

Life Quality and Job Satisfaction: A Case Study on Job Satisfaction of Bike Participants in Chiayi County Area

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ABSTRACT

The purposes of this study are to explore the life quality and the job satisfaction of bike participants in Chiayi area and the relation between the life quality and the job satisfaction of bike participants`. The subjects are bike participants in Chiayi area. A total of 400 questionnaires are distributed and 359 responded questionnaires are valid. The response rate of valid questionnaires is 89.80%. T test, one-way ANOVA, and canonical analysis are used to analyze the collected data. The findings of this study are as follows. First, there is difference in bike participants between male and female, those female bike participants show higher life quality than males do. Second, there is difference in bike participants among different age groups, those bike participants below 20 years of age show higher life quality than the ones in the age groups of 30-40 and 41-50. Third, there is no difference in the job satisfaction among various ages of bike participants. Fourth, the life quality of bike participants could correlation with the job satisfaction.

Keywords: *Life quality, Job satisfaction*

INTRODUCTION

Research Motivation

Leisure participation is considered an important index of life quality in a country that the people's life quality would be enhanced with the accession of leisure (Kao, 2000). With the improvement of financial capacity and the increase of leisure time, people have paid more attention to life quality that health and happiness have become the primary factors in work and life quality. Unfortunately, modern people are suffering from work pressure which results in inferior quality of life. Chen (1997) indicated that regular exercises could help enhance cardiopulmonary functions, reduce risk factors like heart disease, decrease death rate and other psychosomatic illness, and increase physical capability and work efficiency. Tang (2005) proposed the effect of proper exercise on "pressure release", "sleeping quality enhancement", "immune system promotion", "positive and happy life", "self-fulfillment", and "developed mind". Appropriate exercise therefore has become an important part of life quality. Based on the above discussions on life quality, this study tends to explore the difference of life quality and job satisfaction among bike participants in Chiayi area. According to various demographic variables, it is expected to understand the life quality and the job satisfaction of bike participants in-depth as well as to provide the outcomes for academic research on physical education.

Service quality is the premise in such a competitive modern society that service quality refers to the perception of consumers after being served. For this reason, emphasizing customer perception of products to enhance the service quality has become the key of business competitiveness. Nonetheless, employees are the producers of service quality that there might be correlation between job satisfaction and service quality. Vroom (1973) regarded job satisfaction as the perception of roles in the organization and the

emotional reaction of employees. Locke and Yetton (1976) considered job satisfaction as the pleasure or positive emotion resulted from individual evaluation or job experiences. Mannell (2006) also indicated the possibility of leisure benefits to job satisfaction. In such a rapidly changing era, employees have to constantly cope with changes; particularly, good workplace environment and organizational support are also demanded to balance the job and the family, the work and the leisure, as well as the work and the psychological health, not just salary and bonus being the requirements of jobs. Dumazedier (1974) emphasized the positive functions of leisure that it could help people get rid of the fatigue and monotone of work, return to the biological nature without making any efforts, escape from work pressure through entertainment, or prepare future life with leisure activities. In this case, people would promote the living, enhance the life quality, and further increase work efficiency. This study therefore tends to discuss the correlation between life quality and job satisfaction of bike participants in Chiayi area.

Research Objective

Based on the above research motivations, the following research objectives are proposed in this study.

- (1) To discuss the difference of life quality and job satisfaction among bike participants in Chiayi area.
- (2) To explore the correlation between life quality and job satisfaction of bike participants in Chiayi area.

Terminology

- (1) Life quality. World Health Organization (WHO) defines life quality as individual perception in the living culture-value system that the perception is related to individual objectives, expectations, standards, and concerns, including physical health, psychological state, level of independence, social relations, personal belief, and environment. Three factors in life quality are classified in this study.

“Strengthening psychological reconstruction” refers to the psychological state of sleep and daily life among bike participants in Chiayi area.

“Environmental facility” refers to the experience in social contact, living environment, medical health care, and traffic facilities of bike participants after participating in cycling activities.

“Physical condition” refers to the improvement of physical strength and condition of bike participants after participating in cycling activities.

- (2) Job satisfaction. Hoppock (1935) was the first person proposing the concept of job satisfaction which he regarded as the psychological and physiological sensations of environmental satisfaction. In other words, job satisfaction was the subjective reaction of workers to the work context. Based on Minnesota Satisfaction Questionnaire proposed by Weiss (1967), job satisfaction was divided into internal, external, and overall. (1) Internal satisfaction referred to the value, responsibility, achievement, social status, vocational status, and application chance of workers. (2) External satisfaction referred to salary, promotion, interaction with superiors, subordinates, and colleagues, as well as company policy and the implementation. (3) Overall satisfaction considered the entire satisfaction of internality and externality. This study classifies job satisfaction into Internal Satisfaction and External satisfaction. The former refers to individual performance opportunity, receiving positive comments, serving others, instructing others, self-judgment, and job achievement of bike participants. The latter considers the capability of superiors, stable job, salary condition, getting along with colleagues, and work premium among bike participants.

METHOD

Research Subject

Bike participants who were employed in Chiayi area were selected as the research subjects. With questionnaire surveys, bike participants around the cycling paths and of the cycling teams in Chiayi area were pretested during August 1-29, 2009, when 250 questionnaires were distributed and retrieved. Having deducted 9 invalid copies, total 241 valid questionnaires were retrieved with the retrieval rate 96.4%. The valid scales were coded and further analyzed with item analysis, reliability analysis, and validity analysis for the formal scale. The formal questionnaires were distributed around the cycling paths and to the cycling teams in Chiayi area during November 5 – December 28, 2009. Within the total 400 questionnaires, 41 invalid ones were deducted. The 359 valid questionnaires were retrieved with the retrieval rate 89.8%. Babbie (1973) proposed that the retrieval rate should reach 50% to be appropriate for data analyses and reports, 60% to be good, and 70% to be excellent (quoted from Kuo, 1993). In this case, the retrieval rate of this scale was favorable for statistic and analyses.

Research Tool

Establishment of Questionnaire

Referring to the life quality scale proposed by Yang (2006), the life quality scale for this study was classified into three dimensions, namely Strengthening psychological reconstruction, Environmental facility, and Physical condition, for bike participants in Chiayi area. Job satisfaction scale, on the other hand, was revised from Minnesota Satisfaction Questionnaire (MSQ) and contained two dimensions of External Satisfaction and Internal Satisfaction. According to the research motivations, hypotheses, and framework, Life Quality and Job Satisfaction scales were further established. With Likert Scale, five points were given for Extremely correspondent, four for Very correspondent, three for Correspondent, two for Slightly correspondent, and one for Not correspondent to the questions in Life Quality and Job Satisfaction scales.

Item Analysis

Having drawn up the items in the scales, representative samples should be pretested and proceeded item analysis and reliability analysis (Ho, 1990). Generally, Correlation analysis and Criterion of consistency are applied to analyze items (Li, 1993). This scale therefore selected the items with the two methods and SPSS for Windows 15.0 statistic analysis.

The total points were summed up and ranked in orders, where the top 25% was the high-score group and the bottom 25% was the low-score group. Deducting the average of an item in the low-score group from it in the high-score to receive the discrimination of the item (Li, 1993); it was considered as the criterion of consistency. A large CR value shows the significant difference ($\alpha=0.05$) that the item could discriminate the reaction of different respondents. Contrarily, the item should be deleted (Li, 1993). With the analysis of Criterion of consistency, both Life Quality and Job Satisfaction scales for bike participants in Chiayi area presented the CR reaching significance and the correlation was larger than .30. All the items were therefore remained.

Validity Analysis

With item analysis, the CR of each item in Life Quality scale reached significance that all of them were further proceeded factor analysis. Three factors were established in Life Quality scale, where items 5, 6, 7, 8, 9, 10, 11, 12, 13 were Factor I (Strengthening psychological reconstruction), items 6, 7, 12, 17, 18 were Factor II (Environmental facility), and items 2, 3, 4 were Factor III (Physical condition). The

characteristic value of the three dimensions was larger than 1, corresponding to the requirement of factor analysis. Besides, the explained variable achieved 64.51% that the scale presented good validity. Moreover, with item analysis, the CR of each item in Job Satisfaction scale reached significance that all of them were further proceeded factor analysis. Two factors were established in Job Satisfaction scale, where items 2, 4, 8, 9, 10, 14, 15, 19 were Factor I (Internal Satisfaction) and items 6, 7, 12, 17, 18 were Factor II (External Satisfaction). Items 1, 3, 5, 11, 13, 16, 20 appeared in both factors that they were deleted. The characteristic value of the two dimensions was larger than 1, corresponding to the requirement of factor analysis; and, the explained variable achieved 56.8%. The scale therefore presented good validity.

Reliability Analysis

Three items were deleted from the Life Quality scale for bike participants in Chiayi area and three sub-scales were further established, where items 5, 6, 7, 8, 9, 10, 11, 12, 13 were Factor I (Strengthening psychological reconstruction), items 15, 16, 17, 18, 19 were Factor II (Environmental facility), and items 2, 3, 4 were Factor III (Physical condition). The reliability of the scale and the sub-scales for Life Quality were calculated that the Cronbach α was between .838 and .919, with favorable reliability. Besides, seven items were deleted from the Job Satisfaction scale for bike participants in Chiayi area and two sub-scales were further established, where items 2, 4, 8, 9, 10, 14, 15, 19 were Factor I (Internal Satisfaction) and items 6, 7, 12, 17, 18 were Factor II (External Satisfaction). The reliability of the scale and the sub-scales was further calculated that the Cronbach α was between .708 and .908, with favorable consistency.

Data Processing

The retrieved questionnaires were analyzed with SPSS for Windows 13.0, T test, one-way ANOVA, and canonical correlation. The statistic tests were defined the significance .05.

RESULTS AND DISCUSSIONS

The Comparison of Life Quality Among Bike Participants with Different Genders

With the three dimensions of Strengthening psychological reconstruction, Environmental facility, and Physical condition, T test analysis was applied to discuss the life quality of bike participants with different genders, Table 1.

Table 1: Life quality t-test for bike participants with different genders

Item	Male (n=178)	Female (n=181)	t	p
	Mean (SD)	Mean (SD)		
Strengthening psychological reconstruction	3.59(.73)	3.40(.83)	2.34*	.02
Environmental facility	3.54(.73)	3.43(.75)	1.36	.17
Physical condition	3.81(.81)	3.55(.89)	2.90*	.01

*p<.05

According Table 1, there was difference in the life quality of bike participants between genders. Male bike participants showed higher life quality than female ones did on Strengthening psychological reconstruction and Physical condition. Kuo (2009) found that the life quality of fitness club members did not appear difference on genders. Hsiao (2004) displayed the similar result on eco-tourists. Nevertheless,

Kuo (2010) discovered that male sports club members presented higher life quality on psychological, environmental, physiological, and social factors than female ones did. Consequently, most males appeared higher life quality than females did, as males were likely to present higher interest in leisure activities than females and the activity space and the leisure efficiency of males were higher than those of females. In this case, the life quality of male students could be higher than it of female ones (Kuo, 2010). Besides, Meeberg (1993) considered life quality containing the individual satisfaction with life as well as external evaluation and identity from others. It was therefore inferred that life quality was affected by psychologically subjective sensations of individual demands and living environment perception.

The Comparison of Life Quality Among Bike Participants in Different Age Groups

The bike participants were divided into the age groups of below 20, 21-30, 31-40, 41-50, and above 51. In the homogeneity test in one-way ANOVA, the p value for the three dependent variables in life quality appeared .01, .31, and .88. Two of them achieved significance, rejecting the null hypothesis. Uncorrected F value therefore could be applied against the variance homogeneity hypothesis, as the result of F test presented tenacity (Wu, 2008). One-way ANOVA was further applied to analyze the difference in Physical condition, Table 2.

Table 2: Life quality variance analysis for bike participants in different age groups

Dimension	Strengthening psychological reconstruction			Environmental facility		Physical condition	
	N	M	SD	M	SD	M	SD
Demographic variable							
Under 20-years-old(1)	29	3.72	.77	3.69	.78	4.15	.80
21-30 years-old(2)	151	3.41	.79	3.40	.76	3.70	.86
31-40 years-old (3)	90	3.50	.67	3.53	.71	3.60	.85
41-50 years-old (4)	63	3.49	.94	3.49	.75	3.58	.87
Above 51-years-old (5)	26	3.78	.67	3.56	.59	3.65	.81
F			1.91		1.19		2.68*
p			.11		.32		.03
Comparison							1>3,4

*p<.05

From Table 2, there was difference in the life quality of bike participants in various age groups that the bike participants under the age of 20 appeared higher life quality than the ones in the age groups of 31-40 and 41-50 in Physical condition. The younger bike participants therefore presented the better life quality. Andreck (2007) regarded it being difficult to define life quality as it was a subjective experience in individual perception and sensation. Mitchell (2001) considered that there was no consistency in life quality and terminology could not establish methods or standards for life quality. As a result, qualitative interviews should be taken into account to assist in the quantitative research on the life quality of bike participants. The life quality and the related data of the bike participants in different age groups should be further collected to evidence the research findings.

The Comparison of Job Satisfaction Among Bike Participants with Different Educational Backgrounds

Educational background was divided into below junior high school, senior high school, college, and graduate schools to discuss the job satisfaction of bike participants. In the homogeneity test in one-way ANOVA, the p value of the two dependent variables was .01, achieving significance and rejecting the null

hypothesis. In this case, uncorrected F value could be applied against the variance homogeneity hypothesis, as the result of F test presented tenacity (Wu, 2008). One-way ANOVA was further applied to analyze the difference in Internal Satisfaction, Table 3.

Table 3: Variance analysis of bike participants in various educational background

Dimension Demographic variable	N	Internal Satisfaction		External Satisfaction	
		M	SD	M	SD
Below junior high school(1)	20	3.96	.67	3.56	.55
Senior high school(2)	86	3.77	.89	3.46	.89
College (3)	212	3.76	.73	3.45	.66
Graduate school(4)	41	3.91	.83	3.47	.61
F			.73		.16
p			.53		.92
Comparison					

*p<.05

According to Table 3, the job satisfaction of bike participants did not appear difference in the dimensions of Internal Satisfaction and External Satisfaction, showing the consistence of job satisfaction and bike participants in Chiayi area.

The Canonical Correlation Analysis of Life Quality and Job Satisfaction for Bike Participants in Chiayi Area

To discuss the canonical correlation between the life quality (Strengthening psychological reconstruction, Environmental facility, Physical condition) and the job satisfaction (Internal Satisfaction and External Satisfaction) of bike participants in Chiayi area, the following three parts were further explained.

The Path Diagram of Canonical Correlation

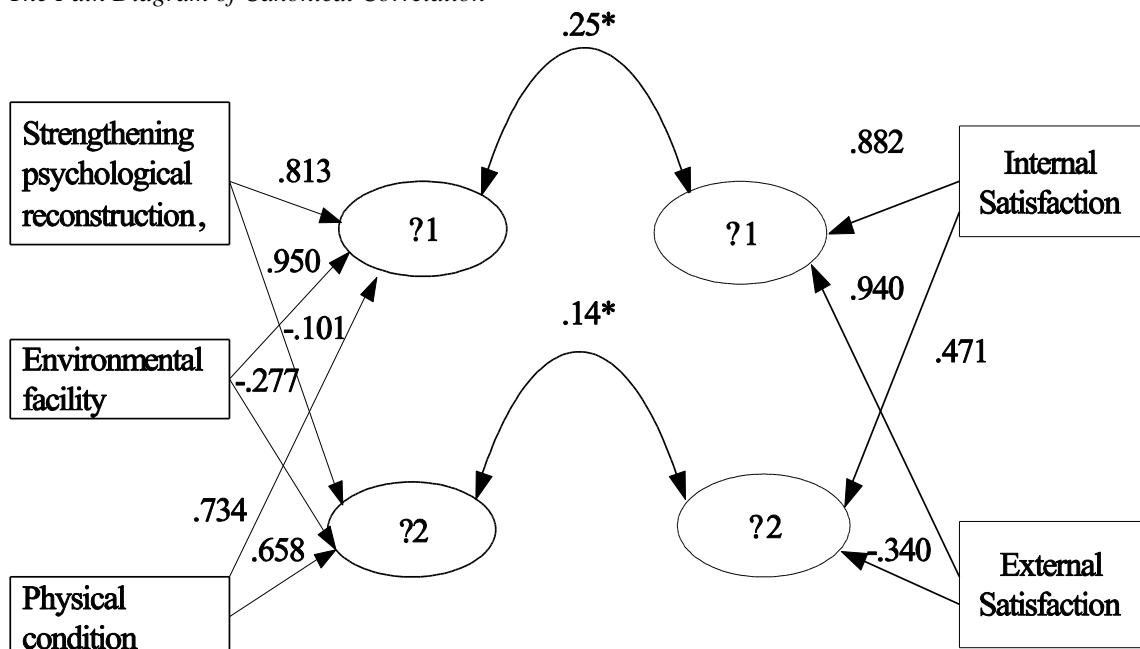


Figure 1: The canonical correlation between the life quality and the job satisfaction of bike participants in Chiayi area

Statistic analysis

1. Canonical correlation analysis

From Table 4 and Fig. 1, the life quality of bike participants in Chiayi area was regarded as X variables (X1=Strengthening psychological reconstruction, X2=Environmental facility, X3=Physical condition), while the job satisfaction was the Y variables (Y1=Internal Satisfaction, Y2=External Satisfaction). The canonical analysis between X and Y variables showed that the first canonical correlation between χ_1 and η_1 was .247(P<.05) and the second canonical correlation between χ_2 and η_2 was .138(P<.05).

Table 4: The canonical correlation between the life quality and the job satisfaction of bike participants in Chiayi area

X variable	Canonical correlation		Y variable	Canonical correlation	
	χ_1	χ_1		η_1	η_1
Life quality			Job satisfaction		
Strengthening psychological reconstruction	.813	-.14	Internal Satisfaction	.882	.471
Environmental facility	.950	-.277	External Satisfaction	.940	-.340
Physical condition	.734	.658			
Abstracted variance percentage	83.79	16.87		70.095	17.337
Overlap (%)	5.057	.319		4.264	.328
			ρ^2	.061	.019
			ρ	.247**	.138*

*p<.05 **p<.01

2. The explained variance analysis of canonical factors

From Table 4, two groups of canonical factors between the life quality and the job satisfaction of bike participants in Chiayi area achieved significance. The one did not reach significance was not further discussed.

- (1) The first canonical factor in X variables (χ_1) could explain 24.70% ($\rho^2 = .061$) the total variance of the first canonical factor in Y variables (η_1); and, the first canonical factor in Y variables (η_1) could explain 70.10% the variance of Y variables. X variables therefore could explain 4.26% the total variance of Y variables with the first canonical factors (χ_1 and η_1).
- (2) The second canonical factor in X variables (χ_2) could explain 13.80% ($\rho^2 = .019$) the total variance of the first canonical factor in Y variables (η_2); and, the second canonical factor in Y variables (η_2) could explain 17.34% the variance of Y variables. X variables therefore could explain 3.28% the total variance of Y variables with the first canonical factors (χ_2 and η_2).

3. Structural correlations of canonical factors (loading analysis)

According to the above analyses, the life quality and the job satisfaction of bike participants in Chiayi area were consisted of three canonical factors, where .247% explanation was composed of the first canonical factor and .138% of the second canonical factor. The third canonical factor was not analyzed as it appeared lower explanation.

The coefficients of Strengthening psychological reconstruction, Environmental facility, and Physical condition in the first canonical factor (χ_1) displayed .813, .950, and .734, respectively. The coefficients of Internal Satisfaction and External Satisfaction in the first canonical factor (η_1), on the other hand, showed .882 and .940, respectively. From the first canonical correlation coefficients in X variables, Strengthening psychological reconstruction, Environmental facility, and Physical condition

presented larger explanation on Internal Satisfaction and External Satisfaction in Y variables. From the second canonical correlation coefficients in X variables, merely Physical condition appeared higher explanation on Internal Satisfaction in Y variables.

As a consequence, the total explained variance of the life quality and the job satisfaction of bike participants in Chiayi area was mostly explained by the first and the second canonical factors, showing the correlations between life quality and job satisfaction among bike participants in Chiayi area. Moreover, the life quality could affect the job satisfaction of bike participants in Chiayi area that the better the life quality, the higher the job satisfaction perception.

To sum up, as the life quality would affect the job satisfaction of bike participants in Chiayi area, the life quality would be enhanced by participating in cycling activities; then, the life quality would present energy on work and further affect the job satisfaction.

CONCLUSIONS AND SUGGESTIONS

Conclusion

This study aims to discuss the difference between the life quality and the job satisfaction of bike participants in Chiayi area as well as the correlation between them. From the research outcomes, the following conclusions are further proposed.

- (1) Gender would affect the life quality of bike participants. The males participants appeared higher life quality than the females did, showing that female bike participants presented higher sensations on life quality.
- (2) Age would affect the life quality of bike participants. The participants below 20-years-old appeared higher life quality than the ones in the age groups of 31-40 and 41-50, showing that the younger participants felt better life quality after participating in cycling activities.
- (3) Education background did not present difference on the job satisfaction of bike participants.
- (4) There was correlation between the life quality and the job satisfaction among bike participants in Chiayi area, showing the better life quality of bike participants, the higher job satisfaction.

Suggestion

- (1) The cycling associations in Chiayi area should plan exercise and cycling paths for the participants in higher age groups so that their sensations of life quality could be enhanced.
- (2) The sequential studies could apply qualitative research to further understand and analyze the problems in quantitative research.

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