

## The Relationship between Quality of Work Life and Demographic Characteristics of Information Technology Staffs

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**Abstract.** The purpose of this study is to first measure the level of quality of work life of information technology staffs and second to investigate the relationship between quality of work life and some demographic characteristics among them. The research is conducted among 292 IT staffs and the results suggest that the level of quality of work life is medium and needs managers' attentions to enhance. No significant relation was approved between gender and quality of work life, but relationships between quality of work life and 1) age, 2) work experience and 3) income were approved. Finally, implications are discussed in terms of discussion and further researches.

**Keywords:** Quality of Work Life, Demographic Characteristics, Information Technology Staffs

### 1. Introduction

In an organization, a high level of quality of work life (QWL) is necessary to continue to attract and retain employees [1]. So far, different researchers have presented different QWL definitions [2, 3, 4, 5, 6, 7, 8, 9]. Rethinam and Ismail [10] reviewed different researches about meanings and constructs of QWL and designated that quality of work life is a multi-dimensional construct and is made of a number of inter-related factors. Havlovic [11], Scobel [12] and Straw and Heckscher [13] propose that the key constructs of QWL are higher payment, job security, better reward systems, growth opportunity and participative groups among others [14]. According to Walton [2], the QWL is getting important as a way to save human and environmental values which have been ignored in favour of technological advancement of the economic growth and productivity [15]. On the other hand, in the present work environment, one of the fastest growing workforces is the group of information technology (IT). The number of personal computers around the world is about one billion, but the number of IT professionals joining this field is declining fast. Bureau of Labour Statistics estimated that about 1.6 million new IT professions would be created from 2004 to 2016 [16]. Thus, by the increasing IT workforce, significant considerations about quality of work life in these environments should be taken into account.

So far, there has been little research on QWL among IT staffs. By the phrase "IT Staffs" all employees involved in information technology jobs are considered, including managers, experts and other personnel. Some of the previous researches are shown in table 1. Despite the growing complexity of working life, Walton's eight-part typology of the dimensions of QWL remains a functional analytical tool [14]. In this study, Walton's conceptual model is used to examine QWL among information technology staffs. Also the predictors of QWL were demographic characteristics of information technology staffs.

The question and hypotheses of the current study are (Fig. 1):

- Q: What is the level of quality of work life among IT staffs?

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- H1: There is a significant relationship between gender and quality of work life.
- H2: There is a significant relation between age and quality of work life.
- H3: There is a significant relation between work experience and quality of work life.
- H4: There is a significant relation between employees' income and their quality of work life.

The findings of the current study may be used to offer management strategies in organizations to enhance the level of quality of work life among information technology staffs.

Table 1: Previous Researches on QWL and IT Staffs

| Main Research focus in QWL  | Focus group         | Reference |
|---|---------------------|-----------|
| Constructs of QWL   | IS Professionals    | [10]      |
| Determinants of MIS Employees' Turnover Intentions                              | MIS employees       | [17]      |
| Information technology and quality of work life, comparing users with non-users | Government agencies | [18]      |
| Work experiences, job involvement and QWL                                       | IS Personnel        | [19]      |
| QWL among women and men in the IT workforce                                     | IS Personnel        | [20]      |

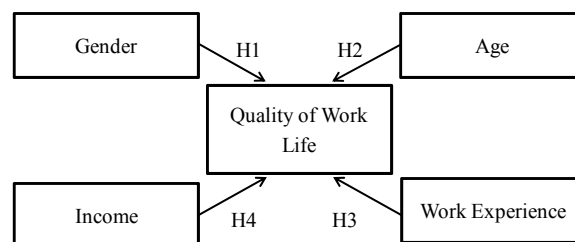


Fig. 1: Conceptual Model of the Research

## 2. Methods

### 2.1. Sample and Procedure

The present study was conducted on a sample of 292 IT staffs. Data were gathered in two methods: Microsoft Excel based questionnaire and an online questionnaire. E-mails were sent to respondents asking to either fill in the Excel questionnaire or the online one. Two reminding e-mails were sent in the two next weeks. Data were gathered in October 2010.

### 2.2. Questionnaire

The quality of work life questionnaire [21] consists of 24 questions in eight categories (Fig. 2): Adequate and fair compensation, safe and healthy work environment, growth and security, constitutionalism, social relevance, total life space, social integration, development of human capacities. The possible responses were a five scale Likert from (1) I absolutely agree to (5) I absolutely disagree (Number 3 was neither agree nor disagree).

### 2.3. Statistical Analysis

A total of 292 questionnaires were included in the final analysis by SPSS. Although the standard QWL questionnaire was used, the Cronbach's Alpha of the QWL questionnaire was also calculated (0.885).

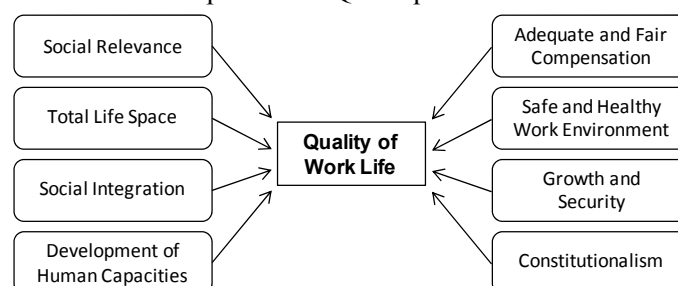


Fig. 2: Quality of Work Life [21]

The profile of the respondents is shown in table 2. The analysis of quality of work life level among IT staffs is shown in table 3 and Fig. 3.

Table 2: The Profile of the Respondents

| Variable                   | Number | Percent |
|----------------------------|--------|---------|
| Gender                     |        |         |
| Male                       | 116    | 39.7    |
| Female                     | 176    | 60.3    |
| Age                        |        |         |
| <25                        | 66     | 22.6    |
| 26 to 30                   | 124    | 42.5    |
| 31 to 35                   | 39     | 13.4    |
| 36 to 40                   | 46     | 15.8    |
| 41 to 45                   | 9      | 3.1     |
| 46 to 50                   | 2      | 0.7     |
| >51                        | 6      | 2.1     |
| Work Experience (in years) |        |         |
| <2                         | 75     | 25.7    |
| 3 to 5                     | 90     | 30.8    |
| 6 to 8                     | 43     | 14.7    |
| 9 to 11                    | 30     | 10.3    |
| over 12                    | 54     | 18.5    |
| Salary (USD/year)          |        |         |
| <7000                      | 107    | 36.6    |
| 7000 to 8400               | 29     | 9.9     |
| >8400                      | 114    | 39.0    |
| NA                         | 42     | 14.4    |
| Total                      | 292    | 100     |

About 60 percent of participants were women, majority of them were 26 to 30 years old (42.5%) and about 31 percent had 3 to 5 years of work experience.

Table 3: Quality of Work Life Level

| N                    | Valid             | 292          |
|----------------------|-------------------|--------------|
|                      | Missing           | 0            |
| Mean                 |                   | 74.37        |
| Std. Deviation       |                   | 13.00        |
| Minimum              |                   | 37.00        |
| Maximum              |                   | 120.00       |
| Quality of Work Life | 24 to 55 (Low)    | 21 (7.19%)   |
|                      | 56 to 87 (Medium) | 229 (78.42%) |
|                      | 88 to 120 (High)  | 42 (14.38%)  |

### 3. Findings and Discussion

As it is shown in figure 3, majority of respondents reported the medium QWL level (about 75%). Considering confidence interval as 95%, age, work experience and income were investigated using a one-way analysis of variance (ANOVA) from which a Scheffe multiple comparison test was computed to pinpoint groups whose means were significantly different. An independent samples test was used for gender. The majority of IT staffs (about 75%) are having medium QWL level. So management strategies must be applied to enhance the level of QWL among IT staffs. Research hypotheses are as follow (table 4).

#### 3.1. Hypothesis 1

No significant relation is found between gender and QWL (Sig>0.05). It means that women and men are experiencing the same level of QWL. In an earlier research in an IT workforce in five companies, no significant relation was found between gender and QWL [20].

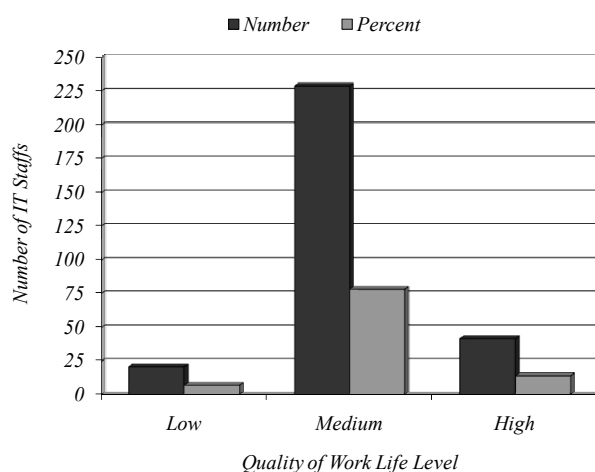


Fig. 3: Quality of Work Life Level among IT Staffs

### 3.2. Hypothesis 2

Analysis revealed a significant relation between age and QWL among IT staffs (Sig<0.05). In a study among industrial workers, the same results were reported stating that there is a significant relation between the age of the workers and their QWL [22].

### 3.3. Hypothesis 3

A relation between work experience and QWL was found (Sig<0.05). Hossain [22] investigated the relationship between QWL and work experience among industrial workers in Bangladesh and found a positive correlation between work experience and QWL.

### 3.4. Hypothesis 4

There is a significant relation between IT staffs' income and their QWL (Sig<0.05). This result is in accordance with an earlier research conducted in hospital employees which reported that having a good and interesting income is an important issue for a high quality of work life [23]. In another research among free trade zone managers, it was noticed that the higher the income obtained by the respondents, the higher the level of QWL among respondents [24]. Another research among industrial workers revealed the same result [25].

Table 4: Results of the Hypotheses of the Research

| Hypothesis           | Test                     | Significance | Confidence Interval |
|----------------------|--------------------------|--------------|---------------------|
| Gender (H1)          | Independent Samples Test | 0.326        |                     |
| Age (H2)             | ANOVA                    | 0.008        | 95%                 |
| Work Experience (H3) | ANOVA                    | 0.002        |                     |
| Income (H4)          | ANOVA                    | 0.014        |                     |

## 4. Further Research

In this study, the relation between gender, age, income and work experience with QWL were investigated. Future researches should include other salient variables and also examine more complex interactions of quality of work life with demographic characteristics and other variables among information technology staffs. It is recommended to present a comparison between QWL level in IT workforce and other professions.

## 5. References

- [1] K. Sandrick, "Putting the emphasis on employees as an award winning employer, Baptist health care has distant memories of the workforce shortage", *Trustee, January*, 2003, pp. 6-10.
- [2] R.E. Walton, Criteria for Quality of Working Life. In L.E. Davis, A.B. Cherns and Associates (Eds.) *The Quality of Working*. New York: The Free Press, Life, 1975, 91-104.

- [3] J. Taylor, "An empirical examination of the dimensions of quality of working life", *Omega: International Journal of Management Science*, 6, 1978, 153-160.
- [4] J.R. Hackman and G.R. Oldham, *Work Redesign*. Reading, M.A: Addison-Wesley, 1980.
- [5] L. E. Davis, Design of new organizations, In H. Kolodny & H. v. Beinum (Eds.), *The Quality of Working Life and the 1980s*, New York: Praeger Publishers, 1983, pp. 65-86.
- [6] E. E. Lawler, "Strategies for Improving the Quality of Work Life", *American Psychologist*, 37, 1982, pp. 486-693.
- [7] M. Levine, J. Taylor and L. "Davis, Defining quality of work life", *Human Relations*, 37, 1984, pp. 81-104.
- [8] P. Carayon, "Temporal issues of quality of working life and stress in human-computer interaction", *International Journal of Human-Computer Interaction*, 9(4), 1997, 325-342.
- [9] T.T. Serey, "Choosing a Robust Quality of Work Life", *Business Forum*, 27(2), 2006, pp. 7-10.
- [10] G. Rethinam and M. Ismail, "Constructs of Quality of Work Life: A Perspective of Information and Technology Professionals", *European Journal of Social Sciences – Volume 7, Number 1*, 2008, 58.
- [11] S. J. Havlovic, "QWL and human resource outcomes", *Industrial Relations*, Vol. 30, No. 3, 1991, 469-479
- [12] D. N. Scobel, "Doing away with the factory blues" *Harvard Business Review*, 53, Nov-Dec., 1975, 132-142.
- [13] R. J. Straw and C. C. Heckscher, "QWL: new working relationships in the communication industry" *Labor Studies Journal*, 8 Winter, 1984, 261-274.
- [14] D. Normala, "Investigating the Relationship between QWL and Organizational Commitment amongst Employees in Malaysian Firms", *International Journal of Business and Management*, 2010, Vol. 5, No.10.
- [15] L. Timossi, B. Pedroso, A. Francisco and L. Pilatti, "Evaluation of QWL: An Adaptation from the Walton's QWL Model", XIV International Conference On Industrial Engineering and Operations Management, Rio de Janeiro, Brazil, 13 to 16 October, 2008.
- [16] Bureau of Labour Statistics (BLS), "Occupational Employment Projections to 2016". *Monthly Labour Review*, November, 2007: Online Available: <http://www.bls.gov/opub/mlr/2007/11/art5full.pdf>, Accessed 03/08/2010.
- [17] M. Igbaria, and J. H. Greenhaus, "Determinants of MIS employees' turnover intentions: A structural equation model", *Communications of the ACM*, 35(2), 1992, pp. 34-51.
- [18] E. Gattiker and L. W. Howg., "Information technology and quality of work life: comparing users with non-users", *Journal of Business and Psychology*, Volume 5, No. 2, Winter 1990.
- [19] M. Igbaria, S. Parasuraman and M. K. Badawy, "Work Experiences, Job Involvement, and Quality of Work Life among Information Systems Personnel", *MIS Quarterly*, Vol. 18, No. 2, Jun., 1994, pp. 175-201.
- [20] J. Schoepke, P. L. T. Hoonakker and P. Carayon, "Quality of Working Life among Women and Men in the Information Technology Workforce, *Human Factors and Ergonomics Society Annual Meeting Proceedings*", *Macroergonomics*, 2004, pp. 1576-1580(5).
- [21] R. E. Walton, "Quality of Work Life: What is it?" *Sloan Management Review*, Fall, 1973, pp. 11-21.
- [22] J. A. Hossain, Quality of Working Life of Industrial Workers in Bangladesh: A Case Study in Greeter Kushtia District, 1997, *Unpublished Research Monograph*.
- [23] G. Nasl Saraji and H. Dargahi, Study of Quality of Work Life, *Iranian Journal of Public Health*, Vol. 35, No. 4, 2006, pp.8-14.
- [24] C. R. Raduan, B. LooSee, U. Jegak and I. Khairuddin, "Quality of Work Life: Implications Of Career Dimensions", *Journal of Social Sciences*, 2 (2): 61-67, 2006.
- [25] A. Rahman,, Quality of Working Life as Perceived by the Industrial Shift Workers, *Ph.D. Thesis*, Osmania University, Hyderabad, 1984.