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Ethical relativism in accounting: A cross-cultural examination of the influence of culture and risk taking propensity on ethical decision-making

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Ethical relativism in accounting: A cross-cultural examination of the influence of culture and risk taking propensity on ethical decision-making

Abstract

Extending prior ethics frameworks, we conduct a cross-cultural survey to examine ethical decision-making and risk taking propensity in the United States (US) and the Middle East and North Africa (MENA). Although there is a significant body of research describing the ethical decision-making of individuals in the US, little is known regarding those in MENA. With increasing business and political involvement between the US and MENA, it is critical that we better understand whether the ethical decision-making of accountants differs between these regions. Additionally, we add to the examination of ethical decision-making by introducing risk taking propensity as an antecedent that is particularly relevant to the accounting domain.

Using path analysis with samples of accounting students in the US and MENA, we find support for our model where region and risk taking propensity influence ethical awareness. Ethical awareness influences judgment, which goes on to influence intention to act in an ethically challenging management accounting situation. Additionally, inconsistent mediation is indicated, where the direct effect and indirect effect (through risk taking propensity) of region on awareness have opposite influences. In this way, risk taking propensity has a suppression effect on the impact of region on ethical behavior.

Keywords

Ethical decision-making; Culture; Middle East; MENA; Risk taking propensity; Path analysis

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1. Introduction

With the increased globalization of business and utilization of management accountants as strategic business partners (Chartered Institute of Management Accountants (CIMA), 2009), corporations face the challenge of ensuring accounting decision-makers in various regions of the world comply with corporate guidelines, expectations, and internal controls, particularly when allowed some level of autonomy. A significant contributor to this challenge is that individuals differ in ethical decision-making. While many factors influence an individual's ethical decision-making (Rest, 1986; Jones, 1991), research in business and accounting finds that cultural differences between geographical regions significantly influences individuals' ethical intentions and perceptions (Cohen, Pant, & Sharp, 1995; Curtis, Conover, & Chui, 2012; Smith & Hume, 2005; Thorne & Saunders, 2002; Tsakumis, Curatola, & Porcano, 2007).[1] Extending this literature, we examine whether regional culture, United States (US) compared to the Middle East and North Africa (MENA), influences the judgment of accounting decision-makers in an ethically challenging situation, and whether risk taking propensity mediates this influence.[2]

[1] Ethical decision-making is the process by which an individual decides between taking an ethical or unethical action. An ethical decision is both legal and morally acceptable to the larger community, while an unethical decision is either illegal or morally unacceptable to the larger community (Jones, 1991). Ethical decision-making encompasses direct effects from ethical awareness to ethical judgment, and ethical judgment to ethical intention. Ethical awareness is the ability to recognize a moral dilemma or moral issue (Rest, 1986; Jones, 1991). Ethical judgment is defined as a cognitive process in which an individual is to "judge which course of action is morally right" (Trevino, 1992, p. 445; Nguyen & Biderman, 2008), while ethical intention is defined as an aspiration of action that gives priority to what is morally right over other considerations (Nguyen & Biderman, 2008, p. 628).

[2] We include Egypt in our study because its religion, language, and history are culturally similar to countries in the Middle East (e.g., Al-Akra, Abdel-Qader, & Billah, 2016; BBC, 2018). Additionally, the GLOBE study clusters Egypt in the Middle East rather than Sub-Sahara Africa (Gupta & Hanges, 2004). Therefore, for purposes of this investigation, we include Egypt in the broader classification of MENA countries.

MENA is a region perceived as culturally different from the US and has been a significant area of economic growth and political focus for the US for the past 15 years (Office of the US Trade Representative, 2019). However, little is known in the West about business ethics in MENA. Common cultural practices in MENA, such as *wasta* and *bakshish* could be viewed as nepotism and bribery, respectively, in Western cultures such as the US.[3] Conversely, the common practice of lenders charging interest to borrowers is not a practice followed by Islamic financial institutions that are prevalent in MENA. While prior research suggests culture influences ethical decision-making, whether accountants' ethical decision-making differs between the US and MENA is an open empirical question. Middle Eastern culture is different from cultures of more commonly researched countries and regions, such as Asia, Western Europe, and the US. Thus, we should not assume differences in ethical perceptions between the US and various cultures in other studies should necessarily extend to MENA.

In addition to culture, we posit an individual's risk taking propensity may influence their ethical decision-making (Weber, Blais, & Betz, 2002). Risk taking may have positive or negative outcomes in business. For example, positive outcomes of risk taking may result in launching a new product that changes the market (e.g., Apple) or investing in soon to be profitable businesses (e.g., Berkshire Hathaway). Unfortunately, risk taking may also result in detrimental behaviors, including fraud, illegal acts, or overly aggressive business transactions (e.g., rogue trader at Barings Bank and Bear Sterns activity prior to the 2008 financial crisis). The decision to take a risk is partially dependent upon an individual's risk taking propensity, which is a personality trait

[3] *Wasta* is a practice in which connections with family and friends are used to speed up processes or gain access to certain benefits (Izraeli, 1997). *Bakshish* is a societal norm of tipping others for assistance with tasks as a way to help the poor (Izraeli, 1997).

representing a *general* propensity for risk seeking or risk avoiding behavior across various contexts (Jackson, Hourany, & Vidmar, 1972). Engaging in unethical behaviors in business likely involves some amount of risk (Tang & Chen, 2008); thus, we propose an individual's risk taking propensity may affect their ethical decision-making. Importantly, culture may influence an individual's risk taking propensity (Collins, Holzmann, & Mendoza, 2005; Hofstede, Hofstede, & Minkov, 2010); therefore, we expect risk taking propensity to mediate the relationship between regional culture and ethical decision-making.

Empirical investigation of differences between accountants in the US and MENA is important. Foreign Direct Investment in MENA increased from approximately $12 billion in 2000 to approximately $54.6 billion in 2017, with a high of approximately $126 billion in 2007 (World Bank Group, 2019).[4] Additionally, the Office of the US Trade Representative states, "The United States' trade and investment relations with the countries of the Middle East and North Africa have considerable potential value in terms of both U.S. commercial and foreign policy interests," (Office of the US Trade Representative, 2015). As US corporate interests expand in MENA, differences in culture may influence accountants' decisions resulting in a lack of decision-making consistency across regions, misunderstandings regarding intentions and trust, and exposure to undesired risk of loss. Thus, examining differences in ethical decision-making by accountants in these two regions is important for academics, business leaders, and governmental leaders.

On a macro level, this study aims to contribute to the international accounting and business ethics literatures by empirically testing a model where regional culture affects ethical

[4] We report foreign direct investment as net inflows in US dollars per the International Monetary Fund's Balance of Payments database, as reported by The World Bank (World Bank Group, 2019).

decision-making. Identifying differences in ethical decision-making between accountants from different regions is important as it can help organizations develop effective internal controls to mitigate the threat of fraud and abuse. It also helps management accountants, who are often acting as strategic business partners to produce reliable accounting information. In a micro level, this study seeks to contribute to the business ethics literature by examining risk taking propensity as an individual characteristic that influences ethical decision-making and mediates the effect of regional culture on ethical decision-making. As risk is a component of many business dealings, it is important to examine the effect of risk taking propensity on ethical decision-making in the context of cultural differences. Although unethical actions in business inherently involve some amount of risk (Jackson, Wood, & Zboja, 2013), this construct has received very little attention in ethics research.

The remainder of the paper is organized as follows. Section 2 describes the theory and hypotheses for the study. Section 3 describes the method and sample. Section 4 contains results, and section 5 discusses conclusions and limitations.

2. Theoretical background and development of hypotheses

2.1. Ethical decision-making

Ethical decision-making is a four-stage process requiring an individual to recognize an ethical issue, make an ethical judgment, establish an ethical intent, and engage in an ethical behavior (Jones, 1991; Rest, 1986). Many factors may affect an individual's ethical decision-making at various stages in the ethical decision-making process. For example, Hunt and Vitell (1986) identify environmental factors, such as culture, industry, and organization, as antecedents to ethical decision-making. Jones (1991) identifies moral intensity as a factor likely

to affect all four stages in the ethical decision-making process.[5] In a meta-analysis, Kish-Gephart, Harrison, and Trevino (2010) provide a framework of antecedents to unethical choices in the workplace. The antecedents include individual characteristics (ex: gender, age, and cognitive moral development), moral issue characteristics (ex: magnitude of consequences and social consensus) (e.g., Jones, 1991), and organizational environment characteristics (ex: ethical organizational culture) (e.g., Hunt & Vitell, 1986). Thus, the ethical decision-making process and its resulting behavior is affected by an interaction between individual characteristics, his or her environment, and the moral issue at hand.

This study extends this line of research in two ways. First, we examine whether the environmental characteristic of regional culture affects accountants' ethical decision-making between the US and MENA, a region of the world under-researched in the business ethics literature despite its rich cultural history and economic and political importance.[6] Second, we examine whether the individual characteristic of risk taking propensity impacts ethical decision-making and mediates the relationship between culture and ethical decision-making. We model ethical decision-making following Rest (1986), such that we expect ethical awareness to affect ethical judgment, which in turn will affect ethical intentions (Jones, 1991; Rest, 1986). Additionally, we assume behaviors through the lens of ethical intentions, absent the ability to

[5] Moral intensity represents six dimensions of a moral issue, including magnitude of consequences, social consensus, probability of effect, temporal immediacy, proximity, and concentration of effect (Jones, 1991). For example, the moral intensity of committing financial accounting fraud would be much greater than the moral intensity of littering a piece of paper on the sidewalk. Although both issues are culturally unacceptable and/or illegal, fraud has a much larger magnitude of consequences and probability of effect than littering.

[6] Koehn (2013) proposes a universal ethics of virtue that appears to belie the notion of East versus West ethics. However, while Koehn argues for the existence of virtue ethics around the globe, we attempt to model the underlying, second-order, determinants of how virtues are put into practice in differing cultures.

place participants from around the world into actual ethically challenging business situations (Ajzen, 1991). Our theoretical model is depicted in Figure 1.

<Insert Figure 1 here>

2.2. Regional culture

The US and MENA differ greatly in terms of history, political systems, religion, resources, economy size, and socio-economic statistics. These regions' cultures have developed over hundreds or thousands of years, and continue to be influenced today with changes such as the Arab Spring, economic development, and globalization. Empirical research supports cultural differences between these regions. Per the Hofstede dimensions, the US is much higher in individualism than our sample MENA countries (US=91; Egypt=25; Saudi Arabia=25; United Arab Emirates (UAE)=25), but is lower on power distance (US=40; Egypt=70; Saudi Arabia=95; UAE=90) and uncertainty avoidance (US=46; All 3 MENA countries=80) (Hofstede, 2001). Thus, individuals raised in the US are likely to have the cultural imprint of being more individualistic, risk seeking, and having the belief that they can challenge authority and move up within organizations and/or society. Meanwhile, individuals raised in MENA are likely to have the cultural imprint of thinking more about their family obligations, being more risk avoiding, and not challenging those in authority above them. Hofstede discusses that while not all individuals within a culture are affected the same way by the culture, individuals are strongly influenced by social motivation and the actions, behaviors, and beliefs of those around them (Hofstede, 2001).

While Hofstede examines overarching cultural dimensions expected to shape individuals within the culture, there are business-specific cultural practices that differ between the US and

MENA which could further impact one's ethical awareness. For example, small cultural differences such as the Egyptian practice of *bakshish*, a societal norm of tipping others for assistance with tasks as a way to help the poor (Izraeli, 1997), which is not a common practice in the US, may affect views of ethics between countries. US views of nepotism in business may contrast with Middle Eastern cultures that practice *wasta*, in which connections with family and friends are used to speed up process or gain access to certain benefits (Izraeli, 1997). The presence of Islamic financial institutions in MENA, which are designed to provide financing in accordance with *Shari'ah* law, provides another distinction from common US business practices (Aribi & Arun, 2015). These financial institutions follow *Shari'ah,* including the prohibition of *Riba* or charging borrowers interest, and *Quard al-hassan* or a loan to individuals in financial difficulty (Aribi & Arun, 2015). While these are not purely ethical issues, these practices may influence accountants' views of what is or is not culturally acceptable.

Other differences in business practices between the US and MENA are found with the accounting profession itself. The accounting profession and the Certified Public Accountant designation have a long history of independence, ethics, and self-regulation in the US. The profession developed along with the capital financial system in the US Acts of Congress, such as the Securities Act of 1933, Securities Exchange Act of 1934, and Sarbanes-Oxley Act of 2001, highlight the necessity of the accounting profession and high quality financial reporting to the operation of capital markets. Contrarily, in many MENA countries the accounting profession is still relatively new and may not have a code of ethics to which members must adhere. For example, while Saudi Arabia's Companies Act of 1965 established corporate financial reporting requirements, including the appointment of an auditor, the Saudi Organization for Certified

Public Accountants (SOCPA) was not established until 1992 (International Federation of Accountants (IFAC), 2016). As another example, the Egyptian Society of Accountants and Auditors was established in 1946, but has yet to establish ethical requirements for its members (IFAC, 2017). Thus, differences in the accounting profession between regions could alter the extent to which accountants perceive and internalize their country's code of ethics, if applicable, thus affecting norms of behavior.

International perceptions of corruption in the US and MENA also suggest a difference in ethical practices. For example, Transparency International (TI), a worldwide organization that seeks to eliminate corruption and stop the abuse of power, bribery, and secret deals, produces an annual report called the Corruption Perceptions Index, which is a measure of perceptions of public sector corruption in each country.[7] For the 2017 index, of 180 countries, the US places 16th best with a score of 75 on a scale of 0=highly corrupt to 100=very clean, signaling a relatively low level of perceived corruption (TI, 2017). As a region, MENA has an average score of 38 (TI, 2017).[8] While this survey of ethical perceptions does not prove that differences in ethical behavior exist, these results do suggest that individuals in the two regions differ in the regularity with which unethical behavior is observed. Regular observation of corruption could affect individuals within a culture in one of two ways: 1) corruption could be seen as culturally

[7] According to the report, "The surveys and assessments used to compile the index include questions relating to the bribery of public officials, kickbacks in public procurement, embezzlement of public funds, and questions that probe the strength and effectiveness of public-sector anti-corruption effort" (TI, 2017, p. 2). The sources used in the Corruption Perceptions Index include business surveys, assessments by commercial risk analysts, and country experts from international institutions. Data presented in the table supports the assertion that, on average, assessments by different institutions tend to correlate well with each other. (http://files.transparency.org/content/download/313/1264/file/CPI2011_DataPackage.zip)

[8] The corruption perceptions rank and score for the specific countries in our MENA sample are: UAE placing 21st with a score of 71, Saudi Arabia placing 57th with a score of 49, and Egypt placing 117th with a score of 32 (TI, 2017).

acceptable and normal business behavior, thus further perpetuating the corruption; or 2) it could be seen as something unethical and detrimental to business and society, therefore turning individuals against corruption (Curtis & Williams, 2014). Either way, one's perception of what is just, fair, and culturally acceptable may be impacted by the presence of corruption.

There is limited empirical evidence in the business literature that ethical practices and ethical perceptions differ among individuals in the US and MENA. For example, Ahmed, Chung, and Eichenseher (2003) find differing ethical perceptions of several business situations involving information asymmetry among participants from China, Egypt, Finland, Korea, Russia, and the US. Ergeneli (2005) examines and finds differences in the ethical behavior of marketing employees from Egypt, Kazakhstan, Kyrgyzstan, and Turkey. Although these two studies contrast perceptions of ethicality between MENA countries and others, they neither attempt to propose the mechanisms through which these influences manifest, nor do they measure behavioral intentions. Additionally, these studies do not use accountants as their samples. The use of accounting participants may yield different results due to the presence of ethics courses in many undergraduate and graduate accounting programs.

We posit that differences in regional culture, cultural business practices, and perceptions of corruption work together to influence accountants' ethical awareness in the US and MENA. Hunt and Vitell (1986) assert that culture influences an individual's ethical awareness through everyday experiences. Practices embedded in a particular culture would often be observed, and therefore less likely to provoke awareness of ethical issues than practices that are seldom observed (Cherrington & Cherrington, 2000). Additionally, as social persuasion shapes a person's moral intuitions through long-term exposure to the judgments

and actions of others (Haidt, 2007), it seems reasonable that regional culture, an important influence over one's everyday experiences, should affect ethical awareness. Cultural practices form a social consensus, which is defined as the degree of social agreement about whether an act is evil or good. Social consensus is one of the six dimensions of moral intensity (Jones, 1991), and can increase or lower the perceived moral intensity of a decision.

Supporting this, multiple studies in accounting find differences in ethical perceptions between cultures. For example, Cohen et al. (1995) examine differences in ethical judgment by nationality with auditors from the US, Japan, and Latin America. Douglas, HassabElnaby, Norman, and Wier (2007) examine the influence of national culture and ethical position on the slack-creation behavior in budgetary systems between Egyptian managers employed by US firms rather than Egyptian companies. Tsakumis et al. (2007) find national culture as a useful means to explain international tax compliance diversity across 50 countries. Ge and Thomas (2008) examine differences in moral development and ethical reasoning between accounting students from Canada and Mainland China. Fleming, Chow, and Su (2010) examine differences in ethical reasoning among Chinese accounting students, Chinese practicing auditors, and US students. Curtis et al. (2012) examine the impact of country of origin on ethical intentions using accounting student participants from the US, China, Japan, and Mexico, proposing power distance and justice as mediators. In addition, Curtis, Vinson, Conover, Lucianetti, and Battista (2017) examine the role of social contracts in explaining the influence of national culture on ethical judgment among accounting professionals and students in the US and Italy. Overall, these studies demonstrate an association between regional culture and accountants' ethical perceptions and/or judgment.

Based on prior research about the influence of culture on ethical awareness, we consider that culture and business practices in the US and MENA have shaped the ethical awareness of accountants in the two regions. Thus, our first hypothesis is as follows:

H1. Accountants' ethical awareness will differ between the US and MENA.

A criticism of cultural research is that country boundaries are not sufficient proxies for culture as many different cultures may reside within or across country boundaries (Baskerville, 2003). Therefore, in order to allow for these additional influences, it is important to consider the mediators through which culture impacts ethical decision-making. We also consider a previously unexplored individual characteristic, risk taking propensity. Risk taking propensity should be subject to one's culture and particularly relevant to accountants' judgments. We propose that it, in turn, affects individuals' ethical decision-making (Kish-Gephart et al., 2010).

2.3. Risk taking propensity

Considering the general attitude that taking too much risk in business is unethical (Michalowski & Kramer, 2003), and that unethical decisions carry some level of risk (Jackson et al., 2013), it is surprising that so little research to date explores the relationship between risk taking and ethical decision-making in business. Risk taking has a significant role in business and accounting, since a certain amount of risk is necessary for business success while excessive or uncontrolled risk taking can lead to failure. For example, excessive risk taking has arguably contributed to the 2008 global financial crisis, which negatively affected millions of individuals. Additionally, excessive risk taking remains a common denominator of high profile accounting frauds, such as Enron, Tyco, Worldcom, Healthsouth, and Satyam.

The decision to take a risk is influenced jointly by characteristics of the decision maker and the situation at hand (Jackson et al., 1972; Nolder & Riley, 2014; Weber et al., 2002;). In a

seminal study to develop the risk taking propensity construct, Jackson et al. (1972) posit that risk taking may be either purely situation-specific or a function of an individual's personality, the latter suggesting some consistency across multiple situations. After examining risk taking across four dimensions (monetary, physical, social, and ethical), they conclude that risk taking propensity can be conceptualized as a personality trait not contingent upon any single type of risk. The finding of Jackson et al. (1972) are subsequently supported by other studies (Ashton, 1998; Mikulay & Goffin, 1998; Paunonen & Jackson, 1996).[9] Risk taking propensity is a personality trait representing the general propensity of an individual to exhibit risk seeking or risk avoiding behavior when confronted with situations that might involve an element of risk (Gurol & Atsan, 2006). Though it is considered as a personality trait, risk taking propensity is distinct from the Big Five personality traits often examined in the organizational behavior literature (Ashton, 1998; Paunonen & Jackson, 1996). Additionally, risk taking propensity is positively associated with behaving unethically (Jackson et al., 1972), dishonest behaviors (Mikulay & Goffin, 1998), delinquent workplace behaviors (Ashton, 1998), and negatively associated with trustworthiness (Jackson, 1994). Research on risk taking propensity has primarily been limited to the personality or management literatures, with one study in accounting using risk taking propensity as a control variable in an experiment (Arnold, Bedard, Phillips, & Sutton, 2011).

[9] Weber et al. (2002) opposes risk taking as a personality trait, arguing that risk taking is purely domain-specific and dependent upon the situation at hand. Other studies prior to Jackson et al. (1972) make a similar argument (Kogan & Wallach, 1964; Slovic, 1964; Weinstein, 1969). Weber et al. (2002) develops a risk-attitude scale and compares it to other prior risk taking scales. However, these authors fail to examine or even discuss the *Jackson Personality Inventory* measurement of risk taking as a personality trait, which has been utilized in studies since 1976. Thus, we do not consider the findings of Weber et al. (2002) as conclusive in terms of rejecting risk taking propensity as a personality trait.

Beyond individual personality, a risk taking decision is also influenced by the ethical issue/situation at hand. Jones (1991) identifies moral intensity as a multi-dimensional construct capturing the extent of issue-related moral imperative in a situation, and affecting all stages of ethical decision-making. While moral intensity focuses solely on characteristics of the moral issue, the dimensions of moral intensity are subject to perceptions and cognitive biases of the individual facing the moral issue (Barnett, 2001; Jones, 1991). Specifically, we posit an individual's risk taking propensity may affect his or her perceptions of two key dimensions of moral intensity: probability of effect and magnitude of consequences. Probability of effect is the perceived probability that the moral act in question will actually take place and will cause the predicted harm or benefit (Jones, 1991). Magnitude of consequences is the accumulation of the harms (or benefits) done to victims (or beneficiaries) of the moral act in question (Jones, 1991). An individual with a higher risk taking propensity is more risk seeking and therefore may have a skewed perception of the probability of negative outcomes and magnitude of consequences of a moral act when compared to an individual with a lesser risk taking propensity and who is more risk avoiding.[10] As Jones (1991) finds that moral intensity impacts ethical awareness, we predict greater risk taking propensity is positively associated with a greater awareness of an ethically challenging situation as more ethical due to differential perceptions of an issue's moral intensity.

H2. Accountants' risk taking propensity will be positively associated with ethical awareness such that accountants with greater risk taking propensity will perceive the ethically challenging decision as more ethical, regardless of regional culture.

[10] We consider a risk seeking person to be biased towards the potential benefits or positive outcomes of an action compared to the potential losses or negative outcomes. For example, a risk seeking person considering skydiving would be biased towards the benefit of enjoyment rather than the potential negative of severe injury or death, while a risk avoiding person would be biased towards the opposite.

Collins, Holzmann, & Mendoza (2005) explore differences between management accountants in the US and Latin America, asserting culture may influence risk taking propensity. Indeed, an individual's personality, including his or her risk taking propensity, does not develop apart from the culture in which he or she is born and raised. A defining feature of risk is uncertainty. Hofstede et al. (2010) identifies uncertainty avoidance as a cultural dimension expressing the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. Similarly, Sully de Luque and Javidan (2004) rank the mean uncertainty avoidance society values for the US (4.00) as less than Egypt (5.36), while the UAE and Saudi Arabia were not tested. Uncertainty avoidance differs conceptually from risk taking propensity, as uncertainty avoidance is associated with cultural preferences for clear rules and guidance, while risk taking propensity is an individual personality characteristic. However, we posit a regional culture's level of uncertainty avoidance influences the risk taking propensity of individuals raised within the culture. Thus, differences in cultural uncertainty avoidance between the US and MENA noted by Hofstede et al. (2010) and Sully de Luque and Javidan (2004) likely influence individuals' risk taking propensity. Ladbury and Hinsz (2009) examine whether cognitive uncertainty avoidance, an individual-level operationalization of the Hofstede cultural dimension, affects participants' decisions to take a risk. They find greater cognitive uncertainty avoidance is associated with taking a sure gain rather than risking a loss for a bigger gain (Ladbury & Hinsz, 2009), suggesting that culture influences individual decision-making.

Based on Hofstede et al. (2010) and Ladbury and Hinz (2009), we predict risk taking propensity will differ between regions due to cultural differences and will mediate culture and ethical awareness. Therefore, our remaining hypotheses are as follows:

H3. Accountants from MENA will have lower levels of risk taking propensity than accountants from the US.

H4. Risk taking propensity mediates the relationship between regional culture and ethical awareness.

3. Method

3.1. Instrument

The data for this study was collected as part of a larger assessment of ethical decision-making from many countries. Accounting faculty were recruited from universities in the US, Egypt, Saudi Arabia, and UAE, and they then recruited students at their respective universities to participate in the study. The accounting faculty at the respective universities reviewed our instrument and selected the language most appropriate for their student body. Participants in Egypt completed an Arabic version of the instrument, while all other participants completed the English version. The Arabic version of the instrument was developed using translation and back-translation to ensure a high level of equivalence between the two versions. The instrument was first developed in English. A native speaker then translated the instrument into Arabic with a second native speaker comparing the translated version to the original English version for efficacy and consistency. Participants completed the surveys anonymously, although participants were offered the opportunity to enter their email addresses into a drawing for gift cards. The appropriate Institutional Review Board approved the survey, and informed consent was received from all participants.

Employees, acting as agents of their employer, are compensated to work within the rules and controls established by the organization to accomplish its goals. An unethical decision in this context could be considered to occur when an employee decides to pursue his or her

goals/needs at the expense of the organization's goals/needs, exposing the organization to an undesired risk of loss. We selected a vignette, adapted from Dunn and Shome (2009), and commonly utilized in cross-cultural ethics research (e.g., Cohen et al., 2001; Shawver & Sennetti, 2009), to represent an ethical challenge of this type for an accounting manager or decision-maker. See the Appendix for the vignette. The vignette involves a hypothetical bank credit manager approving a bank loan to a start-up company owned by a friend. The start-up is described as "promising," but does not meet the bank's loan qualifications. Approving the loan would circumvent bank policy and expose the bank to financial risk if the friend fails to pay the loan; however, there is also a potential gain to the credit manager and the bank if the start-up is successful. The vignette was designed to be an ethically challenging situation without a clear right or wrong answer, where the influence of risk taking propensity and cultural practices such as *wasta* may come forth. No experimental manipulation occurred in the vignette. The instrument was pilot tested at one university in the US and reviewed by accounting faculty at the respective universities. Revisions were made based on the results.

3.2. Sample

Given our interest in business ethical decision-making, and consistent with many other international ethics studies (Ahmed et al., 2003; Cohen, Pant, & Sharp, 2001; Fleming et al., 2010; Ge & Thomas, 2008), we sought to sample participants from among people who were preparing for careers as accountants. As future business employees, accounting students in the US, Egypt, Saudi Arabia, and UAE should be sufficient participants for the topic of business-ethics. Thus, our sample consists primarily of upper-level undergraduate accounting students

from six universities: one in the US, three in Egypt, and one each in Saudi Arabia and the UAE.[11] The six universities included a mixture of public and private universities to expand generalizability. These students will likely obtain jobs in accounting, eventually progressing to be accounting managers and decision-makers. Additionally, we believe using students with a simple vignette biases against our hypotheses, as we expect that participants reporting intentions to act in this study would be all the more likely to act in the full context, social pressure, and financial pressure of an actual situation in business.

Another reason for using accounting students as our target population is to allow us to sample from as homogeneous a population as possible across the countries, with the assumption that this would allow for real differences between the two regions to emerge. We believe that Egypt, Saudi Arabia, and UAE represent an interesting cross-section of cultures within MENA. For example, Egypt is often considered as a moderate state within MENA, reliant on manufacturing and production of commodities such as cotton. Saudi Arabia has significant deposits of crude oil, was a founding member of the Organization of Petroleum Exporting Countries, and is also considered the birthplace of Islam. UAE is a federation of seven emirates founded in 1972, but has a higher gross domestic product per capita than the US (International Monetary Fund, 2013). While the three countries may be culturally diverse amongst themselves, we expect a region-level culture exists across these three Middle Eastern countries that differs from the US, an expectation supported by the Hofstede dimensions discussed earlier.

[11] Twenty of the Egyptian students were working on a masters or PhD. Exclusion of these students from the sample did not change the statistical significance of any relationships in our model.

We received 457 surveys from these four countries. For a survey to be retained in the sample, participants had to complete all relevant questions and to have been born, attended high school, and attended university in the respective country. Like Dunn and Shome (2009), we assume the greatest cultural imprinting occurs in the childhood and teenage years of life; therefore, we limit our sample to participants who were born, raised, and educated in the same country. Using these criteria, we exclude anyone who would be considered an expat or was studying abroad. Following these requirements, we excluded 71 responses due to incompleteness and 107 responses due to variation in countries lived in, resulting in a sample of 279 (61 percent) surveys. The distribution by regions is as follows: 145 from the US and 134 from MENA (Egypt: 55, Saudi Arabia: 35, and UAE: 44). The percentage of female participants is 54 percent from the US and 39 percent from MENA, and the average age is 26 from the US and 24 from MENA. Participant demographics are summarized in Table 1.

<Insert Table 1 here>

We took multiple steps to validate the vignette and survey due to the cross-cultural nature of the study. First, the vignette has been utilized in multiple accounting ethics studies over the last 20 years, including cross-cultural studies and studies with student samples (Cohen et al. 1996; Dunn & Shome 2009; Shawver & Sennetti 2009). Second, we asked participants if the survey was easy to understand, measured from strongly agree (1) to strongly disagree (7). The resulting mean of 2.39 indicates participants judged the survey as easy to understand. One-way ANOVA results support that means did not significantly differ by region (p=.531). Third, we measured participants' perceptions of the seriousness of the business situation on a 101-point scale (0-100). The resulting mean of 67.520 indicates participants judged the scenario above the

midpoint, and one-way ANOVA results support that means of seriousness did not significantly differ by region (p=.660).

3.3. Measures

To obtain reliable information from the respondents, validated scales were employed for data collection. These measures were developed and administered as part of a larger study of international ethics. We use four items from the *Jackson Personality Inventory* (JPI-R; Jackson, 1994) to measure general risk taking propensity. We obtained the items from the International Personality Item Pool, an online resource created by a collaboration of researchers to provide measurement items for personality characteristics (Goldberg et al., 2006). A subset of four items was used to keep the survey length manageable. The scale items measure an individual's general attitude towards risk and were not specific to the vignette or other ethical decisions. Each item is measured on a 7-point Likert-type scale from 1-strongly agree to 7-strongly disagree. Scale items were then reverse-coded; thus, higher (lower) scores on these items are interpreted as an individual being more risk seeking (avoiding).

We use Reidenbach and Robin's (1990) multidimensional ethics scale to measure ethical awareness and ethical judgment for the scenario. We employ the moral equity dimension in our analysis, based on Nguyen and Biderman's (2008) findings that this dimension is the only one of the four dimensions significantly related to ethical behavior, and Henderson and Kaplan's (2005) findings that the effect size of the moral equity dimension was at least three times larger than the effect sizes of other dimensions.[12] Following Cohen et al. (1996), we use the four

[12] We also measured participants' ethical awareness using the other four dimensions in the multidimensional ethics scale (Reidenbach & Robin 1990). We regressed ethical judgment on the five dimensions of the multidimensional ethics scale (which measure dimensions of ethical awareness). The beta coefficient for the moral equity dimension (*b*=.502) is almost twice as large as the next largest dimension coefficient (contractualism *b*=.257), and two of the

moral equity items as reflective measures of the latent construct ethical awareness. Each item is measured on a 7-point Likert-type scale from 1 (just; fair; morally right; acceptable to my family) to 7 (unjust; unfair; not morally right; not acceptable to my family). Scale items were then reverse-coded; thus, higher (lower) scores on these items are interpreted as one's awareness from a moral equity perspective that the scenario decision is more (less) ethical.

Following Cohen et al. (1996), we use a single item to measure ethical judgment. The item is measured on a 7-point Likert-type scale from 1-ethical to 7-unethical. We then reverse-coded the scale item such that higher (lower) scores on this item are interpreted as judging the scenario as more (less) ethical.

The dependent variable, ethical intention, was measured with a single item on a 101-point continuous scale (0-100). The item read, "The probability that you would undertake the same action is."[13] A higher (lower) score represents a greater (lesser) intention to act.

five dimensions are not significantly associated with ethical judgment. Additionally, the adjusted R^2 for the model with ethical judgment as the dependent variable only decreases from 0.639 to 0.572 when the four other dimensions are removed. Therefore, we followed prior research in focusing our analyses on the moral equity dimension as the primary measure of ethical awareness (e.g., Henderson & Kaplan, 2005; Nguyen & Biderman, 2008).

[13] As is common in ethics research, this item is subject to some amount of social desirability bias (Cohen, Pant, & Sharp, 1996; Dunn & Shome, 2009). There are a variety of approaches to address social desirability bias in ethics research. Use of third and first person ethical judgment and likelihood measures are common. However, it is widely reported that although means may differ between first and third person judgment/likelihood assessments, the determinants of those judgment/likelihood assessments tend to be the same between the two perspectives (Curtis, 2006; Robinson, Robertson, & Curtis, 2012). Additionally, when the difference between the two measures is employed in models, it is non-significant (Kaplan, Newberry, & Reckers, 1997). Another approach is to ask participants about the judgment of a third person (Cohen & Bennie, 2006). We took a similar approach to this, by providing the judgment of a third person and asking the likelihood of the participant to make the same decision. Additionally, all participants completed the survey under complete anonymity.

4. Results

4.1. Construct and discriminant validity

We conducted confirmatory factor analysis with SPSS AMOS to assess convergent and discriminant validity of our latent construct measures.[14] Results are reported in Table 2. The average variance extracted is 0.737 for the ethical awareness construct, exceeding the threshold of 0.50. While the average variance extracted of 0.451 for risk taking propensity is just under the threshold of 0.50, Fornell and Larcker (1981) suggest this may be allowable when the composite reliability is acceptable.[15] The composite reliability for ethical awareness (0.918) and risk taking propensity (0.753) are both greater than the threshold of 0.60. This is also supported by a Cronbach's alpha of 0.915 and 0.731 for ethical awareness and risk taking propensity, respectively. Additionally, discriminant validity is demonstrated for the constructs by having a larger square root of average variance extracted than their correlation with the other construct. The correlation between risk taking propensity and ethical awareness latent constructs is 0.270, while the square root of average variance extracted is 0.671 and 0.859, respectively. Therefore, the latent constructs of risk taking propensity and ethical awareness show sufficient construct validity. For correlation and path analyses, we created single-item composite scores for risk taking propensity and ethical awareness by averaging the items of

[14] Convergent validity was determined by evaluating composite reliabilities and average variance extracted, with acceptable values being greater than 0.60 and 0.50, respectively (Bagozzi & Yi, 1988; Fornell & Larcker, 1981). Discriminant validity was determined based on the criterion that the square root of average variance extracted be greater than the correlation between the individual latent constructs (Fornell & Larcker, 1981).

[15] One risk taking propensity measures had a low factor loading (lambda=0.412), causing the average variance extracted to be below the normal threshold. Alternatively, we removed that measure and re-ran all of our analyses using three measures of risk taking propensity. Although the resulting average variance extracted (AVE) increased to 0.55, none of our statistical inferences were altered by the new measure. Thus, based on theory, we kept all four of the risk taking propensity measures for our analyses.

each respective construct. Ethical judgment and ethical intention were both single-item measures and thus were excluded from this analysis.

<Insert Table 2 here>

Pearson correlations of all variables are reported in Table 3. Correlations provide preliminary support for H2, by a positive, significant correlation of risk taking propensity with ethical awareness ($r=0.239$; $p<0.01$). Additionally, we find gender is correlated with region, risk taking propensity, and ethical intention, while age is correlated with region and risk taking propensity. Age and gender are not variables of interest for the current study, so we control for their effects in our analyses due to the significance of their correlations with variables in this study and the fact that these differ between samples.

In evaluating the means reported in Table 3, the mean of risk taking propensity (mean=3.698) is slightly above the midpoint. Encouragingly, participants considered the scenario as low on moral equity (mean=2.623), judged the scenario as being less ethical (mean=2.280), and judged themselves as not likely to perform the action (mean=25.350).

<Insert Table 3 here>

4.2. Tests of hypotheses with path analysis

Our hypotheses predict that region will impact ethical awareness, risk taking propensity will positively impact ethical awareness, MENA participants will have a lower risk taking propensity than US participants, and risk taking propensity will mediate the impact of regional culture on ethical awareness. Additionally, we expect ethical awareness to precede ethical judgment, which will then precede ethical intention. This creates a model with multiple levels of mediation. As such, we test our hypotheses using path analysis, which is superior to the

classic Baron and Kenny approach to mediation testing (Zhao, Lynch, & Chen, 2010). Path analysis allows for simultaneous estimation of direct effects among multiple constructs, as well as the indirect effects through other related constructs.[16] Our model results, shown in Figure 2, have many significant direct and indirect effects, with a total squared multiple correlation (explained variance) of 0.313 for ethical intention, as reported in Table 4. All path coefficients reported are standardized path coefficients. The model fit for our hypothesized model meets most recommended thresholds, supporting sufficient model fit. The χ^2 statistic is significant (37.103; $p<0.01$), goodness of fit index (GFI) of 0.966 is above the recommended 0.95, comparative fit index (CFI) of 0.941 is above the recommended 0.90, normed fit index (NFI) of 0.917 is above the recommended .90, and the root mean square error of approximation (RMSEA) of 0.087 is close to the recommended threshold of 0.08 (Bentler & Bonett, 1980; Hu & Bentler, 1999). To further assess the overall fit of our hypothesized model, we estimate a full model (untabulated) where each antecedent had a path directly to ethical judgment and ethical intention, so as to not restrict the model to the hypothesized mediation. In this full model, our hypothesized paths are significant, while the non-hypothesized paths are not. Additionally, model fit for the full model is only slightly better than the fit for our hypothesized model. Therefore, we use our more parsimonious hypothesized model as our final path analysis model.[17]

<Insert Figure 2 and Table 4 here>

[16] We selected path analysis rather than full Structural Equation Modeling (SEM) analysis due to the binary independent variables of region and gender, and the single indicator dependent variable of ethical intention. Path analysis is appropriate for examining relationships between measured variables, while SEM is more appropriate for examining relationships between latent variables, each with multiple measured items.

[17] To confirm our findings, we also performed linear regression and the results supported our conclusions.

H1 predicts that accountants' ethical awareness will differ between the US and MENA. H1 is fully supported by a significant direct effect of region on ethical awareness (path coefficient=-0.121; p=0.042). The coefficient is interpreted as MENA participants perceiving the action as having less moral equity than US participants.

H2 predicts that risk taking propensity will be positively associated with ethical awareness such that accountants with greater risk-taking propensity will perceive the decision as more ethical. H2 is fully supported by a significant, positive direct effect of risk taking propensity on ethical awareness (path coefficient=0.266; p<0.01). The positive coefficient is interpreted as participants with a risk seeking personality perceiving the loan as having more moral equity than participants with a risk avoiding personality.

H3 predicts accountants from MENA will have lower levels of risk taking propensity than accountants from the US. H3 is not supported as shown by the positive, significant direct effect of region to risk taking propensity (path coefficient=0.152; p<0.01). The positive coefficient is interpreted as MENA participants being more risk seeking than US participants, controlling for age and gender. The R^2 for risk taking propensity reported in Table 4 is low (R^2=0.116). As a personality trait, risk taking propensity should only be partially impacted by culture.

H4 predicts risk taking propensity will mediate the relationship between regional culture and ethical awareness. To test H4, we examine whether the indirect effect of region on ethical awareness through risk taking propensity is significant. The indirect effect of region on ethical awareness through risk taking propensity is positive and significant (indirect effect=0.040;

p<0.01).[18] This indirect effect is interpreted as MENA participants perceiving the loan as having more moral equity due to their greater risk taking propensity than US participants. As reported for H1 above, the direct effect of region to ethical awareness is significant in the presence of the mediator, which violates full mediation, where the indirect effect should eliminate the direct effect. Therefore, risk taking propensity partially mediates the relationship between region and ethical awareness, supporting H4. Table 5 summarizes the results of our hypotheses testing.

<Insert Table 5 here>

Importantly, when considering the mediating role of risk taking propensity, the total effect of region on ethical awareness is not significant (total effect=-0.080; p=0.189). MENA participants judge the loan to a friend as less ethical unless we account for risk taking propensity, which has an offsetting effect. Thus, MENA participants with a higher risk taking propensity judge the scenario more like US participants. This finding is unexpected based on uncertainty avoidance scores from Hofstede et al. (2010), Hofstede (2001), and the GLOBE study. However, Sully de Luque and Javidan (2004) report that uncertainty avoidance society *practices* scores are negatively correlated with society *values* scores such that the US (mean practice score 4.15) is more uncertainty avoiding than Egypt (mean practice score 4.06), per GLOBE study results. This would support our findings regarding differences in risk taking propensity to the extent that cultural *practices* influence behavior more than cultural *values*.

[18] We estimate the significance of indirect effects in the AMOS structural equations modeling software package by bootstrapping 10,000 samples with replacement (Preacher & Hayes, 2008, p. 883).

Following Rest (1986) and Jones (1991), we expect ethical awareness to impact ethical judgment, which will, in turn, impact ethical intention. Supporting this expectation, the direct effect of ethical awareness on ethical judgment (path coefficient=0.757; $p<0.01$) and the direct effect of ethical judgment on ethical intention (path coefficient=0.559; $p<0.01$) are positive and significant. The path coefficients are interpreted as follows. As a participant perceives the loan to have greater moral equity, he or she judges the loan to be more ethical. Then, the more ethical a participant judges the loan to be, the greater his or her intention to approve the loan.

4.3. Supplemental analyses

4.3.1. Individual country models

To further understand the effect of culture on risk taking and ethical decision-making, we conduct separate path analysis models comparing each MENA country to the US. Each supplemental model meets all model fit indices described earlier. Both the Saudi Arabia and UAE models do not differ on any path, so we report the comparison of these two countries to the US as one combined model. Untabulated results show only two differences in these models from our statistical model. First, in the Saudi Arabia and UAE vs. US model, the direct path from region to ethical awareness is not significant, suggesting risk taking propensity fully mediates the effect of region on ethical awareness (indirect effect=0.080; $p<0.01$) in these countries. Second, in the Egypt vs. US model, the path from region to risk taking propensity is not significant, which also causes the indirect effect of region to ethical awareness through risk taking propensity to be not significant (indirect effect=-0.004; $p=0.604$). These results suggest Egyptian participants' risk taking propensity is similar to US participants and that the impact of culture on ethical awareness with accountants in Egypt does not occur through risk taking

propensity. However, risk taking propensity and region still impact ethical awareness as in our hypothesized model. Overall, while these models have slight variations, the model of regional culture and risk taking propensity affecting ethical awareness is supported.

4.3.2. Bribery scenario

For generalizability purposes, we examined our theoretical model using a second ethically challenging scenario. The additional scenario is a "good will gesture" scenario in which a manager authorizes a bribe to a local distributor in order to introduce the company's products to a foreign country (Dunn & Shome, 2009). Untabulated results reflect those of our primary analyses. The only difference between this supplemental model and our primary results is that the direct effect of region to ethical awareness is positive and significant; the opposite direction of our primary analysis. This suggests that participants in MENA perceive the good will gesture to have more moral equity than do participants in the US, and not just through the mediating influence of risk taking propensity. Therefore, our theoretical model generalizes to other ethically challenging scenarios, although characteristics of the decision in question may alter the direction of the effect of region on ethical awareness.

5. Conclusions and discussion

Many factors affect an individual's ethical decision-making. In this study, we examine whether the environmental characteristic of regional culture impacts accountants' ethical awareness in an ethically challenging situation, and whether the individual characteristic of risk taking propensity mediates this relationship. We examine these relationships using survey data from 279 accounting students from the US and MENA. We selected MENA as our region of comparison because economic activity between the US and this region grew significantly over

the last fifteen years, and because so little is known in the West regarding ethical attitudes in the region. Additionally, prior research suggests cultural differences between the US and MENA could result in differential ethical decision-making (Curtis et al., 2012; Hofstede et al., 2010; Izraeli, 1997; Syed & Metcalfe, 2015; TI, 2011, 2017). We find evidence that ethical awareness differs between the US and MENA. Interestingly, we find MENA participants evaluate the loan as having *less* moral equity and judge the loan as *less* ethical than US participants. This result conflicts with expectations based on cultural practices such as *wasta* in MENA, and the focus on internal controls in US businesses since Sarbanes-Oxley.

Surprisingly, the individual personality trait of risk taking propensity has not been examined in prior literature as an antecedent to ethical decision-making. Due to the risk involved in undertaking unethical business practices, we propose risk taking propensity as a possible antecedent to ethical decision-making, and mediator between regional culture and ethical awareness. Differences between the US and MENA in the cultural dimension of uncertainty avoidance (Hofstede et al., 2010) suggest individuals' risk taking propensity may differ based on cultural influence. We find risk taking propensity is positively associated with ethical awareness such that greater risk taking propensity is associated with assessing the scenario as having more moral equity. We interpret this result as occurring through the moral intensity of the ethical situation (Barnett, 2001; Jones, 1991). An individual with greater risk taking propensity likely views negative consequences from an ethically challenging decision as having a lesser probability of effect and lesser magnitude of consequences. Additionally, we find risk taking propensity is impacted by regional culture, and partially mediates the relationship between regional culture and ethical awareness. The significance of the partial

mediation is that an environmental characteristic (regional culture) both influences ethical awareness directly, as well as indirectly through the individual characteristic of risk taking propensity (Kish-Gephart et al., 2010).

Following Rest's (1986) theory of ethical decision-making, we find that ethical awareness is a significant determinant of ethical judgment, which, in turn, is a significant determinant of intention to act. Regardless of region, ethical awareness is positively associated with ethical judgment, and ethical judgment is positively associated with ethical intention. Additionally, while we have a respectable percent of variance explained for ethical intention in our model (R^2=0.313), it is obvious that influences other than those considered in our model also influence ethical intentions. Burns and Kiecker (1995, p. 27) note that, although a particular act may be perceived to be most ethical, "the individual may still intend to adopt a different alternative because of some highly desirable consequences flowing from it." While our model follows Rest (1986) and finds support for mediation of antecedents to ethical awareness, future research should examine this in other ethical decision contexts.

Overall, this study makes three contributions to the management accounting and international business ethics literature. The first contribution is empirical evidence that differences do exist in a business-specific ethical awareness between accountants in the US and MENA. This study is one of the first to use survey data from MENA, expanding our understanding of ethics in this region. This adds to the understanding of ethical relativism between regions and has implications for multinational corporations. As management accountants are given more responsibility as decision-makers at overseas locations, understanding the influence of culture on judgment is important. When a company decides the

amount of autonomy to provide an accounting manager of an international business unit, cultural norms and an individual's risk taking propensity should be considered. These factors may also influence the design of internal controls within the company. This is especially true if the company desires consistent decision-making across business units. Some practical applications of this research are better decision-making processes by understanding the cultural effects of risk taking. Managers in cultures outside the US need to understand a company's policies and be involved in formulating solutions to problems, in a cultural context. Without cultural understanding and input, good implementation of internal controls, decision-making, and follow through are unlikely to occur. A greater cultural understanding of decision-making, including cultural values and ethics, allows managers to make better decisions which helps companies achieve their goals.

The second contribution is furthering the understanding of antecedents to ethical judgment by hypothesizing and finding risk taking propensity to be a significant antecedent to ethical decision-making. Risk taking received very little attention in prior ethics research (Jackson et al., 2013; Kish-Gephart et al., 2010; Weber et al., 2002), although perceived probability of effect and magnitude of consequences are important components of moral intensity likely affected by an individual's risk taking propensity. Additionally, risk taking propensity is an individual personality trait partially influenced by the culture in which an individual is raised. It is particularly important that risk taking propensity be considered given our finding of inconsistent mediation (MacKinnon, 2008); specifically, region has a negative direct effect on awareness but a positive indirect effect through risk taking propensity. This suppression effect is evidenced by an insignificant total effect of region to ethical awareness.

Selection of employees in the hiring and promotion process may consider a brief personality assessment that includes risk taking propensity as a factor. Our results suggest selecting employees in MENA with lower risk taking propensity leads to a more desirable outcome in an ethical situation. The third contribution is providing evidence that the Rest (1986) model of ethical decision-making is valid with MENA participants, thereby expanding the model's generalizability and supporting the model's robustness.

While we group Egypt, Saudi Arabia, and UAE together for most analyses, due to religious similarity, there are significant cultural differences between the three. While we did provide some individual analyses, this grouping does provide a limitation to our findings. There are a few other potential limitations to our study. The first is common method bias. The reading of multiple ethical decision vignettes may have impacted the measures. However, this impact should be consistent across all participants. The second potential limitation is social desirability bias. Social desirability bias is a common limitation in ethics research. Individuals are less likely to report their true intentions regarding ethical decisions due to the desire to portray himself or herself in a good light and this desire may bias results. However, the survey was conducted with full anonymity, which should help to alleviate social desirability bias. A third potential limitation is that this data was collected from students, who are both younger and better educated than the at-large population of any of these countries. However, given our goal of understanding how business ethics can be impacted by region, future accountants and business leaders in these countries are the most appropriate populations from which to sample. Thus, our findings are not meant not be generalized to the broader populations of the sampled countries.

Additionally, while we employ items from the well-validated *Jackson Personality Inventory* (JPI-R; Jackson, 1994) to measure risk taking propensity, our measure addresses general attitude toward risk and is not specifically focused on ethical decision-making. A final limitation of our study is that we did not attempt to model all possible factors that could mediate the relationship between region and ethical awareness. Instead, we have attempted to demonstrate that regional culture impacts ethical awareness through its influence on an individual-level characteristic, risk taking propensity. Future research may explore other possible factors potentially mediating the relationship between regional culture and ethical decision-making.

As our understanding of ethics in MENA evolves, future research should measure changes in these countries to evaluate whether the differences between regions identified here change, and whether the globalization of business will have a lasting, consistent impact on accountants and businesspersons of all countries. Additionally, we believe that future research should consider risk taking propensity as an antecedent to ethical decision-making in business.

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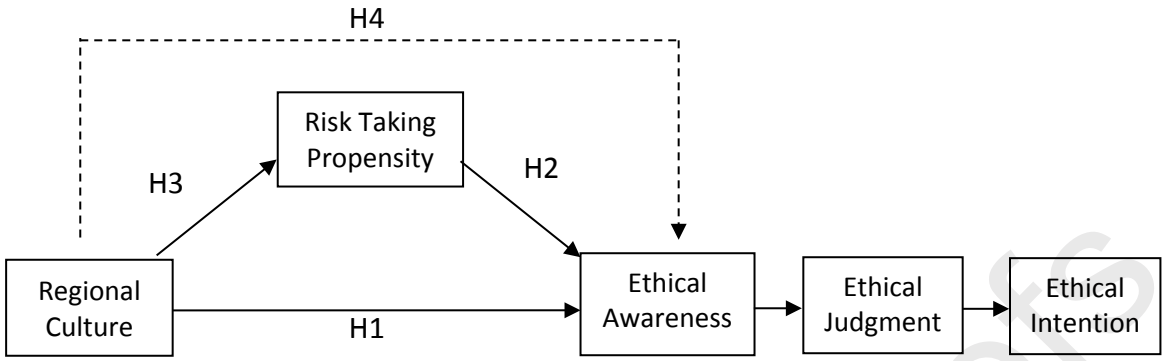
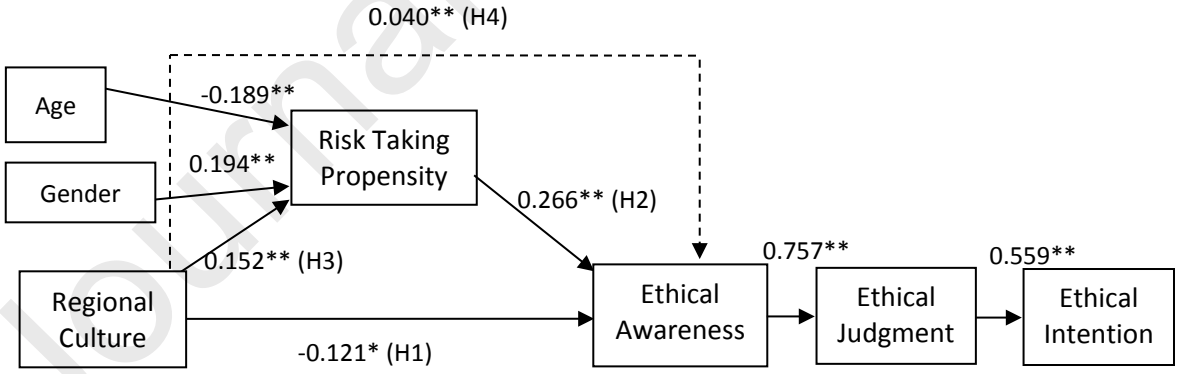
FIGURE 1.Theoretical Model with Hypotheses



Key: Dashed line represents indirect effect through risk taking propensity.

FIGURE 2. Test of Hypothesized Relationships



Notes: * Standardized path coefficient significant at the 0.05 level. ** Standardized path coefficient significant at the 0.01 level. Dashed lines represent indirect effect through risk taking propensity. Model Fit Statistics: χ^2=37.103, p=0.001; Goodness of fit=0.966; Comparative fit index=0.941; Normed fit index=0.917; and Root mean square error of approximation=0.087. LEGEND: Regional culture: 1=MENA, 0=US; Risk taking propensity: 1=risk avoiding to 7=risk seeking; Ethical awareness: 1=less moral equity to 7=more moral equity;
Ethical judgment: 1=unethical to 7=ethical; Ethical intention: probability to undertake same action as in the scenario 0-100 percent; Gender: 1=male, 0=female; and Age: the numerically stated age of the participant.

TABLE 1. Participant Demographics

	United States	MENA	Egypt	Saudi Arabia	UAE	Total
n	145	134	55	35	44	279
Gender: Male/Female	66 / 79	82 / 52	28 / 27	34 / 1	20 / 24	148 / 131
Age (mean)	25.86	23.67	26.73	22.29	20.93	24.81

TABLE 2. Confirmatory Factor Analysis to Assess Convergent and Discriminant Validity

Panel A. Measures and Path Estimates for Latent Constructs

Construct	Measure	Estimate
Risk Taking Propensity	Risk taking 1: I enjoy being reckless	0.572
	Risk taking 2: I take risks	0.694
	Risk taking 3: I seek danger	0.908
	Risk taking 4: I seek adventure	0.412
Ethical Awareness	Ethical awareness 1: The manager's action is just	0.898
	Ethical awareness 2: The manager's action is fair	0.901
	Ethical awareness 3: The manager's action is morally right	0.743
	Ethical awareness 4: The manager's action is acceptable to my family	0.882

Panel B. Convergent and Discriminant Validity of Latent Constructs

	Correlations		Composite reliability	Cronbach's alpha	AVE*
	Ethical awareness	Risk taking propensity			
Ethical awareness	0.859		0.918	0.915	0.737
Risk taking propensity	0.270	0.671	0.753	0.731	0.451

Notes: * Average variance extracted. The diagonals of the correlation table were replaced with the square root of the AVEs. The number reported at the intersection of ethical judgment and risk taking propensity is the correlation between the two latent constructs. LEGEND: Ethical awareness: mean of 2.623, 1=less moral equity to 7=more moral equity; and Risk taking propensity: mean of 3.698, 1=risk avoiding to 7=risk seeking.

TABLE 3. Descriptive Statistics and Pearson Correlations Matrix

	Variable	Mean	S.D.	1	2	3	4	5	6	7
1.	Region	0.480	0.501	1.000						
2.	Risk taking propensity	3.698	1.158	**0.217**	1.000					
3.	Ethical awareness	2.623	1.616	-0.063	**0.239**	1.000				
4.	Ethical judgment	2.280	1.647	-0.050	**0.234**	**0.757**	1.000			
5.	Ethical intention	25.350	29.566	0.067	**0.236**	**0.578**	**0.559**	1.000		
6.	Gender	0.530	0.500	**0.157**	**0.214**	0.102	**0.094**	**0.120**	1.000	
7.	Age	24.810	0.605	**-0.182**	**-0.214**	-0.021	-0.002	0.037	0.017	1.000

Notes: Correlations in bold are significant at the 0.05 level (2-tailed). LEGEND: Region: 1=MENA, 0=US; Risk taking propensity: 1=risk avoiding to 7=risk seeking; Ethical awareness: 1=less moral equity to 7=more moral equity; Ethical judgment: 1=unethical to 7=ethical; Ethical intention: probability to undertake same action as in the scenario 0-100 percent; Gender:= 1=male, 0=female; and Age: the numerically stated age of the participant.

TABLE 4. Path Analysis Results

Endogenous (dependent) variable	Path			Standardized Path Coefficient	p-value
Risk taking propensity	Risk taking	<---	Gender	0.194	<0.010
(R^2 of 0.116)	Risk taking	<---	Age	-0.189	<0.010
	Risk taking	<---	Region	0.152	<0.010
Ethical awareness (R^2 of 0.071)	Ethical awareness	<---	Region	-0.121	0.042
	Ethical awareness	<---	Risk taking	0.266	<0.010
Ethical judgment (R^2 of 0.573)	Ethical judgment	<---	Ethical awareness	0.757	<0.010
Ethical intention (R^2 of 0.313)	Ethical intention	<---	Ethical judgment	0.559	<0.010

Notes: Gender (r=0.160) and Age (r=-0.184) are correlate with Region in the model. LEGEND: Region: 1=MENA, 0=US; Risk taking propensity: 1=risk avoiding to 7=risk seeking; Ethical intention: 1=less moral equity to 7=more moral equity; Ethical judgment: 1=unethical to 7=ethical; Ethical intention: probability to undertake same action as in the scenario 0-100 percent; Gender: 1=male, 0=female; and Age: the numerically stated age of the participant.

Table 5. Hypotheses Testing Summary

Hypotheses	Results
Hypothesis 1: Accountants' ethical awareness will differ between the US and MENA	Supported
Hypothesis 2: Accountants' risk taking propensity will be positively associated with ethical awareness such that accountants with greater risk taking propensity will perceive the ethically challenging decision as more ethical, regardless of regional culture	Supported
Hypothesis 3: Accountants from MENA will have lower levels of risk taking propensity than accountants from the US	Not Supported
Hypothesis 4: Risk taking propensity mediates the relationship between regional culture and ethical awareness	Supported

APPENDIX

Excerpt from Instrument

Below is the vignette from our instrument that we utilized for this study. The vignette was adapted from Dunn and Shome (2009). Participants viewed the vignette followed by dependent variable measures.

Situation - Loan Officer Friend
A promising start-up company applies for a loan at a bank. The Credit Manager* at the bank is a **friend** of, and frequently attends sporting events with, the **company's owner**. Because of this company's short credit history, it **does not meet the bank's normal lending criteria**.

Action: The Credit Manager **recommends approving the loan**.

Dictionary
Credit manager: a person employed in a business firm to administer credit service to its customers, especially to evaluate the extension and amount of credit to be granted

The Credit Manager's action is…
1=Just - 7=Unjust
1=Fair - 7=Unfair
1=Morally right - 7=Not morally right
1=Acceptable to my family - 7=Not acceptable to my family
1=Ethical - 7=Unethical

The probability that…
you would undertake the same action is (The value should be between 0 and 100, inclusive).

Note: The five items regarding the credit manager's action were from the Multidimensional Ethics Scale (Reidenbach & Robin, 1990). We used the first four items to measure ethical awareness and the fifth item to measure ethical judgment. All five items were later reverse-coded for easier interpretation of results.