

PERCEPTION OF PROFESSIONAL ENGINEERS TOWARD QUALITY OF WORKLIFE AND ORGANIZATIONAL COMMITMENT A Case Study

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This empirical investigation was aimed to determine the pattern of the relationships between the perceived presence of quality of worklife (QWL) factors and organizational commitment using samples from professional engineers in Malaysia. Engineers in private sector were selected to participate in this study. A total of 250 sets of questionnaires were sent to the selected organizations, and 152 useable questionnaire representing a response rate of 60.8% were used for statistical analysis. A QWL measure consisting of seven factors: growth and development, participation, physical environment, supervision, pay and benefit, social relevance, and workplace integration was developed based on Walton's (1974) conception. The three-component model and measure of organizational commitment developed by Allen and Meyer (1990) was adopted in this study. Results of regression analysis indicated that only two QWL factors, growth and development and pay and benefit, were significant in explaining organizational commitment. Implication and suggestions for further research are also discussed.

Keywords: affective; continuance; normative; organizational commitment; professional engineers; quality of worklife

Introduction

Interest in the quality of worklife (QWL) as a management technique has become widespread in Malaysian private sector organizations in recent years. The concern for quality of worklife (QWL) in the workplace has been articulated in management thought since McGregor (1960) introduced *Theory X* and *Theory Y* to describe two styles of management. Managers who subscribe to *Theory X* believe that workers in general are lazy, dislike responsibility, are self-centered and are strictly motivated by extrinsic rewards. Therefore managers should devote their energy toward directing and controlling people. In contrast, *Theory Y* managers believe that workers are inherently not lazy and self-centered. Workers can enjoy responsibility and are motivated by intrinsic rewards, such as self-esteem, belongingness, social recognition and self-actualization. Managers who subscribe to the assumptions of *Theory Y* focus their efforts to facilitate the achievement of both the workers' and the organizational goals.

The phrase "quality of worklife" was first introduced in the United States in the late 1960's to address the problems of poor quality of life at the work place (Davis 1977). The concern with quality of worklife originated from a series of studies carried out by Trist and his co-workers at the Tavistock Institute in London. The findings of these studies served as the foundations for socio-technical systems theory on which many current efforts to reform work organizations are based (Huse and Cummings 1985).

Since the meaning attributed the term has undergone considerable change and development (Huse and Cummings 1985) a variety of concepts have been used to

map out the conditions of QWL. Earlier, the term referred to morale and later to human relations, organization development, redesign of work systems and industrial democracy (Sayeed and Sinha 1981).

Objective of the Study

In Malaysia, employers are becoming increasingly concerned with the cost of work disruption, turnover, absenteeism and poor morale among employees. In recent years, various attempts have been made to integrate workers into the organization, attack the problems of alienation and improve the quality of worklife in organizations.

This study was conducted to examine the nature of relationships between the perceived presence of QWL factors and organizational commitment using samples from private sector engineers in Malaysia.

Related Literature

Quality of Worklife

A review of the literature on the concept of QWL was carried out to determine the appropriate concepts to be included in the questionnaire. The approach taken in this study was to view QWL in terms of perceived organizational conditions, as opposed to other views which regard QWL as either intervention strategies for organizational improvements (e.g. Gowdy 1988) or as an institutional approach in creating workplace democracy (Maccoby 1984). Though the approach taken was from the perspective of perceived organizational conditions, the basic philosophy of QWL which regards employees as capable of learning (Camman 1984) and organizations as learning environments (Cherns and Davis 1975) was given due consideration in constructing the questionnaire.

A dominant approach taken in previous studies on QWL was to regard job satisfaction as a measure of QWL. Wilcock and Wright (1991) remarked that the use of job satisfaction as a measure of QWL has its limitations, because satisfaction is only one of the many aspects of QWL (White 1981; Davis and Cherns 1975). Since a satisfactory measure of QWL suitable for adoption in this study was not available in the literature, and in order to avoid using job satisfaction as a single indicator of QWL, a set of questionnaires purporting to measure the concept had to be developed.

In this study, the conceptual categories proposed by Walton (1974) were adopted as the basis for designing the QWL measure. Walton provided eight aspects in which employees' perceptions toward their work organizations could determine their QWL: *adequate and fair compensation; safe and healthy environment; development of human capacities; growth and security; social integration; constitutionalism; the total life space; and social relevance*. To avoid the questionnaire being too long, the researcher decided to reduce the number of factors from eight to seven, and also to make some modifications in the naming of the factors.

The factor *constitutionalism*, which refers to "respect accorded to employees" and "the opportunity for employees to voice out their opinions" (Walton 1974), was changed to *supervision*. In the context of non-supervisory employees, especially in Malaysia where power distance is high, there is a set procedure for employees to voice their opinions in the workplace. Employees are required to use proper channels in expressing their opinions, i.e. in most cases, through their immediate supervisors. It is therefore appropriate that

the items relating to the quality of relationship between a subordinate and his/her supervisor should be included as a measure of QWL.

The factor, *development of human capacities*, which refers to "the opportunity for employees to perform work which is meaningful" is replaced with *participation*. Again, in the context of lower level employees, it may be quite difficult for them to judge the "meaningfulness" of their jobs because "meaningfulness," especially in Malaysia, is often based on amount of monthly salary the job holder receives. Participation has been considered as a key element in Nadler and Lawler's (1983) working definition of QWL because participation can cause people to work better: employees who are allowed to be involved in decisions relating to their jobs will develop certain interpersonal and analytical skills, thus enhancing their sense of meaningfulness.

Walton's factor, total life space was not included in the QWL questionnaire for this study. This was to avoid redundancy because Walton's definition of total life space as a "balance between work and non-work" was thought to be adequately represented in another factor, social relevance.

Selection of Items

Having defined the factors representing the construct of QWL, the subsequent step in the development of a QWL measure involved the selection of items to represent the respective factors. In searching for appropriate items, we referred to various published sources in the literature. Items were collected from various scales that were thought to represent the defined dimensions of QWL. The items and the sources are presented in Table 1.

Table 1. Operational Definitions and Items for QWL Dimensions

Dimensions	Operational Definitions	Items (Abbreviated)/Sources*
Growth and development	Opportunity to use variety of skills and perform challenging jobs	<ul style="list-style-type: none"> ● Job provides sufficient opportunities for growth and development (Hackman and Lawler 1971). ● Job allows for a variety of skills (Hackman and Oldham 1975). ● Job is challenging (Seashore et al. 1982).
Participation	Opportunity to be involved in decisions relating to work	<ul style="list-style-type: none"> ● Organization provides opportunities to contribute ideas (Hackman and Lawler 1971; Eisenberger et al. 1986). ● Organization provides effective suggestion scheme (Vroom 1960). ● Organization implements employees' suggestions (Warr et al. 1979).
Physical Environment	Presence of conducive work environment including work scheduling	<ul style="list-style-type: none"> ● The working environment is safe (Stanley 1986). ● The physical surroundings are good (Chelte 1983; Quinn and Staines 1979). ● The working hours in this organization are good (Chelte 1983).
Supervision	Relationship with supervisor and mutual understanding	<ul style="list-style-type: none"> ● Supervisor has confidence in subordinates' abilities (Stogdill 1963). ● Supervisor is capable to develop teamwork (Taylor and Bowers 1972). ● Supervisor concerns for subordinates' welfare (Seashore et al. 1982; Chelte 1983; Quinn and Staines 1979).
Pay and Benefits	Fairness and adequate monetary benefits	<ul style="list-style-type: none"> ● Salary is good (Chelte 1983; Quinn and Staines 1979). ● Pay is based on merit (Stanley 1986). ● Fringe benefits are good (Chelte 1983; Quinn and Staines 1979).
Social Relevance	Relationship between work and other aspects of life	<ul style="list-style-type: none"> ● Job allows for contribution to society (Hackman and Oldham 1975) ● Able to pursue other interests (Sayeed and Sinha 1981). ● Consistent with personal values (Eisenberger et al. 1986).
Workplace Integration	Relationships and cohesiveness among co-workers	<ul style="list-style-type: none"> ● Work together as a team (Stanley 1986). ● Co-workers provide support to one another (Stanley 1986). ● Able to get to know other people (Hackman and Lawler 1971).

*Note: **) As some of the sources were only used as guides in constructing the items, the wording of some items may not be identical to the original items.

Organizational Commitment

The organizational commitment measure adopted for this study was the one developed by Allen and Meyer (1990). Allen and Meyer (1990) noted that, although several conceptualizations of attitudinal commitment have appeared in the literature, each reflects one of three general themes: affective, perceived cost, and obligation. Based on these general theme, Allen and Meyer conceptualized organizational commitment in terms of three distinct dimensions: affective, continuance, and normative.

Affective commitment is characterized by the presence of emotional attachment to the organization such that the affectively committed individual identifies with, is involved in, and enjoys membership in, the organization (Allen and Meyer 1990). The affectively committed employees remain with the organization because they want to (Meyer et al. 1990).

The continuance dimension of commitment combines a behavioral conceptualization (disinclination to leave the organization) with an instrumental cause (potential costs and lack of alternatives) (Popper and Lipshitz 1992). Employees whose primary link to the organization is based on continuance commitment remain because they need to do so (Meyer and Allen, 1991). The guiding criterion in the development of continuance commitment is self-interest, or, in the words of Heetderks

(1993): “what’s best for me, rather than what’s in the best interests of the organization.”

The normative dimension of organizational commitment focuses on feelings of loyalty to a particular organization resulting from the internalization of normative pressures exerted on an individual (Popper and Lipshitz 1992; Hackett et al. 1994). Internalization occurs when the induced values of the individual and the organization are in congruence (O’Reilly and Chatman 1986). Consequent to the similarity of values, individuals exhibit committed behaviors because it is the right thing to do (Allen and Meyer, 1990). Employees who are normatively committed feel they ought to remain with the organization (Meyer and Allen 1991).

On the basis of their conceptualization, Allen and Meyer (1990) developed an instrument to measure organizational commitment along the three dimensions. The three-component measure was found to be psychometrically sound (Meyer et al. 1993). Factor analytic studies of the measure have shown that they measure three relatively distinct constructs (Meyer et al. 1993; Hackett et al. 1994). It has also been shown that the three dimensions of commitment correlate differently with variables purported to be antecedents of commitment (Shore and Tetrick 1991, Meyer et al. 1993). Table 2 summarizes the dimensions of organizational commitment and their respective items.

Table 2. Dimensions of Organizational Commitment and Their Respective Items

Dimensions	Definitions	Items
<i>Affective</i>	Affective attachment - enjoys membership in, identifies with and involves in, the organization. Remains because he/she wants to.	<p>I would be very happy to spend the rest of my career with this organization</p> <p>I enjoy discussing my organization with people outside it</p> <p>I feel as if these organization's problems are my own</p> <p>I do not think I could become as attached to another organization as I am to this one</p> <p>I feel "like part of family" at my organization</p> <p>I feel emotionally attached to this organization</p> <p>This organization has personal meaning for me</p> <p>I feel a strong sense of belonging to my organization</p>
<i>Continuance</i>	Calculative - based on the reward-cost relationships, "what's best for me." Remains because he/she needs to.	<p>It would be hard for me to leave my organization right now, even if I wanted to</p> <p>My life would be disrupted if I decided to leave my organization now</p> <p>I am afraid of what might happen if I quit my job without having another one lined up</p> <p>It would be costly to leave my organization now</p> <p>Right now, staying with my organization is a matter of necessity as much as desire</p> <p>I feel that I have few options to consider leaving this organization</p> <p>One of the serious consequences of leaving this organization would be the scarcity of available alternatives</p> <p>One of the major reasons I continue to work for this organization is that leaving would require personal sacrifice - another organization may not match the overall benefits I have here</p>
<i>Normative</i>	Internalization of normative pressures - congruency of values. Remains because he/she ought to	<p>I think that people these days move from organization to organization too often</p> <p>I feel that a person must always be loyal to his/her organization</p> <p>Jumping from organization to organization seems unethical to me</p> <p>I believe that loyalty is important, therefore I feel a strong sense of moral obligation to remain</p> <p>If I got another offer for a better job elsewhere I would not feel it was right for me to leave my organization</p> <p>I was taught to believe in the value of remaining loyal to one organization</p> <p>Things were better in the days when people stayed with one organization for most of their careers</p> <p>I do not think that wanting to be a "company man/woman" is sensible anymore</p>

Method

The Sample

The sampling frame used was public accountants in various private sector engineering-related firms in Malaysia. Two hundred and fifty (250) sets of questionnaires were mailed to the professional engineers which were randomly selected from the list provided by Malaysian Board of Engineers.

Procedure

A covering letter outlining the purpose of the study, defining the target sample, and the procedures of questionnaire distribution was enclosed. A total of 250 sets of questionnaires were sent to the organizations, and 152 usable questionnaires representing a response rate of 60.8 percent were used for statistical analysis.

Results

Measures of QWL and organizational commitment were factor analyzed, using varimax rotations, to determine their dimensions. Results of factor analyses indicated that the QWL measure was found to be consisted of seven dimensions, but the organizational commitment measure could be better represented by a four-factor model. The continuance commitment dimension is further divided into two sub-dimensions: high cost and lack of employment alternatives. The reliability coefficients of the QWL and organizational commitment sub-scales are reported in Table 3.

The Effects of QWL on Organizational Commitment

Table 4 presents results of regression analyses of QWL factors on the four dimensions of organizational commitment.

Table 3. **Reliability Coefficients of QWL and Organizational Commitment Sub-Scales**

Scale	Reliability (alpha)
<i>QWL (overall scale)</i>	0.93
Growth and development	0.89
Participation	0.85
Physical environment	0.49
Supervision	0.79
Pay and benefits	0.84
Social relevance	0.70
Workplace Integration	0.79
<i>Organizational Commitment</i>	
Affective	0.85
Normative	0.84
Continuance (cost)	0.79
Continuance (lack of alternatives)	0.66

Table 4. Effects of QWL Factors on Organizational Commitment Dimensions

QWL Factors R ²	Affective		Normative		Continuance (Cost)		Continuance (Alternatives)	
	Beta	t-values	Beta	t-values	Beta	t-values	Beta	t-values
Growth & Dev.	0.039	0.450	-0.053	-0.644	-0.038	-0.371	-0.089	-0.861
Participation	0.068	0.779	-0.136	-1.642	-0.313	-2.994 ^b	-0.177	-1.684
Environment	-0.026	-0.352	0.019	0.268	-0.023	-0.258	-0.010	0.114
Supervision	0.223	2.409 ^c	0.319	3.595 ^a	0.265	2.378 ^c	0.167	1.482
Pay & Benefit	0.297	3.514 ^a	0.309	3.818 ^a	0.386	3.790 ^a	0.336	3.272 ^a
Social Relev.	0.128	1.529	0.309	3.857 ^a	0.147	1.456	0.253	2.491 ^c
Integration	0.189	2.382 ^c	0.128	1.688	0.132	1.381	0.102	1.062
R-Square	0.527		0.567		0.314		0.305	
F	20.512 ^a		24.164 ^a		8.440 ^a		8.078 ^a	

a: p<0.001

b: p<0.01

c: p<0.05

Affective Commitment

•From Table 4 it is observed that the QWL variables account for about 53 percent of the total variance in affective commitment ($R^2=0.527$, $F=20.512$, $p<0.001$). Three QWL factors are significant : supervision ($t=2.409$, $p<0.05$), pay and benefit ($t=3.514$, $p<0.001$) and integration ($t=2.382$, $p<0.05$).

Normative Commitment

The results show that the QWL variables account for about 57 percent of the variance in normative commitment ($R^2=0.567$, $F=24.164$, $p<0.001$). Three QWL variables have significant effects on normative commitment: supervision ($t=3.595$, $p<0.001$), pay and benefit ($t=3.818$, $p<0.001$) and social relevance ($t=3.857$, $p<0.001$).

Continuance Commitment

(a) High Cost of Leaving

The results show that the QWL variables account for about 31 percent of the variance in this type of commitment ($R^2=0.314$, $F=8.440$, $p<0.001$). Three QWL variables have significant effects on this dimension of commitment: participation ($t=-2.994$, $p<0.01$), supervision ($t=2.378$, $p<0.05$) and pay and benefit ($t=3.790$, $p<0.001$).

(b) Lack of Employment Alternatives

The results indicate that only about 31 percent of the variance in this type of commitment is accounted for by the QWL variables ($R^2=0.305$, $F=8.078$, $p<0.001$). Only two QWL factor, has significant effect on this dimension of commitment : pay and benefits ($t=3.272$, $p<0.001$) and social relevance ($t=2.491$, $p<0.05$).

Discussion

On one side, the findings of this research may provide some insights into the practice of effective management in Malaysia, especially in efforts to improve the quality of working life and organizational commitment among the professional engineers in Malaysia. The practice problem that this research addresses is timely, with the need to develop an understanding of quality of worklife and organizational commitment in Malaysian work environment.

Growth and development has been indicated by the respondents in this study as a significant antecedent of both affective and normative commitments. It is therefore suggested that, in order to develop a sense of commitment among the private sector organizations, efforts at providing more opportunities for the workers to develop their skills in the workplace should be undertaken. One such efforts might include providing more training opportunities to the government accountants. Training helps employees to improve the way they accomplish tasks to enhance their interpersonal and problem-solving skills. It is a mechanism through which members' contributions and resources may be maximized, especially in solving problems related to their work.

Pay and benefits has also been shown to be a significant antecedent of affective, normative and continuance (cost) commitments. It is not the actual pay that matters but the perceptions of the adequacy of their pay and benefits. These perceptions are probably formed out of the comparisons made with what their friends, with the same qualifications, are getting in other organizations. Monthly pay is only part of the reward system. Other benefits, such as fringe benefits and health care may be extended to employees to compensate for their willingness to work for lesser pay.

Participation opportunities has significant positive relationship with affective commitment. As participation leads to involvement in the workplace, employees who perceive that they are given such opportunities would be more committed. This finding is consistent with the results obtained by Mottaz (1988) and Razali (1999) in their studies of determinants of organizational commitment.

This positive relationship could also be explained from perspective of the communication model of organizational commitment suggested by Gorden and Infante (1991). Participation, as operationalized in this study, includes opportunities for employees to contribute ideas to their supervisors. Participation, thus defined, can be viewed as an indicator of the presence of freedom of speech which was found by Gorden and Infante to be a positive predictor of organizational commitment. Participation by employees in decisions relating

to their work would also allow them to have influence over work; this was found by Knoop (1994) to be positively related to organizational commitment. Increased participation and communication would allow employees to be better informed of the goals and values of the organization, leading to increased feelings of responsibility and job involvement (DeCotiis and Summers 1987). Professional engineers feel that participation is important in affecting their QWL.

The sample in this study comprises only professional engineers in selected private sector organizations in Malaysia. The work values (with regard to QWL and organizational commitment) among all employment categories in Malaysia therefore cannot be compared. Future research should include a much wider sample. This would allow comparisons be made on the effects of QWL on organizational commitment across occupational groups.

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