

2014

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Original Publication Citation

Senasu, K., & Singhapakdi, A. (2014). Relative effects of lower-order and higher-order quality of work life on employee job satisfaction and life satisfaction: Case studies of service and manufacturing sectors in Thailand. *Kasetsart Journal: Social Sciences*, 35(1), 73-83.

Relative Effects of Lower-Order and Higher-Order Quality of Work Life on Employee Job Satisfaction and Life Satisfaction: Case Studies of Service and Manufacturing Sectors in Thailand

Kalayanee Senasu^{1,*} and Anusorn Singhapakdi²

ABSTRACT

This research investigates the relative effects of lower-order and higher-order aspects of quality of work life (QWL) on employee job satisfaction and overall life satisfaction in Thai workplaces. The data were collected by means of questionnaires mailed to employees of 6 selected companies—3 companies in each of the service and manufacturing sectors in Thailand with respective response rates of 72 and 74 percent. The results reveal that the two aspects of QWL in all companies have a positive impact on both aspects of employee satisfaction: job satisfaction and overall life satisfaction. The results also reveal a generally more important role played by higher-order QWL in both sectors. For the service sector, although lower-order QWL plays a more important role in job satisfaction than higher-order QWL, it plays a less important role in overall life satisfaction. For the manufacturing sector, higher-order QWL appears to play a more important role in both job satisfaction and overall life satisfaction than lower-order QWL. Some managerial implications and recommendations are also included based on our research findings.

Keywords: quality of work life, job satisfaction, overall life satisfaction, Thai workplaces

บทคัดย่อ

งานวิจัยนี้ได้ค้นคว้าผลกระทบเชิงเปรียบเทียบของคุณภาพชีวิตการทำงานในลำดับล่างและลำดับบนต่อความพึงพอใจในงานและความพึงพอใจในชีวิตโดยรวมของพนักงานในสถานประกอบการของไทย ข้อมูลเก็บจากแบบสอบถามที่ส่งถึงพนักงานที่เลือกมา 6 บริษัท เป็นบริษัทในภาคบริการ 3 บริษัท และเป็นบริษัทในภาคอุตสาหกรรมการผลิต 3 บริษัท แบบสอบถามได้รับตอบกลับมาคิดเป็นร้อยละ 72

ในภาคบริการ และร้อยละ 74 ในภาคอุตสาหกรรม การผลิต ผลการศึกษาพบว่าทั้งลำดับล่างและลำดับบนของคุณภาพชีวิตในการทำงานส่งผลกระทบต่อความพึงพอใจของพนักงานทั้งความพึงพอใจในงานและความพึงพอใจในชีวิตโดยรวม ผลการศึกษายังพบว่า คุณภาพชีวิตการทำงานลำดับบนแสดงบทบาทที่สำคัญในทั้งสองภาคการผลิต โดยในภาคบริการแม้ว่าคุณภาพชีวิตการทำงานในลำดับล่างจะแสดงบทบาทที่สำคัญกว่าต่อความพึงพอใจในงาน แต่คุณภาพชีวิตการทำงานลำดับบนก็แสดงบทบาทที่

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สำคัญกว่าในความพึงพอใจในชีวิตโดยรวม สำหรับภาคอุตสาหกรรมการผลิตคุณภาพชีวิตการทำงานในลำดับบนแสดงบทบาทที่สำคัญกว่าทั้งต่อความพึงพอใจในงานและความพึงพอใจในชีวิตโดยรวม ผู้วิจัยได้อธิบายถึงนัยยะและข้อเสนอแนะต่อการบริหารจัดการจากการค้นพบนี้ไว้ด้วย

คำสำคัญ: คุณภาพชีวิตการทำงาน ความพึงพอใจในงาน ความพึงพอใจในชีวิตโดยรวม สถานประกอบการของไทย

INTRODUCTION

Over the last decade, the increasing effects of factors such as globalization, information technology, world business competitiveness and demands, and limited natural resources have changed people's perceptions and expectations of how a good company is defined. Previously, definitions relied heavily on financial figures; however, more recently social responsibility, governance, quality of work life (QWL), and employee job satisfaction are increasingly being identified as progressive indicators of well-functioning and sustainable business organizations. In the past, research in human resource management often linked QWL to job satisfaction, productivity, or organizational performance (Walker, 1992; Cascio, 1998; Lau & May, 1998; Cummings & Worley, 2005; Wheelan & Hunger, 2006). More recently, researchers have not only focused on aspects of work, but have also investigated aspects of overall life. Improving quality of life is regarded as one of the highest human and societal goals (Krau, 1985; Oswald, 1997). A number of studies measure quality of life using both objective and subjective indicators; objective indicators are external to the individual and encompass material living levels such as income and nutrition, while subjective indicators measure how individuals evaluate their quality of life (Easterlin, 2001, 2005). They are usually

summarized under the term "subjective well-being" and conceptualized as either happiness or life satisfaction (Cummins, 2000; Diener & Biswas-Diener, 2002).

Although there are many studies on QWL, job-related outcomes, and overall quality of life, research studies concerning Thai business organizations are rarely reported. This research, therefore, is intended to investigate further knowledge about such issues by examining the association between QWL, job satisfaction, and overall life satisfaction in Thai business workplaces. Specifically, one objective of this research is to investigate the impact of the two QWL dimensions (lower-and higher-order QWL) on the job satisfaction and overall life satisfaction of employees in service and manufacturing companies in Thailand. Additionally, the research investigates the relative impact of these two QWL dimensions.

LITERATURE REVIEW

Quality of work life

The quality of work life (QWL) concept was introduced as part of workplace research in the late 1950s. However, up until the mid 1970s, the major focus of this relatively new research area was on work design and improvement as determinants of employee job satisfaction and productivity. Since the 1980s, QWL research has come to include other factors such as reward systems, work teams, employee involvement, rights, and esteem needs (Sirgy, Efraty, Siegel, & Lee, 2001; Cummings, & Worley, 2005). As conceived by Walker (1992), the focus of QWL was on the enhancement of work environments to help satisfy employee needs. According to Walker, efforts to satisfy employee needs such as creating teams and nurturing a sense of ownership contribute to high productivity and performance. Similarly, it has been asserted that employees in a good QWL organization or in an organization that pays more attention to their well-being will like their organization and tend to

feel that their work fulfills their needs (e.g., Cascio, 1998; Sirgy et al., 2001; Sirgy 2006) and this can even have an impact on their non-work quality of life (Sirgy, Reilly, Wu, & Efraty, 2008). Interestingly, Sirgy (2006, p. 8) argued that “Satisfaction with a particular life domain (e.g., job satisfaction) ... is influenced by lower levels of life concerns within that domain (e.g., satisfaction with career, satisfaction with employer)”. It should be pointed out that the QWL concept includes providing employees with the opportunity to design their workplaces and make decisions about what they need to help them become most effective in performing their work (e.g., Cascio, 1998; Sirgy, 2006). A more recent study by Lee, Singhapakdi, and Too (2008) generally supports this assertion. They report that in relation to employee benefit plans (flexible vs. fixed), employees tend to have a higher level of satisfaction with flexible types of plans that allow employees greater decision control in choosing their benefits.

Consistent with the above authors, Efraty and Sirgy (1990) conceptualized QWL in terms of ‘need satisfaction’. This conceptualization was formalized in their later research where they formally define QWL as “employee satisfaction with a variety of needs through resources, activities, and outcomes stemming from participation in the workplace” (Sirgy et al., 2001, p. 242). Borrowing Maslow's (1970) hierarchy of needs framework, Sirgy et al. (2001) proposed that QWL can be measured in terms of employees' needs. They proposed seven dimensions of needs to measure QWL: (1) health and safety needs, (2) economic and family needs, (3) social needs, (4) esteem needs, (5) actualization needs, (6) knowledge needs, and (7) aesthetic needs. Based on their research, these seven dimensions can be collapsed into two major categories: lower-order and higher-order needs. The lower-order QWL category is comprised of health/safety needs and economic/family needs; the higher-order QWL category includes social, esteem, self-actualization, knowledge, and aesthetic needs.

In more recent research, Martel and Dupuis (2006) measure QWL in four contexts: (1) the nature of the job; (2) the physical environment of the work place; (3) the psychosocial conditions of the employees; and (4) the organizational management and policies. A research study by Huang, Lawler, and Lei (2007) measures QWL in four dimensions: (1) work-life balance; (2) job characteristics; (3) supervisory behavior; and (4) compensation and benefits. However, some of the QWL components presented in the research mentioned above are similar to the seven QWL dimensions measured in the research by Sirgy et al. (2001). QWL measured in the current research is based on the studies of Sirgy et al. (2001).

Overall life satisfaction

Campbell, Converse, and Rodgers (1976) suggested that life as a whole is a concept of such breadth that few people are accustomed to thinking of their situation in such a way. Diener (1984) used the term “subjective well-being” to describe a person's overall experience in life and suggested that it essentially reflects a person's self-described happiness. Diener also added that subjective well-being has been labeled as life satisfaction because in attempts to determine what leads to the positive evaluation of life, researchers have discovered that this subjective form of happiness is a global assessment of the quality of one's life guided by a person's own set of criteria. Veenhoven (1996) defines life satisfaction as enduring contentment, that is, the degree to which people judge the overall quality of their life. Specifically, domain satisfaction refers to the individual's cognitive evaluation of various aspects of his/her life experiences (e.g., leisure and job). Such a subjective evaluation is often based on the person's self-imposed standards and the degree to which an individual perceives that his/her aspirations are being met. Campbell et al. (1976) based on psychological mechanisms, developed subjective indices to measure life satisfaction by utilizing surveys to determine relevant perceptions, satisfactions, and evaluations

of a group's community that better translate into feelings or experiences. These subjective indices are based on an individual's personal evaluation of his/her experiences rather than someone else's judgment or a judgment rendered by an absolute or objective reality determined (or imposed) by outsiders. In this study, the subjective mechanism of overall life satisfaction based on the studies of Campbell et al. (1976) is used.

QWL, job satisfaction, and overall life satisfaction

According to Sirgy et al. (2001, p. 242), QWL refers to "employee satisfaction with a variety of needs met through resources, activities, and outcomes stemming from participation in the workplace". Based on this conceptualization, we would expect job satisfaction as well as satisfaction in other life domains to be a function of needs satisfaction resulting from an employee's workplace experience. Also as conceptualized by Sirgy et al. (2001), job satisfaction is one of many outcomes of QWL. Following their conceptualization, the focus of QWL is, therefore, beyond job satisfaction. According to them, QWL involves the effect of the workplace on job satisfaction as well as satisfaction in non-work life domains including satisfaction with overall life, personal happiness, and subjective well-being. This view is consistent with Danna and Griffin's (1999) view of QWL as a hierarchy of constructs including life satisfaction (top of the hierarchy), job satisfaction (middle of the hierarchy), and work-specific facet satisfaction (QWL) such as satisfaction with pay, co-workers, and supervisor, among others. It should also be noted that the notion of hierarchy by Danna and Griffin (1999) is highly consistent with the views of many other researchers (Wilensky, 1960; Diener, 1984; Sirgy, 2001, 2006). Following the consistent views of these many researchers, a person's attitude toward life which is based on different aspects of his/her life experience can be compartmentalized in a variety of life domains including family life, leisure life, community life, and work life. An employee's

attitude toward life, therefore, also originates from the satisfaction of his/her needs at work. In other words, QWL is likely to contribute significantly and positively to job satisfaction (Porter, 1961; Hall, Schneider, & Nygren, 1970; Tait, Padgett, & Baldwin, 1989; Bretz, & Judge, 1994). Making an analogy with the broader concept of life satisfaction, and as stated above that attitude toward QWL is compartmentalized in a variety of life domains, we would expect that a higher achievement of a person's needs at work would lead to a higher satisfaction in overall life (Peterson, Park, & Seligman, 2005; Proyer, Annen, Eggimann, Schneider, & Ruch, 2012). Based on the above discussion, the following hypotheses were formulated.

Hypothesis 1: There is a significant positive influence of lower-order QWL and higher-order QWL on job satisfaction.

Hypothesis 2: There is a significant positive influence of lower-order QWL and higher-order QWL on overall life satisfaction.

Comparing the effects of lower-order QWL and higher-order QWL, a recent survey of American marketing professionals by Lee, Singhapakdi, and Sirgy (2007), and a survey of Thai HR managers by Koonmee, Singhapakdi, Virakul, and Lee (2010) consistently revealed that lower-order QWL had a more positive impact on job satisfaction while higher-order QWL had a more positive impact on team spirit. Therefore, the following hypotheses were formulated:

Hypothesis 3: Lower-order QWL will be more important than higher-order QWL in predicting job satisfaction.

Hypothesis 4: Higher-order QWL will be more important than lower-order QWL in predicting overall life satisfaction.

Hence, all four hypotheses suggest that both lower-order QWL and higher-order QWL are important in predicting job satisfaction and overall life satisfaction. However, they differ in relative importance.

METHODOLOGY

Samples and data collection

This research uses a self-administered questionnaire as the data-collection technique. The questionnaire was developed and pre-tested on a sample collected using the field data survey method with 30 study cases. The survey data were aggregated for a test of reliability. The Cronbach Alpha coefficient is 0.86 which is satisfactory. The questionnaires were amended by abridging or simplifying some questions making them easier to understand.

The sample for this research consisted of employees working in six selected companies in Thailand, with three companies from the service sector and the other three companies from the manufacturing sector. Two of the service companies are registered on the Stock Exchange of Thailand (SET) providing health care and real estate services; the other company is a subsidiary of a bank listed on the SET. The manufacturing companies consist of one each of resource (listed on the SET), automotive and telecommunication companies. The data are random samples with a 95 percent confidence level in each company. The survey yielded 662 usable questionnaires from the service companies giving a response rate of 72 percent, and 615 usable questionnaires from the manufacturing companies giving a response rate of 74 percent.

The majority of respondents from the service companies was female (72.5%), 29 years of age or under (53.5%), and worked in positions of support staff or technician (68.4%). The majority of respondents (66.7%) had been employed in their organization for 5 years or less, and 72.2 percent of the respondents had a bachelor's degree.

Data from the respondents in the manufacturing companies shows that more than half were male (52.0%), between 30 and 39 years of age (31.0%), and worked in positions of operator or support staff (63.2%). Regarding length of employment, the highest percentage (27%) was in

the category "employed in their organizations for 5 years or less". Though less than half (43.4%) had completed a bachelor's degree, 26 percent of the respondents had a master's degree.

Measurement

Quality of work life

The QWL scale developed by Sirgy et al. (2001) was used to measure the quality of work life. As pointed out earlier, the scale represents a need satisfaction approach to QWL, essentially based on Maslow's hierarchy of needs theory. The 16-item QWL scale was conceptualized as a summation of satisfaction in the seven categories of needs: (1) health and safety needs, (2) economic and family needs, (3) social needs, (4) esteem needs, (5) actualization needs, (6) knowledge needs, and (7) aesthetics needs. These seven categories can be collapsed into two major categories: lower-order and higher-order needs. *Lower-order QWL* is comprised of health/safety needs and economic/family needs, while *higher-order QWL* includes social, esteem, self-actualization, knowledge, and aesthetic needs. The respondents were asked to respond to each item by checking a 7-point scale ranging from "strongly disagree" (value of 1) to "strongly agree" (value of 7). According to their conceptualization, organizations that score high on QWL are those that provide resources to meet the basic and growth needs of their employees.

Job satisfaction

Job satisfaction is defined as "The degree to which employees are generally satisfied with their work." Job satisfaction is measured by a 5-item questionnaire developed by Dubinsky, Howell, Ingram, and Bellenger (1986). Level of job satisfaction is indicated by a response to a 7-point Likert-type scale ranging from "strongly disagree" (value of 1) to "strongly agree" (value of 7).

Overall life satisfaction

The rating of overall life satisfaction was developed by Campbell et al. (1976). It is the sum of eight differential ratings on "how you feel about

your present life” (e.g. Boring-interesting, enjoyable-miserable). Overall life satisfaction is measured with a 7-point Likert-type scale ranging from “strongly disagree” (value of 1) to “strongly agree” (value of 7).

RESULTS

All research hypotheses were tested by means of hierarchical regression analysis. Tables 1 and 2 summarize the results of the regression analyses used to test the hypotheses regarding the two dependent variables of job satisfaction and overall life satisfaction for employees in two business sectors in Thailand—service and manufacturing.

Research hypotheses 1 and 2 were tested by means of hierarchical regression analysis. There were five control variables as independent variables for model 1, and an additional model variable as an independent variable for model 2, and two model variables for model 3. Table 1 summarizes the regression analysis results for both dependent variables: job satisfaction and overall life

satisfaction for employees in the service sector sample. The results indicate the following important findings: (1) Control variables significantly influence only job satisfaction (adjusted $R^2 = .036$). (2) Higher-age employees show higher job satisfaction (significant positive relationship in model 1 for job satisfaction [$\beta = .229, p < .01$]). (3) Both lower-order QWL and higher-order QWL play important roles in predicting job satisfaction and overall life satisfaction (adjusted R^2 increases by .470, and .253, respectively). (4) While lower-order QWL plays a more important role in predicting job satisfaction than higher-order QWL ($\beta = .594$ versus $\beta = .158, p < .01$), higher-order QWL shows a stronger effect on overall life satisfaction than lower-order QWL ($\beta = .359$ versus $\beta = .252, p < .01$).

Research hypotheses 1 and 2 were also tested by means of hierarchical regression analysis with a different sample—manufacturing employees. The same five control variables were used as independent variables for model 1, and an additional model variable as an independent variable for model 2, and two model variables for model 3. Table 2 summarizes the regression analysis results of both

Table 1 Effects in 3 service companies of lower-order and higher-order quality of work life on job satisfaction and overall life satisfaction

Variable	Job satisfaction			Overall life satisfaction		
	Std Beta Model 1	Std Beta Model 2	Std Beta Model 3	Std Beta Model 1	Std Beta Model 2	Std Beta Model 3
Control variable						
Years in Organization	-.108	.011	.015	.078	.031	.020
Age	.229**	.030	.021	.083	.007	.005
Gender	.055	.015	.009	.072	.030	.004
Education	-.046	-.061*	-.053	.081	.073	.125**
Job position	.062	-.023	-.023	.029	.013	-.035
Model variable						
Lower-order QWL		.699**	.594**		.425**	.252**
Higher-order QWL			.158**			.359**
Adjusted R^2	.036	.494	.506	.035	.197	.288
F	5.346**	94.097**	83.942**	4.660	21.379**	29.411**

* $p < .05$; ** $p < .01$

dependent variables, that is, job satisfaction and overall life satisfaction, for employees in the manufacturing sector samples. The results indicate the following important findings: (1) The control variables show more influence on overall life satisfaction (adjusted $R^2 = .044$) than on job satisfaction (adjusted $R^2 = .033$), and one control variable, that is, education, positively affects overall life satisfaction for all three models. (2) More highly-educated employees show higher overall life satisfaction (significant positive relationship in all 3 models for overall life satisfaction [$\beta = .142, .134$, and $.170, p < .01$]). (3) Both lower-order QWL and higher-order QWL play important roles in predicting job satisfaction and overall life satisfaction (adjusted R^2 increases by $.385$ and $.188$, respectively). (4) The higher-order QWL plays a more important role in predicting both job satisfaction and overall life satisfaction than lower-order QWL ($\beta = .402$ vs. $\beta = .355, p < .01$) for job satisfaction, and ($\beta = .304$ vs. $\beta = .222, p < .01$) for overall life satisfaction.

Therefore, the results support hypotheses 1–4 for employees in the service sector (Table 1), and support hypotheses 1, 2, and 4 for employees in

the manufacturing sector (Table 2).

DISCUSSION

It was hypothesized that both lower-order and higher-order QWL have positive impacts on both job satisfaction and overall life satisfaction; however, they differ in relative importance. The findings in this study provide support for almost all four hypotheses using service employees and manufacturing employees as samples. The results show that lower-order QWL has a stronger effect on job satisfaction than higher-order QWL for service employees. This is consistent with previous research that has linked QWL with job satisfaction (Lee et al., 2007; Koonmee et al., 2010). However, for manufacturing employees, the results indicate that higher-order QWL has a stronger effect than lower-order QWL on job satisfaction. An explanation for this may be found in the profiles of the employees from the manufacturing sector. Relative to their counterparts in the service group, respondents from the manufacturing group are older, have worked longer in their respective organizations,

Table 2 Effects in 3 manufacturing companies of lower-order and higher-order quality of work life on job satisfaction and overall life satisfaction

Variable	Job satisfaction			Overall life satisfaction		
	Std Beta Model 1	Std Beta Model 2	Std Beta Model 3	Std Beta Model 1	Std Beta Model 2	Std Beta Model 3
Control variable						
Years in Organization	.118	.047	.036	.089	.019	.018
Age	.076	-.011	-.017	.071	.017	.009
Gender	.086	.029	-.003	.041	-.004	-.016
Education	.034	.028	.088*	.142**	.134**	.170**
Job position	-.004	-.024	-.079	.007	.013	-.023
Model variable						
Lower-order QWL		.544**	.355**		.377**	.222**
Higher-order QWL			.402**			.304**
Adjusted R^2	.033	.302	.418	.044	.170	.232
F	4.459**	36.591**	50.958**	5.245**	16.341**	20.189**

* $p < .05$; ** $p < .01$

and are generally more highly-educated (based on ANOVA analysis, all of these demographic variables for the group from the manufacturing sector are significantly higher than those for the group from the service sector). Additionally, about three-quarters of the respondents in the service sector group were female. In the manufacturing sector group, the number of female employees was less than 50 percent. Research has shown that female employees in Thailand tend to earn less and are given substantially less autonomy and status in the workplace compared to men (Siengthai & Leelakulthani, 1994; Songphra, 2003; Koonmee et al. 2010; Petchsod, 2010). We believe that this, in turn, causes a lower level of job satisfaction among female employees. This may explain why the satisfaction of employees in the service sector group is more strongly influenced by lower-order QWL.

However, the results indicate a similar influence on overall life satisfaction from higher-order QWL for both service and manufacturing sector employees. As suggested by Danna and Griffin (1999), QWL is a hierarchical concept that includes life satisfaction at the top. In addition, QWL components can be categorized into higher- and lower-order QWL. Therefore, it makes sense, as our results reveal, that things like collegiality at work, recognition and appreciation of work within and outside the organization, realization of one's potential within the organization and as a professional (all under higher-order QWL) appear to have more positive impacts on a variety of life domains (that is, overall life satisfaction).

Our results indicate that an employee's job satisfaction is affected more significantly by lower-order QWL for service employees and by higher-order QWL for manufacturing employees, while an employee's life satisfaction is affected more significantly by higher-order QWL in both sectors. Therefore, in order to increase employee job satisfaction, firms in the service sector should try to enhance the lower-order QWL elements (that is, meeting health/safety needs; providing good pay and

job security), and firms in the manufacturing sector should try to enhance the higher-order QWL elements (that is, collegiality at work, recognition/appreciation of work, realization of one's potential). However, in order to boost life satisfaction of employees, firms in both sectors should try to enhance higher-order aspects of QWL.

Some of the limitations of this study should be noted. The sample in this study was limited to six companies in the Thai workplace; this lowers the generalizability of our findings. Therefore, future studies should attempt to collect data from more companies from each of the different sectors of the Thai economy or even from similar sectors in other countries to increase the generalizability and to validate our findings. One important research question with many theoretical and managerial implications for future research would definitely consider the factors, besides QWL, underlying the various aspects of life satisfaction. The outcomes measured in this study are based only on attitudinal measures for job satisfaction and subjective well-being for life satisfaction. Therefore, future research should include other job-related outcomes including an organization's objective performance criteria such as growth (asset growth, sales growth), profitability (return on assets, return on equity), quality awards, and turnover rate. Riecken and Yavas (2001) pointed out a number of problems in measuring quality of life with objective measures such as personal income, number of rooms in the house, number of schools/hospitals etc. Such figures used in deriving indices may not be accurate and it is hard to understand how well such objective measures represent underlying psychological states or how well such social indicators reflect the quality of life experience of an individual. However, we believe future research may still try to include objective measures of life satisfaction to help validate the results from studies using subjective measures.

To the best of our knowledge, this study is among the first studies in Thailand or in similar

developing Asian countries on the impacts of lower-order and higher-order QWL on employee job satisfaction and overall life satisfaction. Given that Thailand is a developing economy in Asia, this study further validates the findings generated from other studies which were mostly conducted in Western/developed economies. Therefore, we believe our research is a significant contribution to the literature. Previous studies have shown that both lower-and higher-order QWL can have a positive impact on a business organization's performance and this finding is validated by our study in the context of a developing economy in Asia. Our research findings support the research framework which proposes that QWL can influence both job satisfaction and life satisfaction. Since job satisfaction and life satisfaction are generally recognized to be essential factors in organizational productivity and performance, the findings from this study further verify the importance of QWL to business organizations. It is important to note that this conclusion appears to be equally applicable to developing, non-Western economies.

ACKNOWLEDGEMENT

This research was supported by the Research Center, National Institute of Development Administration (NIDA), Bangkok, Thailand.

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