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# The generation gap and cultural influence: a Taiwan empirical investigation

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**The generation gap and cultural influence – A Taiwan empirical investigation**

**Abstract**

It is well researched and reported that the culture of a nation has a major impact on employees' work related values, attitudes and expectations. The objective of this study was to investigate if western research on the generation gap applies equally to generational groups in Taiwan's workplaces, specifically in the higher education sector and manufacturing industry. The research found that groups in the manufacturing industry share generational differences with their western counterparts. However, the research has demonstrated that western research results in respect to generational differences do not apply to the generational workers in the Taiwan education sector. In addition to these findings, the research has uncovered some anomalies with specific research findings in the western literature.

**Introduction**

The diversity of modern workplaces is continuing to change dramatically. One of the factors contributing to this diversity is younger workers playing a greater role in the workplace. Today's workforce can be divided into three distinct generational groups of people. There are the Baby Boomers, X Generation (Xers) and Y Generation (Dot com generation). Baby Boomers are people born between the years of 1945-1964, a cohort that has been the source of many important cultural and economic changes. The Xers are people who were born between 1965 and 1980. Some researchers refer to them as "baby busters", due to the drop-off or "bust" in births following the Baby Boomer generation after World War II. The Y Generation or the 'dot com' generation are people who were born after 1980 (Solomon, 1992). Y Generation workers are only just entering the workplace and therefore their influence at this time is still emerging. Modern workplaces are typically diverse with all three generational groups represented.

Research studies have shown that there is substantial difference between work characteristics of Baby Boomers and Xers. Work characteristics include variables that are frequently regarded in the literature as significant in modern workplaces. This includes work values, work attitudes and work expectations of employees. The

research studies are mainly based on research undertaken in western cultures and describe the characteristics of these generations based on the general population. Although these studies provide much descriptive data and empirical evidence on each generation's work characteristics, there is still much uncertainty in relation to these different generational groups on their work characteristics in different industry types and in different cultures. According to Hofstede's framework, a national culture has a major impact on employees' work-related values and attitudes (Robbins, 1998) and therefore studies of generational groups in other than Western cultures may produce quite different results.

Therefore, questions arise about the generalisability of the findings from Western cultures to the work characteristics of Baby Boomers and Xer's in other cultures. Thus, this research attempts to identify differences in work characteristics between Baby Boomers and Xers in a non western context, in particular between Baby Boomers and Xers in the higher education industry and the manufacturing industry in Taiwan, and compare results with the results achieved from similar Western studies.

This research will focus on the two generational groups of Baby Boomers and Xers since Y Generation workers are only just entering the workplace and their influence is still emerging.

**Cultural Differences and Management Perspectives**

Research studies undertaken in the 1980s indicated that national culture has a great influence on all aspects of management behaviour (Adler, 1991; Hofstede, 1993; Mead, 1994). National culture, refers to a set of values and beliefs that a group of people have developed over time as a consequence of their relationship with their environment (Hofstede, 1993). This set of values is the shared experience of these people that they in turn teach to their children as 'the way of viewing the world'. These values form the core of the society, and serve as the basis of the attitudes and expectations of people from this culture.

People with different cultural backgrounds will cultivate various work values. These work values will have a critical impact on management operations and contributes directly to the effectiveness of management (Hofstede, 1993). Researchers have found culturally based differences in people's values, attitudes and behaviour can have dramatic effects on behaviour at work  (Adler, 1991). Some of the ways in which cultures differ include patterns of decision-making, respect of authority and accepted

leadership styles. In general, national cultures can be compared on the basis of how their members relate to each other, accomplish work, and respond to change (Meen, 1995).

According to Adler (1991) culture and behaviour cycle theory demonstrate how a culture (values, beliefs and attitudes) influences management behaviour and consequently impacts on employees' behaviour and performance. That is, individuals express culture and its normative qualities through the values that relate to general beliefs that either define what is right and wrong or specify general preferences. These values in turn influence their attitudes about the form of behaviour considered more appropriate and effective in any given situation. Consequently, the continually changing pattern of individual behaviour eventually influences the society's culture and the cycle begins again. Other research also shows that personal values affect corporate strategy and that managerial values affect all forms of organisational behaviour. This includes selection and reward systems, superior/subordinate relationships and managerial style (Brown, 1976; England, 1975; Mankoff, 1979; Posner, 1979).

To date, the most valuable framework to help managers understand the differences between national cultures has been developed by Geert Hofstede. Hofstede (1993) has operationalised culture into four dimensions and labels the dimensions as 'power distance', 'uncertainty avoidance', 'masculinity versus femininity' and 'individualism versus collectivism'. These four dimensions explain how management behaviour is affected by specific cultural dimensions and also helps managers to better understand the potential problems of managing subordinates form different cultural backgrounds (Hofstede, 1993).

Hofstede (1991) believes that management theories are not universal, and that they have been influenced by the national culture. There is something in all countries called 'management', but its meaning is different from one country to the other, and it takes considerable historical and cultural insight into local conditions to understand its processes, philosophies, and problems (Hofstede, 1993). In addition, Adler (1991) argues that some western management practices such as participatory management models, which are widely encouraged by western management theorists and managers, are not appropriate for many other cultures. Thus, management is not a phenomenon that can be isolated from other processes taking place in a society. 'Theories of management always had to be interdisciplinary, but if we cross national borders they should become more interdisciplinary than ever' (Hofstede, 1993, p. 88).

Since culture has an important influence on approaches to managing people especially in the way managers behave towards their subordinates, Hofstede suggests that successful management is heavily dependent on ways in which managers adapt to the local culture and work situation. Thus, knowledge of national culture is especially important because it gives a clear picture about how management behaviour might be more effective. Managerial decisions and actions may be less effective because managers are not taking into account the differences that characterise national cultures, markets and employees. Also managers need to understand and appreciate the backgrounds and values of all members of their work unit if they are to use appropriate management styles.

**Taiwan Cultural factors**

In general, the traditional Chinese culture results from the crossing of three doctrines. These are Buddhism, Taoism and Confucianism (Haber & Mandelbaum, 1996). They were first of all affected by the evolution of Chinese thought and government policy. These three doctrines have common points. For example, belief in an order based on two complementary forces, Yin and Yang, and a world of perpetual change. Table I summarises the main characteristics of Chinese business style that is influenced by the Buddhism, Taoism and Confucianism.

**(take in Table I)**

After World War II and decolonisation, the stated purpose of the United Nations and the World Bank has been to promote the development of all poor countries. The most obvious promotion was that of the export of western, mostly American, management practices and theories.

Taiwan has achieved rapid economic growth through a process of 'industrialisation' and 'westernisation' which has resulted in a major change in its social culture and economic structures. The extension of larger-scale multinational corporations investing in Taiwan has created a challenging environment for both western and Chinese managers in terms of management practices and also indirectly changed the local social culture. In the case of Taiwan, it is unavoidable for Taiwanese to be not exposed to western management concepts. Lee (1996) indicates that the social trend toward 'westernisation' led to a more 'individualistic' and 'goals and results' orientation for eastern employees.

Traditional Chinese management is embedded in a collective society which individuals can expect others to look after them in exchange for unquestioning loyalty. In moving toward a more individualistic society, more emphasis is placed on individual rights, reward-performance and individual achievement. Moreover, traditional Chinese management attributes such as modesty and caring for the weak have been challenged with the arrival in workplaces of a younger generation where performance and competition are among the young generation's values. As a result of these influences, it is postulated that a dilemma is occurring in Taiwanese organisations between traditional and western leadership styles influenced by different perspectives held by two generations (Baby Boomers and Xers) about how an organisation should be managed.

Taiwan's is a country that has built itself in America's image, economically and politically (Thomas, 2001). Today, the impact of American culture on Taiwanese society is growing. This can be seen from a range of evidence. For example, high-ranking government officials and university professors in Taiwan usually choose to study in the U.S. (DGBAS, 2000). As the population was educated in the Japanese language before World War 11, this has now seen a major decline in the percentage of Japanese books imported to Taiwan. (Ishii, 1999).

In contrast, Japanese culture also has a strong influence on Taiwanese culture. Taiwan had the direct experience of colonial rule by the Japanese. Chu (1998) indicates that older people in Taiwan can understand the Japanese language and appreciate traditional Japanese culture. Japanese culture has gradually begun to gain more influence due to deregulation and proliferation of availability of Japanese TV channels (Su, 1995). This influence has specially focused on the younger generation (under 30), as the majority of Japanese programs imported to Taiwan are aimed at the younger generation (Ishii, 1999).

Not surprisingly, the typical Taiwanese values of work respect for authority and education are being influenced by these outside forces and are changing. Some scholars link this change to the influence of western culture changing the thoughts of the Taiwanese younger generation in the way they see the world. However, sociologists have indicated that the change in values was brought about by economic restructuring and the advances of new technology that are not only changing the way people work, but also the way they live (Su, 1995).

From a management perspective, researchers believe the challenge of integrating western styles of leadership with the traditional eastern work characteristics is now confronting Taiwan society. Hofstede (1991) believes that people bring their national values into organisations. This is because people build organisations according to their values, and societies are composed of institutions and organisations that reflect the dominant values of their culture.

**Generation Gaps and Work Characteristics**

The work characteristics of Baby Boomers and Xers are different in many respects, and this difference can be explained by many factors such as the differences in living environments when the values of these generations were formed.

Lock (1976) defined values as 'what a person consciously or unconsciously desires to obtain'. A value is an abstract concept, and it can be conveyed through recognition, behaviour and emotion. Values are usually explained through choice, evaluation and behaviour.

One significant difference between individuals aged in their 20s and individuals in their 40s is their value system (Stauffer, 1997). Xers tend to be more independent, self-motivated and self-sufficient (Loomis, 2000). This is because most Xers didn't have enough of their parents' attention as children because their parents may have been single and/or working parents. Xers therefore became adept at handling things on their own and in their own ways. Baby Boomers on the other hand, tend to be more diligent on the job and prefer a more stable working environment. This generation grew up in an era of unprecedented economic growth and stability and Baby Boomers have long been regarded as a generation that finds comfort with long-term employment with one organisation. This may have provided them with a false sense of stability (Loomis, 2000).

It is not surprising that work values have changed over the decades given the dramatic changes in economic, social, technological and political conditions. Robbins (1996) states American work values have dramatically changed during the past fifty years. From the 1940s to the 1950s the workers' values (now aged between 55 to 75) placed emphasised on 'hard work', and 'loyalty to the employer'. However, from 1960 to the middle of 1970, (Baby Boomers working time) work values moved into 'loyal to worker themselves', 'seek automatic' and 'the quality of life'. In the middle of the 1970s to the 1980s the fresh workers' (X Generation) work values placed emphasis on

'job achievement', 'career ambition' and 'loyalty to profession'. 'Flexibility', 'job satisfaction' and 'leisure life' on the other hand, are becoming the major work value for the next generation called the 'Y Generation' or 'Dot Com Generation' (Robbins, 1996).

The most consistent finding in the literature when comparisons of work characteristics are made between Xers and Baby Boomers is that each generational group exhibits a different mixture of lifestyle values and work ethics. The Baby Boomers tend to work hard and are generally loyal to their employer. Baby Boomers are willing and expecting to work with others. In terms of leadership style, Baby Boomers accept the chain of command. In addition, they expect their managers to give direction and to lead them towards organisational goals. Baby Boomers are however, not highly technologically savvy, nor do they generally like change (Raths, 1999).

In contrast, work values for the Xers emphasise personal satisfaction rather than just working hard. While Baby Boomers need to be encouraged to take advantage of training opportunities, the Xers tend to look for any opportunities to improve their working skills. The Xers do not feel they owe anything to their organisation, they are loyal to their profession rather than to their employer. They are more individualistic. They have a high need for autonomy and flexibility in their lifestyles and jobs thus less need for leadership. Additionally, Xers are technically savvy and are eager to update knowledge and application into their work. This technological capability is due to the fact that Xers grew up with rapidly changing technology and the availability of massive amounts of information (Keaveney, 1997; Tulgan, 1996; Leung, 2000).

Beside their work values, Shu (1998) indicates that Xers have broken the traditional Maslow hierarchy needs rule and challenged individual development progress schemes. Baby Boomers have tended to follow their individual development progress scheme starting from education, career, marriage, promotion and this has moved them towards self-achievement. Xers squeeze the process together. They need self-achievement from their job and basic needs at the same time and they do not want their work to impact negatively on their quality of life. As a result, they are less devoted to their jobs, and less job involvement occurs.

In fact, job satisfaction is more important than promotion for the Xer. This is because Xers focus on life outside the job, their leisure, family, lifestyle and other interests are as important as their work. Xers can accept an unwanted or less desirable promotion if this suits their lifestyle. However they are not willing to make the sacrifices demanded

by their organisations and turn into 'workaholics' (Tulgan, 1996).

In terms of money and recognition, western researchers have indicated that money and recognition are strong enticements for Baby Boomers while Xers do not want recognition for some of their efforts (Niemiec, 2000). However, Levin (2001) argues that Xers do care about pats on the back and they do things that will lead to rewards.

The Table II summarises the work characteristic differences between Baby Boomers and Xers reported in the literature.

**(take in Table II)**

Although the literature reviewed for this research has shown there is a substantial difference between the work values, work attitudes and work expectations of Baby Boomers and the Xers, the research is limited to mainly western countries and little research has been undertaken in non western countries. Therefore, questions arise about the generalisability of these findings to other than western cultures.

It was therefore proposed to investigate if the work characteristics of generational groups in Taiwan's workforce are as western researchers have concluded and to investigate if the same reported differences exist. Thus, it will be the objective of this study to investigate if the conclusions on generational work characteristics drawn from western research apply equally to generational groups in Taiwan's workplace.

To guide the research, three appropriate hypotheses were posited suggesting that the same differences present in western generational work groups would be present in generational groups in Taiwan:

*Hypothesis 1: There is a significant difference in the mean scores of constructs measuring work values between Xers and Baby Boomer workers in Taiwan.*

*Hypothesis 2: There is a significant difference in the mean scores of constructs measuring work attitudes between Xers and Baby Boomers worker in Taiwan.*

*Hypothesis 3: There is a significant difference in the mean scores of constructs measuring work expectations between Xers and Baby Boomers work in Taiwan.*

**Methodology**

In order to select a sample of generational workers in Taiwan the target population was set as Baby Boomers and Xers in all public and private higher educational institutions in the Taipei region and all registered, private machinery manufacturing SMEs in Kaohsiung region of Taiwan.

A total of 20 higher education institutions in the Taipei region and 148 manufacturing SMEs in machinery manufacturing in Kaohsiung county were identified. Using systematic sampling techniques, every 3rd higher education institution and every 15th name from the manufacturing SMEs was drawn from the overall list of organisations. In order to avoid the periodicity problem, the lists were checked and compared with government publications to ensure random arrangement of elements on the list so that there was no systematic pattern.

Operational definitions were developed for each construct and are summarised in following Table III.

**(take in Table III)**

A questionnaire was developed and used as a data collection technique. The questionnaire was divided into three sections. Section (A) consisted of five questions regarding the respondent's demographic background. Section (B) dealt with questions about work characteristics. It consisted of 38 questions on various aspects of work values, work attitudes and work expectations drawn from previous studies in the literature.

Questions were rated on a five point Likert scale with 1 = strongly agree and 5 = strong disagree.

A pilot study was conducted with selected workers from the target population in each education institution and manufacturing organisation. The questionnaire was directly delivered to the respondents in order to get direct feedback on any potential problems. Several changes were made to the questionnaire in response to the feedback from the pilot study. All questionaries were written in Chinese and back translated into English.

The overall response rate in this research was 62% with 437 useable surveys returned. Types of industry and age status were the key variables identified through the

questionnaire and were used to segment the sample into groups for further comparative analysis. Therefore, results of the survey are divided into four groups based on their age and industry types. Respondents who are under 35 years old are classified as Xers and those respondents over 35 years old are classified as Baby Boomers.

After data had been processed through editing, coding and tabulation, a statistical technique was selected where hypothesis tests could be conducted. In order to test construct validity, factor analysis was also performed. Multivariate analysis of variance (MANOVA) was conducted to test for any significant differences between the variables under investigation.

**Results and Discussion**

This section presents the results of the data analysis related to the research hypotheses developed earlier.

In the educational sector, the majority of the respondents (65.1 percent) were between the ages of 35-55 years and 23% were between the ages of 25-35 years. Very few were in the category of over 55 years and between the ages of 20-25 years (5.6 percent and 6.2 percent respectively). There were no respondents in the age of under 20 years. Therefore, it can be concluded that most of the respondents from the education industry are aged between 35-55 years and are therefore classified as Baby Boomers.

In contrast, in the manufacturing industry the largest group (39.4 percent) of the respondents were those between the ages of 25 and 35 years. The second largest group (24.7 percent) consisted of respondents who were between the ages of 35 and 45 years. There were 17.8 percent in the age bracket of 20-25. Moreover, 14.7 percent of the respondents fell within the age of 45-55 years, and only 3.5 percent were in the age group of over 55 years. There were no respondents less than 20 years old. Table IV details the demographics of the respondents.

**(take in Table IV)**

Table IV indicates that, in the education industry, approximately 29.2 percent of the respondents were Xers and 70.8 percent Baby Boomers. In the manufacturing industry the majority of the respondents (57.1 percent) were Xers and 42.9 percent Baby

Boomers.

These demographic statistics are in accordance with the population. The education sector consists mostly of staff over the age of 35, while the manufacturing industry mostly consists of staff of a much younger age.

The variables that make up each construct were then subjected to principal component analysis. In order to calculate the appropriate number of factors, a number of techniques were deployed. These were: (1) the latent roots criterion or eigenvalue, (2) the Scree Test Criterion or Scree Plot, and (3) communality (Hair et al, 1995). Only factors with an eigenvalue of 1.0 or more, and communality above 0.50 were considered significant and retained for further investigation. Remaining variables were summarised into a smaller number of factors for multivariate analysis. All factors achieved the minimum 0.5 level (Nunnally, 1978). It can therefore be concluded that the constructs are reliable for exploratory research purposes. Table V summaries the results of the factor analysis and reliability tests undertaken.

**(take in Table V)**

Having determined that the constructs under study were sufficiently reliable and valid, the data analysis proceeded to *multivariate analysis of variance (MANOVA).*

Two-way MANOVA analysis procedures were undertaken to enable group comparisons based on generational groups and industry groups. Two levels of analysis were undertaken. The first level was to determine overall effects and a second level to determine more specific effects related different industry groupings. The analysis allowed relationships across various groups to be examined in terms of extracted factors. In particular, comparisons were made relating to the research hypotheses.

The results of the analysis for the sample as a whole on the main effect are summarised in Table VI.

**(take in Table VI)**

Table VI shows the overall result suggested there was no significant difference between generational groups (Xers and Baby Boomers) on the combined dependent variables: F= 1.115, P= .343, and Wilks' Lambda = .992.

However, there was a statistically significant difference between industries (education and manufacturing industry) on the combined dependent variables: F = 9.793, P =.000, and Wilks' Lambda = .936, where P value less than significant level 0.05.

In order to identify which of the industry groups contained a significance difference in mean scores, a second level of analysis was conducted using a one-way MANOVA. The results of the second level analysis are shown in Table VII.

**(take in Table VII)**

As indicated in Table VII, there was a statistically significant difference between generational groups within the manufacturing industry on the combined dependent variables: F = 3.571, P = .015 and Wilks' Lambda = .960 and no significant difference in the education sector on the combined dependent variables: F = 1.293, P = .278 and Wilks' Lambda = .978.

To further explore the differences in generational group scores in the manufacturing industry, an investigation of the significantly different factors was conducted through one-way MANOVA. Table VIII shows the results.

**(take in Table VIII)**

Table VIII reveals the extracted factors and their associated mean scores. The results of MANOVA reveal that there is a significant difference between Xers and Baby Boomers in the manufacturing industry on each of the three extracted factors. There was no difference in the mean scores for each of the extracted factors in the education sector.

Therefore, each of the three hypotheses posited for this research is accepted for generational groups in the Taiwan manufacturing industry and rejected for generational groups in the Taiwan higher education sector. There is a significant difference between Xers and the Baby Boomers in all variables that comprise the work characteristic construct in the Taiwan manufacturing industry.

The results of this study, in respect of the Taiwan manufacturing industry are supported by western research. In previous research, it was argued that Xers have different work characteristics from the Baby Boomers (Coupland, 1991; Itzhak, 1999; Joyner, 2000; Leung, 2000; Schubert, 2000; Tulgan, 1996; Wilkinson, 2000).

However, the research has demonstrated that western research results in respect to generational differences do not apply to the generational workers in the Taiwan education sector.

In addition to these findings, the research has uncovered some anomalies with specific research findings in the Western literature.

Analysis of variance on the work value and work attitude constructs resulted in a finding that Xers did not rate differently to Baby Boomers on the 'perception of job promotion' and 'job involvement' questions. This result indicates that both Baby Boomers and Xers perceive 'job promotion' and 'job involvement' issues as equally important. This is not as would be expected if the Western literature was applied.

Other studies have found that Xers do not highly value social recognition and power and prestige symbols relative to the value placed on these by Baby Boomers (Niemiec, 2000). In analysing the results of this study, it was concluded that both Baby Boomers and Xers see social recognition as important rewards. Power and prestige on the other hand, were generally seen as less important issues for both generations. Overall, there were no significant differences between the two generations on power and prestige issues. This indicates that Taiwanese workers do not regard power and prestige as important in terms of rewards, even on a generational basis.

It is also interesting to note that the results of this study found that the two generations in both the education and manufacturing industries tend to lean towards individualism rather than collectivism on this dimension of the Hofstede typology. The result demonstrates that both generations in Taiwan place a high value on personal development, job participation as well as a preference for autonomy in their work. This appears stronger for both generations for people in the education industry and for Xers in the manufacturing industry. This indicates the possible pressure of not only a cultural factor, but also some other contributing factors. These might be the nature of the industry under examination, educational level and technology which also impact on an individual's work characteristics.

When considering the impact of culture, many studies show that job participation is likely to be much higher in low power distance cultures such as America, and independent work tends to be more valued for those one who tend towards

individualism. Taiwanese culture is categorised as high power distance and collectivism culture according to Geert Hofstede (1980). Therefore, from the results of this study, it can be concluded that Taiwanese culture is generally changing to be more individualistic and lower in power distance, especially for the X generation.

In respect of the effect on generational groups of the nature of industry under examination, this study found that the people who work in different industries demonstrate different work characteristics. In the education industry, both Baby Boomers and Xer employees have significant autonomy over their own time management because they need to manage their own working hours, development agendas and the relationships they establish with students and other staff. Indeed, this is also one of the main reasons why staff select higher education for careers due to the opportunity for this level of personal autonomy (Rowley, 1996).

This research also indicated that majority of respondents in the education industry have attained university degrees, many with postgraduate programs. The research indicates that people with high levels of education tend more to individualism, high self-esteem and prefer autonomy in their work. This finding is supported by Rowley, 1996 and Sekaran, 2000.

Staff in the education industry are highly motivated with high self-actualising needs and are likely to exercise autonomy and independence and to develop skills (Collins & McLaughlin, 1996). This research supports the proposition that the staff in the education industry are likely to have less generational differences than staff in other industry types.

**Conclusions**

Western research has determined clear gaps between Baby Boomers and Xers in terms of work values, work attitude and work expectations. However, since a national culture has an important role in determining people's value, and these values are thought to be translated into the workplace, it was considered that eastern cultural influences might have an impact on the applicability of western research into generational groups if applied to the Taiwanese workforce.

To direct this research, the assumption was made that the generation gap between Baby Boomers and Xers found in generational groups in western workplaces, would also be found to exist in generational groups in Taiwanese workplaces. It was also

acknowledged that eastern cultural influences may themselves be influenced by forces such as globalisation and in particular, the export of Western (mostly American) management practices and theories into Taiwan.

The research found significant differences between Baby Boomers and Xers in all aspects of work characteristics in the Taiwan manufacturing industry. These findings are consistent with the results of prior western research.

However, the research also found no differences between the generational groups in the educator sector in Taiwan. This is not consistent with the general western literature in regard to work characteristics. The reason for the difference between employees in the education and manufacturing industries may be due to the nature of the industries under examination. The industry specific work culture and employee work characteristics in the education industry are very different from employees in the manufacturing industry. In the education sector, all employees place a high value on personal development, job autonomy, job involvement, social recognition, power and prestige.

The research found that people who work in different industries show different work characteristics. In the education sector, all staff have significant autonomy over their own time management because they need to manage their own working hours, development agendas and the relationships they establish with students and other staff. Indeed, this is one of the main reasons why staff select higher education as a career (Rowley 1996). Staff in the education industry are also highly motivated with high self-actualising needs (Pastor 1982; Glickman 1982). Employees in the manufactory industry do not enjoy this sophisticated and enlightened workplace environment and their aspirations appear to not include higher order goals.

In addition, as would be expected, the research found that the educational level of respondents in the education sector were much higher than staff in the manufacturing industry, with most staff in the education industry having attained at least university degrees, a majority of which were postgraduate. The research indicates that people with a higher level of education tend to be more individualistic, have high self-esteem and prefer job autonomy (Rowley 1996; Sekaran 2000).

Other studies have found that Xers do not highly value social recognition and power and prestige symbols relative to the value placed on these by Baby Boomers (Niemiec, 2000). This study concluded that both Baby Boomers and Xers see social

recognition as important rewards. Power and prestige on the other hand, were generally seen as less important issues for both generations. Overall, there were no significant differences between the two generations on power and prestige issues. This indicates that Taiwanese workers do not regard power and prestige as important in terms of rewards, even on a generational basis, when compared to their Western counterparts.

This study also found that the two generations in both the education and manufacturing industries tend to lean towards individualism rather than collectivism on this dimension of the Hofstede typology. This indicates the possible pressure of not only a cultural factor, but also some other contributing factors. These might be the nature of the industry under examination, educational level and technology which also impact on an individual's work characteristics.

When considering the impact of culture, many studies show that job participation is likely to be much higher in low power distance cultures such as America, and independent work tends to be more valued for those one who tend towards individualism. Taiwanese culture is categorised as high power distance and collectivism culture according to Geert Hofstede (1980). Therefore, from the results of this study, it can be concluded that Taiwanese culture is generally changing to be more individualistic and lower in power distance, especially for the X generation.

Several limitations of the study should be noted. First, this study was conducted in Taiwan and was restricted to the higher education sector and manufacturing industry. Therefore outcomes can not be applied to all types of industries in Taiwan. Second, the study design is cross-sectional rather than longitudinal. More time could cause different perceptions in terms of work characteristics. Further research may need to be conducted with a longitudinal analysis design.

Despite some of the limitations mentioned above, the results of this research still provide some direction for workplace researchers. Leaders should recognise the different work characteristics between generational groups and apply leadership styles that will positively contribute to employee motivation. Changes to job design, the system of rewards, and organisation structure might also result. Management decisions based on valid models of employee characteristics are much more likely to achieve success than those based on wrong or inappropriate assumptions.

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