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The Relationship between Technology Use Factors based on the Developed Unified Theory of Acceptance and Use of Technology with Auditors' Ethical Behavior

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Abstract

This study aims to investigate the relationship between technology use factors based on the developed unified theory of acceptance and use of technology (DUTAUT) with auditors' ethical behavior. This research is applied and descriptive-correlational and its population include various auditors of Iran, 164 of whom are selected using simple random sampling. Structural equations and Smart PLS software analysis are also used to test the hypotheses. The findings show that there is a positive and significant relationship between technology use factors based on DUTAUT, including motivational components, effort expectancy, performance expectancy, and social effects, and ethical behavior of auditors. Other findings show that there is a positive and significant relationship between motivation (64%), effort expectancy (31%), and social effects (43%) with auditors' ethical behavior at the 95% confidence level. Given that the use of technology is expanding and is in line with current social needs and increases the level of ethical behavior in auditors, it is necessary to pay more attention to it in order to increase the ethical climate in this profession.

Keywords: Auditing, Ethical Behavior, Information Technology, and the Developed Unified Theory of Acceptance and Use of Technology.

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Introduction

Observance of professional ethics is one of the important pillars of accounting and its sub-sectors (financial accounting, management accounting, auditing, public sector accounting, tax accounting, etc.) and in addition to having skills, experience and continuous training, accountants and auditors must have ethical behavior (Fakhari and Rajabdorri, 2018). Thus, for many years, various accounting assemblies, including professional associations and institutions of accounting, auditing, and management accounting at the international level, have sought to expand their professional code of ethics and tailor important ethical codes, such as honesty, integrity, impartiality, confidentiality, and independence to their duties. However, the concept of professional ethics goes far beyond ethical codes (Namazi and Rajabdorri, 2020). Following ethical behaviors and consequently, the transparency of financial statements and the quality of disclosure of information has also been considered as a useful and positive solution to prevent embezzlement and financial abuse (Karamanou and Vafeas, 2005). On the other hand, disclosure of information can be considered a moral issue, because there is no intentional obstruction of access to information and incorrect presentation of information in the case of the correct and sufficient disclosure of information in the market (Talebnia and Rajabdorri, 2018).

On the other hand, the advent of information technology, especially in recent years, has changed the face and operations of businesses, companies, financial markets, and society. These include the use of information technology in companies, the technology of management to interact with customers and suppliers, and the use of information systems in management to expand the company's boundaries (Malaquias, Malaquias and Hwang, 2016). At present, information technology has "become an important managerial asset for promoting, measuring, monitoring, and transmitting organizational goals both financially and socially" (Brennan and Johnson, 2004). Information technology is a useful tool for improving the workplace, increasing the collective knowledge of employees, expanding customer relationships, and increasing profits (Salb, Friedman and Friedman, 2011). Since globalization requires companies to expand systems beyond their borders to achieve and engage with the global economy (Hwang and Grant, 2014), information technology plays an important role in helping companies and also for economic and social development (Musa, 2010). This is because it allows some areas to achieve better conditions to remain global. Also, the use of information technology is an important factor for the survival of companies (Al-Qirim, 2007; Ongori and

Migiro, 2010; Awiagah, Kang and Lim, 2015). However, sufficient action to increase the adoption of information technology requires a global, regional, and local understanding of technological needs (Musa, 2010).

Technology management is a key concern for companies (Brennan and Johnson, 2004); therefore, companies need to invest in information technology and combine these resources to create sustainable competitive advantages through unique capabilities (Santhanam and Hartono, 2003). With these measures, information technology resources will be a valuable investment to strengthen strengths and better respond to market needs (Malaquias et al., 2016). These actions can have a positive effect on ethical behavior because ultimately, they lead to better respond to the affairs of customers, the market and society, and as a result, attract public trust. On the other hand, information technology can lead to the spread of fraud and computerized financial and technological embezzlements, paving the way for large-scale financial abuses for accountants and others. Also, cases of abuses that were not possible or extremely difficult before the advent of information technology can be practical or facilitated with the introduction of information technology. In that case, information technology could have a negative impact on auditors' ethical behavior.

Thus, although the emergence of information technology has shown a significant impact on other aspects of the company, such as finance and economics (Benitez, Thompson, Teo and Ajamieh, 2018), its impact on auditors' ethical behavior is not exactly clear. Accordingly, the questions that arise here are: what is the impact of information technology on auditors' ethical behavior experimentally? Will the advent of information technology expand auditors' ethical behavior? Based on the theoretical foundations and evidence that will be presented further in the following sections of the article, we hypothesize that the level of information technology affects professional ethics, but it is not currently possible to determine its effectiveness. This hypothesis can be tested only by collecting the relevant data and using the causal chain in this study.

In examining the motivating factors for human behavior, the theory of self-determination distinguishes between the role played by external motivation and internal motivation (Deci and Ryan, 1985). External motivation is the act of responding to an external goal (such as improving job performance) and thus reflecting the hedonic motivation focused on achieving goals. The technology acceptance model (Davis, 1989) and the unified theory of acceptance and use of technology (UTAUT) (Venkatesh, Morris, Davis and Davis, 2003), designed

to examine the acceptance of technology in work environments, do not pay much attention to motivational factors, but it is vital to pay attention to them (Fagan, 2019). It should be noted that the role of motivation in a wide range of human behaviors (Waterman, Schwartz and Conti, 2008), including the acceptance of information systems (Fagan, Neill and Wooldridge, 2008), is very important. Therefore, this study aimed to identify the effect of technology use factors on the ethical behavior of auditors based on the developed unified theory of acceptance and use of technology (DUTAUT) (Fagan, 2019) with a focus on the role of motivation. As a result, the next question to be asked is whether DUTAUT affects the ethical behavior of auditors. If so, what is the direction and intensity of its components? The present study seeks to answer the above questions. Also, the use of DUTAUT has been done for the first time in the Iranian audit environment, which adds to the innovation of research. As a result, the findings of this study can help develop the professional ethics of accounting and auditing, as well as a better understanding of the impact of information technology in the field of accounting and auditing in the country. Also, due to the lack of similar research and the lack of researchers in this area in Iran, this issue can add to the richness of the relevant literature and its findings can be useful for users and professional and academic communities.

In the continuation of the article, first, the theoretical foundations, literature, and hypotheses are presented and then, the research method, research findings, and discussion and conclusion are presented.

Background

In today's advanced world, the current economic system cannot exist without accounting expertise. According to stakeholder theory (Friedman, 1984), one of the most important accounting schemes is to provide information to all stakeholders and enable public accountability to stakeholders. Therefore, the information provided by accountants must be of the required quality and can be relied upon. In this regard, in addition to specialized skills, accountants must adhere to the principles of professional ethics and observe the rules of professional conduct.

The role of information technology for companies goes beyond a tool to improve performance because information technology can communicate with supply chain partners regardless of physical distance (Singh and Teng, 2016) and provide innovative paths to access customers with advances in communication methods (Kudeshia, Sikdar and Mittal, 2016). Various theories have been proposed to understand the factors influencing the use of

information technology. For example, models of social psychology have been proposed as the theoretical basis for recognizing the factors influencing users' behavior, the most important of which are "reasoned action theory" (Ajzen and Fishbein, 1980) and "theory of planned behavior" (Ajzen, 1991).

Reasoned action theory (RAT) is considered as one of the most well-known theories for measuring ethical behavior (Leonard, Cronan and Kreie, 2004). The main goal of RAT is to understand individual behavior and examine the effect of individual goals on the occurrence of individual behavior (Ajzen and Fishbein, 1980; Dubinsky and Loken, 1989). Goals are also influenced by motivational factors that influence behavior and are indications of how people are eager to try, or how much their effort makes them act and perform a behavior (Ajzen and Fishbein, 1980).

According to RAT, behavioral goals of performance are formed by the two basic determinants of attitude and subjective norms (Awang, Ismail and Abdul Rahman, 2017). Attitudes reflect how a person feels about performing a behavior and why a person is interested in doing it, while subjective norms refer to the influence of reference groups, such as family members, friends, or those close to the person who can change a person's opinion, or how much a person feels social pressure to do it (Carpenter and Reimers, 2005).

The theory of planned behavior (TPB) is also based on the hypothesis that individuals are rational and evaluate its consequences before engaging in a particular action (Ajzen, 2011). This theory predicts behavior, and the structure itself is influenced by the three independent structures of attitude, subjective norm, and perceived behavioral control. Attitude is a person's positive or negative evaluation of a specific behavior. Subjective norms also refer to social pressures that may cause a person to engage in or refrain from performing certain behaviors. Finally, perceived behavioral control indicates the difficulty or ease with which a particular behavior can be performed. This theory has been well used in various studies in predicting behavior in different groups of service providers (Godin, Sheeran, Conner and Germain, 2008).

In this context, the information technology acceptance model that has been derived from RAT is a personal model that is used in relation to information systems and was presented by Davis (Davis, 1989). Based on this model, usefulness and ease of use of information technology determine the behavior of individuals using technology. The usefulness is the perception of users about the usefulness of information technology-dependent systems. Thus, the more effective it is in improving organizational performance, the more useful it will be, and as a result, the more it will be used. Ease of use is also the

perception of people about the ease of working with an information technology system, and in this regard, the less effort required to learn and use that system and the easier it is to use, the more it is used and accepted (Davis, Bagozzi and Warshaw, 1989). Mental perception of ease of use also affects the ease of use. Of course, external and other factors may affect people's perception of these two factors. These factors can include organizational, social, behavioral, and ethical factors and characteristics of computer systems (Davis and Venkatesh, 1996). On the other hand, people's behaviors lead to ethical or unethical behaviors in financial statements and these behaviors need to be identified (Siti Noor Hayati, Kamil, Rashidah and Wah, 2011). However, there is a strong link between behavioral goals and actual behavior. As a result, behavioral goals should be considered more than actual behavior (Carpenter and Reimers, 2005). Behavioral goals are also effective in actual behavior, and therefore, affect the occurrence of ethical or unethical behavior (Gibson and Frakes, 1997; Buchan, 2005).

The UTAUT is based on the information technology acceptance model (Davis, 1989), which is a kind of theoretical model proposed to study the attitude of users toward information technology. A review of 111 articles using the IT acceptance model, published over 18 years, found that "the IT acceptance model has been used as the most effective and widely used theory to describe the acceptance of information systems" (Lee, Kozar and Larsen, 2003). Today, the information technology acceptance model is used to study the acceptance of technology in many environments (Nikou and Economides, 2017). The UTAUT combines information technology acceptance model and seven other models that have been used repeatedly in technology research (these models include the TRA, motivational model, TPB, combined hybrid TAM and TPB, personal computer use model, diffusion of innovation theory (DIT), and social cognitive theory (SCT). For more information on the mentioned models, refer to (Rezaei, 2009) study.

There is a theoretical discussion in UTAUT, according to which performance expectancy, effort expectancy, and social influences are the determining factors in accepting technology and facilitating conditions that indicate the necessary infrastructure for technology use and application (Venkatesh et al., 2003). The UTAUT has been used to examine the acceptance and application of technology and its effects (Wang, Wu and Wang, 2009) and this theory have been considered as one of the most widely used models in terms of IT acceptance and use (Venkatesh, Sykes and Zhang, 2011). There is also performance expectancy, effort expectancy, social influences, and motivational factors in the DUTAUT (Fagan, 2019), which is considered as

one of the newest theories in the field of IT use.

Hypotheses Development

There are conflicting theories about the relationship between the level of information technology and the ethical behavior of auditors, according to which the level of information technology may reduce or increase the level of ethical behavior of auditors. Accordingly, the theoretical foundations of the relationship between the level of information technology and the ethical behavior of auditors are at odds with each other. The first group considers information technology to increase ethical behavior and believes that to be more efficient, information technology can play a significant role in promoting ethical behavior, combating administrative and economic corruption, and increasing transparency (Vinod, 1999; Sturges, 2004). In line with greater transparency and higher organizational ethics, information technology offers a new approach to increasing transparency, accountability, and honesty (Relly and Sabharwal, 2009). In recent years, information technology has been used as a useful and less expensive tool than other things to promote transparency and reduce corruption (Bertot, Jaeger and Grimes, 2010). Also, information technology can reduce corporate corruption and increase the level of ethical behavior through promoting the level of corporate governance, potentially reducing corrupt practices, increasing accountability, and better monitoring and controlling (Andersen, 2009; Shim and Eom, 2009; Bertot et al., 2010).

The second group, unlike the first group, considers information technology to reduce the level of ethical behavior. Some have argued that increasing the level of information technology increases corruption and, consequently, reduces organizational ethics and professional behavior (Mahmood, 2004). They believe that information technology opens up new opportunities for the ethical escape of the organization (Heeks, 1998; Kim, Kim and Lee, 2009), increases how fraud and financial abuse occur and introduces new ethical issues through the introduction of information technology. As a result, given the existence of contradictory theories and evidence, this requires an empirical study to be able to use the findings to resolve the existing contradiction. Therefore, according to the above, the main hypothesis of the research is as follows:

Main hypothesis: There is a significant relationship between the level of information technology use and auditors' ethical behavior.

This research is based on UTAUT, which represents the index of combining widely used theoretical models used to examine the acceptance and use of technology. Based on Fagan's research (Fagan, 2019), DUTAUT is also

used to consider motivation, because according to Davis, Bagozzi and Warshaw (1992), motivation is effective in using technology. In the following, Fig. 1 shows the research model.

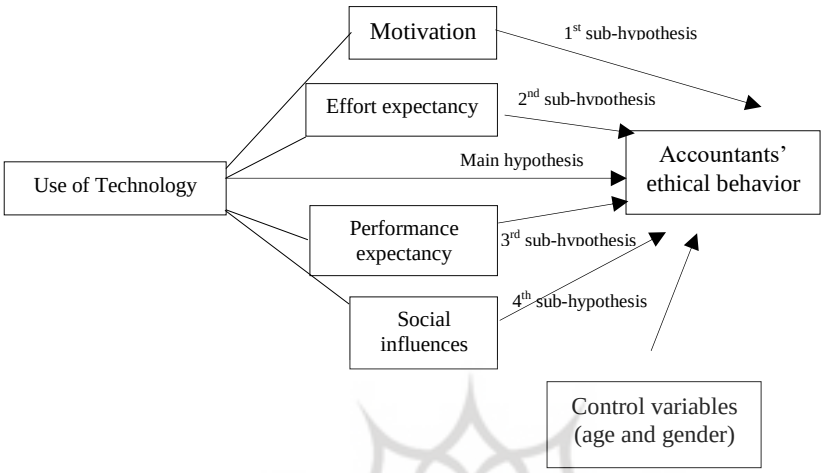

Fig. 1. Conceptual research model

The theoretical reasoning related to the sub-hypotheses of the research is also given below.

Motivation

In the UTAUT, it is predicted that effort expectancy, performance expectancy, and social influences will have a direct impact on the use of technology. Nevertheless, motivation has been cited as an important factor in the adoption of technology (Brown and Venkatesh, 2005). In the secondary information technology acceptance model, motivation is defined as the factor of enjoyment in the use of technology (Fagan, 2019). Also, as motivation increases, the tendency to use technology becomes more pronounced (Brown and Venkatesh, 2005). In research related to the IT acceptance model, enjoyment has been defined as "the perception of the use of technology, apart from any predictable consequences" (Davis et al., 1992), which has a direct impact on the use of technology (Wang et al., 2009; Raman and Don, 2013; Lewis, Fretwell, Ryan and Parnham, 2013). In the present study, motivation is defined as the enjoyment of the use of technology.

Motivation in general means the desire to participate in activities in which success depends on one's efforts (Ghorbani and Izadi, 2017). This means that motivation can indicate a desire to use technology. Despite the conflicting

theories about the impact of the use of information technology on the ethical behavior of auditors and the fact that information technology can reduce or increase ethical behavior, determining the direction of the relationship requires empirical study. Therefore, the first sub-hypothesis is presented as follows:

First sub-hypothesis: There is a significant relationship between auditors' motivation and ethical behavior.

Effort expectancy

In the UTAUT, effort expectancy is defined as "the ease of use of the system" (Venkatesh et al., 2003) and is considered a determining and direct factor in the use of technology (Fagan, 2019). This structure is similar to the ease of use in the IT acceptance model (Davis, 1989). Ease of use is the perception formed about the ease of use of information technology-dependent systems. In this context, the easier it is to use the system, and the easier it is to learn, the more it is used and accepted (Davis et al., 1992). In the present study, effort expectancy is defined under the heading of a person's belief in the ease of use of technology. As a result, it is assumed that effort expectancy will have a positive and significant effect on the use of technology (Fagan, 2019). Given the dual theories about the impact of technology use on auditors' ethical behavior, the relationship is unclear and requires empirical research. As a result, the second sub-hypothesis of the study will be as follows:

Second sub-hypothesis: There is a significant relationship between auditors' effort expectancy and ethical behavior.

Performance expectancy

In the framework of the UTAUT, performance expectancy is defined as "the degree to which a person believes in the usefulness of using the system to achieve benefits in job performance" and is assumed to be a determining factor in the use of technology (Venkatesh et al., 2003). This structure is similar to the usefulness of the IT acceptance model. Usefulness is the perception formed in users about the effectiveness of information technology-related systems. Thus, the more the system improves their organizational performance, the more useful it will be, and, as a result, the more it will be used (Davis, 1989). In the present study, performance expectancy is defined as a person's belief in the usefulness of the use of technology, but as stated by dual theories, the effect of technology use on ethical behavior is unclear and requires empirical study. As a result, the third sub-hypothesis of the study is as follows:

Third sub-hypothesis: There is a significant relationship between auditors'

performance expectancy and ethical behavior.

Social influences

In the UTAUT, social influences are defined as "a person's perception of the fact that other important people believe he or she should use a new system" and is considered a determining factor in the use of technology (Venkatesh et al., 2003). This structure is similar to the social norms in the secondary information technology acceptance model (Venkatesh and Davis, 2000). Social norms indicate the external pressure to use or not to use technology. Research on UTAUT has reported a positive relationship between social influences and the use of technology in a variety of settings (Decman, 2015; Tosuntas, Karadag and Orhan, 2015). In the present study, social influences are defined as people's perceptions of how other important people believe they should use technology. Since the impact of technology use on auditors' ethical behavior is not fully understood, the answer to this question must be found by an experimental test. As a result, the fourth sub-hypothesis of the study is as follows:

Fourth sub-hypothesis: There is a significant relationship between auditors' social influences and ethical behavior.

Also, to control other variables that are effective in the findings of this study, but examining their effect is not one of the primary motivations of this study, age and gender variables shown in Fig. 1 are considered as control variables according to the study of research literature.

A. Age

According to previous findings, people who are forty years old or older exhibit more ethical behaviors than younger people (Ruegger and King, 1992). Other findings also show that older people have more desire and ethical behavior than younger people (Betz, O'Connell and Shepard, 1989). Other findings suggest that age is strongly associated with ethical behavior (Thoma, 1986; McNeel, 1994). Considering the sociological variables, it was found that age affects ethical decisions and with age, the possibility of prejudice decrease in individuals (Dahl, Mandell and Barton, 1988). Also, it was observed that age has a positive relationship with people's ethical behavior (McCabe, Dukerich, and Dutton, 1991). In contrast, some studies have pointed to the inverse relationship between age and ethical behavior in accountants (Eynon, Hill and Stevens, 1997). Other findings suggest that age is not a determining factor in ethical decision-making (Glover, Bumpus, Logan and Ciesla, 1997).

B. Gender

Findings of previous research suggest that ethical behavior cannot be definitively distinguished in men and women. On the one hand, some findings show that women are more committed to morality than men. On the other hand, some studies do not confirm the difference between the ethical attitudes of men and women. Of course, other studies emphasize the influence of gender on ethics (Tronto, 1993). Other studies have shown that women have higher levels of morality than men (Glover et al., 1997; Roxas and Stoneback, 2004). Other evidence suggests that in different environments and cultures, there is no difference between ethical attitudes in men and women (McCuddy and Perry, 1996). In summary, other findings do not provide a significant difference between ethical behavior in men and women (Sidani, Zbib, Rawwas and Moussawer, 2009). Many other studies have suggested that the ethical superiority of one gender over the other is irrational (McCuddy and Perry, 1996). Also, findings suggest that gender differences are not accepted in this context, and the observed differences are not a clear reason for this. Meanwhile, philosophy of biology suggests that behavior certainly has biological roots (Patterson, 2001), and that means that men and women who biologically behave in a certain way, behave differently in different situations in the same way. According to this view, behavior based on biological, social, and environmental causes is very insignificant given gender (Udry, 2001). Another explanation for this is the current of socialization, in which men and women seek to interact with parents and teachers, and this can make a difference in terms of attitudes and ethical behavior given the different processes of socialization (Taylor, 1975).

Research Methodology

The present study is descriptive-survey in terms of data collection. The primary data collection methods are also a combination of library and field research methods. In the library method, a suitable framework was formed for the research subject by studying the literature and background of the research. In the field method, the required information was collected with the questionnaire to investigate the subject. Structural equations were also used to test the research hypotheses in the Smart PLS software. Structural equation modeling examines a set of interdependent relationships simultaneously. Using this method is useful when the dependent variable in subsequent dependency relationships becomes an independent variable (Amani, Khezri Azar and Mahmoudi, 2012). The appeal of structural equation modeling in various scientific fields is because this method, in the face of multiple simultaneous

relationships, offers a direct method that also has statistical efficiency. Also, the ability of this method to evaluate relationships in a multifaceted way has led the research to move from exploratory analysis to confirmatory analysis. This shift, in turn, leads to a more systematic and holistic approach to issues (Hair, Sarstedt, Ringle and Mena, 2012).

Research Variables

In this study, Fagan's (2019) questionnaire was used to investigate the use of information technology based on UTAUT. In this questionnaire, motivation included 3 questions, effort expectancy 3 questions, performance expectancy 5 questions, and social influences included 4 questions. The Schultz and Tran (2015) questionnaire, which included eight questions, was also used to examine auditors' ethical behavior. The translation, localization, and use of the questionnaires were also done after receiving expert opinions and approval from various university professors and experts, i.e. face and content validities of the questionnaires were confirmed. The questionnaires also used the Likert scale, ranging from "completely agree" to "completely disagree" options.

Statistical Population and Research Sample

The research population included all active auditors in Iran. Given that access to all of these individuals with various dispersions was difficult and somewhat impossible and there are no official statistics on their number, the number of statistical population was assumed to be uncertain. Therefore, Equation (2) was used to calculate the sample size in the uncertain community. The standard deviation for 5-point Likert scale data is 0.667 using Equation (1) (Winner, 2009). According to Equation (2), the sample size is about 170 people.

$$\delta = \frac{\max(x_i) - \min(x_i)}{6} = \frac{5-1}{6} = 0.667 \quad (1)$$

$$n = \frac{z^{2}_{\alpha/2}\delta^2}{\varepsilon^2} = \frac{(1.96)^2(0.667)^2}{(0.1)^2} = 170 \quad (2)$$

In the face-to-face method, 95 questionnaires were completed by referring to the auditors. In the virtual method, by creating a database of auditors and after designing a questionnaire in the Google Formatting environment, the questionnaire and its completion request were sent to auditors in two stages and they were asked to send it to other auditors if possible. Groups of accounting and auditing professional activists in cyberspace were also used. In this regard,

69 questionnaires were collected and a total of 164 respondents (96.4 of the sample size) completed the questionnaire. To control whether the results of the unanswered questionnaires could affect the research findings, the mean of the two steps (face-to-face and virtual steps) was compared through the implementation of the T-test. Considering the significant value of this test (0.00), which is less than 5%, it can be said that if other auditors responded, the obtained results would not change.

Research Findings

An examination of demographic characteristics showed that of the 164 respondents, 93 were male and 71 were female. Also, their average age was 44.63 with a standard deviation of 15.73. Their mean work experience was 20.48 with a standard deviation of 13.04. This information indicates that the statistical population of this study was in good condition and qualified. As a result, the findings, as far as the sociological characteristics are concerned, have the necessary qualitative characteristics, including internal validity. Among the respondents, 18 had a Ph.D. degree, 28 were Ph.D. students, 48 had a M.A degree, 21 were M.A students, and 49 had a B.A degree.

Testing Research Hypotheses

Each of the research hypotheses was analyzed using the least partial squares method. Convergent validity (CV) has also been calculated. Whenever one or more features are measured by two or more methods, the correlation between these measurements provides two important indicators of validity. If the correlation between tests that measure a single attribute is high, the questionnaire is of convergent validity. This correlation is essential to ensure that the test measures what needs to be measured. For convergent validity, the average variance extracted (AVE) should be higher than 0.5 and composite reliability (CR) should be higher than 0.7. In the following, Table 1 shows the findings of this section.

Table 1. Convergent validity and reliability of research variables

Variable	CR	AVE	CV
Auditors' ethical behavior	0.723	0.653	0.749
Motivation	0.814	0.687	0.821
Effort expectancy	0.765	0.549	0.794
Performance expectancy	0.799	0.621	0.847
Social influences	0.837	0.564	0.787

Since the CR of all variables is greater than 0.7, all variables are confirmed in terms of reliability. The AVE of all variables is also greater than 0.5, which confirms CV. The amount of composite validity is also optimal.

The relationship of the variables studied in each of the research hypotheses has been tested based on a causal structure with the PLS technique. Also, the measurement pattern (the relationship of each of the observed variables with the latent variable) and the path model (the relationships of the latent variables with each other) have been calculated. To measure the significance of the relationships, t-statistic was calculated using the bootstrap method, which is presented in Table 3. In this model, which is the output of the Smart PLS software, the findings related to the standard factor loading of the relationship of the research variables were presented. Fig. 2 and 3 below show the findings of the main research hypothesis.

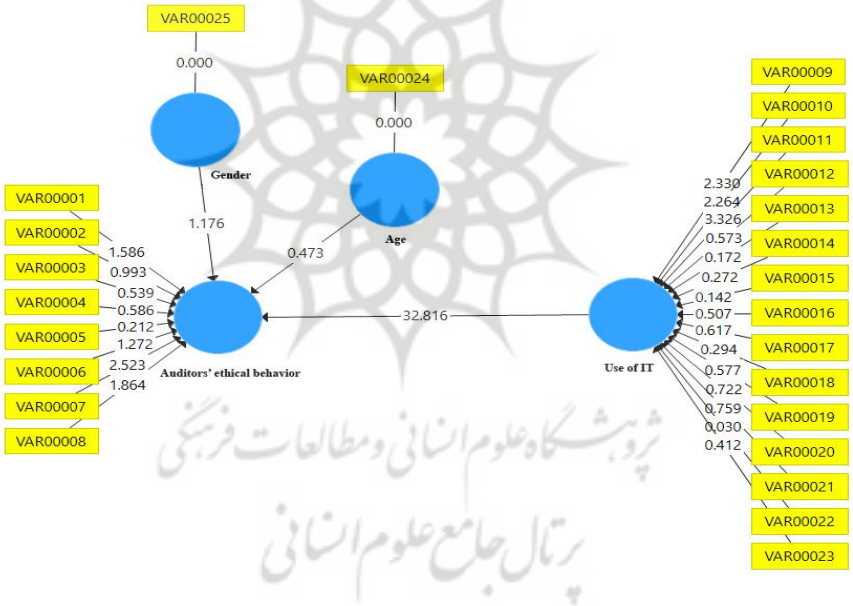

Fig. 2. PLS method of the general research model

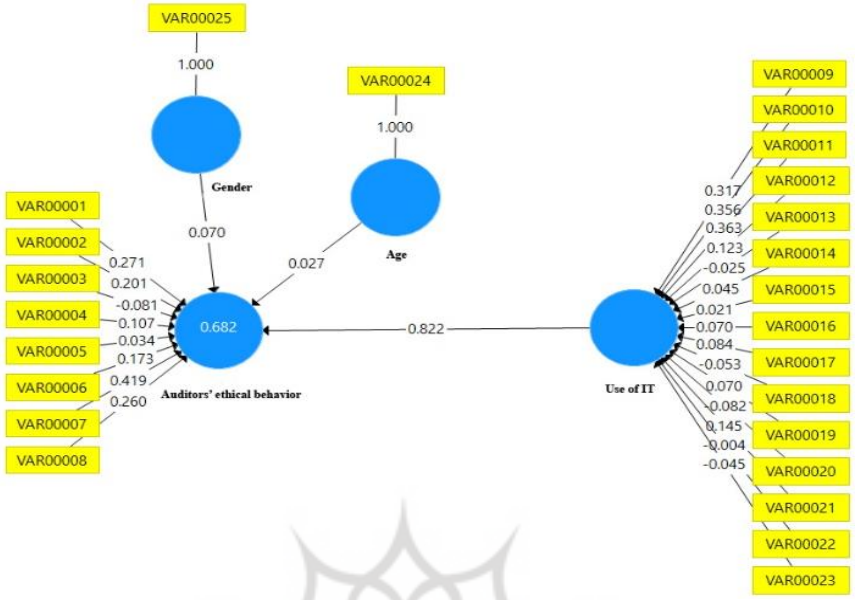

Fig. 3. T-value statistics of the general research model with the bootstrap method

Fig. 2 shows that R^2 is 0.682. R^2 is a criterion used to connect the measurement section and the structural section of the structural equation modeling and indicates the effect that an exogenous variable has on an endogenous variable. The essential point here is that R^2 is calculated only for the endogenous (dependent) constructs of the model, which is 0 for exogenous constructs. The higher the R^2 value of the endogenous constructs of a pattern, the better the fit of the research pattern. In the main research hypothesis, the power of the relationship between the variable of technology use and ethical behavior in auditors was calculated to be 0.682. The test statistic is 32.816, which is greater than the critical value of t at the error level of 5%, i.e. 1.96, and shows that the observed correlation is significant; therefore, with 95% confidence, there is a positive relationship between the variable of technology use and ethical behavior in auditors. Also, the relationship between age and gender does not make sense for auditors' ethical behavior. Fig. 4 and 5 below show the findings of the research sub-hypotheses.

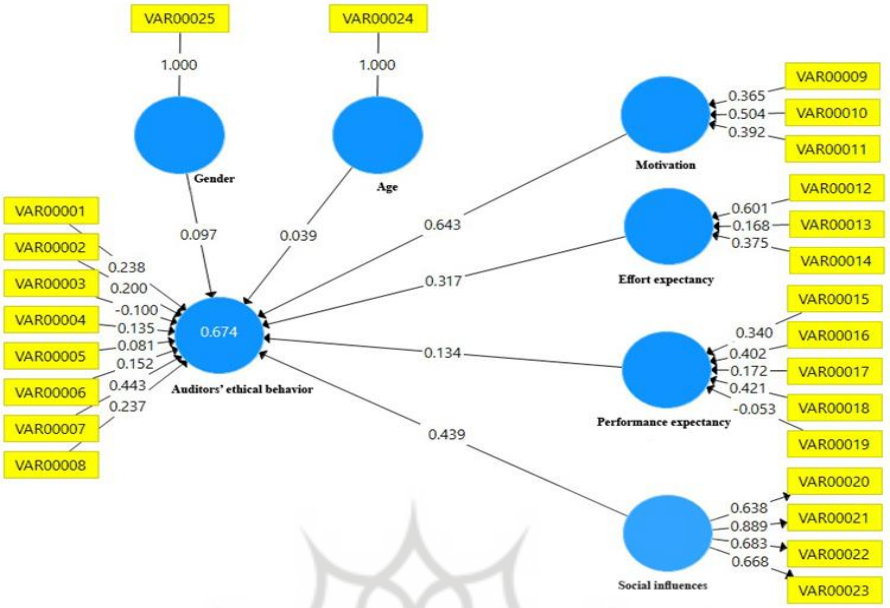

Fig. 4. PLS method of the sub-hypotheses research model

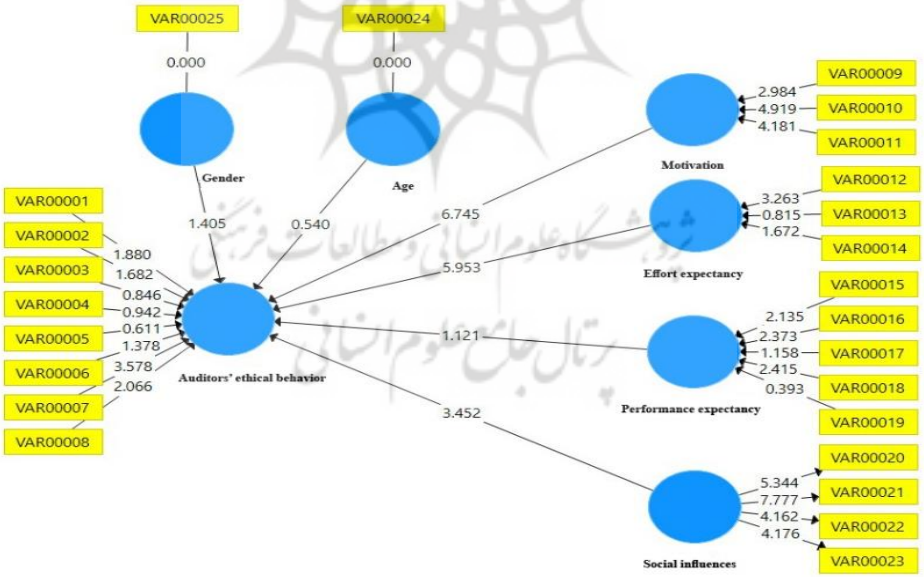

Fig. 5. T-value statistics of the research sub-hypotheses with the bootstrap method

This part of the findings also showed that there is a positive and significant relationship between motivation (64%), effort expectancy (31%), and social influences (43%) with the ethical behavior of auditors.

Conclusion

The use of information technology in the accounting and auditing profession has become more common in recent years, and one of the factors that can be affected by this issue is ethical behavior. This study, by examining the opinions of 164 auditors in Iran, tested this issue experimentally. The overall research finding in the main hypothesis showed that there is a positive and significant relationship between DUTAUT (independent variable) and auditors' ethical behavior (dependent variable) at a 68% level. As a result, information technology can play a significant role in improving law enforcement, promoting ethical behavior, combating corruption, reducing the discretion of managers, and increasing transparency. Also, information technology can reduce corporate corruption by promoting corporate governance and strengthening reformist projects, potentially reducing corrupt practices, increasing accountability, as well as better monitoring and control, and in some ways increase the level of ethical behavior.

Sub-hypotheses also showed that there is a positive and significant relationship between motivation and ethical behavior of auditors at the level of 64%. Motivation, which is defined as a factor in the enjoyment of the use of technology, and leads to a greater desire to use technology, increased the ethical behavior of auditors. Also, the effort expectancy reflects the ease with which the system is used, and the less effort a system requires to learn and use it, the more it is used, increasing the ethical behavior of auditors at the level of 31%. Also, there was a positive and significant relationship between social influences and auditors' ethical behavior at 43%, and it can be seen that a person's perception of the fact that other important people believe he or she should use a new system and more external pressure for the use of technology will dominate the individual, leading to greater ethical behavior. The findings are in line with the research of Vinod (1999), Sturges (2004), Andersen (2009), Relly and Sabharwal (2009), Shim and Eom (2009) and Bertot et al. (2010). Also, the research findings are contrary to Heeks (1998), Mahmood (2004) and Kim et al. (2009).

Also, the findings of the control variables showed that there was no significant relationship between age and auditors' ethical behavior along with Glover et al. (1997). Moreover, there was no significant relationship between

gender and ethical behavior of auditors aligned with McCabe et al. (1991) and McCuddy et al. (1996).

The present study, like other studies, had limitations. The main limitation of this research is the lack of access to different auditors in all parts of Iran and the limited number of respondents. Also, the novelty of the concept of technology use and the DUTAUT is another limitation that has made it difficult for some respondents to respond.

Suggestions

The planners of relevant academic institutions are advised to pay more attention to increasing the use of new technologies in the academic community of accounting and auditing. Professional institutions and associations are also encouraged to plan to expand the use of new technologies and professional ethics in Iran's auditing community. Also, it is possible to offer training related to new technologies for accounting students to increase professional ethics. Given that much research has not been done on professional auditing ethics, future studies are suggested to investigate the relationship between personality dimensions, job satisfaction, social responsibility, employee commitment, job stress, motivation, organizational health, organizational climate, and other issues with professional ethics with the moderating role of the use of technology.

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