

IMPACT OF ETHICAL TRAINING ON AUDITORS' ETHICAL DECISION MAKING IN MOROCCO

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Abstract: The purpose of this study is to investigate the moderating role that can play ethical training in increasing auditors' level of ethics. Therefore, this research will test any significant differences between the two groups through a multi-group moderation analysis. The first group represents auditors who took an ethics course before, and the other group represents auditors who did not previously take any course. This comparison will be performed based on the relationships between the variables in our model, namely ethical judgment, ethical intention, moral identity centrality, and perceived moral intensity. The sample of this study is mainly external senior auditors operating in audit firms in Morocco. We could obtain 125 usable responses, and we processed data with SmartPLS software. The results show that auditors' moral identity impacts their ethical judgment positively and significantly, and the effect is more substantial for the group of auditors who took an ethics course before. Moreover, taking an ethics course seems to moderate also the positive and significant relationship between auditors' ethical judgment and their ethical intention. However, the results were opposite to what we expected concerning the relationship between perceived moral intensity and auditors' ethical judgment. Thus, ethical training seemed to moderate the positive relationship negatively.

Keywords: Ethical judgment, Ethical intention, Moral identity, Perceived moral intensity, Ethical training.

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1. Introduction

The world has seen a significant increase in financial scandals over the past few years. For instance, Olympus with 1.3 billion euros of hidden losses. Or the case of Tesco with an overstated profit of 335 million euros. Not to mention the inflated profit of 1.6 billion euros for Toshiba. These have raised many suspicions regarding the audit firms in charge of certifying the accounts of these companies. It's all started in 2001 with the Enron affair, which marked the transition from the Big Five to the Big Four, with Enron dragging down the auditing firm Arthur Andersen, accused of "Cooking the Books" regarding Enron's fraudulent accounting.

In Morocco, the scandals have not been as resounding as those in Western countries, probably due to an economic fabric still not yet very developed. But the fact remains that the affairs such as CIH bank, BNDE (national bank for economic development), and CNSS (National Social Security Fund) have caused enormous upheaval. These have raised many concerns about Moroccan auditors' effectiveness in ensuring audit quality and putting their independence and ethical competencies in the front of the debate.

However, as members of a regulated profession, auditors must behave under their work's code of ethics. This code represents an essential reference for auditors who must formulate a sincere opinion on the fairness of the company's accounts. Nevertheless, its impact depends on the auditor's level of ethical reasoning (Herron and Gilbertson 2004).

Even though numerous references are available to deal with ethical dilemmas, Fortin and Martel (1997) point out that auditors are often left with their morals to handle situations of conflict of interest. The code of ethics does not always enable them to resolve all kinds of dilemmas. Sometimes auditors may find themselves in cases where they will make their judgments based on their moral values. Sometimes, these values can be driven by a self-interest vision rather than a deontological one, leading to decisions in conflict with professional rules and standards. Similarly, Prat dit Hauret (2007) experimented with a sample of auditors who decided not to divulge unethical acts and found out that they do not seem to apply professional rules and standards strictly but rather assess situations based on their conditions.

From this perspective, The Association to Advance Collegiate Schools of Business (AACSB) emphasized in its Report of the Ethics Education Task Force, 2004, the importance of including ethics into business schools' education programs. It encourages developing creative methodologies to motivate students to deepen their understanding and learn about the importance of ethics in business. This initiative aims to develop students' perception of themselves as moral actors and, therefore, strengthen their ethical decision-making (EDM) in a business context. In the same

Arrami, N., QingXiang, Y. (2022)

Impact of ethical training on auditors' ethical decision making in Morocco

way, The IFAC (International Federation of Accountants) reminds us in IES4 Professional values, ethics and attitudes of October 2019: "*IFAC member bodies shall provide, through professional accounting education programs, a framework of professional values, ethics, and attitudes for aspiring professional accountants to (a) apply professional scepticism and exercise professional judgment and (b) act in an ethical manner that is in the public interest.*" IFAC statement can be interpreted as an urgent call to ensure the continuity of ethical learning and development to professional accountants due to their permanent exposure to new ethical threats. In Morocco, however, the place of ethics in auditors' and business students' training remains insufficient (Moutahaddib, 2017). Analysis of its effectiveness could only encourage training institutions to integrate and give more importance to ethics training into their programs.

Moral identity centrality (MIC) represents the importance of morality to a person's self-definition (Hardy & Carlo 2011). Nawfel et al. 2021 showed in their work that Moroccan auditors with higher levels of MIC were more ethical in making their judgments. Based on their finding, they called future research in this area to invest the potential impact of ethical training in straightening auditors' moral identity since it appeared relevant to their ethical decision-making.

On the other hand, Lehnert et al. 2015 assert in their review that more research is needed to further our comprehension of the moderating effect that can have employee ethics training on their decision-making.

In response to their call, we propose in this research that ethics training will moderate positively the impact of auditors' MIC on their EDM based on the Rest (1986) model. We are also interested in the effect that can have an ethics course as a moderator on the relationship between perceived moral intensity (PMI) of the ethical dilemma and auditors' EDM, given the influence that can have moral intensity on each stage of the EDM process (Jones 1991). This study is particularly interested in the ethical judgment (ETJ) and ethical intention (ETI) stages of the EDM model proposed by Rest (1986). ETJ consists of evaluating several alternatives regarding a moral dilemma and judging the best option from an ethical point of view. On the other hand, ETI represents the individual engagement to act ethically following his ETJ by prioritizing moral values over personal interest.

This research is motivated by the lack of results regarding ethical training and its impact on auditor's decision-making. We aim through this study to contribute to the academic and professional literature by providing some answers as to the possibility of developing or reinforcing an auditor's moral identity and reasoning through training, to provide empirical evidence about the importance of including ethics training to professionals and students in Morocco. For this purpose, we experimented on auditors from different audit firms in Morocco, some had taken an ethics course, and others never had. After that, we exposed them to ethical

dilemmas that auditors' may encounter in their daily life. We used a questionnaire to assess their ETJ, ETI, MIC, and PMI. We conducted a multi-group analysis through "Smart PLS" software to see any significant differences between the two groups.

2. Theoretical background and hypotheses development

2.1. Ethical decision-making process: Rest model (1986) and Jones model (1991)

Rest (1986) developed a model of the EDM process used widely in the audit context. Rest (1986) defines morality as a social value related to how human beings cooperate and coordinate their activities to enhance welfare and judge personal interest conflicts.

According to Rest (1986), moral reasoning has four components. First, the individual must be aware that the situation involves an ethical problem. If the individual is not conscious of the existence of a problem, they will not carry out the following cognitive steps. This step is, therefore, fundamental. Accordingly, the individual must identify the different possible actions, the people concerned, and the potential impact on their well-being in the situation. This step is called "Ethical Awareness". In the second step, he judges the action to take by indicating the moral attitude that a person should have done in the same situation. The individual makes this judgment according to his level of moral development (Kohlberg 1969). This step is called "Ethical judgment". Third, after making a judgment regarding the situation, he must act morally by prioritizing moral values over other personal matters. This step is called "Ethical intention". Finally, perseverance, ego strength, and moral courage must enable him to overcome obstacles and behave ethically, in line with his intention. This step is called "Ethical action". Rest considers that the four stages of his model are successive. These four elements represent the foundation of most of the models of EDM.

Jone's model (1991) is one of the most widely used models, particularly in the audit field. This model is formed mainly on Rest's model (1986), whence it takes the four stages of ethical reasoning cited above. However, Jones adds a critical element to Rest's model regarding the characteristics of the moral problem. For him, the problem is treated differently depending on its intensity. Jones was thus interested in the characteristics of the ethical dilemma.

Jones defines moral intensity based on six dimensions: magnitude of consequence (seriousness of the consequences related to the decision made), social consensus (degree of social approval as to whether the decision is good or bad), probability of harm (the likelihood that the individual will make the decision and that it will produce the predicted effect), the time horizon of the consequences (the length of time until the consequences of the decision occur), the proximity of the effects (a

Arrami, N., QingXiang, Y. (2022)

Impact of ethical training on auditors' ethical decision making in Morocco

sense of social, cultural, psychological, or physical proximity to those impacted by the decision), and the concentration of the effects (number of people affected by a decision). Jones considers moral intensity to impact each stage of the EDM process. The literature has widely shown the positive impact of moral intensity on individuals' EDM in different research fields. In their review, Lehnert et al. (2015) indicate that most work done in the work context shows that moral intensity significantly influences all model stages. In the case of Libyan accountant, Musbah et al. 2016 also found a significant positive relationship between moral intensity and all the steps of EDM. In the case of auditors, studies have also confirmed this relationship (Pierce et Sweeney 2010; Johari et al. 2017).

In the context of auditors in Morocco, Nawfel et al. 2021 find that PMI impacts auditors' ETJ positively. Based on Jones (1991) and previous studies' results, we assume that the more auditors perceive a problem as carrying a high moral intensity, the more they will tend to make ETJ and ETI.

Hypothesis 1: There is a significant positive relationship between auditors' perception of a situation as morally intense and their EDM. Auditors with higher levels of PMI will tend to make more ETJ (a) and ETI (b).

In addition, whether a relationship exists between ETJ and ETI is also of interest. Jones (1991) suggests in his model that the ETJ stage is a direct precursor of ETI. Numerous studies support Jones's theory concerning the relationship between ETJ and ETI. In the case of auditors, Sweeney et al. (2010) and Johari et al. (2017) showed that auditors with higher levels of ETJ tend to make more ETI. Based on Jones's assumption and previous studies' results, we propose that auditors' ETJ positively impacts their ETI.

Hypothesis 2: There is a significant positive relationship between auditors' ETJ and their ETI. Auditors with higher levels of ETJ will tend to make more ETI.

2.2. Moral identity centrality

Erikson's (1964) work on identity and Blasi's (1983, 1984, 1995, 2005) work on the moral self have significantly impacted the research on moral identity. Erikson (1964) defines identity as a self-definition, how an individual defines themselves as a person.

According to Erikson, identity generates a person's need to be genuine and act per that identity. Blasi (1983, 1984) explains how the tendency for individuals to undertake moral actions (behavior) is directly associated with their perception of their own identity. He argues, however, that the determination of right or wrong ethical conduct depends on the degree to which a person integrates values and certain moral principles into both his personality and thus the emergence of moral identity (Blasi, 1984).

Arrami, N., QingXiang, Y. (2022)

Impact of ethical training on auditors' ethical decision making in Morocco

Building on the work of these authors (Erikson, 1964; Blasi, 1983, 1984, 1995), researchers such as Aquino and Reed (2002) and Erikson (1964) conceive of moral identity as a mechanism for regulating individual behavior, which also motivates moral action. Moral identity thus refers to how the principles and mechanisms of identity are articulated around moral actions or aspects, specifying how the individual must act morally by himself (Bergman, 2004). However, there are several definitions of moral identity due to the complexity of the concept (Aquino et al., 2009). Moreover, the dominant trend in the scientific literature is to approach it primarily through schemas (Aquino et al., 2009; Monin & Jordan, 2009). Thus, moral identity is associated with cognitive schemas within the individual (Aquino et al., 2009).

Aquino and colleagues (2009) see these schemas as perceptual or abstract mental representations that allow individuals to structure and interpret their perceptions of a specific behavior. For example, individuals use mental constructs to express their perception and meaning of a moral act and their perception of themselves as a moral person (Stets & Carter, 2006). Aquino and Reed (2002) stated that moral identity is essentially about these schemas: a mental image allowing a person to describe the meaning of being a righteous person.

Following Aquino and Reed (2002), we consider that individual moral identity defines how a moral person matters to an individual's identity (Aquino & Reed, 2002). This construct is validated through traits (honest, just, forgiving, friendly, generous, charitable). These traits characterize the moral sense of self (moral identity) and allow individuals to self-define themselves concerning morality and construct their social identities (Aquino & Reed, 2002). Thus, Aquino and Reed's (2002) conception will guide how we consider the concept of moral identity in this work.

Aquino and al. 2009 proved that MIC drives moral functioning and to have a significant impact on altruistic behaviors. It is also associated with EDM. (Aquino & Reed, 2002; Shao, Aquino, & Freeman, 2008). Nawfel et al. 2021 was the only study interested in auditors' MIC in the case of auditors. They found MIC to have a significant impact on auditor's ETJ in a situation of over-reliance on client work, representing an audit quality threatening behavior. We also expect auditors with high levels of MIC to make more ETJ. We have the same expectation regarding ETI based on the Hannah et al. 2011 model, which claims the motivational role of moral identity on the individual ETI stage. We can make, therefore, the following assumptions:

Hypothesis 3: There is a significant positive relationship between auditors' levels of MIC and their EDM. Auditors with higher levels of MIC will tend to make more ETJ (a) and ETI (b).

2.3. The effect of ethics training on auditor's level of ethics

According to Chaffey et al. (2011), auditors from New Zealand consider that ethics should be part of their training. In particular, they advocate confronting students with ethical dilemmas to become aware that what is expected of them is to acquire an excellent technical level and take on professional and ethical responsibilities. Uyar and Gungormus (2011) find that, for Turkish auditors, ethics is included along with teamwork and honesty as competencies or skills that a student aspiring to be an auditor should have.

Fisher et al. (2007) analyze the discrepancy between the increasing share of ethics in continuing education and the decreasing share in university education in the United States, lamenting that continuing education mainly focused on rules of conduct. It is not based on any theoretical ethical foundation. They conclude that the increasing share of continuing education is related to the urgency of responding to the scandals of the last few years. In contrast, there is no such vital requirement for business schools. The authors advocate the drafting of a white paper between teachers and professionals to define together the content of an academic ethics course that would comply with the expectations of companies.

In this context, we want to show the influence of ethics training and education on Moroccan auditors' level of ethics to encourage Moroccan-related institutions to give more attention to the importance of ethics training to professionals and students in the audit field. In particular, we want to analyze whether taking an ethics course or not previously by auditors moderates the relationships in our model presented in our hypothesis above.

Shao and colleagues (2008) argue that in the organizational context, the implication of organizations in employees' ethical education or training has a significant influence on moral identity. Thus, the willingness and manner in which an organization provides moral education or ethics training help to develop employees' moral identity and influence their ethical behaviors. Moreover, ethics training affects the development and transmission of an organization's values to its members. It fosters their adherence to the organizational culture and social norms and the respect for moral values and codes of conduct (Shao & al., 2008), meaning that ethical training determines moral identity.

Shawver and Miller (2017) analyze the effect of an ethics course on the PMI of ethical dilemmas of 110 business students at two American universities. Their experiment makes use of an ethics course embedded in an accounting course. The ethics course covers the following topics: the three central ethical systems (deontological, consequentialist, virtue ethics), the AICPA code of conduct and professional standards, the Sarbanes-Oxley Act, two models of ethical decision making and their implementation, analysis of the Arthur Andersen, WorldCom and Enron cases. The ethical dilemmas presented are related to accounting issues,

Arrami, N., QingXiang, Y. (2022)

Impact of ethical training on auditors' ethical decision making in Morocco

including strict application or transgression of accounting rules. The analysis of variance (ANOVA) shows that ethical awareness, judgment, and intention increase after the course. This increase is correlated even more with the rise in PMI. Linear regression models confirm the influence of moral intensity on ethical awareness, ETJ, and ETI and that this influence increases after the ethics course. They conclude that the ethics course allows students to understand better the moral intensity of the problem, which leads to higher ETJ and ETI.

In line with Shawver and Miller (2017) and Shao (2008), we posit that taking an ethics course will moderate the relationship between antecedent variables such as PMI and MIC and auditors' EDM process. Since this study focuses mainly on the ETJ and ETI stages of Rest's model, we can make the following assumptions:

Hypothesis 4: Ethical training moderates the impacts of auditors' MIC on their ETJ(a) and ETI(b). The relationships are stronger for auditors who took an ethics course before compared to those who didn't take any.

Hypothesis 5: Ethical training moderates the impacts of auditors' PMI on their ETJ(a) and ETI(b). The relationships are stronger for auditors who took an ethics course before compared to those who didn't take any.

Hypothesis 6: Ethical training moderates the impacts of auditors' ETJ on their ETI. The relationships are stronger for auditors who took an ethics course before compared to those who didn't take any.

3. Methodology and Data

3.1. The sample

The sample of this study is composed of junior and senior auditors working in the major audit firms in Morocco. For instance, the Anglo-Saxon (Big 4): "Deloitte Touche Tohmatsu, EY (Ernst & Young), KPMG, PwC (PricewaterhouseCoopers), Mazar," and some of Moroccan's local audit firms.

3.2. The method and the instrument of data collection

The data of this study consists of primary data that we collected online through questionnaires. We could exploit the LinkedIn database thanks to ProspectIn. This LinkedIn automated prospecting software enabled us to extract our sample of auditors in Morocco randomly and send them an invitation to participate in our research by filling in our online questionnaire.

Business ethics studies usually use scenarios followed by questionnaires as measurement tools for data collection (Weber, 1992). The value of this approach is to help researchers integrate complex concepts that reflect the decision-making process of individuals, such as in reality. In this regard, we decided to use the scenario developed by Sweeney et al. (2007) in this study. It consists of biasing

Arrami, N., QingXiang, Y. (2022)

Impact of ethical training on auditors' ethical decision making in Morocco

sample selection, an audit-quality-threatening behavior that auditors turn to deal with tight time constraints (Coram et al. 2004, Pierce and Sweeney 2004).

We asked participants to read the scenario of an audit situation where an average auditor could take a unique possible action "biasing sample selection". After that, we asked them to fill in the questionnaire regarding the variables of our model. Namely:

Ethical Judgment and Ethical Intention:

We used Pierce and Sweeney's (2010) measures to estimate ETJ and ETI. ETI was measured by two indicators asking respondents to indicate:

- The probability that they would act in the same way as the average auditor in the scenario on a 7-point Likert scale.
- The probability that their peers would act the same way as the average auditor in the scenario on a 7-point Likert scale.

According to Shafer et al. (2001), due to social desirability effects, both direct and indirect questions are needed to provide a more accurate representation of an individual's behavioral intentions than would perform only a direct question.

ETJ was measured by two indicators asking respondents to indicate:

- To what degree they would consider the action taken by the average auditor in the scenario as unethical on a 7-point Likert scale.
- To what degree their peers would consider the action taken by the average auditor in the scenario as unethical on a 7-point Likert scale.

Earlier studies used these two items to estimate ETJ (Sweeney et al. 2010, Sweeney et al. 2013).

Moral identity centrality

This study resorts to Aquino and Reed's (2002) internalization subscale to estimate auditors' MIC. This approach consists of nine moral traits used to describe a moral person: "caring, compassionate, fair, friendly, generous, helpful, hardworking, honest, and kind." We asked participants to indicate to what extent they associate with these traits on a 7-point Likert scale. Validation analyses by Aquino & Reed (2002) yield an acceptable Cronbach's alpha for the moral identity internalization subscale ($\alpha = .77$)

Perceived moral intensity

The literature on moral intensity shows a lack of consistency in the dimensionality of moral intensity. Some studies found moral intensity uni-dimensional (Valentine and Silver 2001), and others found it multi-dimensional (Singhapakdi et al. 1996, McMahan and Harvey2007). However, this study uses moral intensity as unidimensional because it provides a better model fit than a multi-dimensional construct. Moreover, we decided to exclude two dimensions of moral intensity: proximity of harm and concentration of effect due to the difficulty of accurately measuring both in the audit environment (Shafer et al. 1999, Sweeney et al. 2013).

Arrami, N., QingXiang, Y. (2022)

Impact of ethical training on auditors' ethical decision making in Morocco

To calculate the magnitude of consequences, we used Singhapakdi et al.'s (1996) item that represents to what extent respondents agree/disagree that the overall harm done due to the action would be minimal.

We used Pierce and Sweeney (2010) two items to measure social consensus. Namely: "Keith's actions would be considered as acceptable (even though not preferred) by the audit profession" and "Keith's actions would be considered as acceptable (even though not preferred) by other auditors at your level in your firm". To measure Temporal immediacy, we used Sweeney's (2010) two items: "Keith's action will not cause any harm in the short term" and "Keith's action will not cause any harm in the long term". Finally, one question taken from Singhapakdi et al. (1996) measured the probability of harm. We asked the respondent to specify their level of agreement or disagreement with each statement on a 7-point Likert scale.

Ethics course

To measure Ethics Course as a binary variable, we asked auditors to answer the following question: "Have you ever taken an educational ethics course before? They can either answer yes or no to the question, which will constitute two separate groups that we will compare to see any significant differences based on their responses.

3.3. The methods of data processing

This study uses the Partial Least Square-Structural Equation Model (PLS-SEM) for data processing through smart PLS 3 software. The reason for choosing this technique is due to the complexity of our model and the latent nature of our variables (Hair et al., 2019). Additionally, PLS does not necessitate extensive samples (Hair et al., 2018). Using PLS-SEM to analyze the data requires exploring the measurement and structural models (Rodriguez-Rad and Ramos Hidalgo, 2018). Measurement model analysis provides evidence about constructs' reliability and validity before analyzing and testing the relationships between those constructs (Roldán and Sánchez-Franco, 2012).

To assess the measurement model using PLS-SEM, one must evaluate Convergent validity and Discriminant validity (Hair et al., 2014). For convergent validity satisfaction, the factor loading value should exceed 0.7, the Average Variance Extracted (AVE) value exceeds 0.5., and the composite reliability should exceed 0.7. (Hair et al., 2017). Finally, the heterotrait-monotrait ratio of correlations (HTMT) is recommended for discriminant validity assessment in the case of PLS sem. We need an HTMT value below 0.90 for satisfactory discriminant validity (Henseler et al., 2015).

Arrami, N., QingXiang, Y. (2022)

Impact of ethical training on auditors' ethical decision making in Morocco

Before the assessment of the structural model, one has to examine the potential problem of collinearity. According to Hair (2011), a variance inflation factor values below 5 indicate an absence of collinearity.

After that, the structural model needs to be estimated. For that, one should examine the overall fit of the estimated model, the path coefficient estimates, their significance (5%), the effect sizes (f^2), and the coefficient of determination (R^2), as well as the predictive relevance (Q^2). This study uses a two-tailed test for hypothesis testing.

Finally, we performed a multi-group analysis through PIs software to see if there is any moderating impact of an ethics course on auditors' level of ethics. The goal of the multi-group analysis is to find out whether there are any statistically significant differences between two groups of the same sample based on their parameter estimates (Matthews 2018; Sarstedt et al. 2011). In our case, the two subsamples are auditors with an ethics course in their background and auditors without any.

4. Empirical Results

We sent 1500 calls for participation in our research attached with the questionnaire to auditors through LinkedIn. We were able to get back 125 proper answers which constitute a response rate of 8%. But, unfortunately, the response rate wasn't that high, and we can explain that by the time pressure that encounter auditors in their profession which makes them very busy people.

Table 1 presents the respondent's demographic descriptions. As the data indicate, the sample consisted of 125 auditors which 51.2% were males, and 48.8% were females. More than 90% of respondents were between 20 and 30 years old with a master's degree in Business Administration Finance/accounting /audit field. In addition, more than 50% of auditors reported having experience of more than two years in a Big four accounting firm and have never had any ethics course previously.

Table 1 Demographics

	Categories	Frequency	Per cent (%)
Gender	Male	64	51.2%
	Female	61	48.8%
AGE	20-25	37	29.6%
	26-30	79	63.2%
	31-35	7	5.6%
	36 and +	2	1.6%
Education Level	Master	122	97.6%
	Less than Master	3	2.4%
Type of Degree	Business Administration		
	- Finance / accounting / audit specialty	113	90.4%
	- BA with another speciality	9	7.2%
	Other domain besides BA	3	2.4%

Arrami, N., QingXiang, Y. (2022)

Impact of ethical training on auditors' ethical decision making in Morocco

Experience	Less than one year	33	26.4%
	Between 1 and 2 years	25	20%
	More than two years	67	53.6%
Firm Size	Big 4	76	60.8%
	No Big 4 of local origin	16	12.8%
	No Big 4 of non-local origin	17	13.6%
	Other	16	12.8%
Ethics Training	Yes	51	40.8%
	No	74	59.2%
Total		125	100 %

Source: author's computation based on SMART PLS 3 software.

4.1. Measurement model results

Table 2 shows that factors loading of all our indicators are adequate because all standardized loadings are superior to 0.7. Second, construct reliability is satisfactory since all our constructs composite reliabilities (C.R) are greater than 0.7. Third, the average variance extracted (AVE) measures are above 0.5, so convergent validity is confirmed. Finally, we found all values below 0.9; therefore, we confirm discriminant validity.

Table 2 Measurement model: loadings, construct reliability and convergent validity

<i>Indicators</i>	<i>Code</i>	<i>F.loading</i>	<i>C.R</i>	<i>AVE</i>
A-Perceived moral intensity	PMI		0.930	0.690
1-"Keith's actions would be considered as acceptable (even though not preferred) by the audit profession" (Social Consensus 1)	PMI1	0.892		
2- "Keith's actions would be considered as acceptable (even though not preferred) by other auditors at your level in your firm" (Social Consensus 2)	PMI2	0.845		
3-"Keith's action will not cause any harm in the Short term" (Short-term Immediacy)	PMI3	0.804		
4-"Keith's action will not cause any harm in the Long term" (Long-term Immediacy)	PMI4	0.817		
5-"The overall harm (if any) done as a result of Keith's action would be very small" (Magnitude of consequences)	PMI5	0.872		
6-"There is a very small likelihood that Keith's action will actually cause any harm" (Probability of Harm)	PMI6	0.743		
B-Moral Identity Centrality	MIC		0.895	0.682
1- "It would make me feel good to be a person who has these characteristics."	MI1	0.871		
2-"Being someone who has these characteristics is an important part of who I am."	MI2	0.901		
3-"Having these characteristics is not important to me."	MI3	0.721		
4-"I strongly desire to have these characteristics."	MI4	0.800		
D-Ethical Judgment	ETJ		0.876	0.780
1-"To what extent do you regard this action as unethical."	ETJ	0.889		

Arrami, N., QingXiang, Y. (2022)

Impact of ethical training on auditors' ethical decision making in Morocco

2-"To what extent would the 'typical' auditor at your level in your firm regard this action as unethical."	ETJ2	0.877		
E-Ethical Intention	ETI		0.938	0.883
1-"What is the likelihood that other auditors would take Keith's action at your level in your firm."	ETI1	0.947		
2-"What is the likelihood that you would take Keith's action."	ETI2	0.933		

Source: author's own computation based on SMART PLS 3 software.

4.2. Structural model results

Before assessing the structural model, we need to evaluate the potential collinearity between the constructs. All the VIF values in our model are lower than five (Table 3), which indicates a lack of collinearity (Hair et al., 2011).

Table 3 Collinearity Statistics (Inner VIF values)

	ETI	ETJ	MIC	PMI
ETI				
ETJ	1.420			
MIC	1.298	1.194		
PMI	1.394	1.194		

Source: author's own computation based on SMART PLS 3 software.

In table 4, we can see that the dependent variable in our model ETJ, ETI has R values, respectively of 0.298, 0.212. According to Chin (1998), R2 values can be classified in accordance with the following: 0.67 (substantial), 0.33 (moderate), 0.19 (weak). We can see that all R2 values in our model fall between the weak and moderate levels. And therefore, our results support the explanatory power of the model.

Additionally, Table 4 provide also the predictive relevance outcomes. The blindfolding results show that all Q2 values are above zero, which supports the predictive relevance for our dependent variables.

Table 4 R square and predictive relevance

	R 2	R 2 adjusted	Q2
ETI	0.213	0.193	0.169
ETJ	0.296	0.284	0.204

Source: author's own computation based on SMART PLS 3 software.

Table 5 presents the effect size results, which indicate the relative effect of a particular explanatory variable on the latent dependent variable(s) through changes in the R squared (Chin, 1998). According to Cohen (1988), the effect size value of each predictor variable in our model varied between small to medium effects except for the one of MIC on ETI, which was insignificant 0.007.

Table 5 F square

	ETI	ETJ	MIC	PMI
ETI				
ETJ	0.045			
MIC	0.007	0.087		
PMI	0.110	0.167		

Source: author's own computation based on SMART PLS 3 software.

Crespo and Inacio (2019) suggest the "Root mean square residual (RSMR)" as an indicator to confirm the model fit. According to Henseler et al. (2014), a model fit is adequate if its value is less than 0.1. The SRMR value of our model is 0.077, which confirms that our model fit is good.

4.3. Hypothesis testing

We performed a 5000 bootstrap subsample to test our hypothesis. The results show that the beta coefficients are positive and significant for the relationships between PMI and ETJ, PMI and ETI, MIC and ETJ, and ETJ and ETI, but not for the relationship between MIC and ETI. Therefore, hypotheses H1a, H1b, H2, H3a are supported, and H3b is rejected. Finally, we report the results of the hypothesis in Table 6.

Table 6 Bootstrapping results

Relation	B	P values	ypothesis
PMI → ETJ	0.375	0.000	H1a: accepted
PMI → ETI	0.347	0.000	H1b: accepted
ETJ → ETI	0.223	0.024	H2: accepted
MIC → ETJ	0.270	0.001	H3a: accepted
MIC → ETI	-0.084	0.301	H3b: Rejected

Source: author's own computation based on SMART PLS 3 software.

4.4. Multi-Group Analysis

This analysis aims to examine whether or not there is any significant impact of taking an ethics course on auditors' level of ethics. For this sake, we conducted a multi-group analysis to compare the two groups of our sample. Namely, the first one represents auditors with an ethics course in their background and the second one represents auditors without previous ethics courses. The comparison is based on each path coefficient of our model using the PLS-MGA approach. Before conducting a multi-group analysis in PLS-SEM, measurement invariance of the composite model (MICOM) needs to be examined. MICOM ensures that the significant differences between groups are due to the structural model relationships rather than the meaning assigned to the measured concept (Hair J.r et al., 2017).

One performs MICOM through three steps:

- 1-the assessments of configural invariance (measurement models have the same basic factor structure for both groups)
- 2-Analyzing the compositional invariance (composite scores are not significantly different across groups)
- 3- Evaluating the equality of a composite's mean value and variance across groups.

If the first two steps are established, we can claim partial measurement invariance, allowing us to proceed to multi-group analysis. On the other hand, if all three phases are shown, we have full measurement invariance (Henseler et al., 2016).

This research uses "Smart PLS 3" software to perform the MICOM analysis. First, all constructs related to our measurement models have the same factor structure for both groups. Moreover, running MICOM in SmartPLS software automatically generates configural invariance. We can therefore conclude that Step 1 of MICOM is confirmed successfully.

Compositional invariance requires that c equals one.

Secondly, we performed a 5000 permutation to see if the correlation c is significantly different from one or not. (Henseler et al., 2016).

In table 7, we can see the permutation test results, which show that none of the c values is significantly different from 1. Therefore, the compositional invariance across groups is confirmed for all composites of our model.

Table 7 Compositional Invariance

	Original Correlation	Correlation Permutation Mean	5.0%	Permutation p-Values
ETI	0.999	0.999	0.996	0.422
ETJ	0.994	0.994	0.976	0.344
MIC	0.997	0.991	0.976	0.795
PMI	0.997	0.998	0.994	0.302

Source: author's own computation based on SMART PLS 3 software.

In the last step, we must examine the composites' equality of mean values and variances between groups. Table 8 shows that the mean value and the variance of all composites in our model regarding the first group (auditors with ethics course) do not significantly differ from the second group (auditors without any ethics course). Therefore, full measurement invariance is supported through all three steps. Accordingly, we can proceed to multi-group analysis.

The multi-group analysis using MGA-PLS has detected statistically significant differences between the two groups in our model for three of the six relationships. Table 9 shows that the impact of MIC on ETJ and ETJ on ETI is stronger for auditors with an ethics course than the other group without any. Therefore H6 and

Arrami, N., QingXiang, Y. (2022)

Impact of ethical training on auditors' ethical decision making in Morocco

H4b are accepted. On the other hand, there were no significant differences between the two groups for the impact of MIC on ETI and PMI on ETI.

Table 8 Equal mean and variance values

	Mean - Original Difference (GROUP (1)_ethics course – GROUP (2)_No ethics course)	Mean - Permutation Mean Difference (GROUP (1)_ethics course – GROUP (2)_No ethics course)	2.5%	97.5%	Permutation p-Values
ETI	-0.331	0.001	-0.358	0.356	0.066
ETJ	-0.015	0.001	-0.366	0.355	0.926
MIC	-0.149	-0.004	-0.367	0.342	0.418
PMI	-0.252	0.000	-0.368	0.358	0.162
	Variance - Original Difference (GROUP (1)_ethics course – GROUP (2)_No ethics course)	Variance - Permutation Mean Difference (GROUP (1)_ethics course – GROUP (2)_No ethics course)	2.5%	97.5%	Permutation p-Values
ETI	0.017	-0.008	-0.470	0.417	0.943
ETJ	-0.312	-0.019	-0.721	0.662	0.372
MIC	0.218	-0.012	-0.699	0.679	0.572
PMI	0.283	-0.010	-0.597	0.567	0.340

Source: author's own computation based on SMART PLS 3 software.

Finally, the difference between groups was statistically significant for the relationship between PMI and ETJ. However, the impact was opposite to what we expected in our hypothesis. The results show that the relationship was stronger for the auditors without any ethics course than the other group.

Table 9 Multigroup analysis results

	Path Coefficients-Difference (GROUP (1)_ethics course – GROUP (2)_No ethics course)	p-Value original 1-tailed (GROUP (1)_ethics course – GROUP (2)_No ethics course)	p-Value new (GROUP (1)_ethics course – GROUP (2)_No ethics course)	Hypothesis
ETJ → ETI	0.500	0.004	0.009	H6: Accepted
MIC → ETI	-0.004	0.499	0.998	H4b: Rejected
MIC → ETJ	0.495	0.001	0.001	H4a: Accepted
PMI → ETI	-0.163	0.798	0.404	H5b: Rejected
PMI → ETJ	-0.356	0.980	0.040	H5a: Rejected

Source: author's own computation based on SMART PLS 3 software.

5. Discussion

The results of this study showed that PMI impacts auditors' ETJ and ETI positively. In addition, the more auditors made ETJ, the more they intended to act ethically. Despite the national factor, these results align with the auditor's ethical decision-making literature, which has widely proven this relationship in different national contexts. (Nawfel and al. 2021, Johari et al., 2017, Sweeney et al. 2013, McMahon and Harvey 2007, Shafer et al. 1999, 2001, Barnett and Valentine, 2004).

Furthermore, this study showed that auditors' moral identity centrality impacts their ETJ significantly. The more moral identity was essential to auditors' self-definition, the more ethical were their judgments. These results are in line with Nawfel and al.'s (2021) findings. However, there was no significant impact of MI on auditors' ETI. These results are opposite to what Hannah et al. (2011) state in their model of moral maturation and moral conation. Thus, it seems that in the case of auditors, moral identity centrality impacts only the ethical judgment stage of the EDM process. However, auditors' ethical intent to act doesn't seem to correlate with the effect of the moral self.

Finally, this study shows that taking an ethics course does impact auditors' level of ethics. The PLS-MGA results indicate a significant positive difference between the two groups regarding the relationship between MIC and ETJ (Table 9), which implies that taking an ethics course tends to moderate positively and significantly the relationship. We can explain this by the fact that is taking an ethics course has increased auditors' self-definition as moral persons, which improved their ETJ. However, this was not the case for their ETI since we didn't notice any significant results. The multi-group analysis also showed a significant positive difference between the two groups regarding the relationship between ETJ and ETI. We can explain this by the fact that is taking an ethics course has improved auditors' ETJ, which positively impacted their ETI. These results align with Nguyen et al. (2008), who found that improving ethical judgment through moral education led to student engagement to act ethically. Finally, the multi-group analysis showed significant opposite results to what we have supposed for hypothesis 5. Indeed, there was a significant difference between the two groups regarding the positive relationship between PMI and ETJ. The relationship was stronger for the auditors without any ethics course than the other group, negatively moderating the relationship. The ethical education course appears to have enabled auditors to view ethical dilemmas as less morally intense, allowing them to consider less strict action. These results are opposite to Shawver and Miller (2017) finding, who found ethical education courses to improve students' PMI, increasing their ETJ. A difference of samples can explain this difference since our study used professionals (auditors) while they

Arrami, N., QingXiang, Y. (2022)

Impact of ethical training on auditors' ethical decision making in Morocco

used business students. The experience factor might have a role in this difference of results, and future research can investigate this direction.

On the other hand, there was no significant difference between the two groups regarding the relationship between PMI and ETI. Thus, according to the results of this study, it seems that ethical training affects the ETI stage only under ethical judgment as a predictor variable.

6. Conclusions

This study concludes that taking an ethics course impacts auditors' ethical decision-making in the Moroccan context.

From a theoretical perspective, this study contributes to auditors' ethics literature by filling the gap of a potential impact of ethics training on auditors' level of ethics. As the results indicate, ethics training does play a moderating role in how central the moral self is to auditors' self-definition, which improves their ETJ. These results represent a response to the previous calls for more work to be carried out regarding the potential impact of ethics training. In addition, this study is the first one to present significant results in the Moroccan context.

From a practical perspective, this research offers some managerial contributions. In line with AACSB (2004), the findings of this research suggest that auditor EDM can be the subject of a learning process. Any initiative in this direction, whether within auditing firms or educational institutions, can only be encouraged. However, we believe it is essential to clearly define the educational objectives of an ethics course and adapt the content accordingly. For example, the focus of the course could be on moral traits if the purpose is to strengthen the moral self within an individuals' overall self-identity. The focus of the course could be on the deontological aspect if the objective is to increase individuals' commitment to the rules of the profession's code of ethics. The focus could also be on organizational ethics if the aim is to ensure ethics among individuals within the audit firm.

This research presents several limitations. First, it takes as sample only Moroccan auditors. Future research can expand this study to international horizons to further investigate potential differences in cultural and national aspects. Second, this study focuses mainly on the second step (ETJ) and the third step (ETI) of Rest's (1986) model. Coming research can explore further by including ethical awareness and action steps to the model of the present study. Third, this research focused mainly on junior and senior auditors. Future research can target managers and other positions of higher levels of hierarchy within the audit firms.

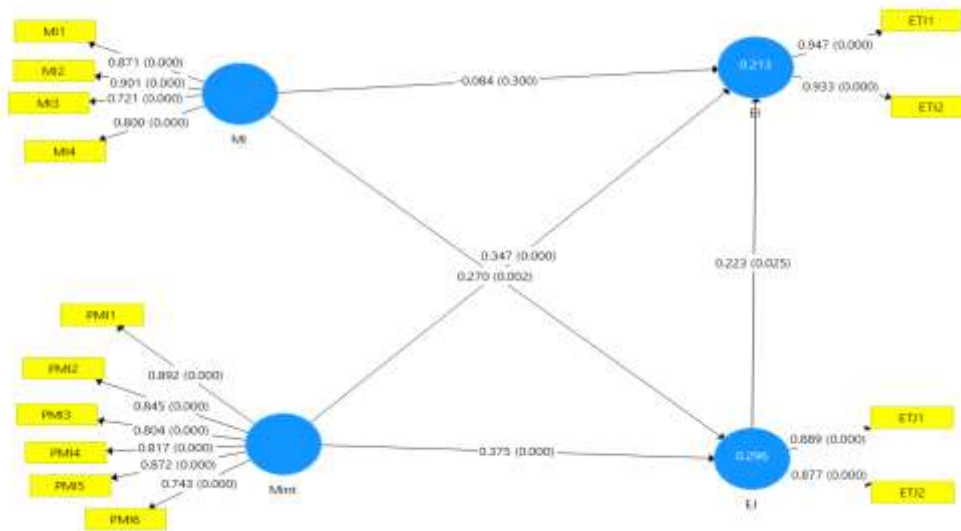


Figure 1 Model results
Source: SMART PLS 3 software.

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Author Contributions

N.A conceived the study and was responsible for the design and development of the data analysis. N.A was responsible for data collection and analysis. N.A and Y.Q were responsible for data interpretation. N.A was responsible for the literature review section. Y.Q was responsible for the supervision and the work review.

Disclosure Statement

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