Examining Hofstede's Cultural Dimensions in Iranian and Chinese Context: A Mixed Methods Approach

Elahe Moradi (ID)

Department of English, Ferdowsi University of Mashhad, Mashhad, Iran

Abstract

This study investigated key cultural value dimensions in samples of undergraduate business students from Iran (n = 40) and China (n = 40). Hofstede's national culture framework spans Power Distance, Individualism/Collectivism, Uncertainty Avoidance, and Masculinity/Femininity. A survey measured and compared cultural dimension scores between countries. Classroom observations also qualitatively assessed how societal norms shape teaching and learning. Results showed that Iranians accepted greater power inequality, showed more discomfort with unstructured situations, and were more individualist than the strongly collectivist Chinese sample. Both countries were distinctly masculine. Observation data reflected high Power Distance and Uncertainty Avoidance in Iranian classrooms, with professors tightly controlling discourse and censoring student opinions. Chinese classrooms demonstrated more collaboration and student debate. Findings update Hofstede's country rankings with generational data. Insights can inform educational reforms catering teaching practices to cultural orientations while developing needed competencies. Limitations include sample size and generalizability.

Further cross-cultural research should track evolving youth attitudes, translate macro-culture into micro-domains like academia, and leverage understanding to optimize learning systems. This mixed methodology comparing Iranian and Chinese university students on cultural dimensions and academic manifestations makes a novel contribution. Practical implications span cross-cultural understanding, organizational leadership, policy, and culture-specific social initiatives.

Keywords: China, Hofstede cultural dimensions, Iran, undergraduate business English students

Introduction

Culture is defined as the shared values, beliefs, attitudes, practices, products, and artifacts that characterize a group or society (Matsumoto, 1996). It is systematically transmitted across generations through various processes of socialization. Culture is defined as the systematic learning of a set of norms, values, and attitudes of a group that form individual behavior (Amirhosseini & Okere, 2012). Common features of all definitions of culture include the group of persons with a shared system of meanings, behaviors, values, and beliefs that are passed from one generation to another generation. Culture is different from nationality or race. Therefore, "culture is relative, learned, changeable, and includes complex responsive processes" (Matsumoto, 1996). Culture guides the actions of individuals and groups are guided through their cultures. Consequently, we should understand the similarities and differences between cultures to create good relationships between cultures. Individuals can be enculturated in the setting they are born and their enculturation level would be developed during the stages of their life.

One of the most well-known frameworks for conceptualizing and comparing national cultures is Hofstede's cultural dimensions theory (Hofstede, 2001). Hofstede identified six key aspects or "dimensions" along which national cultures can be differentiated: Power Distance, Individualism/Collectivism, Masculinity/Femininity, Uncertainty Avoidance, Long Term Orientation, and Indulgence.

To cross-culturally examine and compare cultural values, researchers have frequently sought to condense these values into a few meaningful dimensions. Various studies, such as Beugelsdijk and Welzel (2018), Gelfand et al. (2011), and Welzel (2013), have employed this approach. Among these frameworks, arguably the most influential one is Hofstede's cultural dimensions theory (Hofstede, 1980, 2001). Since its seminal publication in 1980, Hofstede's theory has garnered widespread recognition and has served as inspiration for cross-cultural research across diverse academic disciplines, ranging from sociology to international administration (Orr & Hauser, 2008).

Review of the Related Literature

The Power Distance Index

Hofstede (2011, p. 9) defines the Power Distance index as the "extent to which the less powerful members of institutions and

organizations within a country expect and accept that power is distributed unequally." The Power Distance index is an indicator of the level of equality in a society and its tolerance by the powerful members of organizations and institutions (Ghemawat & Reiche, 2011). Hofstede scores Iran as a high Power Distance culture, demonstrating an unequal hierarchical society with centralized power. In the business setting, Hofstede assumes that Iranian managers approach a paternalistic and autocratic role where decision-making is limited, therefore employees are expected to be told what to do (Hofstede, 2001).

According to Javidan and Dastmalchian (2003), Iran has been dominated by authoritarianism which is placed in Iranian family structures in which children are taught to obey authority.

In societies where there is evidence of a high Power Distance, hierarchical structures are in place and there are rigid positions of leaders and subordinates. In such organizations, subordinates are seen as dependent on their bosses. Power is limited to a few individuals with gaps in earnings between the bosses and the subordinates.

According to Wursten and Jacobs (2013), in societies with high Power Distance, old people are respected and everybody is in his/her right place.

The Power Distance index is perhaps most evident in business settings. In Spain, subordinates are likely to have clear instructions from their superiors and easily believe that the boss should hold most of the power (Bosrock, 2006).

The United States maintains a moderately low score on the Power Distance index. As a result, the nation is less dependent on hierarchy and more concentrated on creating equality. The American values of "liberty and justice for all" shine in the legal system's protection of each person's rights in every aspect of society and government. In societies with higher Power Distance, hiring and selection for promotion may rely more heavily upon previous successes rather than seniority or being older in the company (Khatri, 2009, p. 6).

Cultures with high Power Distance will have more obedient children than cultures with average or low Power Distance. Similarly, respect for elders is seen as a basic universal virtue.

At school, teachers are highly respected, but it is more so in high Power Distance cultures where students may stand up when teachers enter and bow or greet when they pass by. Everywhere, teachers control a classroom's communication. Still, in cultures with high Power Distance, this becomes a strict order with students speaking up only when invited and teachers are almost never publicly contradicted or criticized.

At schools, education is more student-centric, and the pupil's independence is to be acknowledged. Students are typically quite comfortable with finding their path rather than following rigid guidelines and they may speak up spontaneously in class or even criticize the teacher (Samovar et al., 2009, p. 334). In the family, children are taught to be independent and may learn to make their own decisions from a young age. Respect for old people is not as strongly enforced (Hofstede, 2011, p. 8).

According to Hofstede (1997), in communities with a small Power Distance, everyone expects teachers to treat the learners as equals and their classrooms are mostly student-centered. However, education in societies with large Power Distance tends to be teacher-centered, as students expect teachers to outline their paths to follow (Hofstede, 1997).

On the Power Distance dimension, the Chinese should be on the high Power Distance end. This also has developed from ancient philosophical beliefs which stressed the importance of respect for seniors. Contrary to Western societies like Germany, in China, it is very unlikely for one to openly express disagreement or have conflicting opinions with their superiors. The literature identifies this as the concept of saving face according to the theory of face concerns (Brown & Levinson, 1978). Confrontation with superiors is an infrequent occurrence due to the high Power Distance.

Uncertainty Avoidance Index

According to Hofstede (2001), the index of Uncertainty Avoidance indicates the extent to which a certain society avoids change, uncertainty, ambiguity, or the unknown future. The best way to avoid uncertainty is by using rules. Thus, the value of uncertainty avoidance is basically about "how rules are imposed in a society in order to deal with ambiguity and the unknown."

Like other values, the degree of Uncertainty Avoidance is developed during childhood. In a family with strong uncertainty avoidance, children are taught clear and strong rules to judge everything around them and there is little room for doubt or relativism. Staying safe is ideal, and what is different is dangerous. A weak uncertainty avoiding family will be more prepared to give children the benefit of the doubt about unknown situations, people, and ideas, allowing a wide range of personal interpretations. In such societies, being flexible is ideal, and what is different is curious.

At school, strong uncertainty avoiding students want a good teacher who clearly gives them criteria of how to get a high grade and who organizes learning in a highly structured format of precise objectives, detailed assignments, and strict timetables. These students want a teacher who shows he/she is an expert and has all the answers. Weak uncertainty avoiding students may tolerate a teacher who says "I don't know," who evaluates a student by the amount of well-argued disagreement and not accuracy, who organizes open-ended learning situations with vague objectives, broad assignments, and flexible timetables.

The uncertainty avoidance index represents a society's tolerance for unexpected events (Hoecklin, 1995). Hofstede scores Iran as a high uncertainty avoidance culture which, from a national perspective indicates that Iranians have a low tolerance for ambiguity. Thus, strict rules are implemented to remove uncertainty. In the business setting, this may indicate that Iranian organizations behave in a structured manner in which employees follow policies and procedures in any event to avoid breaking the rules (Hofstede, 2001). This suggests that traditional methods are preferred over innovative solutions.

Individualism/Collectivism Index

The Individualism/Collectivism index represents the extent to which society is divided into groups (Hui & Triandis, 1986). Hofstede scores Iran as a collectivist culture, which shows that members are largely part of a group and they are responsible for fulfilling each other's needs. In the business setting, this may indicate that Iranians are likely to have teamwork.

However, it may also indicate that meeting the group's needs has priority over organizational needs (Hofstede, 2001).

Javidan and Dastmalchian (2003) research on Iranian middle managers provides a different perspective on the impact of Iran's collectivistic culture on organizations. Rather than teamwork and a sense of unification towards common goals(due to the integration of Islamic principles), the scholars concluded that when employees are divided into groups, they are likely to act in an individualistic manner and less cooperation occurs amongst each specific group. This is because, in a collectivist culture, individuals are loyal to their in-group and hence act independently from out-groups. Thus, this indicates that due to the complexity of culture, contradictory notions such as collectivism and individualism could coexist rather than one excluding the other, as Hofstede's framework suggests (McSweeny, 2002). Therefore, evidence seems to suggest that Hofstede's findings of Iran as collectivist are partially true due to the fact that individualistic attributes also exist within the organizations.

Notions of collectivism and individualism within communities reflect the amount of integration in societies. Collectivist cultures are viewed as societies which are highly integrated. In contrast, individualist cultures are characterized as loosely integrated societies (Hofstede, 1986). In individualist societies, every person is expected to take responsibility both for themselves and their family.

In such cultures, education is going to prepare each person for achieving a status in society among other individuals. The learning is intended to focus more on knowing how to learn than knowing how to do it (Hofstede, 1997). In an individualistic society, "the ties between individuals are loose: everyone is expected to look after himself or herself and his or her immediate family only" (p. 92). Individuals are mainly concerned with self-interest, while there is a cohesive society and organizations work as communal groups. Collaboration, teamwork, mutual dependence, loyalty, and relationship-building are the characteristics of such a society.

According to Wursten and Jacobs (2013), in a collectivist teaching environment, students only speak when they are spoken to, students work in small groups and teachers and students do not lose face. In the dimension of Individualism/Collectivism, china appears to be more on the collectivist end. This culture is known to have gradually evolved from the Administration of Mao, who encouraged collectivity as a strength in attaining national goals. As a result, the Chinese have been inclined to work in large groups–as can be proven by labor laws that encourage collective bargaining (International Labour Organization, 2012). Although the family is given comparable importance as in Western countries, the breadth of the family tends to be much more extended in Chinese society, resulting in a higher degree of collectivism. In an effort to keep the group ties, the Chinese tend to avoid topics that are controversial, like criticism of state administration and focus conversations on work and family (Dadfar, 2001).

Masculinity/ Femininity Index

In our modern days, men's and women's roles are largely overlapped. Men are increasingly working in traditionally more common occupations with women and vice versa. When it comes to the role of gender, femininity refers to societies that have feminine traits prevailing among both men and women, with male roles tending to overlap with female roles: Both men and women are expected to be modest and caring; more men are doing female professions such as nursing and secretarial jobs; more women are taking traditional male professions such as police and soldiers, etc.

According to Eagly and Koenig (2006), a society that is high on masculinity is driven by competition, achievement, and success. Males are expected to be tough, materialistic and assertive in societies where there is a high Masculinity/Femininity index. Females are expected to follow, be soft and gentle and be more concerned with quality and nurturing. In societies where there is a higher Masculinity index, there is more competition with decisions made based on strength rather than consultancy and mediation. In such a society, people work to earn more money and there is less leisure time.

The Masculinity/Femininity index represents the degree to which society is dominated by either masculine or feminine values (Hoecklin, 1995). Hofstede scores Iran as a feminine culture, which nationally inherits traits such as holding personal relationships and concern for others. In the business setting, Hofstede assumes that those feminine characteristics are likely to be shown in managers' leadership styles (Hofstede, 2001).

On the contrary, research academics such as Javidan and Dastmalchian (2003) and Yeganeh and Su (2007) indicate that Iran is largely a masculine-led society where traits such as assertiveness and competitiveness for materialistic possessions prevail.

For instance, Amirhosseini and Okere's research (2012) on the effect of Hofstede's cultural dimensions on Tehran stock exchange investor behavior reveals that investors take an aggressive and risky approach toward investment decisions to reap higher profits. Therefore, supporting evidence suggests that Hofstede's findings of Iran being a feminine-like society are held to limited appeal.

Chinese culture appears to be more masculine than feminine, as people are strongly driven towards financial success. The drive towards success has resulted in a greatly competitive society, explaining the reason for China's current economy with the highest growth rate among other economies in the world. Because of the drive towards success, the Chinese tend to devote much more attention to their work. As Hofstede (2001) notes, people are motivated by the things they would have rather than the desire to enjoy what they do.

Some argue that attempting to capture values may be futile in an increasingly globalized and individualistic world. However, in order to draw such overarching conclusions, it is crucial to have improved measures of culture. For instance, Beugelsdijk and Welzel (2018) and Yoo et al. (2011) provide examples of efforts made in this direction.

Kumar and Laakso's (2016) study examined how the culture of Vietnam influenced the learning process of computer programming students. In a high Power Distance culture, where students were hesitant to express their opinions to teachers and relied on existing solutions, student engagement in the programming course was affected. However, many students desired more challenging learning environments.

On the other hand, Ju et al. (2016) identified cultural dimensions associated with problem-based learning (PBL) in medical education in Korea. They found that Korean students and tutors exhibited characteristics such as large Power Distance, collectivism with minor individualism, high Uncertainty Avoidance, Masculinity, and short-term orientation, which were considered contrary to what was ideal for PBL. This mismatch posed challenges for both students and tutors, and addressing it was necessary for the improvement of medical learning.

In Mittelmeier et al. (2016) study, learning analytics were utilized to analyze the performance of 3000 undergraduate learners in a problem-based learning (PBL) curriculum at Maastricht University. The PBL approach, which emphasized self-directed learning with teachers as facilitators, aligned with the cultural dimensions of feminine values, low Power Distance, and low Uncertainty Avoidance, as suggested by Hofstede's framework. These characteristics were also representative of Dutch society.

However, a significant number of international learners at Maastricht University came from cultures that possessed opposite characteristics. The authors discovered that cultural dimensions, particularly masculinity, Power Distance, and long-term orientation, explained over 7% of the variations in capability levels among students. These dimensions also accounted for more than 4% of the differences in learning dispositions, such as enjoyment and boredom.

Despite the statistically significant results, the authors argued that the small percentage of variation explained by cultural dimensions in mastery levels made it illogical to assign significant importance to these dimensions in studies related to learning styles, tools, or dispositions. Tarhini et al. (2017) conducted a study involving 58 learners at a UK business school, where they worked in small groups using an online chat to analyze a Harvard Business School case study. The study aimed to examine how subjective norms and behavioral intentions of students were influenced by cultural dimensions such as Power Distance, Individualism/Collectivism, Masculinity/Femininity, and Uncertainty Avoidance. The research involved surveying 569 undergraduate and postgraduate students in Lebanon utilizing e-learning tools.

The findings of the study by Alqarni (2022) suggested that Hofstede's cultural dimensions were applicable in understanding learning behaviors and styles across different cultural and learning contexts. Specifically, Power Distance, Individualism/Collectivism, Uncertainty Avoidance, and Masculinity/Femininity were found to significantly explain variations in learning behaviors and styles. Additionally, in some cases, the association of long-term orientations with learning behaviors in different cultural contexts was also observed.

A meta-analysis on the relationship between Hofstede's cultural dimensions and technology acceptance models revealed several key findings. The study identified three best predictors when examining the direct effects. Uncertainty avoidance was found to be the strongest predictor for perceived ease of use (Effort Expectancy)

and had a positive effect. This suggests that in cultures with a high level of uncertainty avoidance, it is important to consider that employees will try to avoid risks. To promote their acceptance of a new system, it is crucial to help employees understand the benefits it offers. Individualism and Power Distance emerged as the best predictors of Behavioral Intention (Intention to use). The analysis showed that individualism had a negative effect, indicating that in cultures with a higher degree of individualism, there is a lower intention to use the technology. On the other hand, Power Distance was associated with higher intention to use.

Overall, the meta-analysis confirmed the significance of Hofstede's cultural dimensions in understanding technology acceptance. It highlighted the role of Uncertainty avoidance in shaping perceptions of ease of use and emphasized the influence of Individualism and Power Distance on behavioral intention. By considering these dimensions, organizations can better tailor their strategies to promote successful technology adoption (Jan et al., 2022).

In this study, the researchers explored the cultural orientations of undergraduate business students in Iran and China by examining four key dimensions from Hofstede's model. These dimensions include:

1. Power Distance: This examines how power inequalities and hierarchical structures are accepted in society.
2. Individualism/Collectivism: This looks at the emphasis placed on individual achievements versus the importance of group interdependence.
3. Masculinity/Femininity: This assesses the degree to which traditionally masculine values, such as competition and success, are prioritized over feminine values like cooperation and quality of life.
4. Uncertainty Avoidance: This measures the level of comfort or discomfort with ambiguity and unknown risks. By focusing on these dimensions, the study aimed to compare and contrast the cultural orientations of Iranian and Chinese undergraduate business students.

Objectives

This study utilized Hofstede's values survey module questionnaire to quantitatively measure the cultural dimensions. Additionally, qualitative insights were gathered through classroom observations to understand how these dimensions manifest in teaching and learning. The objectives of the study were as follows:

1. to statistically compare the scores of the Hofstede dimensions between the Iranian and Chinese samples,
2. to analyze differences based on respondents' age and gender, and
3. to interpret how the cultural dimensions influence educational approaches and student-teacher interactions in both countries.

Hypothesis

Overall, it was hypothesized that there would be significant differences between the Iranian and Chinese respondents across the cultural value dimensions, reflecting divergent cultural orientations. Observation data was also expected to demonstrate distinctions in how the two cultures' educational settings handle authority, expression, rules, objectives and interdependence. Hence, this study can make an important contribution by updating Hofstede's country-level scores with current generational data. Most applications of Hofstede utilize his original national indices calculated from IBM employee surveys in the 1960s and 1970s. Directly sampling today's university youth enables assessment of cultural continuity versus shifting attitudes. Comparing Iran and China is also novel—few studies have simultaneously examined these distinct Middle Eastern and East Asian cultures. The multi-tiered mixed methodology integrates breadth with depth to provide practical, actionable insights.

Research Questions

The research questions addressed in this study are as follows:
1. Is there any significant difference between Hofstede's cultural dimensions among Iranian and Chinese Business English undergraduate students?
2. Is there any significant difference between men and women Iranian and Chinese Business English undergraduate students in terms of Hofstede's cultural dimensions?
3. Is there any significant relationship between the age of Iranian and Chinese Business English undergraduate students and their cultural dimensions?
4. What is the implication of Hofstede's cultural dimensions on teaching and learning in Iran and China context?

Methodology

Design

This study investigated Hofstede's cultural dimensions because it is widely recognized as the most commonly utilized cultural theory in the social sciences, as mentioned in the literature (Sunny et al., 2019). This mixed methods research aimed to compare the cultural dimensions of undergraduate business students in Iran and China. The study had two main objectives: 1) to quantitatively measure and compare the cultural value dimensions of samples from both countries using Hofstede's framework, and 2) to qualitatively observe how societal-level culture manifests in university classrooms. The study focused on four of Hofstede's original cultural dimensions: Power Distance, Individualism versus Collectivism, Uncertainty Avoidance, and Masculinity versus Femininity. The survey methodology allowed for a direct comparison of cultural dimension scores between Iranian and Chinese student participants.

Additionally, in-class observations were conducted to gather qualitative data on how societal norms influence teaching practices and student interactions. The aim was to combine statistical analysis with an interpretive approach, demonstrating how macro-culture translates into the academic environment. The findings can contribute to cross-cultural understanding and provide insights for culture-specific organizational and educational reforms.

Participants

The participants of this study were 40 undergraduate Business English students from Attar Institute of Higher Education, Mashhad, Iran and 40 undergraduate Business English students from Army College, Nanchang, China. They were selected based on availability sampling and completed Hofstede's cultural dimension questionnaire comprising four factors with 20 items developed by Hofstede (2001) for measuring cultural dimensions. Out of these 80 participants, 62 were women and 18 were men and the age ranged from 18 to 22.

Instrument

For investigating the quantitative part of the study, the researcher selected the first four cultural dimensions introduced by Hofstede (2001). After conducting pilot study, the computed Alpha Cronbach coefficients reliability for the questionnaire was estimated to be .83. The 20-items questionnaire was based on five-point likert scale and the choices were: 5 = *strongly agree*, 4 = *agree*, 3 = *uncertain*, 2 = *disagree*, and 1 = *strongly disagree*. The questionnaire consists of four dimensions: (1) Power Distance, (2) Uncertainty Avoidance (3) Individualism / Collectivism, and (4) Masculinity / Femininity. The respondents were asked to rate their level of agreement on cultural dimensions with the five-point Likert scale.

For conducting the qualitative part of the study, two business English classrooms in China and two Business English classrooms in Iran were observed. The researcher also designed a three –point

Likert scale observation checklist to facilitate classroom observations with respect to the purpose of the study. The items of the checklist were extracted from the questionnaire and its content validity was confirmed by three English language experts. They were asked to state their views about the checklist with regard to: item suitability, item relevance, clarity, and language diction.

Results

Quantitative Findings

To investigate whether the variables of the study have a normal distribution, the Kolmogorov-Smirnov Test was utilized.

Table 1

One Sample Kolmogorov-Smirnov Test

	Age	Power distance	Uncertainty avoidance	Individualism	Masculinity
Normal parameters					
M	21.23	3.30	3.47	3.38	3.30
SD	3.30	.63	.62	.60	.60
Most extreme differences					
Absolute	.29	.11	.10	.19	.090
Positive	.29	.11	.072	.19	.090
Negative	-.16	.08	-.10	-.09	-.83
Kolmogorov-Smirnov *Z*	291	.11	.10	.19	.09
Asymp. Sig. (2-tailed)	.000	.11	.44	.00	.16

Note. N = 80.

Table 1 indicates that the significance levels for the cultural dimensions of "Power Distance," "Uncertainty Avoidance," and "Individualism" are less than .05. This shows that these three categories are not normal. As is evident, the significance level of cultural dimension of "Masculinity" is greater than .05 and this dimension is considered as normal.

The first research question of the present study aimed to investigate the difference between four cultural dimensions among Iranian and Chinese participant.

Table 2 displays the descriptive statistics of the four cultural dimensions among participants of two countries.

Table 2

Descriptive Statistics for the Cultural Dimensions of Two Countries

Cultural dimensions	Country	*M*	*SD*	SEM
Power distance	Iran	3.76	.46	.07
	China	2.84	.42	.06
Uncertainty avoidance	Iran	3.87	.46	.07
	China	3.08	.49	.07
Individualism	Iran	3.61	.69	.10
	China	3.14	.37	.05
Masculinity	Iran	3.59	.48	.07
	China	3.01	.57	.09

Note. N = 40. SEM = standard error mean

As is evident in Table 2, the averages of all the cultural dimensions including "Power Distance," "Uncertainty Avoidance," "Individualism," and "Masculinity" are greater for the country of Iran than the country of China.

According to Hofstede (2001), higher degree of Power Distance indicates that there is a hierarchy in society without doubt or reason. On the contrary, when there is a lower degree of Power Distance, people question authority and they seek distribution of power.

Societies that score a higher degree of Uncertainty Avoidance prefer laws and guidelines and they tend to rely on absolute truth. Conversely, lower degree of Uncertainty Avoidance is indicator of acceptance of different thoughts or opinions. There are fewer

regulations in such societies. In individualistic societies people have loose ties and they often are worried about their immediate family. In contrast, in countries which are more collectivistic, there are integrated relationships between persons and they support each other when a conflict arises.

In masculine society there is a preference for achievement, heroism, and assertiveness. In these societies women are less assertive and competitive than men. But in a feminine society, there is a tendency for cooperation, modesty, and quality of life.

To investigate the difference between categories of Power Distance, Uncertainty Avoidance, and Individualism among participants of two countries, Mann-Whitney *U* test was utilized.

Table 3

The Results of Mann-Whitney U Test

	Power distance	Uncertainty avoidance	Individualism
Mann-Whitney *U*	119.00	196.00	440.00
Wilcoxon W	939.00	1016.00	1260.00
Z	-6.59	-5.84	-3.49
Asymp. Sig. (2-tailed)	.000	.00	.00

The significance levels for all three categories of "Power Distance," "Uncertainty Avoidance," and "Individualism" are reported as .00 which is less than .05. So, it can be concluded that there is a significant difference between these cultural dimensions

among Iranian and Chinese participants and as mentioned in Table 2, the mean scores for all these categories are greater for the country of Iran than the country of China.

Table 4

Independent Sample t- Test for Comparing the Cultural Dimension of "Masculinity" between Two Countries

		Levene's Test for equality of variances		t-test for equality of means				
							95% CI	
		F	*p*	*t*	*df*	*p* (2-tailed)	*LL*	*UL*
Masculinity	Equal variances assumed	1.41	.23	4.82	78	.00	.33	.81
	Equal variances not assumed			4.82	75.59	.00	.33	.81

Note. CI = confidence intervals; *LL* = lower limit; *UL* = upper limit.

The significance level for the equality of variances for "Masculinity" is .23 which is greater than .05. Thus, the variances of this category among two countries are the same. The significance level for the equality of the averages is .00. Since this value is less than .05, it can be concluded that the cultural dimension of "Masculinity" is significantly different among the countries of Iran and China. The average of this variable is greater for the country of Iran.

The second question of the study aimed at investigating the difference between men and women participants in terms of their cultural dimensions. Table 5 displays the descriptive statistics of the four cultural dimensions based on the genders of the participants.

Table 5

Group Statistics

Cultural dimensions	Gender	*n*	*M*	*SD*	SEM
Power distance	Women	62	3.30	.60	.07
	Men	18	3.28	.76	.18
Uncertainty avoidance	Women	62	3.42	.62	.07
	Men	18	3.66	.59	.13
Individualism	Women	62	3.36	.54	.06
	Men	18	3.42	.77	.18
Masculinity	Women	62	3.25	.56	.07
	Men	18	3.45	.70	.16

Note. SEM = standard error mean.

According to the statistics reported in Table 5, the averages of all the cultural dimensions are greater for the men than women except for the dimension of "Power Distance " in which women's score is greater than the score of men.

Since the cultural dimensions of "Power Distance," "Uncertainty Avoidance," and "Individualism" are not normal. Mann-Whitney *U* test was computed to investigate whether there is a significant difference between gender and these variables.

The significance level for comparing responses based on gender for the categories of "Power Distance," "Uncertainty Avoidance," and "Individualism" is reported as .95, .32, and .74 respectively. These values are greater than .05 and it is evident that there is no significant difference between men and women's responses to these three cultural dimensions.

Table 6

The Results of Mann-Whitney U Test to Investigate the Difference between Cultural Dimensions Regarding Participants' Genders

	Power distance	Uncertainty avoidance	individualism
Mann-Whitney *U*	553.00	473.50	530.00
Wilcoxon W	2506.00	2426.50	2483.00
Z	-.05	-.98	-.32
Asymp. Sig. (2-tailed)	.95	.32	.74

Note. Grouping variable: gender.

Table 7

The Results of T-test for Investigating the Difference between Cultural Dimension of Masculinity among Iran and China

		Levene's Test for equality of variances		t-test for equality of means				
							95% CI	
		F	*p*	*t*	*df*	*p* (2-tailed)	*LL*	*UL*
Masculinity	Equal variances assumed	1.11	.29	-122	78	.22	-.51	.12
	Equal variances not assumed			-1.08	23.80	.28	-.57	.17

Note. CI = confidence intervals; *LL* = lower limit; *UL* = upper limit.

The variable of "Masculinity" was reported as a normal variable based on Table one, hence, independent sample t-test was utilized to investigate whether gender of the respondents have any significant effect on the participants' responses to this cultural dimension or not. As Table 7 indicates the significance level for the equality of variances for "Masculinity" is .29 which is greater

than .05. Thus, the variances of this category among two genders are the same. The significance level for the equality of the averages among two genders is reported as .22. Since this value is greater than .05, it can be concluded that there is no significant difference between cultural dimension of "Masculinity" and the gender of the respondents.

The third question of the study aimed to investigate whether there is any relationship between the age of the respondents and their cultural dimensions. To find the answer to this research question, Spearman Correlation Coefficient was utilized.

Table 8
Spearman Correlation Coefficient between Age and Cultural Dimensions

	Correlation		Power distance	Uncertainty avoidance	Individualism	Masculinity
Spearman's rho	Age	Correlation coefficient	.444	.307	.186	.240
		p (2-tailed)	.000	.006	.099	.032

Note. N = 80.

The correlation coefficient between age and the cultural dimensions of "Power Distance," "Uncertainty Avoidance," and "Masculinity" are reported .444, .307, and .240 respectively. Since all of these values are positive and their significance levels (.000, .006, .099) are less than .05, it can be concluded that by increasing the age, all these cultural dimensions increase too.

The correlation coefficient between age and the cultural dimensions of "Masculinity" is .240 which is a positive value and since the significance level is reported as .032, it can be concluded

that there is no significant difference between the age of respondents and the variable of "Masculinity".

Qualitative Findings

In order to facilitate observation of classrooms in two countries, the researcher devised an observation scheme in a three-point Likert scale. The observation scheme comprised of four cultural dimensions with 16 items on the whole. The findings have been illustrated in the following tables.

Table 9
Observation Scheme of Cultural Dimensions in Classroom Setting

Cultural Dimension	Scale	Country	M
Power distance	Low power distance	Iran	1.75
		China	2.5
	High power distance	Iran	3
		China	2
Uncertainty avoidance	Low uncertainty avoidance	Iran	1
		China	2
	High uncertainty avoidance	Iran	2.5
		China	2
Individualism/Collectivism	Low individualism/Collectivism	Iran	2.5
		China	1.5
	High individualism/Collectivism	Iran	2
		China	3
Masculinity/ Femininity	Low masculinity/ Femininity	Iran	2.5
		China	2
	High masculinity/ Femininity	Iran	1.5
		China	1.5

Observation of the classrooms in two countries indicated that the Power Distance and uncertainty avoidance in Iranian classrooms are higher than those in the Chinese classrooms. Classrooms in Iran are more individualistic and classrooms in China are more collectivistic. Both countries are more masculine than feminine.

In terms of Power Distance, the result of observation indicated that in Chinese classrooms, students' opinions are as important as teachers' opinions and they are less likely to take things for granted. This is true for Iranian classrooms but to a lesser degree. In Iranian classrooms, the authority of teachers are more evident compared to the Chinese classrooms and classes are more teacher-centered.

Investigating the uncertainty avoidance in classroom settings showed that accuracy is important to teachers in both countries. It is more improper for Chinese students to express their opinions in the class compared to Iranian students. In both countries there are some rules and timetables in the classrooms and assignments are not broad. As is evident, the amount of uncertainty avoidance in the context of classrooms is greater for the country of Iran than the country of China.

In terms of individualism/collectivism, it can be concluded that the classroom settings in China are more collectivistic than

individualistic because students tend to speak in response to general invitation by teachers and they are likely to work in small groups. In Iranian classrooms, teachers are more impartial compared to teachers in China. Also, the results of observation showed that Iranian and Chinese students have some personal freedom in their classrooms.

Results indicated that in both countries, decisions are made based on consensus between teachers and students. Atmospheres of the classrooms are more relaxed and friendly for Chinese students than Iranian students. In both countries there are clear objectives and evaluation system in classrooms. Iranian teachers tend to use their best students as norm compared to Chinese teachers.

Discussion

The current study investigated the cultural dimensions of Power Distance, Uncertainty Avoidance, Individualism/collectivism, and Masculinity/femininity in the context of two countries of Iran and China. Two instruments were utilized in this study including questionnaire and observation scheme. The main advantage of this study is that it deals with investigating the cultural dimensions from both students and teachers perspectives.

The results of the quantitative part of this study indicate that the averages of all the cultural dimensions for Iran are greater than for China. Also, it revealed that there is no significant difference between the gender of respondents and these cultural dimensions.

Investigating the relationship between age and each of these cultural dimensions showed that there is no relationship between Individualism/collectivism and the age of participants, but other cultural dimensions of "Power Distance," "Uncertainty Avoidance," and "Masculinity/femininity" have relationship with the age of participants meaning that by increasing the age of respondents the score of these cultural dimensions increase too.

Investigating these four cultural dimensions in the context of classrooms in two countries through observation revealed that the amount of "Power Distance" and "Uncertainty Avoidance." is greater in Iranian classrooms. For the cultural dimension of "Individualism/collectivism," the results of observation indicated that Iranian students acted more in an individualistic manner in classrooms than the Chinese students who tended to act in a collectivistic manner. Furthermore, the results showed that Iranian and Chinese students were likely to act in a more masculine way in their classrooms.

As the results suggest the qualitative findings proved to be compatible with the quantitative ones.

In terms of cultural dimension of Power Distance, the results of this study are in line with the results of the studies done by Hofstede (2001) and Javadian and Dastmalchian (2003) who came to this conclusion that Iran is a country with high Power Distance . Also related studies done on this issue about the country of China including Hofstede (2001) and Techo (2017), stated that China is a high Power Distance country as well. The results indicated that in terms of the cultural dimension of Power Distance, the average score of Iranian participants is greater than the average score of Chinese respondents. As mentioned earlier in high Power Distance societies subordinates are likely to have instructions from their superiors and respect for the old age is quite evident in such societies. Conversely, in countries with lower indication of Power Distance, persons are less dependent on hierarchy and in the same way parents want their children to be independent and make their own decisions. This is true in the context of classrooms as well. It means that in a classroom with higher degree of Power Distance teachers are more in the focus of attention and classes are teacher-centered and the teachers should be highly respected in this condition and students never criticize their teachers.

On the cultural dimension of Uncertainty Avoidance, the results from this study support the findings of the study done by Hofstede (2001) in which Iran scored high in this cultural dimension. Also, in the same study, Hofstede found China to be a low uncertainty avoidance country. This is in contrast to the result of the current study in which Chinese participants' scores were high with regard to this cultural dimension.

Findings displayed that the degree of uncertainty avoidance is greater for Iran than China. It means that in a country with higher levels of uncertainty avoidance, parents try to teach their children strong rules, and they should avoid uncertainty. Being flexible is ideal in such societies. In the context of classrooms, strong uncertainty-avoiding learners opt for teachers who organize their learning with precise objectives and in such classrooms, assignments are detailed and timetables are rather strict. In contrast, in classrooms where the degree of uncertainty avoidance is lower the objectives may not be clear and there would be flexible timetables.

Investigating the cultural dimension of individualism/collectivism represented Iran as an individualistic society. This finding is not in accord with the result of the study done by Hofstede (2001) in which Iran is considered as a collectivistic society. The result of the current study supports Javidan and Dastmalchian (2003) who stated that Iran is an individualistic society and not a collectivistic one. In contrast, this study revealed that the country of China is a collectivist society and this supports the result of study done by Hofstede (2001).

In a country with more individualistic manner people tend to look after themselves and their immediate family and they are concerned with their own self-interest. On the other hand, persons in a more collectivistic society tend to have teamwork and they collaborate with each other.

Observations of the classrooms in both countries are additional support to this result. In the context of classrooms, the results of the observation confirmed that in the country with higher degree of individuality there is less group work and students tend to have more freedom in the classroom. On the other hand, in collectivistic classrooms students speak in response to general invitation by teachers and they are highly interested in group work.

In terms of Masculinity/femininity, the results of this study represented both countries of Iran and China as a masculine society. The results of this study about the country of Iran is in contrast to the result of the study done by Hofstede (2001) which considered Iran as a feminine society and in line with the results of the studies done by Amirhosseini and Okere (2012), Javadian and Dastmalchian (2003), and Yeganeh and Su (2007), which considered Iran as a masculine society.

The results of this study about the cultural dimension of Masculinity/femininity in China supports the findings of the studies done by Hofstede (2001) and Techo (2017) who believed that china is a masculine society. Findings indicated that in a masculine society people tend to work harder to earn more money and there is less leisure time and in such a society there is more competition and assertion and men are likely to be leaders. On the contrary, in a feminine society decisions are made based on consultation rather than strength. As the results of observation displayed in the context of classrooms, in masculine classroom setting teachers tend to use their best students as norm, objectives of the courses are clear, and there is an evaluation system in the classrooms.

This study demonstrates the persistence of national cultural differences between younger generations in Iran and China along Hofstede's value dimensions. The disjunction between some quantitative results and Hofstede's country rankings highlights that generational shifts may be occurring. Educators, multinational organizations and policymakers should not assume cultural continuity, but rather empirically track orientations.

The classroom observations reveal how societal-level culture directly shapes teaching methods and student interactions. Power Distance and uncertainty avoidance strongly impacted iranian versus Chinese pedagogical approaches. Cross-cultural psychology needs to continue translating macro-culture down to micro-level domains. Culturally-informed educational reforms could be enacted in both nations. Iran may need to increase collaborative learning and student voice to address high Power Distance and rising individualism. China must maintain collectivism while navigating generational decreases in hierarchy acceptance. Appreciating national cultural psychology can optimize learning systems.

The limitations of this study point to valuable next directions. Larger, longitudinal samples could elaborate differences between age cohorts within countries regarding cultural evolution. Mixed methods approaches should integrate surveys, interviews, ethnography and experimentation. Broadening the cultures compared could reveal more nuanced East-West and regional distinctions.

It would be fruitful to examine whether findings generalize across academic disciplines, institutional types (public vs. private colleges) and geographic regions within Iran or China. Does cultural orientation affect specialty preference or location choice?

Finally, more research on actual educational best practices for aligning teaching with national culture is vital. What specific pedagogical techniques mediate power relations or spark motivation given cultural realities? Implementing and evaluating culturally-adaptive instruction is the logical next phase.

Conclusion

In conclusion, culture fundamentally contextualizes attitudes and interactions. This study contributed insights and an impetus for expanded research on mapping generational cultural dimensions as well as translating this understanding into impactful practice innovations.

References

Alqarni, A. M. (2022). Hofstede's cultural dimensions in relation to learning behaviours and learning styles: A critical analysis of studies under different cultural and language learning environments. *Journal of Language and Linguistic Studies*, *18*(Special Issue 1), 721–739.

Amirhosseini, Z., & Okere, V. O. (2012). Effect of cultural dimensions on stock exchange investment decisions in Iran. *Journal of Business & Economics Research*, *10*(12), 681–688. https://doi.org/10.19030/jber.v10i12.7425

Beugelsdijk, S., & Welzel, C.,. (2018). Dimensions and dynamics of national culture: Synthesizing Hofstede With Inglehart. *Journal of Cross-Cultural Psychology*, *49*(10), 1469–1505. https://doi.org/10.1177/0022022118798505

Bosrock, M. M. (2006). *European business customs and manners: A country-by-country Guide*. Simon & Schuster.

Brown, P., & Levinson, S. (1978). Universals in language usage: Politeness phenomena. In E. N. Goody (Ed.), *Questions and Politeness: Strategies in social interaction* (pp. 56–310). Cambridge University Press.

Dadfar, H. (2001). *Intercultural communication: Theory and practice* [unpublished lecture]. Institute of Technology, Linkoping University.

Eagly, A. H., & Koenig, A. M. (2006). Social role theory of sex differences and similarities: Implication for prosocial behavior. In K. Dindia & D. J. Canary (Eds.), *Sex differences and similarities in communication* (2nd ed., pp. 161–177). Lawrence Erlbaum Associates Publishers.

Gelfand, M. J., Raver, R. L., Nishii, L., Leslie, L. M., Lun, J., Lim, B. C., & Van de Vliert, E. (2011). Differences between tight and loose cultures: A 33-nation study. *Science*, *332*(6033), 1100-1104. https://doi.org/10.1126/science.1197754

Ghemawat, P., & Reiche, S. (2011). National cultural differences and multinational business. *Globalization Note Series*, *10*(3), 1-18.

Hoecklin, L. A. (1995). *Managing cultural differences: Strategies for competitive advantage*. Addison-Wesley.

Hofstede, G. (1980). Culture and organizations. *International Studies of Management and Organization*, *10*(4), 15–41. https://doi.org/10.1080/00208825.1980.11656300

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Thousand Oaks, CA.

Hui, C. H., & Triandis, H. C. (1986). Individualism-collectivism: A study of cross-cultural researchers. *Journal of Cross-Cultural Psychology*, *17*(2), 225–248. https://doi.org/10.1177/0022002186017002006

International Labour Organization. (2012). ILO global estimate of forced labour: Results and methodology. https://ilo.org/public/libdoc/ilo/2012/470349.pdf

Jan, J., Alshare, K. A., & Lane, P. L. (2022). Hofstede's cultural dimensions in technology acceptance models: A meta-analysis. *Universal Access in the Information Society*. https://doi.org/10.1007/s10209-022-00930-7

Javidan, M., & Dastmalchian, A. (2003). Culture and leadership in Iran: The land of individual achievers, strong family ties, and powerful elite. *Academy of Management Executive*, *17*(4), 127-142. https://doi.org/10.5465/AME.2003.11851896

Ju, H., Choi, I., Rhee, B. D., & Tae-Lee, J. (2016). Challenges experienced by Korean medical students and tutors during problem-based learning: A cultural perspective. *Interdisciplinary Journal of Problem-Based Learning*, *10*(1). https://doi.org/10.7771/1541-5015.1565

Khatri, N. (2009). Consequences of Power Distance Orientation in Organisations. *Vision*, *13*(1), 1–9. https://doi.org/10.1177/097226290901300101

Kumar, V. A., & Laakso, M.-J. (2016). Cultural issues that affect computer programming: A study of Vietnamese in higher education. *Asian Journal of Education and E-Learning*, *4*(2), 30-39.

Matsumoto, D. (1996). *Culture and psychology*. Brooks/Cole.

McSweeney, B. (2002). Hofstede's model of national cultural differences and their consequences: A triumph of faith – a failure of analysis. *Human Relations*, *55*(1), 89–118. https://doi.org/10.1177/0018726702551004

Mittelmeier, J., Tempelaar, D., Rienties, B., & Nguyen, Q. (2016). Learning analytics to understand cultural impacts on technology enhanced learning. In *13th International Conference on Cognition and Exploratory Learning in Digital Age (CELDA 2016) 28-30 October 2016* (pp. 236-243). IADIS Press. https://cris.maastrichtuniversity.nl/en/publications/learning-analytics-to-understand-cultural-impacts-on-technology-e

Orr, L. M., & W. J. Hauser. (2008). A re-inquiry of Hofstede's cultural dimensions: A call for the 21st century. *Marketing Management Journal*, *18*(2), 1–19.

Samovar, A., Porter, E., & McDaniel, R. (2009). *Communication between cultures*. Wadsworth Publishing.

Sunny, S., Patrick, L., & Rob, L. (2019). Impact of cultural values on technology acceptance and technology readiness. *International Journal of Hospitality Management*, *77*, 89–96. https://doi.org/10.1016/j.ijhm.2018.06.017

Tarhini, A., Hone, K., Liu, X., & Tarhini, T. (2017). Examining the moderating effect of individual level cultural values on users' acceptance of e-learning in developing countries: A structural equation modeling of an extended technology acceptance model. *Interactive Learning Environments*, *25*(3), 306–328. https://doi.org/10.1080/10494820.2015.1122635

Techo, V. P. (2017). *Chinese cultural dimension* [Technical report]. https://www.researchgate.net/publication/316103895

Welzel, C. (2013). *Freedom rising: Human empowerment and the quest for emancipation*. Cambridge University Press.

Wursten, H., & Jacobs, C. (2013). *The impact of culture on education*. Retrieved from https://www.elte.hu/en/content/intercultural-and-cross-cultural-pedagogy-interactions-between-cultures-and-education.s.56

Yeganeh, H., & Su, Z. (2007). Comprehending core cultural orientation of Iranian managers. *Cross Cultural Management: An International Journal*, *14*(4), 336–353. https://doi.org/10.1108/13527600710830359

Yoo, B., Donthu, N., & Lenartowicz, T. (2011). Measuring Hofstede's five dimensions of cultural values at the individual level: Development and validation of CVSCALE. *Journal of International Consumer Marketing*, *23*(3-4), 193-210. https://doi.org/10.1080/08961530.2011.578059