



## Does Effect of Workload on Quality of Work Life Vary With Generations?

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### Abstract

This paper aims to explore the role that generation plays in the relationship between workload and quality of work life (QWL). A survey containing members from Generation Y, Generation X, and baby boomers was conducted and analyzed with multiple-group structural equation modeling (SEM). The results reveal that as workload gets heavier, QWL gets lower for Generation Ys and baby boomers. No significant effect of workload on QWL was found for Generation Xs. This finding statistically supports the claim of this study that generation moderates the relationship between workload and QWL. The implications of this finding raise discussion on the essential consideration of generation in employee selection, management, and work design.

*Keywords:* Generation, workload, quality of work life, moderating effect, SEM

### 1. Introduction

As the world becomes more competitive, businesses around the world need to provide a good quality of work life (QWL) in order to attract and retain qualifying employees. QWL and job-related outcomes such as job satisfaction and organizational commitment have been important topics in human resource and organizational development since the beginning of 1960s (Cummings and Worley, 2005; Leopold, 2005). Prior to 1970s, studies on QWL mostly focused on the effect of working environment on QWL. After 1970s studies on QWL shifted to the application of QWL to enhance organizational performance (Nadler and Lawler, 1983) and generally claimed that QWL is the extension of satisfaction which indicates an individual's demand is fulfilled inside an organization (Efraty and Sirgy, 1990). The extent of an individual's demand satisfied in an organization has positive effects on his or her performance, productivity, profitability, sales, profit, organizational commitment, organizational identification, loyalty to the organization, job involvement, job effort, employee's self-esteem, turnover rate, and absenteeism, etc. (Havlovic, 1991; Labiris et al., 2002). This reveals the importance of QWL in general human resource management.

In studies of QWL, workload is deemed as one of the most influential factors (Manz and Grothe, 1991). Workload is also known as work demand (Laschinger et al, 2001) and can be further classified into physical (quantitative or objective) and perceptual (qualitative or subjective) workload (Fox et al., 1993; Dwyer and Ganster, 1991). Perceptual workload is

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defined as “psychological stressors, such as requirements for working fast and hard, having a great deal to do, not having enough time, and having conflicting demands” (p. 290, Fox et al., 1993) and can be defined as an amount of physical labor, usually measured by working hours (Sweeney and Summers, 2002; Crouter et al., 2001).

Earlier studies have pointed out that workload is negatively related to QWL (Cordes and Dougherty, 1993) because workload affects employees’ family life (Burke, 1997; Crouter et al., 2001) and also leads employees to job burnout (Houkes et al., 2003), and increases job stress (Harris et al., 1999), turnover intention (Alexander et al., 1994) and mental stress (Arsenault et al., 1991). Therefore, workload is believed to be a factor detrimental to QWL (Cordes and Dougherty, 1993).

However, some researchers find positive effect of workload on QWL. Elmuti (2003) conducted a study on IASM team (Internet aided self-managed team) and found that when the working time of IASM team increases, their QWL is also raised. Cook and Salvendy (1999) also pointed out that perceptual workload is positively related to QWL. In addition, the study of Moore (2000) on technology professionals suggested an inverse relation between workload and turnover intention, which further implies the possibility of a positive relationship between workload and QWL.

Consequently, there seems to be a contradiction on the relationship between workload and QWL, and some researchers (Beehr and Drexler, 1986) tried to ratify this contradiction with the theory of job characteristic. They pointed out that, similar to a moderating effect, jobs with higher work control and work demand can change employees from inside out, thus increase their work satisfaction. But besides job characteristic, the question of whether there is any other neglected factor moderating the underlying relationship between workload and QWL and causing the contradiction between published findings still needs to be clarified.

After reviewing literature based on different samples taken, our study found that age-related factors, but not solely age, may be a possible link to the contradiction issue regarding workload and QWL. Hsieh and Chao (2004) conducted a study on the rapidly changing and high-workload high-tech industry in Taiwan (with an employee sample of average age 30) and found that employees in the high-tech industry with a higher extent of job enrichment are more likely to have job burnout. Since job enrichment (e.g. autonomy) is positively related to workload (Kaldenberg and Becker, 1992) and job burnout is negatively related to QWL (Maslach et al., 2001), the workload and QWL of high-tech employees are inferred to be negatively related. However, the average age in the sample of Hsieh and Chao's study is only 30. Whether the age factor with wider range plays a role in the relationship between workload and QWL still needs to be further examined. Two other studies that consider samples with different age levels are the Fox et al. (1993) case, which studies hospital employees with average age of 35, and the Kushnir and Melamed (1991) case, which aims at a sample with average age of 44.7. Both studies conclude that increase in job control would raise work satisfaction in these two different age groups, meaning the relationship of workload and QWL is affected by job control. But when job control is fixed, the moderating effect of age on the relationship between workload and QWL remains ambiguous. However, the study of Manz and Grothe (1991) on baby boomers’ QWL showed that even if the workload of baby boomers is lower than that of higher age group, their QWL is still low.

Other studies show that baby boomers are loyal to their employers and their work values lie on hard work (e.g. O’Bannon, 2001). Although baby boomers can accept challenging tasks, they need to spend longer hours on the jobs when compared to Generation Xs (“Gen Xs”, born after 1965, in their 30s at the time of study) (Rodriguez et al., 2003). Moreover, the findings of Gursoy et al. (2008) indicate significant differences among generations in world views, attitudes toward authority and perspectives on work and suggest that the baby boomers respect authority and hierarchy while the Gen Xs rebel against authority. Baby boomers live

to work and Gen Xs work to live. Thus, our study suspects that, although it is unclear whether age makes a difference in the relationship between workload and QWL, generation may be a factor causing this contradiction in the literature regarding the relationship between workload and QWL. Therefore, this study aims to clarify this paradoxical relationship by more closely examining the generation factor. We ask the questions: Will generation moderate the relationship between workload and quality of work life? In terms of QWL, will different generations endure different level of workload? Which generation can endure a higher workload without affecting QWL? Finally, is it possible that perceived QWL increases with growing workload for any particular generation?

## **2. Hypotheses development**

Previous studies stated that organizational culture would affect QWL (Gifford et al., 2002). Generation theory is also a culture theory (Rotolo and Wilson, 2004), meaning that generation is a type of national subculture that reflects the value priorities emphasized during a country's particular historical period (Egri and Ralston, 2004). People born in the same generation are usually affected by certain life experiences to such an extent that they form a thinking pattern unique to their generation and perform accordingly (Strauss and Howe, 1991; Rotolo and Wilson, 2004). Because of the differences in the environments in which they are brought up, different generations generate unique personalities, behavior, attitudes, and lifestyles. Unlike age effect, people in the same generation will aggregate experiences over time from shared historical events (Rotolo and Wilson, 2004). Strauss and Howe (1991) pointed out that the focus on age-group perspective to look at the changes in attitudes and behavior seems too complicated; however, a classification by generation might still give us an idea of these major changes.

Baby boomers and Gen Xs are quite different (Losyk, 1997), but both have distinct expectations from their predecessors (Munk, 1998). Baby boomers possess a competitive nature which drives them to desire higher monetary compensation and titles. Running from morning to night (Cordeniz, 2002), baby boomers tend to be more diligent and result-oriented on the job and prefer a more stable working environment (Loomis, 2000). "Living to work" is the attitude of baby boomers towards work (Rodriguez et al., 2003). Their working philosophy includes hard work, employer loyalty, team work, commitment, acceptance of step by step promotion, and organizational loyalty (O'Bannon, 2001; Cordeniz, 2002; Rodriguez et al., 2003).

Gen Xs spent early years in day care and later years at home alone. As a result, the thoughts of Gen Xs consist of more freedom (Buckley et al., 2001) and individualism (Ralston et al., 1999). They desire a balance between work and family life (Buckley et al., 2001) and are more motivated by quality of life (O'Bannon, 2001). They work to live, emphasizing personal satisfaction over hard work (Rodriguez et al., 2003). Hence, they are not always willing to make the sacrifices demanded by their organizations or overwork themselves (Tulgan, 1996). Members of this generation are loyal to skill, career and themselves. They prefer to work alone, pursue personal satisfaction, flexibility and freedom, hope to learn new knowledge, and get quick promotion. Moreover, they wish their ideas to be heard and to be challenged in their tasks so as to make a meaningful contribution. In general, Gen Xs pick the job that allows them to get the most fun out of life (Cordeniz, 2002; O'Bannon, 2001; Buckley et al., 2001).

Generation Ys ("Gen Ys", born after 1975, in their 20s at the time of study) think that work is more about personal fulfillment and less about external rewards. They like diversity and are addicted to motions, changes and frequent activities (Anonymous, 2003). For Gen Ys, time is more important than money (Streeter, 2004). Hoping for flexibility and leisure time,

Gen Ys are loyal to relationships (O'Bannon, 2001) and call on their own development plans to measure personal performance (Hill, 2002).

From the above, there seems to be quite a few differences in the working philosophies of baby boomers, Gen Xs and Gen Ys, a difference which shows that each generation holds a different opinion on QWL at a diverse level of workload. Baby boomers believe in "living to work" and will run from morning to night. Therefore, they perceive higher QWL with increasing workload. On the other hand, Gen Xs believe in working to live. With much emphasis on QWL, they would automatically adjust between work and family life. Therefore, the effect of workload on QWL for Gen Xs is less significant. Gen Ys places much importance on leisure time. They feel that time is more important than money. Thus, as workload gets heavier, the effect on QWL for Gen Ys would be negative. According to the reasoning stated above, hypotheses of the study are proposed as follows:

*H<sub>1</sub>: Generation moderates the relationship between workload and QWL.*

*H<sub>1-1</sub>: Workload is positively related to QWL for Baby boomers.*

*H<sub>1-2</sub>: There is no significant influence of workload on QWL for Gen Xs.*

*H<sub>1-3</sub>: Workload is negatively related to QWL for Gen Ys.*

### **3. Methods**

#### *3.1 Sampling*

A mail survey method was adopted in this study. The participants were drawn from 100 companies randomly selected from "Business directory of Taiwan 2002" (Business Express Inc., 2002). Along with stamped return envelopes, questionnaires were randomly distributed to 10 of each company's employees through HR department. In order to guarantee confidentiality, participants were asked to return the questionnaires directly to researchers via mail. All participants were volunteers that filled out questionnaires anonymously. Among total of 1,000 questionnaires delivered, 586 returned and 138 of the returned questionnaires were incomplete. Therefore, 448 (44.8%) are used in data analysis.

#### *3.2 Measurement*

##### *3.2.1 Independent variables*

According to the definition adopted for this study, physical workload is measured by the total working hours per week. Perceptual workload is measured based on the viewpoint of Kirmeyer and Dougherty's (1988) questionnaire. The questionnaires consist of 5 items, of which each is rated on a 7-point scale.

##### *3.2.2 Dependent variables*

Quality of work life (QWL) is defined as "the individual's affective reactions to both objective and experienced characteristics of the work organization" (Igarria et al., 1994). It also means to "satisfy an employee's needs via the resources, activities and outcomes that arise from involvement in the workplace" (Sirgy et al., 2001), and is found to influence employees' turnover intention (Lewellyn and Wibker, 1990). This study adopts four constructs of QWL from the work of Igarria et al., (1994) and Sirgy et al., (2001), including career satisfaction, organizational commitment, satisfaction in learning opportunity, and turnover intention. Jiang and Klein (2000) view career satisfaction from both external and internal perspectives, matching the concept of this study. For this reason, we adopt the questionnaire from their research. According to Lin and Hsieh (2002), the questionnaire of Mowday et al., (1979) to measure affective organizational commitment meets our desired

intention in measuring the difference in mentality among generations and is thus adopted. But 6 items of the questionnaire are considered close to a measure of the intention to resign and are eliminated (Reichers, 1986). Finally, 9 items are used to measure organizational commitment. Satisfaction in learning opportunity is measured by the short version (4 items) of Mikkelsen et al. (2002). The 4 items of turnover intention questionnaire are adopted from Becker's (1992) research. These measures of turnover intention are the combination of the Michigan organizational assessment questionnaire and organizational commitment questionnaire, both matching the purpose of the study in testing difference in generations' work-related attitude.

### *3.2.3 Moderator*

In this study, generation is categorized into three groups: Baby boomers (born between years 1946-1964), Generation Xs (born between years 1965-1974) and Generation Ys (born between years 1975-1994) (Rodriguez et al., 2003), which recently is the most popular classification in Taiwan.

### *3.2.4 Control variables*

We control several variables that have been found to be significantly associated with the perceived QWL, specifically social support, job control (e.g. Shamir and Salomon, 1985) and gender (Na and Duckitt, 2003). The measure of social support is adopted from Mikkelsen's et al. (2002) 6-items scale. Job control is measured in skill variety (5 items) and autonomy (6 items) which are adopted from Sim's, et al. (1976) Job Control Inventory (JCI). All measures of the support and job characteristics in the questionnaires are on a 7-point scale and assessed by averaging the items of each construct.

### *3.3 Validity and reliability of the instrument*

Exploratory factor analysis (EFA) is conducted to confirm the validity of the constructs. Items for perceived workload, organizational commitment, career satisfaction, learning opportunity, turnover intention, skill variety, autonomy, and social support construct are applied in the analysis and condensed into 9 factors. Each factor has an eigenvalue greater than 1.0. All obtained Cronbach  $\alpha$  value for internal consistency reliabilities were above 0.8.

Confirmatory factor analysis (CFA) is conducted to reconfirm the validity of the constructs for each generation (Table 1). The differences between the factor loadings for any two generations are tested by critical ratio, which is actually the t statistics computed from the difference between two coefficients over their corresponding standard error. The difference is statistically significant at the .05 level if it is critical ratio (CR) > 1.96. Our result shows in most items there is no significant difference for all 3 generations. Significant difference only appears in Item 4 of career satisfaction (CS4), Item 2 of organizational commitment (OC2), and Item 6 of autonomy (AO6), with critical ratio greater than 1.96, but the loadings of these items are all above 0.6 for different generations, appropriate to be used in measuring different generations in relative construct.

Table 1. Results of confirmatory factor analysis

Dimension	Item	Generation Y			Generation X			Baby boomers			C.R.			RMR	GFI	AGFI	df	
		Loading	Sig.	FS	Loading	Sig.	FS	Loading	Sig.	FS	Y - X	Y - B	X - B					
Workload															0.000	1.000		0
Perceptual workload	PW2	0.806		0.302	0.805		0.119	0.749		0.117								
	PW3	0.905	***	0.368	0.956	***	0.61	0.949	***	0.592	-0.001	-0.419	-0.420					
	PW4	0.884	***	0.169	0.819	***	0.127	0.774	***	0.117	-0.503	-1.047	-0.606					
QWL															0.104	0.965	0.886	126
Career Satisfaction	CS3	0.954		0.459	0.967		0.525	0.989		1.041								
	CS4	0.934	***	0.464	0.874	***	0.322	0.847	***	-0.064	-2.13*	-2.166*	-0.276					
Learning opportunity	CS2	0.891	***	0.165	0.891	***	0.259	0.851	***	0.161	-0.933	-1.236	-0.427					
	LN1	0.669		0.131	0.777		0.205	0.839		0.348								
	LN3	0.863	***	0.408	0.72	***	0.111	0.735	***	0.159	-1.709	-1.736	-0.073					
Organizational Commitment	LN2	0.721	***	0.152	0.903	***	0.46	0.866	***	0.299	0.434	-0.334	-0.907					
	OC3	0.767		0.057	0.695		-0.025	0.775		0.085								
	OC4	0.929	***	0.428	0.852	***	0.23	0.843	***	0.147	-0.372	-1.079	-0.578					
	OC5	0.845	***	0.145	0.842	***	0.209	0.853	***	0.287	0.282	-1.117	-1.248					
	OC2	0.665	***	-0.11	0.626	***	0.048	0.816	***	0.192	0.495	2.164*	1.547					
Turnover Intention	OC8	0.774	***	0.093	0.701	***	0.068	0.783	***	0.122	-0.453	0.271	0.659					
	OC7	0.799	***	0.148	0.747	***	0.118	0.735	***	0.07	-0.536	-0.836	-0.251					
	TI2	0.876		0.016	0.838		0.01	0.894		0.056								
	TI5	0.678	***	-0.181	0.519	***	-0.154	0.551	***	-0.09	-1.005	-0.152	0.702					
Control variable:	TI1	0.921	***	0.692	0.928	***	0.676	0.982	***	0.892	1.219	0.946	-0.403					
	TI4	0.8	***	0.452	0.692	***	0.28	0.676	***	0.151	-0.423	-0.708	-0.253					
Job control															0.036	0.994	0.971	18
Skill Variety	SV4	0.876		0.356	0.824		0.335	0.869		0.199	0.901	0.369	-0.545					
	SV5	0.856	***	0.254	0.802	***	0.183	0.786	***	0.42	0.535	1.185	0.376					
	SV3	0.796	***	0.198	0.704	***	0.223	0.934	***	0.151								
Autonomy	AO5	0.816		0.231	0.666		0.055	0.898		0.286								
	AO4	0.817	***	0.243	0.724	***	0.084	0.835	***	0.19	0.942	-0.100	-0.94					
	AO6	0.84	***	0.273	0.915	***	0.451	0.892	***	0.243	2.287*	-0.792	-2.598**					
	AO1	0.628	***	0.077	0.477	***	0.009	0.805	***	0.218	0.342	1.321	0.522					
Social Support															0.056	0.985	0.927	9
Co-worker	SS2	0.695		0.51	0.781		0.076	0.694		0.679								
	SS4	0.912	**	0.14	0.973	**	0.738	1.000	***	-0.039	-0.315	1.73	0.762					
Supervisor	SS5	0.843		0.243	0.912		0.578	0.854		0.337								
	SS6	0.744	***	0.137	0.625	***	0.106	0.853	***	0.351	-1.875+	0.033	1.832+					
	SS7	0.917	***	0.47	0.813	***	0.249	0.762	***	0.193	-1.519	-0.355	-0.077					

Note: 1. +  $P < 0.1$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ . 2. Cronbach  $\alpha$  for organizational commitment measure was 0.914, for Skill variety was 0.88, for autonomy was 0.86, for turnover intention was 0.88, for perceived workload was 0.89, for co-work support was 0.82, for career satisfaction was 0.94, for supervisor support was 0.85, for Learning need satisfaction was 0.82.

#### 4. Preliminary statistics

Of the 586 participants, 448 at least partially complete the survey instruments. The participants have been employed, on the average, by the current organization for 4-6 years. Of those 448 subjects, there are 127 baby boomers, 160 in Gen Xs and 161 in Gen Ys, with 53% male, 53% married, and 56% possessing a bachelor's (or higher) degree.

The descriptive statistics analysis (Table 2) provides the means, standard deviations, and correlation for the independent, dependent, control variables by generation. The results show that the correlation coefficients between physical workload and other variables such as dependent and control variables studied do not reach the 0.05 level of significance for all 3 generations. Besides, the perceptual workload of Gen Ys appears to be positively related to turnover intention, learning opportunity, skill variety and autonomy and negatively related to supervisor support. The perceptual workload of Gen Xs appears to be positively related to skill variety. Baby boomers' perceptual workload and turnover intention are significantly positively related while physical workload shows no relation to QWL. Since previous results show that physical workload has no significant relationship with QWL for all three generation groups, no substantial moderating effect of generation should be expected in the relationship between physical workload and QWL. Thus, physical workload is eliminated from the comparative analysis below, with perceptual workload being equivalent to workload in the following sections.

#### 5. Test of hypotheses

Multiple-group structural equation modeling (SEM) is employed to examine the hypotheses. The maximum likelihood estimation method of Amos software package (version 5.0) is used. Table 3 provides an overview of the SEM comparative analysis for three generation groups. The path coefficients of workload to QWL are examined. After controlling skill variety, autonomy, sex and social support, the standardized coefficient for Gen Ys is -0.230 ( $p < 0.05$ ), indicating that workload is a significant predictor of QWL. The standardized coefficient for baby boomers is -0.324 ( $p < 0.01$ ), also significant. However, the direction is opposite. Consequently,  $H_{1-3}$  obtains statistical support while  $H_{1-1}$  is not supported. The standardized coefficient of workload for Gen Xs is only -0.065 ( $p > 0.05$ ), not achieving the 0.05 level of significance. These results reveal that as workload gets heavier, QWL gets lower for Gen Ys and baby boomers. Additionally, the test on general effects of workload on QWL for all three generations was conducted with QWL consisting of organizational commitment, turnover intention, career satisfaction, and learning opportunity, and the effect of workload on QWL was found to be most significant for baby boomers (C.R.=-3.096,  $p=0.002$ ), with Gen Ys (C.R.=-2.201,  $p=0.028$ ) as a runner-up. Every unit increase of workload for baby boomers will produce 1.4 (-3.096/-2.201) times more effect on QWL as compared to Gen Ys. For Gen Xs, while the effects of autonomy and social support on QWL are significant, no significant effect of workload on QWL was found, thus, supporting  $H_{1-2}$ .

Moreover, critical ratio is further used to test for difference between estimates in path coefficients. Result shows that there is no significant difference between Gen Ys and Gen Xs, and Gen Ys and baby boomers (C.R. < 1.96). However, significant difference does exist between Gen Xs and baby boomer (C.R. > 1.96). The slopes for Gen Xs and baby boomers are significantly different (the path coefficients for these two groups are not equal), meaning that QWL for Gen Xs is significantly different from that of baby boomers. Under the same workload that Gen Xs and baby boomers perceive, however, the QWL affected is dissimilar. Besides, the effect of interacting items in this study (the interaction of independent and control variables) on QWL is significant in both Gen Ys and Baby Boomers (C.R.=4.287  $p$

<0.001 for the former and C.R.= 4.133,  $p < 0.001$  for the later, respectively). It shows that to examine the simultaneous effect of control variables and workload on QWL is more meaningful than to inspect the individual effect, and this interaction effect may vary with generation, as examined in this study. Therefore, the overall result supports our claim that generation plays some role in moderating the effect of workload on employees' QWL ( $H_1$ ).

Table 2. Descriptive statistics for study variables

Variables	Mean	Std	1	2	3	4	5	6	7	8	9	10	11
<b>Generation Y</b>													
1. Physical workload	46.354	7.820											
2. Perceptual workload	3.828	1.045	-0.134										
3. Organization commitment	3.324	1.046	-0.061	-0.004									
4. Turnover intention	3.836	1.583	-0.010	0.253 ***	-0.430 ***								
5. Career satisfaction	4.570	1.443	-0.070	0.137	0.668 ***	-0.373 ***							
6. Learning opportunity	3.385	0.827	-0.003	0.177 *	0.543 ***	-0.273 ***	0.523 ***						
7. Skill variety	3.681	0.936	0.067	0.255 ***	0.032	-0.055	0.184 *	0.306 ***					
8. Autonomy	3.782	0.966	-0.157 *	0.224 **	0.239 **	-0.125	0.285 ***	0.148	0.210 **				
9. Co-worker support	3.281	0.731	-0.110	-0.053	0.373 ***	-0.265 ***	0.271 ***	0.292 ***	0.049 *	0.175 *			
10. Supervisor support	3.145	1.062	0.051	-0.310 ***	0.324 ***	-0.280 ***	0.298 ***	0.252 ***	0.084	-0.032	0.130		
11. Sex	0.516	1.265	0.122	-0.045	0.024	-0.093	0.034	0.080	-0.037	-0.124	-0.061	0.009	
N (generation Y)			161	161	161	161	161	161	161	161	161	161	161
<b>Generation X</b>													
1. Physical workload	47.69	9.01											
2. Perceptual workload	3.85	1.14	-0.093										
3. Organization commitment	2.94	0.79	0.044	0.086									
4. Turnover intention	3.17	1.30	0.064	0.029	-0.457***								
5. Career satisfaction	4.94	1.52	0.038	0.107	0.582***	-0.134							
6. Learning opportunity	3.99	0.84	-0.025	0.057	0.505***	-0.389***	0.209**						
7. Skill variety	3.85	0.79	-0.058	0.157*	0.202**	-0.205**	-0.009	0.424***					
8. Autonomy	2.89	0.81	0.043	0.029	0.417***	-0.116	0.291***	0.435***	0.370***				
9. Co-worker support	4.01	0.94	-0.134	0.088	0.476***	-0.264***	0.257***	0.407***	0.274***	0.256***			
10. Supervisor support	3.52	1.11	-0.026	-0.110	0.374***	-0.169*	0.097	0.367***	0.206**	0.182*	0.351***		
11. Sex	0.87	1.54	0.014	-0.034	-0.028	-0.071	-0.092	0.017	0.015	0.051	-0.157*	-0.088	
N (generation X)			160	160	160	160	160	160	160	160	160	160	160
<b>Baby Boomers</b>													
1. Physical workload	47.892	10.672											
2. Perceptual workload	3.747	1.155	0.004										
3. Organization commitment	4.140	1.148	-0.016	-0.133									
4. Turnover intention	3.029	1.667	-0.003	0.330 ***	-0.432 ***								
5. Career satisfaction	5.910	0.226	-0.088	-0.138	0.604 ***	-0.190 *							
6. Learning opportunity	4.205	0.912	0.112	0.074	0.506 ***	-0.295 ***	0.418 ***						
7. Skill variety	3.815	0.928	0.059	0.139	0.471 ***	-0.071	0.375 ***	0.494 ***					
8. Autonomy	4.603	1.190	0.117	-0.039	0.483 ***	-0.177 *	0.382 ***	0.334 ***	0.482 ***				
9. Co-worker support	3.516	0.695	0.094	-0.041	0.416 ***	-0.171	0.306 ***	0.337 ***	0.174 *	0.211 *			
10. Supervisor support	3.448	1.293	0.061	0.089	0.431 ***	-0.086	0.437 ***	0.498 ***	0.358 ***	0.220 *	0.280 ***		
11. Sex	0.732	0.877	0.175 *	0.112	-0.195 *	0.171	-0.128	-0.099	0.025	-0.098	-0.099	-0.107	
N (baby boomers)			127	127	127	127	127	127	127	127	127	127	127



Table 3. Comparison of the effect of workload of different generation on quality of work life

Path		Generation Y				Generation X				Baby boomers				C.R. for Dif. between parameters		
		Estimate	S.E.	C.R.	P	Estimate	S.E.	C.R.	P	Estimate	S.E.	C.R.	P	G.Y. - G.X.	G.Y. - B.B.	G.X. - B.B.
QWL	<- Workload	-0.23	0.078	-2.201	0.028	-0.065	0.047	-0.682	0.495	-0.324	0.078	-3.096	0.002	1.536	-0.621	-2.297
QWL	<- Skill Variety	-0.002	0.084	-0.019	0.985	0.176	0.070	1.783	0.075	0.399	0.089	4.126	***	1.154	3.015	2.149
QWL	<- Autonomy	0.069	0.081	0.688	0.491	0.417	0.071	4.087	***	0.116	0.072	1.164	0.244	2.168	0.256	-2.039
QWL	<- Social Support	0.673	0.891	1.567	0.117	0.597	0.145	3.571	***	0.513	0.226	2.719	0.007	-0.975	-0.851	0.365
QWL	<- Sex	0.246	0.054	2.84	0.005	0.024	0.031	0.280	0.779	-0.043	0.081	-0.520	0.603	-2.324	-2.004	-0.586
QWL	<- Interaction	0.576	0	4.287	***	0.259	0.000	2.141	0.032	0.508	0.000	4.133	***	-2.686	-1.185	1.847
Social support-Co-worker	<- Social Support	0.367	0.302	2.358	0.018	0.602	0.224	3.919	***	0.505	0.163	3.018	0.003	0.446	-0.645	-1.404
Social support-Supervisor	<- Social Support	0.355	-	-	-	0.583	-	-	-	0.554	-	-	-	-	-	-
Organization commitment	<- QWL	0.747	-	-	-	0.712	-	-	-	0.747	-	-	-	-	-	-
Turnover intention	<- QWL	-0.516	0.212	-4.92	***	-0.329	0.206	-3.708	***	-0.250	0.176	-2.765	0.006	0.951	2.023	1.022
Career satisfaction	<- QWL	0.727	0.15	8.949	***	0.335	0.210	4.341	***	0.637	0.021	7.840	***	-1.672	-7.748	-3.520
Learning opportunity	<- QWL	0.722	0.125	6.101	***	0.718	0.150	7.157	***	0.673	0.101	7.091	***	1.595	-0.287	-1.978

Note: 1. GFI = 0.955, AGFI = 0.852, RMSEA = 0.049, 2. \*\*\*:  $p < 0.001$ .

## 6. Discussion

This study highlights the importance of considering generation in analyzing the relationship between workload and QWL by incorporating the moderating effect of generation. Manz and Grothe (1991) compared QWL of people born in the mid-1940s with that of the baby boomers born in mid-1960s and found that baby boomers are more restless and dissatisfied. This conclusion coincides with our empirical finding for  $H_{1-1}$ . Previous literatures (e.g. O'Bannon, 2001) have pointed out that baby boomers are loyal to their employers and their work values emphasize hard work. Although baby boomers can accept challenging tasks, they need to spend longer hours on the jobs when compared to Gen Xs (Rodriguez et al., 2003). Hence, the view from past studies (Fox et al., 1993; Kushnir and Melamed, 1991) that baby boomers are less skillful with technological tools and, thus, cannot effectively handle assignment (workload), which in turn affects their QWL, may be one possible explanation to our empirical result for rejecting  $H_{1-1}$ . Therefore, this study suggests that the culture factor of different generations seems to be a more appropriate explanation of why baby boomers possess less sustainability of workload which, therefore, affects their QWL.

Based on the empirical results of this study, the effect of perceptual workload is not significant in QWL of Gen Xs ( $H_{1-2}$ ). Having grown up in the information age and being comfortable with technology (Cordeniz, 2002), Gen Xs can well implement tools from the latest technology to increase their working efficiency and further reduce the effect of workload on QWL. Besides, Gen Xs will pick the job that allows them to get the most fun out of life (Cordeniz, 2002) and freedom from supervision (Jurkiewicz, 2000). They tend to be more independent, self-motivated and self-sufficient (Loomis, 2000). When Gen Xs feel that work and stress have overtaken their lives, they will not hesitate to leave (Maynard, 1996). For that reason, the effect of workload on the QWL for Gen Xs is not significant.

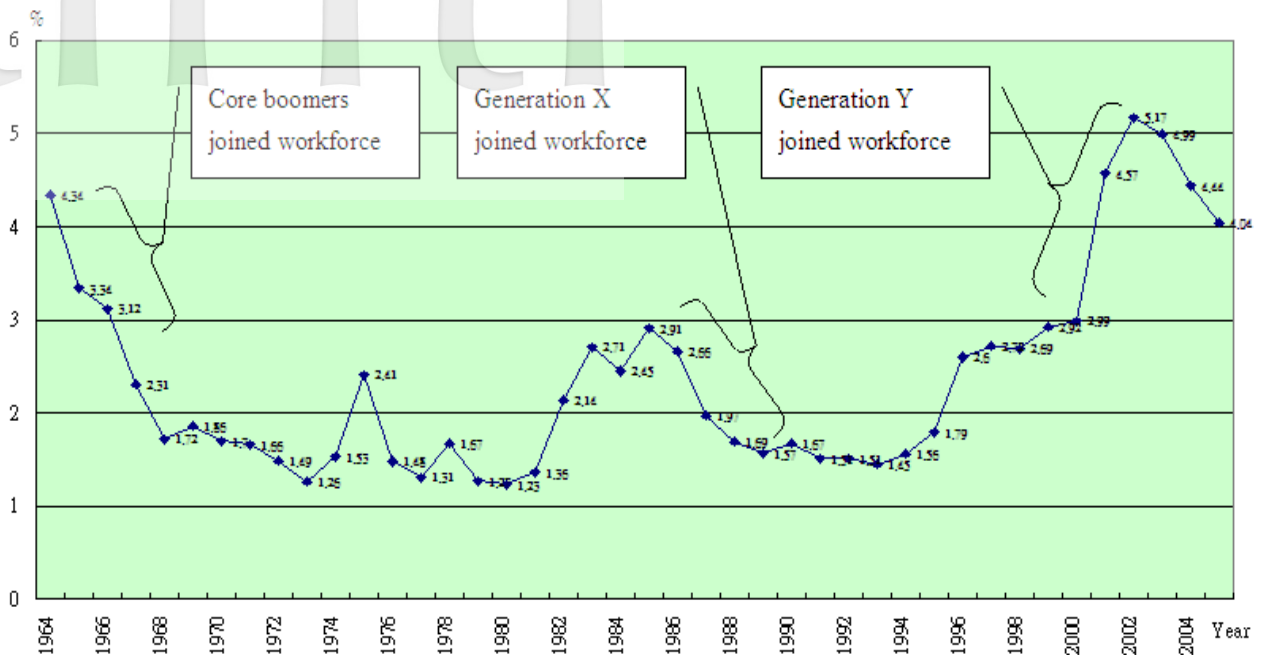
Our results also show that when workload gets heavier, the QWL for Gen Ys lowers ( $H_{1-3}$ ). As previously mentioned, every unit increase of workload for baby boomers will produce 1.4 (-3.096/-2.201) times more effect on QWL as compared to Gen Ys, which seems to indicate that baby boomers are weaker in terms of workload sustainability when compared to Gen Ys. This is in line with the social phenomenon that Gen Ys has been labeled as the Strawberry Generation or Strawberry Clan (Liao, 2004). These are popular terms known in Taiwan to describe people who are basically born between the years 1980 to 1990 to possess the property of strawberry with no resistance to outside pressure, revealing that Gen Ys are less capable of withstanding workload. This study concludes that the relationship between physical workload and QWL is insignificant in all three generations, which is similar with the finding of Loscocco and Spitz (1990). Their study points out that the only thing that affects workers' well being is working conditions, not workers' physical characteristics, such as gender.

Although Gen Ys are fundamentally different from the other two generation groups (Hill, 2002) and do not want to work as hard as the baby boomers (O'Reilly and Vella-Zarb, 2000), from the viewpoint of generation theory this study finds that Gen Ys and baby boomers should possess a common characteristic that contributes to the relationship between workload and QWL. As Loscocco and Spitz (1990) state that work plays a major role in life with potential to affect fundamental aspects of personality, we examine the trend of unemployment rate, which is deemed to be most related to work, to explain our findings. Figure 1 illustrated that in Taiwan when Gen Ys and baby boomers entered the job market (around 1964 and 1995, respectively) the unemployment rates are relatively on the higher end. On the other hand, when Gen Xs entered the job market (around 1985), the unemployment rate in Taiwan was on the fall. According to Ravanera's et al. argument (1998), the major turning point of a person's career change is at the time when one finishes education and enters the job market. Similar phenomena occur in US (Munk, 1998). When Gen Xs entered the job market, the unemployment rate just reached the lowest point in nearly half a century. It seems that the economic attributes for each generation may have some impact on the relationship between workload and QWL and perhaps cause the moderating effect. However, the proposed role of unemployment rate is not conclusive. Such an issue is beyond the scope of this study and will require further study to confirm.

This study finds that generation is one of the important factors that moderate QWL, which supports the claim that generation can give us an idea of the major changes in working attitudes (Strauss and Howe, 1991) and is therefore much more suitable than age in explaining the effect on QWL. Thus, future studies on human resource management may consider replacing age with generation to account for moderating effect so as to increase the explanation power of their research models.

In addition, the findings of this study can be of great assistance during employee selection, management and work design. Upon selecting employees, a company should analyze the human characteristics of generation difference and apply different management styles on different generations. For example, when a company needs independent, self-motivated and self-sufficient employees, Gen Xs should be considered first. If present supervisors have strong leading and controlling desires, they should recruit from baby boomers or Gen Ys. In managing employees of a different generation, baby boomers should be provided with more modern skill training, Gen Ys should be directed to strengthen their pressure resistance ability and Gen Xs should be assigned more important work responsibility. In work design, composition of human resource in an organization should be considered with respect to the original job demand and control structure. If employees in the organization are mostly Gen Xs, higher job demand and control would be quite suitable for them. However, the corresponding

higher job demand and control would not be suitable for organizations with employees of mostly Gen Ys and/or baby boomers.



Source:

1. Labor force survey institute of Taiwan (1977), Report of Labor Force Survey in Taiwan Area, R. O. C., Labor force survey institute of Taiwan, Taipei, p. 49.
2. Directorate General of Budget, Accounting and Statistics, Executive Yuan, R.O.C. (2005), Taiwan Area Unemployment Rate [online], available: [http://win.dgbas.gov.tw/dgbas04/bc4/manpower/w\\_uemr\\_f.asp](http://win.dgbas.gov.tw/dgbas04/bc4/manpower/w_uemr_f.asp) [November 20, 2005].

Figure 1. Unemployed rate in Taiwan

## 7. Limitation

Gould and Hawkins (1978) argue that work satisfaction is affected by career stage. Based on this point of view, baby boomers may be currently in the maintenance stage and Gen Ys in the establishment stage, with a mental or physical condition that limits their ability to handle workload. Gen Xs may be in the advancement stage, and so are capable of dealing with workload so easily that the associated QWL is thus not affected. We cannot eliminate the possible association between work satisfaction and career stage, which is a limitation of this study. On the other hand, Lynn et al., (1996) on prior research pointed out that career stage is positively related to work commitment and job satisfaction and negatively related to turnover intention. The study of Gould and Hawkin (1978) shows that work itself has the largest effect on job satisfaction during the establishment stage, which is inconsistent with our finding in Table 1 that variables which relate to work itself such as workload, skill variety, and autonomy have the least effect on QWL for Gen Ys. Moreover, Gould et al. state that the effect of co-workers on job satisfaction is least significant during the advancement stage. This view is also different from the empirical finding of this study that social support has a higher effect on QWL for Gen Xs than for baby boomers. Therefore, we believe that the classifications of generation and career stages in this study should not generate confounding problems. If further study can be conducted on Gen Xs entering maintenance stage (after 40 years old) and Gen Ys entering advancement stage (around 30-40 year old) to obtain similar results, the doubts here may be clarified.

According to Yu and Miller's research (2003) which considered Taiwan as a country that built herself under America's image, this study does not directly measure work value among generations. Thus, we cannot eliminate the possibility that the generation culture in Taiwan is different from her western counterparts. Future studies can focus on this difference to modify research design. Another limitation of this study is that the findings in literature regarding Gen Ys are limited such that the inference toward Gen Ys cannot be fully compared in this study and our results may be incomplete.

Based on previous research (Sweeney and Summers, 2002; Crouter et al., 2001; Fox et al., 1993), this study uses working hours to measure physical workload. Instead of obtaining actual time card data of surveyed employees from the companies, this study uses questionnaire surveys where participants recall average working hours and overtime hours per week. Thus, the significance of the construct effect may be influenced by the possible existence of measurement bias. If the actual data of working hours can be obtained in future study, the effect of physical work on QWL can be further refined.

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## 工作負荷對工作生活品質之影響是否因世代而異？

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### 摘要

本研究旨在探索在工作負荷與工作生活品質關係中不同世代所扮演的角色。本研究以問卷調查 Y、X 與戰後嬰兒潮等世代的工作負荷、工作生活品質等要素，並以多元結構方程式進行分析。分析結果顯示當工作負荷較重時，Y 世代與戰後嬰兒潮的工作生活品質會降低，而對 X 世代的影響並不顯著。研究結果支持本研究「世代對工作負荷與工作生活品質之關係有中介效果」之論述，建議管理者在進行員工選任、管理、與工作設計時應將世代列入考量。

**關鍵詞：**世代、工作負荷、工作生活品質、中介效果、結構方程式