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The Relationship Between National Culture and Risk-Taking Among Countries: Should Researcher Rethink Competition?

John Kuforiji[1] and Yousif Abdelrahim[2]

[1]Department of Accounting and Finance, Prince Mohammad Bin Fahd University, Al-Khobar, Kingdom of Saudi Arabia
[2]Department of Management, Prince Mohammad Bin Fahd University, Al-Khobar, Kingdom of Saudi Arabia

ABSTRACT

This study uses the risk-taker's national-centric and cultural theories to explore the indirect impact of masculinity, individualism, and collectivism on global a country's risk-taking levels. The authors used Sobel Test, bivariate, and multiple regression analyses to examine 4 hypotheses. Secondary data were borrowed from Hofstede's study 2011, the Global Competitiveness Report 2019, Our World in Data 2019, and the World Bank 2019. The study results demonstrate a significant, positive, and indirect relationship between individualism and the country's risk-taking through competition. In addition, the results unveil a negative, significant, indirect relationship between collectivism and a country's risk-taking throughout the competition. However, the indirect relationship between masculinity and a country's risk-taking throughout the competition is insignificant. The findings illustrate the indirect impacts of national culture on risk-taking throughout the competition. Practitioners could use these findings to strengthen the growing awareness among finance and management scholars, formal institutions, and international culture on training programs.

Keywords: National cultural, Risk-taking, Competition, Investment decisions

INTRODUCTION

Risk perception implies an investor's interpretation of an investment's risk, while the term "risk-taking" implies the probability of uncertainty from a rational and optimal investment choice. The paper will examine the impact of national cultural values and beliefs on risk-taking among countries. It will also explore how country competitiveness mediates the relationship. Cognitive, emotional, and cultural values determine an individual's perceptions. Culture has become a critical factor in understanding different business and economic environments in the last few decades. Individuals' perceptions, values, and behaviors are related to culture and influenced by culture (Hofstede, 1980). In addition, cultural biases determine an individual's perceptions, not individual cognitive processes (Dake, 1992). Furthermore, Hofstede's (1994) believes that the cultural environment in which a person

is brought up impacts individual choices. Thus, people consider the cultural context of their decisions when they make their personal choices and decisions. Hofstede argues that culture should not and cannot be separated from everyday life. Groupthink theory (Janis, 1972). explains why collectivism makes people strive for agreement within a group. In some cases, people will give up their personal beliefs or stands or views to embrace the stands or opinions of the rest of the group. Mihet (2013), Mehri (2014), and Ricciardi and Simon (2000); discussed some general behavioral finance principles in their behavioral finance checklist, which excludes cultural dimensions of Hofstede and the Globe studies and focuses on the influence of the national culture on risk-taking. In addition, the studies of Halek and Eisenhauer (2001); Hilary and Hui (2009); and Graham et al., (2009), at the individual level, did not test competition as a mediator in their models. Given the above facts, this study would address the following research questions: Do individualism (IND), collectivism (COL), and masculinity (MAS) relate to risk-taking by money managers and executives worldwide through competition?

LITERATURE REVIEW

Many scholars have studied the impact of cultural values on risk-taking among investors, firms, and money managers at the firm level through various models. Firms in the banking and the financial sectors in countries with a low tolerance for hierarchical relationships, high individualism, and low uncertainty aversion are associated with higher risk-taking (Lehnert et al., 2011; Houston et al., 2010). In the manufacturing sector, individualism is positive, and uncertainty avoidance is negatively associated with firm-level risk-taking (Griffin, Li, & Zhao, 2012).

The literature shows that culture influences individuals' decision-making at the micro-level (Halek and Eisenhauer, 2001). Attitudes toward risk-taking are directly affected by national cultural norms, which might inspire or discourage risk-taking. The social and cultural factors that influence risk perception and risk-taking are one of the most critical studies done by Douglas and Wildavsky (1982). The impact of culture on risk-taking behaviors has also been studied at the micro-level by many scholars. Individualism is associated with over-optimism and overconfidence, which positively affect an individual decision to own stocks and financial risk-taking Breuer, Riesener, and Salzmann, 2011). Other cultural values such as uncertainty aversion have foreseeable and remarkable effects on financial executives' and decision-making in the USA (Graham, Harvey, and Puri, 2010), in the financial and non-financial sectors.

CULTURAL THEORY AND RISK PERCEPTION

Individuals are embedded in a social structure, which shapes their values, attitudes, and worldviews. Individuals choose what they fear about the way of life (i.e., the culture they belong to) (Douglas, (1997). Cultural biases (socially shared world views) determine an individual's perceptions-not of

individual cognitive processes (Wildavsky and Dake, 1990). Therefore, individuals' risk perception and risk-taking are influenced by social and cultural biases. Individuals perceive risk differently and behave according to the culture they are brought up in (Hofstede, 2001). For instance, a person brought up in Greece (a collectivistic society) is expected to be less risk taker than a person brought up in the USA (an individualistic society). According to the cultural theory developed by Douglas theory (Douglas and Wildavsky, 1982); cultural biases are defined as shared beliefs and values that justify different ways of behaving. That means worldviews corresponding to different patterns of social relations. The theory defines social relations as one of five patterns of interpersonal relationships: individualist, hierarchical, fatalist, egalitarian, and autonomous. Douglas and Wildavsky (1982) identified cultures by developing a grid/group typology, which suggests four prototypical patterns. Each consists of characteristic behavioral patterns (pattern of social relations), accompanied by cultural biases.

COMPETITION AND INDIVIDUAL INVESTOR'S PERSPECTIVE

Competitiveness is a critical personality characteristic that affects behavior across a variety of social environments. Many scholars have studied competitive behavior in several social contexts, including work, (Helmreich et al., 1986); sports, (Gill and Deeter, 1988); school, Griffin-Pierson (1990), and cross-culture, (Houston and Lesmana, 2012). General Competitiveness is defined by Helmreich et al. (1978); as the desire to win against others. General Competitiveness is most likely an adaptive trait across many occupational domains, including law, sports, and business (Houston, Carter, and Smither, 1997).

Hyper-competitiveness (unhealthy Competitiveness) is an individual need to compete at any cost to keep or boost feelings of self-worth. According to Horney (1937), healthy Competitiveness is a competitive attitude that makes an individual focus on personal development and f-discovery (Ryckman et al., 1996). According to Ryckman et al. (1996), competition is viewed by individuals who are high in healthy competitiveness as an opportunity for growth and personal development. Those individuals are not motivated to win at other people's expense. Other competitors are seen as instrumental in the self-improvement process. On the other hand, interpersonal competitiveness is defined as the desire and willingness of the individual to succeed and achieve something in any form of human effort and sometimes block others from attaining that goal in that process. Interpersonal competition is a trait characteristic of individuals with a strong willingness to be the victor in interpersonal situations (Dumblekar, 2010). For example, individuals with competitive behavior prefer risk-taking (Gneezy and Pietrasz, 2013).

COMPETITION ENCOURAGES RISKY BEHAVIOR IN CORPORATIONS

Scholars have revealed that competition encourages risky behavior in corporations (Milgrom and Robert, 1992). Milgrom and Roberts (1992) indicated

that competition pressure encouraged executives in the savings and loan industry in the US to gamble with risky investments in other to survive. Shleifer (2004) noted that competition pressure encourages unethical, illegal, and risky behaviors of corporate organizations. Hence, the authors believe that competition is linked to risk-taking and posit the next hypothesis (H1):

H1: Countries with competition levels will have high risk-taking decisions by high officials and CEOs of corporations.

INDIVIDUALISM, COMPETITION, AND RISK-TAKING

Individualism is the degree to which individuals in a society are united into groups (Hofstede, 2001). Individualistic societies tend to emphasize and endorse competition (De Beule, Van den, and Van, 2015). Individualistic societies are more achievement-oriented than collectivistic societies. Hence, CEOs from individualistic cultures may flourish under stronger competition (Nguyen, Hagendorff, and Eshraghi, 2018). Individualism has a significant positive impact on financial risk-taking because of its links to over-optimism and overconfidence (Breuer, Riesener, and Salzmann, 2011). Over-optimism is significantly related to a positive risk-taking attitude (Puri and Robinson, 2007). Competition and achievement are valued in individualistic cultures. In contrast, conformity and harmony are valued most in collectivistic cultures (Triandis, McCusker, and HUI, 1990). Hyper-competitiveness (i.e., unhealthy competitiveness), on the other hand, is only negatively related to collectivism and positively to individualism (Houston and Lesmana, 2012). Individuals' competitiveness encourages unethical behaviors, which lead managers in financial organizations to make risky decisions (Shleifer, 2004), and individuals with strong competitiveness behavior prefer risk-taking (Gneezy and Pietrasz, 2013). Competitiveness encourages many managers to make risky decisions to increase firm profits, and therefore, their compensation (Raith and Friebel, 2001). Thus, high competitiveness behavior in firms leads to higher risk-taking behavior and risk-taking decisions. Based on the above theoretical framework, the following hypothesis (H2) can be formulated as:

H2: There is a positive and indirect relationship between individualism and risk-taking at the country level through competition.

MASCULINITY AND COMPETITION

Masculinity is the extent to which masculine values govern a culture as an orientation towards competition and achievement (Hofstede, 2001). Masculine values and men control a masculine society. In masculine cultures, rules are defined by gender (i.e., men and women). Men are expected to be ambitious, competitive, assertive, and risk-takers. Helmreich et al, (1978), show that individuals in society differ in four components of achievement motivation (personal unconcern, work, mastery, and competitiveness), which are attributable to femininity and masculinity and not to gender. And masculinity is associated with competitiveness for men. Individual conceptualizations of masculinity mean being emotionally detached and competitive (Bird, 1996).

Individuals in masculine societies favor competition (Hofstede, 1994). Equating masculinity with competition, skills, and physical strength became "nature" in sports and the market (Messner, 2008). Feminine cultures, however, embrace overlapping between men and women (i.e., both men and women do not need to be competitive, ambitious, or risk-takers). Instead, they embrace an excellent quality of life. Women are expected to take care of a nonmaterial quality of life, such as children. Hence, the authors argue that masculinity is linked to the competition.

DOES COMPETITION ENCOURAGE RISKY BEHAVIOR IN FINANCIAL MARKETS?

Societies such as the US are believed to be masculine, which means competition is encouraged and accepted by Americans. The question is whether competition encourages risky behavior in financial markets. There is some evidence that competitive pressure has encouraged executives in the savings and loan industry in the US to gamble risky investments to survive (Milgrom and John, 1992). Competition pressure also encourages unethical behaviors that hold an organization in risky and illegal situations such as corruption, earning manipulation, and child labor employment (Shleifer, 2004). In addition, competition leads money managers to make risky decisions to increase their profits and, therefore, their compensation (Raith and Friebel, 2001).

Unethical practices are considered risky decisions because they make organizations vulnerable to costly legal issues. Because of market competition, firms might use illegal or unethical means to acquire a competitive advantage level, leading to a socially undesirable outcome level (Cai, Liu, and Xiao, 2009). Illegal and unethical actions are associated with risky decisions. Therefore, it is possible to conclude that competition encourages managers to make risky decisions in financial organizations. Since masculinity leads to competition and competition encourages people to make risky decisions, the authors argue that competition mediates the relationship between masculinity and risk-taking and posit the following hypothesis H3.

H3: Competition mediates the positive relationship between masculinity and risk-taking by individuals at the country level.

COLLECTIVISM AND INDIVIDUALISM VERSUS COMPETITION

Individualism is paramount to personal interests within a group. People tend to have liberated ties in individualistic cultures. In contrast, collective societies promote solid and loyal relationships. Collectivistic societies promote solid and loyal relationships in collectivism (i.e., the extent to which masculine values govern a culture as an orientation towards competition and achievement) (Hofstede, 2001). Individualistic cultures veered competition and achievement. Hence, competitiveness is positively related to collectivism, while hyper-competitiveness (unhealthy or risky competitiveness) is positively related to individualism (Houston and Lesmana, 2012). Based on the above

line of discussion, the authors argue that collectivism is associated with risk-taking only through competition (i.e., collectivistic societies are risk-takers because of competition) and posit hypothesis H4:

H4: Competition mediates the negative relationship between collectivism and risk-taking by individuals in many countries.

RESEARCH METHODOLOGY

Risk-taking is the dependent variable in this study measured at the country level. Researchers have frequently conceived risk-taking attitude as a steady characteristic of individuals, which is believable and associated with personality development culture (Han, Kang, Salter, and Yoo, 2010). Researchers have also attempted to link risk inclination with personality dimensions, like achievement motivation [Kogan and Wallach, 1964). Nevertheless, global variations between assumed risk-takers and others inside a culture, job, or culture have continued comparatively complex. Estimates Researchers in Our World in Data revealed by Global Education at the University of Oxford surveyed risk-taking among 76 countries in 2018 using the global preferences survey. Researchers have an unrestricted path to Our World in Data website at https://ourworldindata.org/grapher /cross-country-variation-in-risk-taking.

Measures of Independent Variables

Hofstede's cultural values of individualism, collectivism and masculinity are this study's independent variables borrowed from Hofstede's IBM study worldwide sample (Hofstede, 1980). Hofstede developed his cultural dimensions in the 1970s from a sample of IBM workers throughout the World (Hofstede, 1994) which assumed that cultural values evolve at a languid pace.

Measures of Mediating Variable

Competition (i.e., the set of factors, policies, and institutions that determine a country's productivity level) is this study mediating variable measured at the country level. The authors used secondary data from the Global Competitiveness (GCI) 2019 developed by the World Economic Forum Index as a measure of competition among countries. The GCI measures competitiveness in 141 countries. In addition, the GCI reports and presents data and information that were compiled and collected by the World Economic Forum.

Measures of Control Variables

Based on the literature, the authors controlled three selected variables that might affect the study results and more accurate interpretations of the study findings. These variables comprise gross domestic product volatility (i.e., the standard deviation of annual Gross Domestic Product growth rates), the country's market capitalization (i.e., the average ratio of the stock market capitalization to Gross Domestic Product (GDP)), and per capita income

Table 1. Results for the four regression steps using bivariate and multiple regression.

Independent Variables	Dependent Variable	β Value	Std. error	Sig.
MAS	Risk-taking	0.002	0.003	P > 0.05
IND	Risk-taking	-0.002	0.002	P < 0.05*
COL	Risk-taking	0.001	0.002	P > 0.05
MAS	Competition	-0.114	0.094	P > 0.05
IND	Competition	0.282	0.056	P < 0.000***
COL	Competition	-0.279	0.058	P < 0.000***
COMP	Risk-taking	-0.013	0.004	P < 0.01**
MAS & COMP	Risk-taking	0.000	0.003	P > 0.05
IND & COMP	Risk-taking	0.003	0.000	P > 0.05
COL & COMP	Risk-taking	-0.004	0.002	P > 0.05

*Correlation is significant at the 0.05 level (2-tailed; **Correlation is significant at the 0.01 level (2-tailed); ***Correlation is significant at the 0.01 level (2-tailed).

(i.e., the average annual of the Gross Domestic Product per capita). Previous research has shown that a country's GDP growth volatility (GDPGV) significantly increases its levels of risk aversion (Levin and Vidart, 2020). Tabak, Fazio, and Cajueiro (2012) noticed that country market capitalization positively impacts the relationship between risk-taking and competition. Additionally, Podobnik et al., (2012), affirmed that competition is linked to the country's GDP. Finally, Bohachova (2008) proved the positive influence of GDP on risk-taking.

Regression Analysis and Empirical Results

To test the impact of the three chosen Hofstede cultural values (MAS, INVD, COL) on a country's risk-taking level, the scholars used Sobel Test Calculator for mediation and bivariate, multiple regression analysis in SPSS 26. The authors examined the three hypotheses in five steps. In step 1, the authors ran a bivariate regression analysis to estimate the total direct effect between the three cultural values (i.e., MAS, COL, IND) as independent variables and risk-taking as a dependent variable (Table 1). In step 2, the authors ran a bivariate regression analysis to measure the direct effect between the three cultural values (i.e., MAS, COL, IND) as independent variables and competition as a dependent variable (Table 1). In step 3, the authors ran a bivariate regression analysis to evaluate the direct competition effect as an independent variable and risk-taking as a dependent variable (Table 1). In step 4, the authors ran multiple regression analyses to assess the direct effect between each of the three cultural values (i.e., MAS, COL, IND) with competition as predictors (i.e., independent variables) and risk-taking as a dependent variable (Table 1). In step 5, the authors utilized Sobel Test Calculator to examine the mediation between each of the three cultural values (i.e., MAS, COL, and IND) and risk-taking throughout the competition. The indirect effect of the MAS, IND, and COL on risk-taking through competition is statistically significant for INDS ($\beta = -0.2731$, p <0.01), for COL ($\beta = 2.6930$, p < 0.01), and not significant for MAS ($\beta = 1.1362$, p > 0.05) (Table 2).

Table 2. The indirect effect of MAS, IND, and COL on RT via Comp using Sobel Test.

IV	M V	DV	β Value	P-Value	Sig.	MD
MAS	Comp	RT	1.136	0.2559	P > 0.05	No
COL	Comp	RT	2.693	0.0071	P < 0.01	Yes
IND	Comp	RT	−2.731	0.0063	P< 0.01 **	Yes

*Correlation is significant at the 0.05 level; **Correlation is significant at the 0.01 level (2-tailed); IV = Independent Variable; MD = Mediation; DV = Dependent Variable; RT = Risk-taking; Comp = Competition; MV = Mediating Variable.

CONCLUSION

This study results show the influences of MAS, IND, and COL's cultural values on a country's risk-taking through competition. The study confirms prior research on culture's critical role in many countries. IND is positively and significantly associated with risk-taking through competition, consistent with Abdelrahim and Kuforiji (2021); collectivism is negatively and significantly associated with risk-taking throughout the competition. However, MAS has no significant relationship with a country's risk-taking through competition.

The findings of this paper are essential to the accounting and finance community. According to the standard economic theories, corporate decisions should be decided only by economic considerations such as profit maximization. However, this study's findings show that culture and competition should be considered in risky corporate decisions. These study findings could be utilized to improve management practices, culture training, and international business. The findings could also strengthen the growing awareness among finance, management scholars, and formal institutions such as investor protection. In this research, the authors used secondary datasets on cultural values collected between 1970 and 2011. The study does not consider that wars, immigration, and displacement could create a minimal cultural shift. Future research should look for more recent data on cultural values to have more precise results. Additionally, the 51 countries covered by this study do not sufficiently represent all countries in the world geographically. Future research should consider a better representation of all regions and countries, particularly Africa and the Middle East. Finally, this study is narrowed to the macro-level (i.e., the country level). Future research could explore risk-taking at the corporate and individual levels as well.

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