

# Comparative gender differences in faculty job satisfaction at higher education: Taiwan and China

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## Abstract

The study examined the IT and gender differences in job satisfaction between Taiwan and China higher education faculty. The data of job satisfaction was obtained from 194 Taiwanese faculty (48 IT faculty) and 211 Chinese faculty at college levels. It is hypothesized that faculty perceptions of job satisfaction affect their attitudes toward the educational reforms. The SPSS v10 software, which included descriptive statistics, analysed the data: t-test, and Pearson correlation coefficient. The mean score of job satisfaction for Taiwanese IT faculty was 13.04, and the mean score for Chinese IT faculty was 10.83. In the total score for job satisfaction, there were no statistically significant IT faculty differences between Taiwanese faculty ( $t=-0.802$ ,  $p=0.423$ ) and Chinese faculty ( $t=-0.887$ ,  $p=0.376$ ) after educational reforms. Moreover, the mean score of job satisfaction for Taiwanese male faculty was 14.57, and the mean score for Chinese female faculty was 12.96. In the total score for job satisfaction, there were no statistically significant gender differences between Taiwanese faculty ( $t=-0.649$ ,  $p=0.517$ ) and Chinese faculty ( $t=-0.195$ ,  $p=0.846$ ) after educational reforms.

## 1 Introduction

Little research is available on comparing faculty job satisfaction levels between Taiwan and China, especially as the Taiwanese and China governments set different policies during educational reforms.

### 1.1 Job satisfaction in higher education

Job satisfaction on gender study is a widely researched topic, however, the findings from the present studies are somewhat contradictory. Some studies found no differences between men and women. Some studies found women are



more satisfied than men but some studies found men are more satisfied than women.

### **1.1.1 Job satisfaction on gender**

Al-Yamani and Bu-Gahoos [2] showed the career satisfaction of male and female instructors was positively related to increases in instructor's years of teaching experience, but was significantly related to gender, residence, and qualifications. Similarly, Shapiro and Stern [3] examined the relationship between job satisfaction and sex for professional and non-professional positions. They found that professional and non-professional males' satisfaction with work and promotion was higher than females. In a Southeastern University in the USA, Tang & Talpade [4] found that there were significant positive differences between males and females and those males tended to have higher satisfaction with pay than females. In Riyadh City, the capital of Saudi Arabian, a study of female and male academic department chairpersons from Imam Muhammad Ibn Saud Islamic University, King Saud University, and Girls Colleges, Al-Omar [5] found, first, that there was a significant difference in the present work subscale, with males tending to be more satisfied than females, second, there was a significant difference in the payment, with females being more satisfied than males, third, there was a significant difference in promotions, with higher levels of satisfaction among males, fourth, there was no significant difference between the groups in supervision, co-workers, and the job in general. In Kaduna State, Nigeria, a study of full-time business faculty of higher education (Shinkut [6]) revealed that female faculty were more satisfied than their male counterparts, but the longer the length of service, the lower the job satisfaction. At Washington community college in the USA, in a study of organizational rewards for full-time faculty, female faculty were shown to have job satisfaction related to different factors, which they believe is important to the job. On the other hand, male faculty are influenced by different job factors which produce satisfaction (Hurley [7]). At Pennsylvania State University in the USA, a study of the challenge of workplace diversity of female faculty in six selected colleges Lyimo [8], concluded that female faculty members were satisfied with the supervision, abilities and skills, and interpersonal relationship dimensions of job satisfaction, however, they were found to be neither satisfied nor dissatisfied with the recognition, career advancement, and university policies and practices dimensions of job satisfaction. All of the above studies suggest the importance of job satisfaction in the educational system. Hutton & Jobe [10] also found that women overall were more satisfied than men as community college faculty. Hill [9] also indicated that female faculty in the community college were less satisfied than men in every dimension of work satisfaction. On the other hand, Fedler et al. [11] found that females were more satisfied with colleagues and student quality and males were more satisfied with pay.

## **2 The Taiwan higher education**

The transplanted pre-1945 Republican Chinese higher education was adapted from the U.S. education system of the 1920s (Law [1]) but higher education in



Taiwan replaced China with the Japanese model in 1949, therefore, Taiwan displays a close link between higher education growth and national economic planning. Because Taiwan's private-sector economic systems, allowing private colleges and universities to charge fees diversify higher education. Private colleges and universities in Taiwan were subject to curricular, budgetary, and administrative controls by the Ministry of Education (MOE) that were similar to those imposed on the public institutions. Consequently, Taiwan has a high increasing concentration on basic and applied sciences in higher education.

## 2.1 China higher education

As compared with Taiwan, China restructured higher education into a tripartite system similar to the former Soviet model, with emphasis on educating scientists and technologists. For the construction of a new socialist policy, China has absorbed Marxist thought of the enlightenment tradition and tended towards enlightenment tradition and tended towards egalitarianism to reach high education levels. Private colleges and universities in China were transferred their ownership and administrative powers to the state in the early 1950s. All higher education institutions belonged to and were financed completely by the central government bureaucracy till the early 1980s. Three same transmitting value systems between Taiwan and China are as follows: first, both higher education systems before the 1980s were marked by rigid centralization as a means to limit tertiary institutes, teachers, and student's deviation from plans and procedures outlined by the respective Chinese states. Second, both were marked by politicisation that the ruling political parties' influence on such university affairs as administration, curriculum, and students' extracurricular activities. Third, both states controlled the appointments of the use of the national language as the official medium of instruction, the curriculum, the use of textbooks and teaching references, the establishment of departments and institutes, and the allocation of material and human resources (Law [1]).

### 2.1.1 The effect of job satisfaction on educational outcomes

Educational reform is a changing structure that might alter the attitudes of instructors. Job satisfaction is also related to faculty abilities, and their perception of administrators' philosophical beliefs.

## 3 Method

### 3.1 Participants

The population of interest in this study will be faculty members who are working in both public and private colleges. A total of 300 questionnaires were sent to the Taiwanese faculty members of public and private colleges in the south area of Taiwan. Of the 194 returned responses, the IT faculty response rate was 25% (48 IT faculty and 146 other faculty), and the gender response rate was 64.6% (59 female faculty and 135 male faculty). As compared with Taiwan, a total 420 questionnaires were sent to Chinese faculty members of 17 Normal Universities



and 25 Medical colleges in XuZhou area of China. Of the 303 returned responses, 211 were usable, the IT faculty response rate was 11% (24 IT faculty and 187 other faculty), and the gender response rate was 50% (72 female faculty and 139 male faculty).

### 3.1.1 Measures

The data was collected by a structured questionnaire that consisted of general characteristics modified by Dr. Suwat for Index Organizational Reactions (IOR). The general characteristics information included the financial rewards (FR), supervision (SU), kind of work (KW), amount of work (AW), physical work condition (PWC), and interactions with colleagues (IWC). A 7-point, 29-item Likert scale was used to measure total job satisfaction. Respondents were asked to rate on the scale where 3=strongly agree, 2=moderately agree, 1=slightly agree 0=not sure, -1=slightly disagree, -2=moderately disagree, -3=strongly disagree.

**3.1.1.1 Internal consistency reliability** To test for the internal consistency related to questions, alpha reliability coefficients of the modified IOR were developed at similar concepts on the questions. The results ranged from 0.626 to 0.875 and proved reliable for the scale.

**3.1.1.1.1 Analysis** The collected data were analyzed by the SPSS v10 software that included descriptive statistics: t-test and Pearson correlation coefficient. The t-test calculated the overall job satisfaction according to the department, the gender, and the Pearson correlation coefficient calculated the relationships of job satisfaction and the general characteristics.

## 4 Results

There are no statistically significant differences between IT faculty and other faculty in job satisfaction between Taiwanese faculty ( $t=-0.802$ ,  $p=0.423$ ) and Chinese faculty ( $t=-0.887$ ,  $p=0.376$ ) after educational reforms (Table 1).

Table 1: The type of faculty measures with independent samples test.

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	Df	Sig. (2-tailed)
China	Equal variances assumed	3.063	.082	-.887	209	.376
Taiwan	Equal variances assumed	.693	.406	-.802	192	.423

However, other faculty in Taiwan ( $M=14.60$ ) and in China ( $M=12.99$ ) tended to have higher satisfaction than IT faculty in Taiwan ( $M=13.04$ ) and in China



( $M=10.83$ ) of the overall satisfaction in Taiwan colleges, but no significantly so (Table 3).

There are no statistically significant gender differences in job satisfaction between Taiwanese faculty ( $t=-0.649$ ,  $p=0.517$ ) and Chinese faculty ( $t=-0.195$ ,  $p=0.846$ ) after educational reforms (Table 2).

However, male faculty ( $M=14.57$ ) tended to have higher satisfaction than females ( $M=13.39$ ) of the overall satisfaction in Taiwan colleges, whereas females ( $M=12.96$ ) tended to have higher satisfaction than males ( $M=12.64$ ) in China colleges, but no significantly so (Table 4).

Table 2: The type of faculty measures with descriptive statistics.

	Department	N	Mean	Std. Deviation	Std. Error Mean
China	IT faculty	24	10.83	8.66	1.77
	Other faculty	187	12.99	11.52	.84
Taiwan	IT faculty	48	13.04	12.91	1.86
	Other faculty	146	14.60	11.20	.93

Table 3: The gender measures with independent samples test.

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
China	Equal variances assumed	.192	.662	-.195	209	.846
Taiwan	Equal variances assumed	0.019	.891	-.649	192	.517

Table 4: The gender measures with descriptive statistics.

	Gender	N	Mean	Std. Deviation	Std. Error Mean
China	Male	139	12.64	11.51	.98
	Female	72	12.96	10.75	1.27
Taiwan	Male	135	14.57	11.85	1.02
	Female	59	13.39	11.19	1.46

## 5 Discussion

### 5.1 Taiwan survey

In correlation finding, Table 5 showed that financial rewards ( $r=0.664$ ), kind of work ( $r=0.723$ ), and interactions with colleagues ( $r=0.697$ ) had high, significant at the .01, correlations with job satisfaction. Similarly, supervision ( $r=0.597$ ) and physical work conditions ( $r=0.514$ ) were moderately (still at the .01 level) correlated with job satisfaction. In addition, amount of work ( $r=0.346$ ) had lower (but still significant) correlations with job satisfaction.



Table 5: Pearson correlations in Taiwan survey between job satisfaction (JS) and dependent variables (DV).

		JS	FR	SU	KW	AW	PWC	IWC
JS	P	1.000	.664**	.597**	.723**	.346**	.514**	.697**
	Sig	.	.000	.000	.000	.000	.000	.000
	N	194	194	194	194	194	194	194
FR	P	.664**	1.000	.174*	.431**	.229**	.277**	.276**
	Sig	.000	.	.015	.000	.001	.000	.000
	N	194	194	194	194	194	194	194
SU	P	.597**	.174*	1.000	.317**	-.071	.202**	.404**
	Sig	.000	.015	.	.000	.324	.005	.000
	N	194	194	194	194	194	194	194
K W	P	.723**	.431**	.317**	1.000	.251**	.350**	.357**
	Sig	.000	.000	.000	.	.000	.000	.000
	N	194	194	194	194	194	194	194
A W	P	.346**	.229**	-.071	.251**	1.000	.101	.147*
	Sig	.000	.001	.324	.000	.	.163	.040
	N	194	194	194	194	194	194	194
PW C	P	.514**	.277**	.202**	.350**	.101	1.000	.235**
	Sig	.000	.000	.005	.000	.163	.	.001
	N	194	194	194	194	194	194	194
IW C	P	.697**	.276**	.404**	.357**	.147*	.235**	1.000
	Sig	.000	.000	.000	.000	.040	.001	.
	N	194	194	194	194	194	194	194

Remarks: \*\* Correlation is significant at the 0.01 level (2-tailed).

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

JS present job satisfaction

### 5.1.1 China survey

Compared with Taiwan, correlation finding of China in Table 6 showed that financial rewards ( $r=0.663$ ), kind of work ( $r=0.623$ ), interactions with colleagues ( $r=0.713$ ) had high significant at the .01, correlations with overall job satisfaction. Similarly, amount of work ( $r=0.442$ ) and physical work conditions ( $r=0.58$ ) were moderately (still at the .01 level) correlated with job satisfaction. In addition, Table 4 showed that supervision ( $r=0.296$ ) had lower (but still significant) correlations with job satisfaction.

**5.1.1.1 IT faculty and Genders finding** The results of Taiwanese faculty indicated that there were no significant differences in job satisfaction of IT faculty and gender for full-time faculty at higher education; however, the overall mean score males was 14.85 points, indicating higher satisfaction than females, whereas, the overall mean score for IT faculty was 13.04, indicating lower satisfaction than other faculty in Taiwan, but no significantly so. Compared with Taiwan, there were no significant differences for Chinese faculty in job satisfaction of IT faculty and gender, for full-time faculty at higher education at China colleges; however, the overall mean score for females was 12.96 points, indicating higher satisfaction than males in China, whereas, the overall mean



score for IT faculty was 10.83, indicating lower satisfaction than other faculty in China but no significantly so.

## 6 Conclusion

The status of job satisfaction between Taiwan and China higher education IT faculty and gender members and the factors affecting their satisfaction levels are concerned in this study. In studies in involving the educational reforms, it is quite possible that the participants at college level in Taiwan are not influenced by the reform policies. Specifically, the analysis in the study concludes that the impact of the educational reforms on job satisfaction is not significant difference. Compared with Taiwan, China as a large country faces more complicated issues in educational reforms. Comparatively, China has made even greater efforts to expand compulsory education (Cheng, 1999). He also indicated that decentralization of power from central government to local communities and to the school level is evident. In sum, there were no significant differences in job satisfaction between Taiwanese and Chinese IT faculty and the gender.

Table 6: Pearson correlations in Chinese survey between job satisfaction (JS) and dependent variables (DV).

China		JS	FR	SU	KW	AW	PWC	IWC
JS	P	1	.663**	.296**	.623**	.442**	.580**	.713**
	Sig.	.	.000	.000	.000	.000	.000	.000
	N	211	211	211	211	211	211	211
FR	P	.663**	1	.102	.319**	.238**	.195**	.383**
	Sig.	.000	.	.141	.000	.000	.005	.000
	N	211	211	211	211	211	211	211
SU	P	.296**	.102	1	.019	.107	-.085	.053
	Sig.	.000	.141	.	.781	.123	.218	.440
	N	211	211	211	211	211	211	211
KW	P	.623**	.319**	.019	1	.231**	.353**	.378**
	Sig.	.000	.000	.781	.	.001	.000	.000
	N	211	211	211	211	211	211	211
AW	P	.442**	.238**	.107	.231**	1	.139*	.276**
	Sig.	.000	.000	.123	.001	.	.044	.000
	N	211	211	211	211	211	211	211
PWC	P	.580**	.195**	-.085	.353**	.139*	1	.347**
	Sig.	.000	.005	.218	.000	.044	.	.000
	N	211	211	211	211	211	211	211
IWC	P	.713**	.383**	.053	.378**	.276**	.347**	1
	Sig.	.000	.000	.440	.000	.000	.000	.
	N	211	211	211	211	211	211	211

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

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

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