influence → Intention to use telework	0.370	4.721	<0.001	Supported

The findings showed that perceived ease of use had a positive and statistically significant effect on attitude toward telework ($\beta = 0.316$, $t = 5.923$, $p < 0.001$), supporting H1. However, its direct effect on intention to use telework was not statistically significant ($\beta = 0.065$, $t = 1.262$, $p = 0.208$); therefore, H2 was not supported. Perceived ease of use nevertheless exerted a significant positive effect on normative influence ($\beta = 0.244$, $t = 4.796$, $p < 0.001$), supporting H3.

Perceived usefulness significantly and positively predicted attitude toward telework ($\beta = 0.279$, $t = 3.964$, $p < 0.001$), intention to use telework ($\beta = 0.171$, $t = 2.577$, $p = 0.010$), and normative influence ($\beta = 0.277$, $t = 3.744$, $p < 0.001$). Accordingly, H4, H5, and H6 were supported.

Task–technology fit also showed significant positive relationships with attitude ($\beta = 0.194$, $t = 3.177$, $p < 0.001$), normative influence ($\beta = 0.352$, $t = 4.816$, $p < 0.001$), and intention to use telework ($\beta = 0.148$, $t = 2.419$, $p = 0.016$), providing support for H7, H8, and H9, respectively.

Among the two mediating variables, attitude exerted a significant positive direct effect on intention to use telework ($\beta = 0.180$, $t = 2.398$, $p = 0.017$), supporting H10. Normative influence demonstrated an even stronger positive association with telework intention ($\beta = 0.370$, $t = 4.721$, $p < 0.001$), supporting H11. Among all direct predictors of intention to use telework, normative influence demonstrated the largest standardized direct path coefficient.

The mediating roles of attitude and normative influence were assessed using bootstrapped specific indirect effects. As reported in Table 6, all six indirect pathways were statistically significant at $p < 0.05$.

Table 6. Bootstrapped Tests of the Mediating Effects

Hypothesis	Indirect Path	Indirect Effect	Bootstrap Mean	SD	t	p	Result
H12	Perceived ease of use → Attitude → Intention	0.057	0.058	0.027	2.088	0.038	Supported
H13	Perceived usefulness → Attitude → Intention	0.050	0.051	0.026	1.974	0.049	Supported
H14	Task–technology fit → Attitude → Intention	0.035	0.034	0.017	2.036	0.043	Supported
H15	Perceived ease of use → Normative influence → Intention	0.090	0.094	0.029	3.078	0.002	Supported
H16	Perceived usefulness → Normative influence → Intention	0.102	0.098	0.034	3.027	0.003	Supported
H17	Task–technology fit → Normative influence → Intention	0.130	0.129	0.038	3.399	0.001	Supported

The indirect effect of perceived ease of use on telework intention through attitude was statistically significant ($\beta = 0.057$, $t = 2.088$, $p = 0.038$). Because the corresponding direct effect of perceived ease of use on intention was nonsignificant, whereas the indirect effect through attitude was significant, the result indicated an indirect-only or full mediating role of attitude in this relationship.

The indirect relationship between perceived usefulness and intention through attitude was also significant ($\beta = 0.050$, $t = 1.974$, $p = 0.049$). Since perceived usefulness retained a statistically significant direct association with intention, attitude represented a partial mediating mechanism in this relationship. Similarly, task–technology fit had a significant indirect effect on intention through attitude ($\beta = 0.035$, $t = 2.036$, $p = 0.043$), while its direct effect remained significant; therefore, attitude partially mediated the effect of task–technology fit on intention to use telework.

Normative influence also significantly transmitted the effect of all three exogenous predictors to telework intention. The specific indirect effect of perceived ease of use through normative influence was significant ($\beta = 0.090$, $t = 3.078$, $p = 0.002$). Given that the corresponding direct perceived ease of use $\rightarrow$ intention path was not significant, the findings indicated an indirect-only mediating mechanism through normative influence. The indirect effect of perceived usefulness through normative influence was significant ($\beta = 0.102$, $t = 3.027$, $p = 0.003$), as was the indirect effect of task–technology fit through normative influence ($\beta = 0.130$, $t = 3.399$, $p = 0.001$). Because the respective direct effects of perceived usefulness and task–technology fit on intention were also significant, normative influence functioned as a partial mediator of these two relationships. Among all specific indirect effects, the task–technology fit $\rightarrow$ normative influence $\rightarrow$ intention pathway had the largest coefficient ($\beta = 0.130$).

The explanatory power of the structural model was assessed through the R^2 coefficients of the endogenous constructs. In addition, cross-validated communality and redundancy indices were examined to evaluate the predictive quality of the measurement and structural components of the model. The results are shown in Table 7.

Table 7. Explanatory Power and Predictive Quality of the Model

Endogenous/Latent Construct	R^2	Cross-Validated Communality	Cross-Validated Redundancy
Task–technology fit	—	0.396	—
Perceived ease of use	—	0.336	—
Perceived usefulness	—	0.534	—
Intention to use telework	0.564	0.434	0.343
Normative influence	0.461	0.348	0.282
Attitude toward telework	0.364	0.454	0.250

The R^2 value for intention to use telework was 0.564, demonstrating that the predictors incorporated into the model jointly explained 56.4% of the variance in employees' intention to use telework. The R^2 coefficient for normative influence was 0.461, indicating that 46.1% of its variance was explained by perceived ease of use, perceived usefulness, and task–technology fit. The R^2 value for attitude was 0.364, meaning that the same antecedent constructs explained 36.4% of the variance in employees' attitudes toward telework. Based on conventional PLS-SEM benchmarks, these results indicated moderate explanatory power for the endogenous constructs, particularly intention to use telework.

The cross-validated communality values ranged from 0.336 to 0.534, while cross-validated redundancy values for the endogenous constructs ranged from 0.250 to 0.343. Thus, all reported predictive-quality statistics were positive and exceeded the minimum benchmark of 0.02. The communality values generally reflected moderate to strong measurement quality, while redundancy values indicated moderate predictive relevance for attitude and normative influence and a value approaching the strong range for intention to use telework.

Model fit was additionally examined using the indices generated by SmartPLS. For the saturated model, SRMR was 0.070, d_ULS was 0.925, d_G was 0.436, Chi-square was 726.723, and NFI was 0.767. For the estimated model, SRMR was 0.075, d_ULS was 1.074, d_G was 0.453, Chi-square was 728.953, and NFI was 0.766. Both

SRMR values were below 0.10 and both NFI coefficients exceeded 0.70. These results supported the acceptable overall fit of the proposed PLS-SEM model.

In the final stage of the analysis, perceived susceptibility was introduced as a moderating variable. Before assessing its interaction effects, the measurement indicators of perceived susceptibility were examined, and all three indicator loadings were above 0.70. The construct was therefore retained in the moderation analysis. Interaction terms were then incorporated into the structural model to determine whether perceived susceptibility altered the strength of the relationships between attitude and intention and between normative influence and intention. The results are presented in Table 8.

Table 8. Moderating Effects of Perceived Susceptibility

Hypothesis	Moderating Relationship	β	t	Result
H18	Perceived susceptibility $\times$ Attitude $\rightarrow$ Intention to use telework	0.122	2.167	Supported
H19	Perceived susceptibility $\times$ Normative influence $\rightarrow$ Intention to use telework	0.054	0.945	Not supported

The interaction between perceived susceptibility and attitude toward telework had a positive and statistically significant effect on intention to use telework ($\beta = 0.122$, $t = 2.167$). Since the corresponding t-value exceeded 1.96, H18 was supported at the 5% significance level. The positive interaction coefficient indicated that perceived susceptibility strengthened the positive relationship between attitude and intention to use telework. More specifically, when employees reported higher perceived susceptibility, the positive influence of a favorable attitude on their intention to use telework became stronger. Conversely, at lower levels of perceived susceptibility, the effect of attitude on telework intention was comparatively weaker.

In contrast, the interaction between perceived susceptibility and normative influence was not statistically significant ($\beta = 0.054$, $t = 0.945$). Therefore, H19 was not supported. This finding indicated that variation in employees' perceived susceptibility did not significantly change the strength of the relationship between normative influence and intention to use telework. Normative influence consequently exerted its effect on telework intention independently of statistically detectable differences in perceived susceptibility.

Overall, ten of the eleven proposed direct structural relationships were supported, with the only nonsignificant direct relationship occurring between perceived ease of use and intention to use telework. All six hypothesized specific indirect effects through attitude and normative influence were statistically significant. The model explained 56.4% of the variance in intention to use telework, 46.1% of the variance in normative influence, and 36.4% of the variance in attitude. Finally, perceived susceptibility significantly strengthened the relationship between attitude and intention to use telework but did not significantly moderate the relationship between normative influence and telework intention.

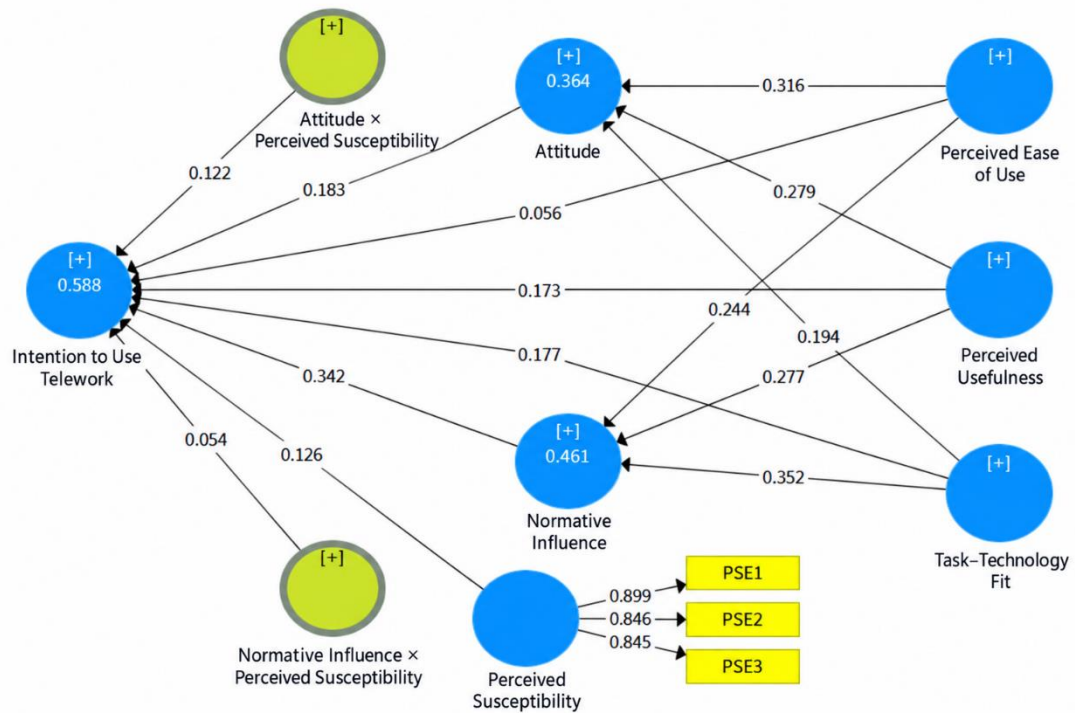


Figure 1. Structural Equation Model of Factors Affecting Intention to Use Telework Based on Standardized Path Coefficients (β Values)

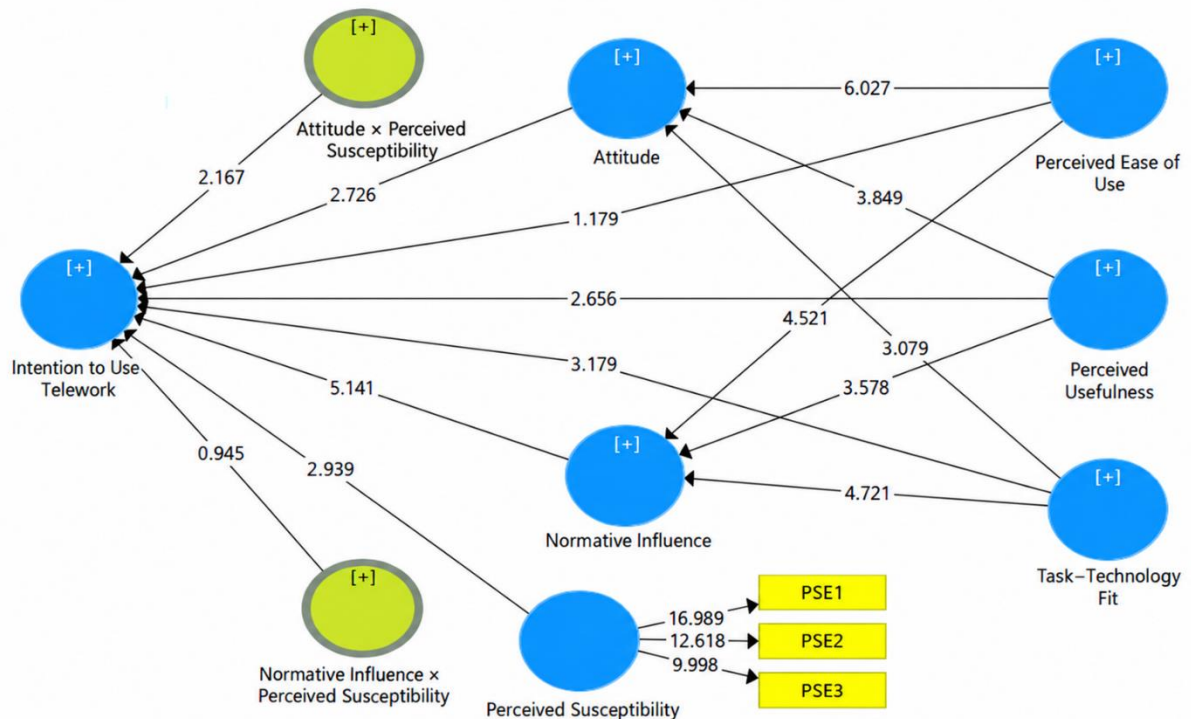


Figure 2. Structural Equation Model of Factors Affecting Intention to Use Telework Based on Bootstrapped t-Values

Discussion and Conclusion

The present study investigated the factors influencing employees' intention to use telework in the Qazvin Province Tax Administration by integrating perceived ease of use, perceived usefulness, and task–technology fit as antecedent variables, attitude and normative influence as mediating variables, and perceived susceptibility as a moderating variable. The structural model demonstrated satisfactory explanatory power, accounting for 56.4% of the variance in intention to use telework, 46.1% of the variance in normative influence, and 36.4% of the variance in attitude toward telework. Most of the hypothesized direct relationships were supported, with the exception of the direct path from perceived ease of use to intention to use telework. In addition, both attitude and normative influence played significant mediating roles in several relationships, while perceived susceptibility significantly moderated the relationship between attitude and intention but did not significantly moderate the relationship between normative influence and intention. These findings indicate that employees' willingness to use telework is shaped by a combination of technological beliefs, perceived compatibility between work tasks and technology, favorable evaluations of teleworking, social and organizational influence, and perceptions of vulnerability associated with not adopting telework.

The first finding showed that perceived ease of use had a significant positive effect on attitude toward telework. Employees who perceived teleworking technologies as easier to learn and operate tended to develop more favorable attitudes toward using telework. This result is consistent with the central propositions of the Technology Acceptance Model, according to which lower perceived effort associated with a technological system contributes to a more positive evaluation of its use. Similar evidence has been reported in studies of digital tax systems, where perceived ease of use contributed to favorable attitudes toward digitalized taxation technologies (10). Studies in educational technology have likewise demonstrated that users are more likely to evaluate digital systems positively when they perceive them as uncomplicated and accessible (8, 9). In the context of telework, ease of use may reduce technological frustration, learning costs, and perceived complexity, allowing employees to focus more directly on completing their job tasks rather than on managing the technology itself. This mechanism can explain why employees who view telework systems as user-friendly are more likely to develop a positive general attitude toward remote work.

However, perceived ease of use did not have a significant direct effect on intention to use telework. This finding suggests that merely perceiving teleworking technologies as easy to operate is not sufficient to generate behavioral intention among employees. Ease of use may instead influence intention indirectly through evaluative and social mechanisms. This pattern is theoretically meaningful because organizational technologies can be simple to use without necessarily being perceived as valuable, necessary, or appropriate for particular occupational tasks. Previous research has shown that technology adoption often depends on a broader combination of perceived usefulness, social influence, compatibility, and task-related benefits rather than on simplicity alone (11, 16). The absence of a significant direct effect may therefore reflect the organizational nature of telework, where employees' decisions are influenced not only by usability but also by institutional arrangements, managerial expectations, security requirements, task characteristics, and social norms.

The findings further demonstrated that perceived ease of use significantly influenced normative influence. This result implies that when teleworking technologies are perceived as easier to use, employees may also perceive greater social acceptance and organizational encouragement regarding their use. Technologies that appear

accessible and manageable are more likely to be adopted collectively, creating stronger normative signals within the organization. Social influence has been identified as an important factor in technology adoption across diverse contexts, particularly when users depend on the experiences, expectations, or approval of others (26, 27). In public organizations, where work practices are often standardized and coordinated across employees, the perceived ease of technological systems may facilitate wider acceptance and consequently strengthen the perception that important organizational actors support their use.

Perceived usefulness also had a significant positive effect on attitude toward telework. Employees who believed that telework could improve their work effectiveness, productivity, or efficiency exhibited more favorable evaluations of teleworking. This finding strongly aligns with technology acceptance research demonstrating that perceived usefulness is among the most consistent predictors of attitude toward technological systems (7, 10). When employees believe that telework provides practical advantages in fulfilling their duties, they are more likely to regard remote work as a beneficial and sensible work arrangement. This relationship may be especially salient in a tax administration, where many tasks involve information processing, digital documentation, communication, and system-based administrative procedures that can potentially be performed remotely.

Perceived usefulness also exerted a significant direct effect on intention to use telework. This result confirms that employees' behavioral willingness to use telework increases when they perceive clear functional benefits from its adoption. Comparable findings have been observed in studies examining mobile technologies, digital platforms, and other technology-enabled services, where perceptions of performance enhancement have consistently contributed to stronger usage intentions (11-13). The practical implication is that employees are not likely to adopt telework merely because it is available; rather, they need to perceive tangible improvements in the way they complete their duties. This result is also compatible with evidence showing that perceived usefulness plays a substantial role in the acceptance of digital taxation systems (10).

In addition, perceived usefulness significantly influenced normative influence. This finding suggests that technologies perceived as beneficial are more likely to gain social and organizational endorsement. When employees observe that telework improves efficiency or supports effective task completion, positive evaluations may become shared within workgroups and supervisory structures, thereby creating stronger normative encouragement. The importance of socially constructed technology evaluations has been highlighted in prior adoption research (26). In organizational settings, positive judgments concerning the usefulness of a system may diffuse through formal and informal communication, strengthening employees' perceptions that telework is a legitimate and desirable mode of working.

Task-technology fit significantly influenced attitude toward telework. Employees who perceived a stronger correspondence between teleworking technologies and their work requirements exhibited more favorable attitudes toward telework. This result is consistent with Task-Technology Fit theory, which argues that technologies are evaluated positively when their functionalities adequately support users' task requirements (14). Previous empirical studies have demonstrated that task-technology fit is associated with technology acceptance, usage, and performance outcomes (15, 16). In the specific context of remote work, previous evidence has shown that a good fit between information and communication technologies and job tasks facilitates effective remote work practices (17). Thus, employees are likely to view telework more positively when digital platforms, communication tools, and remote access systems allow them to perform their duties without substantial disruption.

Task–technology fit also had a significant positive effect on normative influence. This suggests that when teleworking technologies adequately support organizational tasks, employees may perceive greater approval of telework from colleagues, supervisors, and other important organizational referents. A technology that functions effectively within existing workflows is more likely to become normalized within the organization. This interpretation is consistent with contemporary research emphasizing that technological effectiveness is embedded in broader socio-technical systems rather than determined solely by technical characteristics (25, 28). Furthermore, research has shown that inadequate task–technology fit can produce dissatisfaction or encourage employees to seek alternative and even unauthorized technological solutions (18), reinforcing the importance of alignment between organizational technologies and job requirements.

Task–technology fit also significantly predicted intention to use telework directly. Employees who believed that remote technologies were compatible with their tasks showed greater willingness to use telework. This finding is consistent with studies in diverse technological contexts, including live-streaming commerce, digital payment systems, logistics systems, and generative artificial intelligence, which have shown that task–technology alignment contributes to behavioral intention or continued use (19–22). It also corresponds with studies integrating task–technology fit and technology acceptance perspectives, which indicate that technological adoption is more likely when users perceive both functional usefulness and compatibility with their actual tasks (16, 24). In the current setting, employees may therefore be more willing to use telework when remote systems provide the specific functionalities necessary for tax administration activities.

Another important finding was the significant positive effect of attitude on intention to use telework. Employees with more favorable attitudes toward telework demonstrated stronger behavioral intentions to adopt it. This result supports the proposition that attitude constitutes an important proximal determinant of behavioral intention in technology adoption. Previous studies have similarly shown that attitude mediates or transmits the effects of perceived technological characteristics into behavioral decisions (7, 10). Favorable attitudes may reflect employees' overall judgments that telework is sensible, beneficial, and appropriate, thereby increasing their willingness to use it in future work activities.

Normative influence had the strongest direct effect on intention to use telework among the principal predictors examined. This finding highlights the substantial importance of organizational and social expectations in employees' telework decisions. Employees may be more willing to engage in telework when they perceive that supervisors, colleagues, and other influential individuals support or expect such behavior. The finding is consistent with previous studies demonstrating the role of social influence in shaping technology adoption intentions (26, 27). In a governmental organization, where formal structures, organizational culture, hierarchical expectations, and collective work norms are particularly important, normative influence may be especially powerful. Employees may therefore rely heavily on organizational cues to determine whether telework is considered legitimate and appropriate.

The mediation analysis provided further insight into the mechanisms through which technological perceptions influenced telework intention. Attitude significantly mediated the relationships of perceived ease of use, perceived usefulness, and task–technology fit with intention to use telework. The mediation effect was indirect-only for perceived ease of use because its direct relationship with intention was nonsignificant, whereas the indirect effect through attitude was significant. This suggests that ease of use affects intention primarily by shaping employees' overall evaluations of telework rather than by directly motivating behavioral intention. This finding is consistent with research emphasizing attitude as a central mechanism through which ease and usefulness perceptions translate

into technology adoption behavior (7, 10). In contrast, attitude partially mediated the effects of perceived usefulness and task–technology fit because both constructs retained significant direct effects on intention.

Normative influence also significantly mediated the relationships of perceived ease of use, perceived usefulness, and task–technology fit with intention to use telework. These results indicate that technological perceptions can influence behavioral intention partly by shaping employees' perceptions of social and organizational approval. The indirect pathway through normative influence was particularly notable for task–technology fit, which showed the largest specific indirect effect through this mediator. When a teleworking system is well aligned with job requirements, its functionality may become more visible to colleagues and managers, thereby strengthening collective support and ultimately employees' intention to use it. This finding is compatible with socio-technical perspectives emphasizing that technology acceptance is jointly shaped by technological performance and the social environment in which that performance is interpreted (25, 28).

Finally, perceived susceptibility significantly moderated the relationship between attitude and intention to use telework. The positive interaction coefficient indicated that the association between favorable attitude and telework intention became stronger at higher levels of perceived susceptibility. Thus, employees who simultaneously held positive attitudes toward telework and felt more vulnerable to negative consequences associated with not adopting it demonstrated particularly strong behavioral intentions. This finding suggests that perceptions of vulnerability can activate or reinforce favorable evaluations, making attitude more behaviorally consequential. Similar risk-related mechanisms have been recognized in technology-enabled health systems, where perceived exposure to adverse outcomes can shape acceptance decisions (31). However, perceived susceptibility did not significantly moderate the relationship between normative influence and intention. This indicates that social or organizational pressure toward telework may operate relatively independently of employees' perceived vulnerability. In other words, normative influence may remain influential regardless of whether employees personally perceive high or low susceptibility to the consequences of not using telework.

The present study has several limitations that should be considered when interpreting the findings. First, the cross-sectional design prevents definitive conclusions regarding temporal or causal ordering among the variables. Second, all constructs were assessed using self-report questionnaires, which may increase the possibility of common method variance and socially desirable responding. Third, the study was conducted exclusively among employees of the Qazvin Province Tax Administration, which limits the generalizability of the findings to other provinces, government agencies, private-sector organizations, or occupational groups. Fourth, the study focused on employees' intention to use telework rather than objectively observed telework behavior or long-term continuance. Finally, contextual factors such as managerial support, digital competence, organizational culture, cybersecurity concerns, job autonomy, and availability of technological infrastructure were not incorporated into the model.

Future studies should use longitudinal research designs to examine whether the identified relationships remain stable as employees gain greater experience with telework and whether behavioral intention ultimately translates into actual usage. Replication of the model across different governmental organizations, provinces, occupational groups, and private-sector settings would provide stronger evidence regarding its generalizability. Future researchers could also incorporate additional organizational and individual variables, such as managerial support, trust, digital literacy, perceived risk, cybersecurity concerns, job autonomy, organizational readiness, and work–family boundary management. Multi-group analyses could examine whether the structural relationships differ

according to age, gender, educational level, occupational position, previous telework experience, or digital competence. Studies may also compare alternative mediating and moderating mechanisms and use objective system-use data to complement self-reported behavioral intentions.

Managers of tax administrations and comparable public organizations should focus on demonstrating the practical value of telework rather than merely providing technological access. Teleworking platforms should be selected and configured to correspond closely to employees' actual job tasks, administrative procedures, and information-processing requirements. Training programs should be designed to reduce technological complexity and strengthen employees' confidence in using remote systems, while managers and supervisors should communicate clear organizational support for telework because normative influence appears to be a particularly important driver of employee intention. Organizations should also identify employees who perceive greater risks associated with failing to adopt telework and provide them with clear information regarding the benefits, security arrangements, and operational advantages of remote working. Finally, telework policies should be supported by appropriate technical infrastructure, cybersecurity protocols, managerial coordination, and formal organizational procedures so that favorable employee attitudes can be translated into sustainable and effective telework behavior.

Acknowledgments

We would like to express our appreciation and gratitude to all those who helped us carrying out this study.

Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

All ethical principles were adhered in conducting and writing this article.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

References

1. Ding X. Remote Work Evolution: Contrasting Realities in China and US. *Highlights in Business, Economics and Management*. 2024;30:59-64. doi: 10.54097/hg75z287.
2. Tunca MV, Frățică Dragomir AM, Rădulescu RM. The Implementation and Benefits of Telework in Various Sectors: Reality or Rhetoric? *Cunoașterea Științifică*. 2024;3(4):114-49. doi: 10.58679/cs52601.

3. Sava Z. The Global Shift towards Remote Work and Its Legal Implications. *Interdisciplinary Journal of Research and Development*. 2025;12(1 S1):279. doi: 10.56345/ijrdv12n1s137.
4. Lladós-Masllorens J, Meseguer-Artola A, Rimbau-Gilabert E, Sabadell i Bosch M. Telework and New Work Practices: The Role of Managers. *Human Resources Management and Services*. 2024;6(2). doi: 10.18282/hrms.v6i2.3454.
5. Salehi A, Tremblay DG, Dubouloz S, Desmarais C. Exploring the Influence of Managers' Perceived Innovation Compatibility and Experience on Telework Decisions: The Mediating Role of Satisfaction. *Journal of HRM*. 2026;29(1):1. doi: 10.46287/ZSOE4991.
6. Bracho E, Gisle L, Hermans L, Duveau C, Cagnie B, De Pauw R, et al. The Impact of Telework on Mental Health: A Secondary Analysis of the 2023 BelHealth. *European Journal of Public Health*. 2024;34(Supplement_3):ckae144.2237. doi: 10.1093/eurpub/ckae144.2237.
7. Ghamkhari SM, Pourali Ganji L. Examining the Effects of Perceived Usefulness, Ease of Use, Enjoyment, Trust, and Social Influence on Intention to Use with the Mediating Role of Consumer Attitude: A Study of Residential Solar Electricity Customers in Yazd. *Intelligent Marketing Management*. 2023;4(2):66-78.
8. Giac CC, Van Giang CT, Hoang LH, Ngan TTT. A Study on Teachers' Acceptance of Digital Technology in Vietnamese Secondary Education: An Assessment Using the Technology Acceptance Model. *International Journal of Learning, Teaching and Educational Research*. 2025;24(2):38-62. doi: 10.26803/ijlter.24.2.3.
9. Susilawati E, Ekalestari S, Khaira I, Kesuma S, Mardiana N. Analysis of the Technology Acceptance Model (TAM) in the Implementation of the Curriculum Review Course: A Study on Students' Understanding and Acceptance of Technology at Universitas Islam Sumatera Utara. *International Journal on E-Learning and Higher Education*. 2025;20(2):19-39. doi: 10.24191/ijelhe.v20n2.2022.
10. Husna NL, Cahyaningsih DS, Kumar AM. Perceived Usefulness dan Perceived Ease of Use: Pengaruh Perceived Usefulness dan Perceived Ease of Use terhadap Actual Usage melalui Attitude toward Using dalam Digitalisasi Sistem Perpajakan UMKM. *Jurnal Ilmiah Fokus Ekonomi, Manajemen, Bisnis & Akuntansi (EMBA)*. 2025;4(2):257-74. doi: 10.34152/emba.v4i2.1449.
11. Kiat LS, Hoo WC, Cheng AY, Prompanyo M, Hossain SFA. Factors Influencing Intention to Use 5G Mobile Technology and Adoption Onwards in Malaysia. *WSEAS Transactions on Business and Economics*. 2025;22:773-87. doi: 10.37394/23207.2025.22.68.
12. Khodami S, Chavoshi SK, Rahimizadeh N. Investigating Factors Affecting Customers' Behavioral Intention to Use Virtual Reality Based on Diffusion of Innovation Theory, Uses and Gratifications Theory, and Perceived Value Foundations. *Information Management Sciences and Techniques*. 2023;9(4):119-48.
13. Abdollahzadeh M, Abdollahzadeh M, Abdollahzadeh S, editors. Using Metaheuristic Models to Optimize Factors Affecting Consumers' Behavioral Intention toward Banking Applications. *Seventh International Conference on New Developments in Management, Economics, and Accounting*; 2024; Tehran, Iran.
14. Bazine ID, Salahddine MA. Understanding the Task-Technology Fit (TTF) Model: Genesis and Conceptual Developments. *International Journal of Latest Technology in Engineering, Management & Applied Science*. 2025;14:241-7. doi: 10.51583/IJLTEMAS.2025.1408000030.
15. Chavarnakul T, Lin YC, Khan A, Chen SC. Exploring the Determinants and Consequences of Task-Technology Fit: A Meta-Analytic Structural Equation Modeling Perspective. *Emerging Science Journal*. 2024;8(1):77-94. doi: 10.28991/ESJ-2024-08-01-06.
16. Howard MC, Hair JF, Jr. Integrating the Expanded Task-Technology Fit Theory and the Technology Acceptance Model: A Multi-Wave Empirical Analysis. *AIS Transactions on Human-Computer Interaction*. 2023;15(1):83-110. doi: 10.17705/1thci.00184.
17. Kamdjoug JRK, Tchana PBT, Wamba SF, Teutio AON. Task-Technology Fit and ICT Use in Remote Work Practice during the COVID-19 Pandemic. *Journal of Global Information Management*. 2023;31(1):1-24. doi: 10.4018/JGIM.324097.

18. Kelanjaya JW, Darmanto JA, Ananda MX, Putra OPB, editors. When Organizational Technology Falls Short: Task-Technology Fit, Unauthorized AI Usage, and Employee Performance. 2026 6th International Conference on Innovative Research in Applied Science, Engineering and Technology (IRASET); 2026: IEEE.
19. Aji RF, Utami NP, Putri KK, Efendi MMM, Zahra RSH, Astrianty RA, editors. Investigating Users' Intention Behaviour in Live Streaming E-Commerce: How Task-Technology Fit, Technological Features, and Social Motivation Influence Purchase Intention. 2025 16th International Conference on E-Education, E-Business, E-Management and E-Learning (IC4E); 2025: IEEE.
20. Bobby AR, III, de Loyola RC, Escototo ER, Grecia JN, Duazo DS, De Paula EG, editors. Assessing the Determinants of GCash Payment Adoption among College Students: A Combined Approach Using Task-Technology Fit and Technology Acceptance Models. 2025 International Conference on Computational, Communication and Information Technology (ICCCIT); 2025: IEEE.
21. Ramdani D, Purnomo A, Mulyati E. The Influence of Order Complexity and Logistics System Capability on Task-Technology Fit and Fulfillment Center Logistics System Capability: A Study on E-Commerce Fulfillment Centers. *Dinasti International Journal of Education Management and Social Science*. 2025;6:4611-22. doi: 10.38035/dijemss.v6i6.4859.
22. Alistyaningrum AD, Aligarh F, Prasetyanto D, Nugroho A, Purwantini AH, Arifin MR, et al. Explaining ChatGPT Use among Accounting Students in Higher Education: An Integrated Task-Technology Fit and DeLone-McLean Perspective. *Higher Education, Skills and Work-Based Learning*. 2026;1-19. doi: 10.1108/HESWBL-10-2025-0448.
23. Kim SK, Bae JK. A Study on the Factors Influencing the Intention to Continue Using Generative AI Services in Domestic Digital Finance: An Integrated Approach of TTF and PAM. *Smart Media Journal*. 2026;15(5):86-96. doi: 10.30693/SMJ.2026.15.5.86.
24. Suharto M, Simatupang BM, Budhijana RB, Pracoyo A. Integrating ISSM, TAM, and Task-Technology Fit to Explain Trust Formation in Mobile Banking: Evidence from Islamic Banking. *Jurnal Multidisiplin Indonesia*. 2026. doi: 10.58344/jmi.v5i4.2676.
25. Yang B, Sun Y. Improving Learning Performance through AI-Enabled Task Completing and Network Building: Integrating Task-Technology Fit and Social-Technology Fit Perspectives. *Interactive Learning Environments*. 2026;34(5):3468-88. doi: 10.1080/10494820.2025.2569777.
26. Spilbergs A. The Role of Social Influence as a Moderator in Evaluating Factors Affecting the Intention to Use Digital Wallets. *Businesses*. 2025;5(3):34. doi: 10.3390/businesses5030034.
27. Sadeghi Y, Jalalzadeh SR. Factors Affecting Customers' Intention to Use a Cashback Loyalty Program Based on the Unified Theory of Acceptance and Use of Technology in Online Shopping: The Case of Digikala. *Innovative Strategies for Business Development*. 2025;1(1):110-38.
28. Marjerison RK, Jun JY, Xu X, Kim JM. Beyond Incentives: Linking Extrinsic Rewards, Socio-Technical Systems, and Employee Satisfaction in Context. *SAGE Open*. 2026;16(1):21582440261421792. doi: 10.1177/21582440261421792.
29. Aplin-Houtz MJ, Lane E, Sharma S, Murray J, Leahy S, Pines E, et al. Remotely Crafting Technology Acceptance: An Exploratory Study of How Job Crafting Behaviours and Remote Working Influence the Perception of Technology. *Human Resource Development International*. 2026;29(4):701-30. doi: 10.1080/13678868.2025.2517008.
30. Ozer M, Kose Y, Bastug M, Kucukkaya G, Varlioglu ER. The Shifting Landscape of Cybersecurity: The Impact of Remote Work and COVID-19 on Data Breach Trends. *World Congress in Computer Science, Computer Engineering & Applied Computing: Springer Nature Switzerland*; 2024. p. 147-56.
31. Al-Okaily M, Shiyab FS, Salim NA, Al-Rahayfeh A. The Role of AI-Enabled Health Systems in the Jordanian Context: The Case of Digital Contact Tracing Apps. *Journal of Health Organization and Management*. 2025;39(4):463-83. doi: 10.1108/JHOM-06-2024-0252.