

## Measuring national culture: does gender matter?

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### Abstract

Understanding cultural differences is critical to international business success. Hofstede's (1980) model of national culture is widely used to identify such differences. The cultural dimensions identified in Hofstede's model, however, are not gender-specific, with one exception, masculinity/femininity. Hofstede's data were gathered in the late 1960s and early 1970s. Considerable change has taken place since that time, particularly in the areas of education, legislation, and workforce composition. It is proposed that these changes, among others, may have resulted in gender differences in dimensions of national culture. This study provides an exploratory examination of gender differences in cultural characteristics in two industrialised countries with distinctly different cultures, Japan and the USA. Results indicate that gender differences exist in the power distance dimension for Japan and in the individualism/collectivism dimension for Japan and the USA. Theoretical and practical implications of these findings are discussed.

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### Introduction

In 1980, Hofstede (1980, 2001) introduced a model of national culture that has since become the most widely used framework in cross-cultural research (Lonner and Berry, 1998; Sivakumar and Nakata, 2001; Sondergaard, 1994). He identified initially four dimensions of culture that differentiated people from different countries in terms of their predominant values. Overall, these cultural dimensions were statistically independent and did not differ by age, gender, education, and occupation. The single exception was the masculinity/femininity dimension, where gender differences were found.

Hofstede (2001, p. 9) defined culture as "the collective programming of the mind that distinguishes the members of one group or category of people from another". In Hofstede's model, owing to the enduring and relatively stable nature of cultural dimensions, change occurred only gradually, if at all. Educational institutions, as well as political and legislative systems, sustain and reinforce such programming. However, Hofstede suggested that cultural change may occur in response to changes in external factors. Forces of nature, changes in trade, and scientific discovery may impact a country's geography, history, demography, hygiene, nutrition, economy, technology, and urbanization. Changes in these ecological factors may, in turn, effect changes in the country's institutions and societal values.

Since Hofstede conducted his study, changes in external factors are clearly evident among industrialised countries. In particular, the effects of growth in international trade and globalisation have been significant. Friedman (2000) describes globalisation as the "new system" replacing the Cold War system. In this new system, countries are interdependent and integrated with capitalism and competition as their foundations. Globalisation creates extensive pressures on countries and their existing cultures, resulting in noticeable changes in ecological factors, institutions, and values. In fact, Friedman (2000) suggests that homogenisation of culture is a characteristic of the new system of globalisation.

Although Hofstede (1980, 2001) concluded that cultural dimensions do generally not differ by gender, he argued that "the word culture can also be applied to the genders. Part of our mental programming depends on whether we were born as girls or boys. Like nationality, gender is an involuntary characteristic. Because of this, the effects of both nationality and gender on our

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mental programming are largely unconscious" (Hofstede, 2001, p. 286). He found that, on average, men have been programmed with tougher values and women with more tender values, but that the gap between genders varies by country.

Globalisation and the resulting changes in economic and social conditions may have impacted cultural conditions. We propose that such changes may have had stronger effects on women than on men. In discussing culture and gender in less developed countries, Crossette (2000) notes that cultural rules are made by men and that women are used as symbols of their beliefs and policies and are told what to wear and what to do. Women in developed, industrialised countries, who have become main players in the new world system of globalisation, have experienced economic conditions that necessitated a reconsideration of women's societal roles. Countries are pressurised to use all possible resources available to them in order to compete in the new system. As evidenced by changes in lifestyle, political and workforce participation, and childbearing, the role and self-perception of women in industrialised countries has changed drastically over the past 30 years.

Although Hofstede did not find gender differences in cultural characteristics based on the data that were collected in the early 1970s, we suggest that because of the multitude of changes that have taken place in industrialised countries and their resultant effects on values and perceptions, such gender-based differences may exist today. While arguably many factors are potentially linked to the changes for women, we have identified three factors that are commonly linked to economic development and its effect on women: education, legislation focused on gender equity, and female workforce participation (Gelb and Palley, 1994; Harrison and Huntington, 2000). These factors, individually or in combination, potentially impacted women's values and perceptions and, thus, measurements of national cultural dimensions.

Japan and the USA are two industrialised countries with substantial economic interaction and considerable impact on the world economy. Both countries experienced extensive economic growth and development in the past 30 years. In 2000, over US\$212 billion in trade took place between Japan and the USA (US Government Census, 2001). The two countries together accounted for approximately 20 percent of the world export trade (World Trade Organization, 2001). Japan and the USA are also countries with distinctly different cultures (Hall and Hall, 1987; Trompenaars and Hampden-Turner, 1998), particularly with regard to gender roles (Hofstede,

1980, 2001). Because of their economic prominence as well as their cultural differences, Japan and the USA provide an interesting comparison with regard to cultural characteristics.

As global business continues to grow, interactions with female business partners across countries are increasingly becoming a possibility. The effectiveness of these interactions depends in part on a mutual awareness and understanding of the cultural differences found in the countries the partners represent. If cultural differences vary by gender, information on cultural characteristics of gender groups would be of great value to business practitioners. Such information would allow them to anticipate and address cultural differences in a focused manner.

This study provides a preliminary examination of gender differences in cultural dimensions in two industrialised countries with distinctly different cultures, Japan and the USA. The following sections describe the changes in education, legislation, and female workforce participation that have occurred for women in the two countries over the past three decades and their anticipated impact on women's perception of national cultural dimensions in Japan and the USA.

## Background

Globalisation and economic development exert tremendous pressure on the existing societal and cultural structures of countries. Particularly, the key members of the new global system, such as Japan and the USA, experienced drastic changes in their economic and social systems as a result. These changes occurred during the past 30 years and are likely to have effected cultural changes. The economic and societal changes have affected men and women to different degrees, hence, cultural perceptions may differ for men and women in the USA and Japan today. Economic and societal changes that may have been experienced differently by men and women include access to and level of education completed, gender equity legislation, and the participation of women in the workforce. Gelb and Palley (1994) suggest that any serious discussion of the role of women must include these factors.

## Education

Within the Hofstede model, education is viewed as an institutional factor, one of the many systems created by a society that maintain and reinforce existing cultural values. In the new environment of knowledge-based and globalising economies, education has emerged as a critical component of the growth process. Porter (1990) considers

education and knowledge an advanced factor and essential to developing competitive advantage in a global market. Nations that seek to retain dominant positions in the global economy must possess educational systems that will produce required levels of knowledge and competencies. As a result, substantial resources have been employed to increase educational levels, particularly in industrialised countries like Japan and the USA.

### *Japan*

Consider first the case of Japan. Japanese society has been described as a “*gaku-reki shakai*”, a society in which academic record governs a person’s future. Because companies recruit only at selected schools, education determines job, income, and social status.

Between 1970 and 2000, Japan’s economic successes and changing societal expectations combined to increase the level of education of women (Fujimura-Fanselow and Kameda, 1994). First, increasing economic prosperity during much of this period enabled more Japanese families to acquire college and university educations for their children. Second, societal expectations for women changed. Middle-class aspirations for young women grew to include completion of junior college prior to seeking marriage and employment. By the 1990s, a four-year university degree had become the desired terminal degree for young women (Starobin, 2002).

These changes are reflected in the educational statistics for Japan. Since 1947, Japan has utilised a 6-3-3-4 model of education similar to that of the USA. It consists of six years of elementary school, three years of middle school, three years of high school, and four years of college with elementary and middle school compulsory (Kodansha International, 1999). In 1970, over 80 percent of all students continued on to high school. By 1999, the percentage had reached 97 percent, creating a population with one of the highest average formal educational levels in the world (Sugimoto, 2003). This growth in educational achievement was also evident at the college/university level. In 1970, 25 percent and 24 percent of the males and females, respectively, enrolled in two-year junior colleges or four-year universities after graduation from high school. By 1999, the percentages had increased to 40-48 percent (Alexander, 2002).

Closer examination of the growth trend reveals several interesting points. While the proportion of females continuing their studies continually increased from 1970 to 1999, the same was not true for males. The proportion of males continuing on to colleges or universities leveled off in the 1970s after peaking in 1975. Since 1975, the percentage of females continuing post-secondary studies has consistently exceeded that of males

(Alexander, 2002). In addition, the bulk of the growth has occurred in universities, the gateways to positions in industry and government. By 2000, women comprised 36 percent of the university student body compared to 18 percent in 1970 (Statistics Bureau, 2003).

### *USA*

In the USA, education is generally viewed as a means of acquiring the knowledge and skills necessary for success. Where, in Japan, education determines place, in the USA, education enables access. As a result, it becomes the minimum requirement for better jobs and greater earnings. The educational minimum has now become a college degree (The National Center for Public Policy and Higher Education, 2000).

Education in the USA, while generally holding to the 6-3-3-4 model, includes more variation than found in the Japanese educational system, as a greater degree of control is held at the state level. Compulsory education in the USA thus differs by state, ranging from eight to 12 years of schooling (National Center for Education Statistics, 2002). In 1972, 49 percent of high school graduates enrolled in two- or four-year institutions the following school year. By 1999, the percentages increased by 63 percent of high school graduates. Changes also occurred in the gender composition of the enrolling students. In 1972, 53 percent of males and 46 percent of the females enrolled in college after completing high school. By 1999, those numbers had increased to 61 percent of the males and 64 percent of the females (National Center for Education Statistics, 2003).

The growth in higher education in the USA differs from that in Japan in several areas. First, women have been a significant presence on university and junior college campuses throughout the period under review (1970 to 2000). Second, the number of women enrolled in colleges and universities have exceeded the number of men since 1978. As of 2000, female students comprised 56 percent of the college population.

### **Legislation**

Gender equality has been a critical issue for industrialised countries. The quantity and quality of available human resources provide the foundation for international competitiveness. In addition, women’s rights groups in many countries wielded political pressure to force the enactment of legislation addressing gender equity. The 1970s in the USA and the 1980s in Japan were periods of governmental recognition of and action on gender equality issues. While additional legislation followed in subsequent decades, the early legislation is significant in that it empowered

women in both countries. In general, the legislation increased women's access to education and the workplace and served to increase women's awareness of their rights.

### *Japan*

Japan's initial foray into gender-equity legislation began as a result of participation in the United Nations Decade for Women (1975-1985) and participation in the related world conferences on women. The conferences provided a forum at which Japanese women could express their concern over relatively poor working conditions of Japanese women, particularly in comparison to other industrialised countries (Buckley, 1994). A result of the active participation of the Japanese women in the international conferences was Japan's signing of the United Nations Convention to Eliminate All Forms of Discrimination Against Women (CEDAW) in 1980 and the related passage of the Equal Employment Opportunity Law (EEO), which addressed employment discrimination in the private sector.

The EEO passed in 1985, became effective in 1986. It prohibited discrimination in vocational training, fringe benefits, retirement, and dismissals. In the areas of recruitment, hiring, assignment, and promotion, it exhorted (but did not require) the provision of equal treatment for men and women (Bertelsmann Foundation, 1998). Owing to the limited scope of the EEO's prohibitions, as well as the reliance on moral suasion in other key employment areas, the EEO was heavily criticized and has been deemed largely ineffective in preventing workplace discrimination. Despite these flaws, however, the EEO is still considered to have had significant impact, as it raised general awareness of equal opportunity for men and women (Bertelsmann Foundation, 1998). The EEO was amended in 1997 to prohibit discrimination in all areas of employment including recruitment and promotion and to require employers to address and prevent sexual harassment (Kodansha International, 1999).

### *USA*

In contrast to Japan, the women's rights movement was in full swing by the 1970s. Civil rights activity in the 1960s laid the groundwork for women's rights with passage of equal pay legislation (1963) and the Civil Rights Act (1964). Title VII of the Civil Rights Act specifically addresses gender discrimination in employment and is the foundation for sexual harassment issues. By the 1970s, legislators and women were ready to broaden their scope. The result was two significant pieces of legislation, Title IX, enacted in 1972, and the Equal Employment Opportunity Act (EEO), enacted in 1975.

Title IX of the Education Amendments of 1972 mandated equal educational opportunity for women. It prohibited sex discrimination in any education programme or activity by institutions receiving federal funds. Violating institutions risk termination of federal assistance programmes and the loss of federal funds. The Title IX Web site ([www.ed.gov/pubs/TitleIX/part2.html](http://www.ed.gov/pubs/TitleIX/part2.html)) lists progress indicators of equal educational opportunity since Title IX became effective. It includes a 20 percent increase in female college enrollees, a 400 percent increase in women participating in college athletics, and 400 percent or more increases in graduate and professional degrees awarded to women. The unmistakable conclusion is that Title IX has had a substantial impact on women by removing barriers from the schools, programmes, and careers of their choice.

The Equal Employment Opportunity Commission (EEOC) was created in 1964 to handle discrimination complaints. Its funding and power were originally very limited. It was allowed only to investigate charges, make findings, and assist in resolving disputes. The EEO Act of 1972 provided the EEOC with the ability to sue on behalf of workers suffering from discrimination and broadened its jurisdiction to include state and local government employees as well as employees of educational institutions. The no longer "toothless tiger" immediately expanded its activities, filing a record 180 direct lawsuits in 1974 and noting a backlog of more than 100,000 new cases in 1975 (US Equal Employment Opportunity Commission, 2004). The EEOC's vigilant enforcement activities have continued since that time.

### **Female workforce participation**

Inglehart and Baker (2000) cited major changes in gender roles, specifically women appearing in formerly all-male occupations, as "one of the most dramatic cultural changes that has occurred since the dawn of recorded history". During the period from 1970 to 2000, women in Japan and the USA received recognition as significant components of the workforce. As a result, or perhaps simply reflecting these changes, the attitudes toward women working substantially changed.

### *Japan*

Despite popular images to the contrary, Japanese women have been working in large numbers since the beginning of the century. The female labour force participation rate of approximately 50 percent remained relatively unchanged throughout the 20th century (Takahashi, 1998). The question of changes occurring between 1970 and 2000 is thus answered not by simple increases in numbers,

but by changes pertaining to the nature of the work performed, demographics, and slow incursions into professional and executive ranks.

Historically, Japan's high rate of female employment has been owing to the large number of women working on farms and in family-run businesses. The decline in agriculture following World War II reduced the number of women employed in this industry, freeing them to work in the private and public sectors. In 1970, 44 percent of the female workforce was self-employed or employed by family-owned businesses. By 2000, that figure had dropped to less than 20 percent.

Japan is noted for the pronounced "M Curve" of its female workforce. The "M Curve", a figure showing labour force participation by age group, reflects the pattern of women leaving the workforce to marry or raise children and returning later. While the "M Curve" remained intact from 1970 to 2000, changes appeared in terms of the percentage of women working in each age group (Melkas and Anker, 2003). First, the percentage of women participating in the workforce increased for all age groups from 20-24 to 55-59. As a result, the average age and length of service for women increased from 29.8 years and 4.5 years of service to 36.9 years and 8.2 years of service from 1970 to 1996. Second, the number of married working women increased. In 1970, the majority of working women in Japan were single. By 2000, the percentage of single working women had dropped to 28 percent, while the percentage of married working women had grown to 61 percent (Statistics Bureau, 2004).

Between 1970 and 2000, women slowly moved into formerly all-male occupations and managerial and professional positions. While most women worked in such typically "female" occupations as teacher, nurse, and dressmaker, women also worked as engineers, accountants, and managers (Melkas and Anker, 2003; Statistics Bureau, 2003). In 2002, women comprised 45 percent of professional and technical workers, 10 percent of administrative and managerial workers, and 5 percent of transport and communication workers (Statistics Bureau, 2003).

#### USA

Between 1970 and 2000, women in the USA became substantial and commonplace members of the labour force. The 1970s and 1980s were periods of growth, during which the number of working women increased rapidly. From 1970 to 1990, for example, the labour force participation rate for women increased from 40 percent to 58 percent (US Department of Labor, 2004a). The 1990s became a period of consolidation and solidification, during which women rose in the ranks and made steady inroads into formerly all-

male career preserves (Francis, 2001). Three decades of dramatic as well as steady progress for women in the work world, therefore, include changes in type of work performed, the responsibility levels held by women, and demographics.

The influx of women into the labour force steadily increased their representation across occupational fields. Although women remained concentrated in "female" industries and occupations, they took on new roles in the workplace and entered traditionally male occupations. During the "consolidation" years (1990s), the percentage of women increased in 106 of 497 occupations tracked by the US Department of Labor, including veterinarians, top public administrators, industrial engineers, clergy, and dentists (Francis, 2001). By 2002, women comprised 25 percent of logisticians, 15 percent of police and sheriff's patrol officers, and 10 percent of engineers (US Department of Labor, 2004b).

Women achieved increasingly more responsible (and higher paying) positions. From 1991 to 2001, the number of women in managerial and professional occupations increased by 44 percent, while the number of women in high-paying jobs (over \$80,000 per year) increased by 162 percent (Employment Policy Foundation, 2003). By 2002, women held 47.5 percent of full-time executive, administrative and managerial positions, including 22 percent of chief executive positions (US Department of Labor, 2004b). By 2000, women were more likely to be employed in managerial or professional positions than in administrative support positions (AFL-CIO, 2004).

Demographic changes accompanying the influx of women into the marketplace included increases in working women with small children, increases in working women at all ages, and fewer disruptions in work experience. Blau (1998) found that the participation rate for married women with children under six increased from 30 percent in 1970 to 64 percent in 1995. She further found that participation rates increased for all age groups from 25 to 64. The increases in participation rates were accompanied by increases in longevity and experience as women's labour force attachment increased.

#### Effect on cultural perceptions of women and men

As a result of these changes in education, legislation, and the workforce, women's attitudes and values are expected to have changed. Although men were exposed to the same changes, the changes may have held less meaning for them than for women. The changes immediately impacted women's roles in society and provided them with

unprecedented opportunities. In doing so, they directly affected women's self-concepts and perceptions of abilities. Effects of such changes on men were much less dramatic. Although the increasing presence of women in the workplace required men to make adjustments, a dramatic change in men's self-concepts and perceptions is unlikely.

### Hofstede's cultural dimensions

Hofstede's original study included 53 countries and regions and more than 116,000 observations obtained from IBM employees from 1967 to 1973. Our study focuses on three dimensions, power distance (PDI), individualism/collectivism (IDV), and masculinity/femininity (MAS). Table I presents the scores on these three dimensions for Japan and the USA (Hofstede, 1980, 2001).

Based on a comparison to the overall mean of the 53 countries and regions surveyed, Japan was characterised as a collectivist, high PDI, extremely masculine country. The USA was characterised as an individualist, low PDI, and moderately masculine country.

### Hypotheses

The dimensions of interest and related hypotheses are described in detail in the following sections.

#### *Power distance*

This dimension describes the values held in a society with respect to the importance of equal distribution of power, wealth and other factors. In a high PDI society, inequality is accepted. An elite minority holds power and is entitled to privileges; a dependent majority accepts their condition as they are in their rightful place. In a lower PDI society, members believe that everyone should be equal and any inequalities should be minimised. If inequalities are found to exist, the system should be changed.

Hofstede (2001) found that low PDI values occurred only for highly educated occupations in small PDI countries. He also discussed research that showed more "authoritarian" values for less-educated, lower status employees. In Japan and in the USA, women have become more educated, more aware of laws passed to provide access and to protect women in schools and at work, and are present in the workforce in greater numbers and at

higher-level positions. With these changes comes the belief in equal opportunity and treatment. Women, therefore, will believe that power should be equally distributed, while men are likely to be satisfied with the status quo, i.e. inequality in power distribution. Recall that higher PDI values mean a stronger belief in inequality. Thus, our first hypothesis is:

*H1a.* The PDI score for Japanese women is lower than the PDI score for Japanese men.

*H1b.* The PDI score for US women is lower than the PDI score for US men.

#### *Individualism/collectivism*

This dimension addresses the degree to which members in a country define themselves in terms of group membership. In an individualistic society, members are individuals first, with group membership clearly secondary. Individual abilities, actions, and achievements are recognised and rewarded. Individualism also carries the belief that everyone should follow the same rules. In a collectivist society, members identify themselves first as members of an in-group. Individual abilities and successes are important only in terms of their contribution to the group. In return for unquestioning loyalty, the in-group supports and protects the member throughout his or her lifetime.

As women become more educated and achieve greater success in the workplace, they become increasingly self-confident and more independent and will value their individual abilities more. However, although we expect that individualism scores for women have increased, they are expected to still lag behind those of men. We propose several reasons. First, women tend to be relationship-oriented with a strong emphasis on interaction, communication, and harmony, which historically has led to a stronger collectivist orientation than men. For example, Hayes and Flannery (2000) noted that women prefer to learn with others and engage in learning relationships emphasizing mutual support and caring. Second, women's tendency towards collectivism is compounded by the fact that, despite educational and workplace advances, deep-rooted inequities continue to exist in educational systems and in the workforce. For example, in Japan, action was still being taken as recently as 1990 to halt the practice of calling the boys' names first in the daily classroom roll call (Fujimura-Fanselow and Kameda, 1994). In both countries, studies have shown an inclination of instructors to call on boys more than girls (Hamilton *et al.*, 1991). Similarly, in the workforce, women, although much progress has been made, are not integrated into the "good old

Table I Cultural dimensions

Dimensions of culture	Japan	USA	Difference
Power distance	54	40	14
Individualism/collectivism	46	91	45
Masculinity/femininity	95	62	33

Source: Hofstede (1980, 2001)

boys network” and, hence, tend to believe in a need for collectivism. As a result, our second hypothesis is:

- H2a.* The individualism score for Japanese women is lower than the individualism score for Japanese men.
- H2b.* The individualism score for US women is lower than the individualism score for US men.

#### *Masculinity/femininity*

This dimension describes the degree to which gender roles are clearly differentiated within a country. In masculine countries, gender roles are very distinct and separated. Men are assertive and tough; women are modest and tender. Material success, competitiveness, and the strong are highly valued. In feminine countries, gender roles overlap. Both men and women may be assertive or tender. Quality of life is valued over acquiring “things” and there is sympathy for the weak.

The MAS dimension is of particular interest because this is the only dimension for which Hofstede identified gender differences with men scoring significantly higher than women. Education, legislation, and workforce participation are expected to impact this dimension from both philosophical and practical viewpoints. Equal opportunity legislation increases awareness of the appropriateness of gender equality in society. As women become educated and work in positions equivalent to those of men, they perceive that gender should not be a determining factor in employment. Similarly, their education and work experience lead them to see less need for strict separation of gender roles in household and child-caring responsibilities.

Recall that the higher the score on this dimension, the greater the support for gender role separation. Our third hypothesis is:

- H3a.* The masculinity score for Japanese women is lower than the masculinity score for Japanese men.
- H3b.* The masculinity score for US women is lower than the masculinity score for US men.

## Methodology

### Sample

Graduate-level business students engaged in post-baccalaureate studies in Japan or enrolled in MBA programmes in the USA completed the Values Survey Model 1994 (VSM 94) in Japanese or English. The sample (detailed in Table II) consisted of 97 Japanese students and 60 US students.

Table II Sample

	Japan		USA		Combined	
	Men	Women	Men	Women	Men	Women
<i>Age</i>						
20s	27	17	22	19	49	36
30s	29	9	7	3	36	12
40s and over	9	5	6	3	15	8
<b>Total</b>	<b>65</b>	<b>31</b>	<b>35</b>	<b>25</b>	<b>100</b>	<b>56</b>
<i>Occupational level</i>						
None/unskilled	8	4	6	1	14	5
General/vocational	14	6	8	12	22	18
Professional	29	11	7	7	36	18
Managerial	10	2	14	5	24	7
<b>Total</b>	<b>61</b>	<b>23</b>	<b>35</b>	<b>25</b>	<b>96</b>	<b>48</b>

Note: Totals differ as complete information was not always provided

Males and females comprised 67 percent and 33 percent of the Japanese sample and 58 percent and 42 percent of the US sample, respectively. Note that Hofstede (2001) points out that a clear majority of the IBM employees in his original sample were men. The majority of respondents in the sample for this study were in their 20s and 30s with a wide range of work experience.

### Measures

The VSM 94 is the most recent version of the questionnaire originally used by Hofstede (1994). It includes four questions for each of the four dimensions as well as demographic questions regarding gender, age, experience, and nationality. Table III gives the descriptions of the variables.

### Analysis

Mean comparisons and *t*-tests were used to evaluate the statistical significance of the differences between men and women in the various cultural dimensions in each country. Pearson correlations between the cultural dimensions, gender, and other demographic factors were calculated for each country to allow for further assessment of the relationship between gender and the cultural characteristics. A *t*-test of age revealed no significant differences between men and women in each country. As all subjects were enrolled in graduate or post-baccalaureate studies and the 6-3-3-4 educational model is followed in both Japan and the USA, the subjects were considered to be educationally equivalent.

## Results

Table IV provides the Pearson correlations for the study variables for each country. In the USA,

Table III Variable names

Variable	Variable name	Measure
<i>Cultural dimensions</i>		
Power distance	PDI	4 questions – VSM 94
Individualism/ collectivism	IDV	4 questions – VSM 94
Masculinity/ femininity	MAS	4 questions – VSM 94
<i>Control variables</i>		
Gender	Gender	0 = male; 1 = female
Age	Age	1 = <20; 2 = 20-24; 3 = 25-29; 4 = 30-34; 5 = 35-39; 6 = 40-49; 7 = 50-59; 8 = >59
Occupational level	Occupational level	1 = no paid job; 2 = unskilled/semi- skilled manual worker; 3 = generally trained office worker; 4 = vocationally trained craftsman/ technician; 5 = academically trained professional; 6 = manager of one or more subordinates; 7 = manager of one or more managers

Table IV Pearson correlations

Variable	1	2	3	4	5
<i>USA</i>					
PDI					
IDV	0.058				
MAS	-0.252*	-0.024			
Gender	-0.099	-0.235	-0.201		
Age	0.027	0.227	0.075	-0.031	
Occupational level	-0.039	0.093	0.212	-0.123	0.661**
<i>Japan</i>					
PDI					
IDV	-0.107				
MAS	-0.064	0.151			
Gender	-0.277*	-0.210*	-0.087		
Age	0.073	-0.073	-0.185	-0.115	
Occupational level	-0.024	-0.003	0.118	-0.124	0.460**

Notes: \* Significant at  $p < 0.05$ ; \*\* Significant at  $p < 0.01$

gender is not significantly correlated with any of the cultural dimensions.

The correlations between gender and PDI and gender and individualism are negative and significant for Japan.

Table V presents the Hofstede dimension scores for both countries and for men and women in each country as well as descriptive statistics and the results of the mean comparisons.

Concerning the PDI dimension, men and women in Japan scored significantly differently. The mean for Japanese women on this dimension was significantly lower than the mean for men. This result supports *H1a*. The difference in the mean for this dimension for men and women in the USA was not significant, thus not supporting *H1b*.

In Japan, men and women also differed significantly with respect to the IDV dimension with women scoring lower than men. This was also the case for men and women in the USA. As a result, *H2a* and *H2b* are supported. Concerning the masculinity dimension, neither the difference between men and women in Japan nor the difference between men and women in the USA is significant. As a result, *H3a* and *H3b* are not supported.

## Discussion

The focus of this study was on gender differences in cultural dimensions. Since Japan and the USA have experienced similar effects of globalisation on economic and social conditions, we expected the effects on the countries' cultures to be similar. Owing to changes in education, legislation, and workforce participation for women, we also expected that the cultural dimensions would not be homogeneous within a country and would differ significantly for men and women. The results of this study show significant gender differences in two cultural dimensions for Japan, PDI and IDV, and in IDV for the USA.

Consideration of the power PDI revealed a significant gender difference for Japan. PDI concerns perceptions as to the importance of equal distribution of power and wealth in a society. Women in Japan appear to believe more strongly than their male counterparts in the importance of equal distribution of power. Tipton (2000) notes that "inequality and discrimination remain pervasive in Japanese society because of persisting assumptions about the sexual division of labor". Although women have made great progress in obtaining higher-level educational credentials and entering the business world, many obstacles toward equality continue to exist. Perhaps this situation has enabled women to recognise both level of PDI that exists and to believe that it should be minimised or eliminated. Given equal credentials, why should one group have greater power than another group?

In contrast, the results of this study do not show a gender difference in PDI in the USA. Gender-equality focused legislation has existed for a much longer time period in the USA than in Japan. In addition, the enforcement of such legislation has been quite consistent and employers and educational institutions have learned to take gender equity issues seriously. Women in the USA have a clear recourse if treated unfairly and have taken advantage of such protection. In the perception of US women, PDI has decreased and,



Table V Hofstede dimensions scores. Descriptive statistics and *t*-tests

	Overall	<i>n</i>	Men Mean	SD	<i>n</i>	Women Mean	SD	<i>t</i> -value	<i>t</i> -test Significant*
<b>Japan</b>									
PDI	36	58	45.7	51.2	24	14.0	47.0	2.61	0.006
IDV	86	64	93.5	45.9	32	70.8	48.0	2.25	0.014
MAS	35	62	40.8	93.1	26	20.4	90.3	0.95	0.173
<b>USA</b>									
PDI	32	34	36.3	52.4	25	26.2	46.4	0.77	0.222
IDV	96	35	106.4	49.9	25	82.6	46.3	1.88	0.032
MAS	29	35	44.0	90.9	25	8.8	74.9	1.59	0.059

Note: \* One-tailed

hence, their perceptions relative to that cultural dimension are not different from those of men.

Women in Japan and the USA scored significantly lower than men on the IDV dimension. Despite successes in entering the business world in recent years, the women remain concentrated at lower hierarchical levels and in primarily “female” occupations. The “glass ceiling” has prevented many from reaching equivalence to men. As a result, women may perceive more of a need for belonging to “a group” for support and for protection. Alternatively, or additionally, women’s stronger relationship orientation supports a greater tendency toward collectivism. The recent creation of the Japan Association for Female Executives in 1995 and the growth in importance of female networking via “jinmyaku”, evidence a growing “group” consciousness among Japanese business women (Sama and Papamarcos, 2000).

When comparing the overall scores on this dimension to the Hofstede (1980) results, it appears that while the USA has remained strongly individualistic, Japan may have changed from a collectivistic to a somewhat individualistic culture. Hofstede (1980, 2001) suggested that, with increasing economic development and wealth, cultures will become more individualistic. In less developed nations access to resources is extremely limited. Survival may depend in part on the support by others – members of the society that represent one’s in-group. As nations develop, access to resources becomes easier and resources are more easily available. Hence, the need for belonging to a group decreases. Recent results support the existence of a more individualistic Japanese culture (Kambayashi and Scarbrough, 2001; Matsumoto *et al.*, 1996).

We expected to find gender differences in the MAS score. No difference was found in Japan or the USA. One explanation suggested by Hayes and Flannery (2000) is the existence of “hidden curricula” in education and the workplace that reinforce the existing male-dominated power

structure. Recent studies suggest that masculine traits help women succeed in the workplace (Diekmann and Eagly, 2000; Fagenson, 1990; Kolb, 1999; Mainero, 1994). Thus, a finding of no gender difference on the MAS dimension could evidence efforts on the part of women to become successful by adopting a male model and style.

However, the overall scores for these dimensions may indicate that both countries have become more feminine. This could be due to the more active involvement of women in all facets of society in both countries (Fernandez *et al.*, 1997). The feminine values that emphasize relationships and quality of life are reflected in many aspects of society in both countries, such as environmental and social legislation and management practices.

A question related to the significant differences found in PDI and IDV pertains to the changes for men. Men were subjected to the same forces as the women in both societies. Why did not the men change in the same way as the women? We suggest that the answer lies in the “entitled” positions held by men in 1970. Women changed in terms of the way they thought about themselves opening the doors to set and achieve higher goals. Men had always known they were capable of success at school and at work. The change that occurred in men’s attitudes and beliefs related to women’s capabilities, not their own. The key to success is believing in yourself. Women became more independent and learned to believe in themselves, a much larger change.

### Limitations and implications for future research

In interpreting the results of this study, the following caveats have to be considered. First, our sample sizes are somewhat small. However, our samples of men and women from both countries clearly exceed Hofstede’s recommended minimum. Hofstede recommended sample sizes of at least 20 (Hofstede, 2001). In addition, small

samples make significance more difficult to achieve, particularly when using a 5 percent criterion for significance (Steel and Torrie, 1976). Our findings of significant differences for two of the cultural dimensions tend to indicate the presence of large real differences. Second, Hofstede's original sample was primarily male. Thus, the lack of gender differences in his original scores could be an artifact of the sample composition. However, given the widespread use of the original Hofstede scores in international research, identification of the presence of gender differences in cultural dimensions is an important consideration in future research efforts. Third, there is an inequality of sample sizes for the two countries which may affect the results. Finally, the utilisation of students actively engaged in post-baccalaureate studies may potentially impact the generalisability of our results. The individuals in our study are a highly motivated and specialised group and may not be the representative of the populations in each country. Therefore, our ability to generalise the results of this study may be limited. However, as our samples consisted primarily of 20- and 30-year olds, they provide insight into the value systems of younger generations that were not included in the original study.

These caveats notwithstanding, the results of this study have important theoretical and practical implications. In contrast to Hofstede (1980) we found that some cultural dimensions are not homogeneous across gender. From a theoretical perspective this is important. Hofstede's framework may have to be revised to explicitly address gender-based differences in culture. Furthermore, the impact of increases in wealth and economic development on culture may differ, depending on various factors such as a country's original cultural characteristics.

From a practical perspective, women in Japan, even though much progress has been made, have not reached the confidence level that American women have developed in the business context. In interacting with male as well as female business partners from Japan, Americans must be aware of and consider the differing perceptions with respect to power distance and individualism.

## References

- AFL-CIO (2004), "Facts about working women", available at [www.aflcio.org/yourjobeconomy/women/](http://www.aflcio.org/yourjobeconomy/women/) (accessed 17 January).
- Alexander, A. (2002), *In the Shadow of the Miracle: The Japanese Economy since the End of High-Speed Growth*, Lexington Books, Lanham, MD.
- Bertelsmann Foundation (1998), "International reform monitor: reform on equal employment opportunity between men and women (1997 revision of Equal Employment Opportunity Law (EEO))", available at [www.reformmonitor.org/httpd-cache/doc\\_reports\\_1-37.html](http://www.reformmonitor.org/httpd-cache/doc_reports_1-37.html) (accessed 7 January 2004).
- Blau, F. (1998), "Trends in the wellbeing of American women", *Journal of Economic Literature*, Vol. 36 No. 1, pp. 112-65.
- Buckley, S. (1994), "A short history of the feminist movement in Japan", in Gelb, J. and Palley, M.L. (Eds), *Women of Japan and Korea: Continuity and Change*, Temple University Press, Philadelphia, PA.
- Crossette, B. (2000), "Culture, gender, and human rights", in Harrison, L.E. and Huntington, S.P. (Eds), *Culture Matters: How Values Shape Human Progress*, Basic Books, New York, NY.
- Diekmann, A.B. and Eagly, A.H. (2000), "Stereotypes as dynamic constructs: women and men of the past, present and future", *Personality and Social Psychology Bulletin*, Vol. 26, pp. 1171-88.
- Employment Policy Foundation (2003), "Women in the workplace make large gains over the last decade", available at [www.epf.org/media/newsreleases/2003/nr2003template.asp?nrid=183](http://www.epf.org/media/newsreleases/2003/nr2003template.asp?nrid=183) (accessed 29 January 2004).
- Fagenson, E.A. (1990), "Perceived masculine and feminine attributes examined as a function of individuals' sex and level in the organizational power hierarchy: a test of four theoretical perspectives", *Journal of Applied Psychology*, Vol. 75, pp. 204-11.
- Fernandez, D.R., Carson, D.S., Stepina, L.P. and Nicholson, J.D. (1997), "Hofstede's country classification 25 years later", *The Journal of Social Psychology*, Vol. 137, Fall, pp. 43-54.
- Francis, D.R. (2001), "Women demolish more career barriers", *The Christian Science Monitor*, 6 June, available at: [www.csmonitor.com/atcsmonitor/specials/women/work/work060601.html](http://www.csmonitor.com/atcsmonitor/specials/women/work/work060601.html) (accessed 17 January 2004).
- Friedman, T.L. (2000), *The Lexus and the Olive Tree*, Anchor Books, New York, NY.
- Fujimura-Fanselow, K. and Kameda, A. (1994), "Women's education and gender roles in Japan", in Gelb, J. and Palley, M.L. (Eds), *Women of Japan and Korea: Continuity and Change*, Temple University Press, Philadelphia, PA.
- Gelb, J. and Palley, M.L. (Eds) (1994), *Women of Japan and Korea: Continuity and Change*, Temple University Press, Philadelphia, PA.
- Hall, E. and Hall, M. (1987), *Hidden Differences: Doing Business with the Japanese*, Anchor/Doubleday, Garden City, New York, NY.
- Hamilton, V.L., Blumenfeld, P.C., Akoh, H. and Miura, K. (1991), "Group and gender in Japanese and American elementary classrooms", *Journal of Cross-Cultural Psychology*, Vol. 22, pp. 317-46.
- Harrison, L.E. and Huntington, S.P. (2000), *Culture Matters: How Values Shape Human Progress*, Basic Books, New York, NY.
- Hayes, E. and Flannery, D.D. (2000), *Women as Learners: The Significance of Gender in Adult Learning*, Jossey-Bass, San Francisco, CA.
- Hofstede, G. (1980), *Culture's Consequences: International Differences in Work-Related Values*, Sage Publications, Beverly Hills, CA.
- Hofstede, G. (1994), *VSM94: Values Survey Module 1994 Manual*, IRIC, Tilberg.
- Hofstede, G. (2001), *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations across Nations*, 2nd ed., Sage Publications, Thousand Oaks, CA.

- Inglehart, R. and Baker, W.E. (2000), "Modernization of cultural change, and the persistence of traditional values", *American Sociological Review*, Vol. 65, pp. 19-51.
- Kambayashi, N. and Scarbrough, H. (2001), "Cultural influences on IT use amongst factory managers: a UK-Japanese comparison", *Journal of Information Technology*, Vol. 16 No. 4, pp. 221-36.
- Kodansha International (1999), *The Kodansha Encyclopedia: Japan, Profile of a Nation*, revised ed., Kodansha International Ltd, Tokyo.
- Kolb, J. (1999), "The effect of gender role, attitude toward leadership, and self-confidence on leader emergence: implications for leadership development", *Human Resource Development Quarterly*, Vol. 10, pp. 305-20.
- Lonner, W. and Berry, J. (1998), "Series editors' introduction", in Hofstede, G. (Ed.), *Masculinity and Femininity: The Taboo Dimension of National Cultures*, Sage Publications, Thousand Oaks, CA.
- Mainero, L.A. (1994), "Getting anointed for advancement: the case of executive women", *Academy of Management Executive*, Vol. 8, pp. 53-67.
- Matsumoto, D., Kudoh, T. and Takeuchi, S. (1996), "Changing patterns of individualism and collectivism in the United States and Japan", *Culture & Psychology*, Vol. 2, pp. 77-107.
- Melkas, H. and Anker, R. (2003), *Towards Gender Equity in Japanese and Nordic Labour Markets: A Tale of Two Paths*, International Labour Office, Geneva.
- National Center for Education Statistics (2002), "State compulsory school attendance laws", available at: <http://nces.ed.gov/pubs2002/digest2001/tables/dt151.asp>
- National Center for Education Statistics (2003), *The Condition of Education 2003*, available at: <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2003067>
- (The) National Center for Public Policy and Higher Education (2000), "Pennsylvanians view higher education as essential for success", available at: [www.highereducation.org/news/news\\_050900.shtml](http://www.highereducation.org/news/news_050900.shtml)
- Porter, M. (1990), *Competitive Advantage of Nations*, Free Press, New York, NY.
- Sama, L.M. and Papamarcos, S.D. (2000), "Culture's consequences for working women in Corporate America and Japan, Inc.", *Cross-Cultural Management: An International Journal*, Vol. 7 No. 2, pp. 18-29.
- Sivakumar, K. and Nakata, C. (2001), "The stampede toward Hofstede's framework: avoiding the sample design pit in cross-cultural research", *Journal of International Business*, Vol. 32 No. 3, pp. 555-74.
- Sondergaard, M. (1994), "Hofstede's consequences: a study of reviews, citations and replications", *Organization Studies*, Vol. 15 No. 3, pp. 447-56.
- Starobin, S.S. (2002), "Community colleges in Japan and the social status of Japanese women", *Community College Journal of Research and Practice*, Vol. 26, pp. 493-502.
- Statistics Bureau (2003), *Japan Statistical Yearbook 2003*, Ministry of Public Management, Home Affairs, Posts and Telecommunications, available at: [www.stat.go.jp/english/data/handbook/c12cont.htm](http://www.stat.go.jp/english/data/handbook/c12cont.htm) (accessed 16 January 2004).
- Statistics Bureau (2004), *Japan Statistical Yearbook 2004*, Ministry of Public Management, Home Affairs, Posts and Telecommunications, available at: [www.stat.go.jp/english/data/nenkan/index.htm](http://www.stat.go.jp/english/data/nenkan/index.htm) (accessed 16 January).
- Steel, R. and Torrie, J.H. (1976), *Principles and Procedures of Statistics: A Biometrical Approach*, 2nd ed., McGraw-Hill, New York, NY.
- Sugimoto, Y. (2003), *An Introduction to Japanese Society*, 2nd ed., Cambridge University Press, Cambridge.
- Takahashi, H. (1998), "Working women in Japan: a look at historical trends and legal reform", *Japan Economic Institute Report*, No. 42, 6 November, available at: [www.jei.org/Archive/JEIR98/9842f.html](http://www.jei.org/Archive/JEIR98/9842f.html) (accessed 16 January 2004).
- Tipton, E.K. (2000), "Being women in Japan, 1970-2000", in Edwards, L. and Roces, M. (Eds), *Women in Asia: Tradition, Modernity, and Globalisation*, The University of Michigan Press, Ann Arbor, MI.
- Trompenaars, F. and Hampden-Turner, C. (1998), *Riding the Waves of Culture: Understanding Cultural Diversity in Global Business*, 2nd ed., McGraw-Hill, New York, NY.
- US Department of Labor, Bureau of Labor Statistics (2004a), *Table: Employment Status of the Civilian Non-institutional Population 16 Years and Over by Sex, 1971 to Date*, available at: [www.bls.gov/](http://www.bls.gov/) (accessed 17 January).
- US Department of Labor, Bureau of Labor Statistics (2004b), *Non-traditional occupations for Women in 2002*, available at [www.bls.gov/](http://www.bls.gov/) (accessed 17 January).
- US Equal Employment Opportunity Commission (2004), "Milestones in the history of the US Equal Employment Opportunity Commission", available at [www.eeoc.gov/abouteeoc/35th/milestones/](http://www.eeoc.gov/abouteeoc/35th/milestones/) (accessed 29 January).
- US Government Census (2001), available at: [www.census.gov/foreign-trade/top/dst/2000/12/balance.html](http://www.census.gov/foreign-trade/top/dst/2000/12/balance.html)
- World Trade Organization (2001), "International trade statistics 2001", available at: [www.wto.org/english/res\\_e/statistics\\_2001\\_e/its01\\_toc\\_e.htm](http://www.wto.org/english/res_e/statistics_2001_e/its01_toc_e.htm)

## Further reading

- Giacomino, D., Fujita, A. and Johnson, T.M. (2000), "Are the effects of age and gender changing the personal values of Japanese executives?", *Business Forum*, Vol. 24 No. 1/2, pp. 15-20.
- Morley, P. (1999), *The Mountain Is Moving: Japanese Women's Lives*, New York University Press, New York, NY.