Impact of QWL on employee satisfaction case of oil and gas industry in Qatar

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Abstract

This paper examines the factors that influence QWL and investigate the relationship between QWL and satisfaction among employees working in the Oil and Gas companies in the State of Qatar. While much of the attention been directed to the concept of QWL in developed countries, it has received very attention in scholarly literature in Qatar and GCCs. Three essential factors (physical, psychological and social factors) were identified as potential predictors of QWL in an organization. A survey has been carried out to determine how these factors affect the QWL and how QWL affects the employees' satisfaction. The survey responses were analyzed through exploratory analysis and then a multivariate statistical methodology. The research supports that the physical, psychological and social factors' centrality have a significant relationship with QWL which indirectly impact employees' satisfaction. It was also indicated that individual's family life correlates significantly with his/her level of QWL.

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1 Introduction

People on average spend one third of their lives at work as it's their livelihood or career or business (International Labor Organization (ILO)'s database). This work life does influence their overall quality of life. It should yield a good feeling of achieving something against a fair reward in an appropriate work environment. QWL(QWL) is one of the key areas of human resource management that is attracting attention and research focus. It is a philosophy that considers people as the most important recourses in the organization and views them as an 'asset' to the organization rather than as 'costs'.

QWL is best described as the favorable working environment that supports and promotes satisfaction by providing employees with rewards, job security and career growth opportunities [20]. Accordingly, and for the purpose of this study QWL is defined as the combination of physical, psychological, and social factors that influence employee' satisfaction.

Recently, the work culture and the traditional concept of work to fulfill the basic humans' needs have changed drastically in Qatar. The booming of Qatar's economy and the big change in its infrastructure made a great impact on its working systems and standards of living of the workforce. As a result, there was more emphasis on talent management, maintaining competitive compensation, offering and providing supportive and family-friendly HR policies, updated e-HR procedures. Also, the standard of housing in the new communities was maintained at a high level, more schools and medical clinics were built.

Furthermore, the rising number of two-income households in Qatar, is

heightening the concern for employees' quality of work life. Given that female participation at work is increasing, (as per the Qatar Statistics Authority, the percentage of working females in Qatar was 27.5%, 35.2% and 40.6% in 1986, 1997 and 2004 respectively), it is apparent that males and females independently will need to take care of both work and home. Therefore, QWL experience became the focus of attention and workplace wellness is crucial in promoting healthier working environments. Therefore, this research study is intended to investigate the relationship between QWL and employees' satisfaction among employees working in the Oil and Gas companies in the State of Qatar.

2 Preliminary Notes

Quality of Life is the broader concept of Quality of working life. Quality of Life has been more widely studied, while a review of the literature tells relatively little about quality of working life. As Elizur and Shye [11] concluded that quality of work performance is affected by Quality of Life as well as Quality of working life. The evolution of QWL began in late 1960s emphasizing the human dimensions of work by focusing on the quality of the relationship between the worker and the working environment. Quality of Working Life's factors is difficult to be conceptualized since QWL is not a unitary concept. As per [8], QWL includes work-based factors such as job satisfaction, satisfaction with pay and relationships with colleagues. Also, factors that reflect life satisfaction and general feelings, on a broader view. On the other hand, Loscocco & Roschelle [22] have identified factors like, work-related stress and the relationship between work and non-work life domains. In this regard, Walton [33] proposed eight major conceptual categories relating to QWL as (1) adequate and fair compensation, (2) safe and healthy working conditions, (3) immediate opportunity to use and develop human capacities, (4) opportunity for continued growth and security, (5) social integration in the work organization, (6) constitutionalism in the work organization, (7) work and total life space and (8) social relevance of work life. Indeed, various scholars and researchers have proposed different definitions and models of QWL which include a wide range of factors. Selected models are reviewed below.

2.1 Definition

Physical and Psychological factors

QWL has been viewed as a combination of statistical and psychological factors ([1], [4], [5], [7], [18] and [27]) suggested that quality of life has been affected by psychological factors. Hackman and Oldhams [16] drew attention to the constructs of QWL in relation to the psychological growth needs and described the interaction between work environment and personal needs. They suggested that the work environment that is able to fulfill employees' personal needs such as skill variety, task identity, task significance, autonomy and feedback, is considered to provide a positive interaction effect, which will lead to an excellent QWL. They emphasized the personal needs are satisfied when rewards from the organization, such as compensation, promotion, recognition and development meet their expectations. It was argued that QWL is a core dimension to improve employees' well-being and productivity in the organization, and that to improve employees' well-being and productivity, job design should be able to provide higher employee satisfaction [21]. Thus, Lawler [21] assumed that QWL is complex, because it includes physical and mental well being of employees. Later definition by Heskett, Sasser and Schlesinger [19] describe QWL as the feelings that employees have towards their jobs, colleagues and organizations that influence the organizations' growth and profitability. A good feeling towards their job will lead to a productive work environment. This definition provides an insight that the satisfying work environment is considered to provide better QWL.

In contrast to the above models and definitions, Taylor [32] emphasized on the physical factors of Quality of working life such as; basic extrinsic job factors of wages, hours and working conditions, and the intrinsic job notions of the nature of the work itself. He addressed other aspects, such as; fairness and equity, individual power, self development, employee participation in the management, social support, use of one's present skills, a meaningful future at work, social relevance of the work or product, effect on extra work activities. Taylor assumed that QWL concepts may vary according to organization and employee group. Parallel to Taylor's model, Mirvis and Lawler [23] highlighted that Quality of working life was associated with satisfaction with wages, hours and working conditions, describing the "basic elements of a good quality of work life" as; safe work environment, equitable wages, equal employment opportunities and opportunities for advancement. However, other factors as age and length of service was found to not affect QWL [24]. It was a function of income of the employees, income leads to high QWL, and higher level of education leads to higher level of QWL. Robins [29] suggests that QWL is a process by which an organization responds to employee needs by developing mechanisms to allow them to share fully in making the decisions that design their lives at work. Thus, whilst some scholars have emphasized the psychological well being aspects in QWL, others have identified the relevance of physical factors, work conditions, and job opportunities and development.

Social factors

Similar to "Job Involvement", family involvement is believed to create internal pressures to invest increased effort and energy in the family domain to fulfill family role demands Parasuraman and Simmers [26]. Employees who experience increased levels of stress due to work and life conflict, and have decreased perceptions of control over their work and non-work demands, are less productive, less committed to, and less satisfied with their organization and more likely to be

absent or leave the organization [2], [6], [12]. A meta-analysis has confirmed that conflict between work and non-work life is associated with impaired psychological well-being and other negative outcomes [3].

Work family conflict is a form of inter-role conflict in which the general demand of time devoted for the job interferes with the involvement of family related responsibilities. The threat of imbalance in work and non-work life has implications not only on the employees but also on organizations, governments and society ([13], [31]). This relationship is bi-directional because previous studies have indicated that less conducive environments in the workplace have a greater impact on home life than vice versa. Elisa and Ellen [10] revealed that the majority of employees suggested that their long work hours have negatively affected their personal life and family responsibilities. The flexible scheduling of work hours has supposedly contributed to balance work and family. In this regard, Allen et al. [3] emphasized that problems associated with family responsibilities are additional causes that may diminish QWL. They additionally assert that when an employee has higher work responsibility there will be more spillover of negative work outcomes on family life. The demands of managing higher responsibility at work and home are also a potential source of stress because it allows a spillover to family life thus creating an imbalanced working environment.

In summary, where it has been considered, scholars differ in their views on the core constituents of QWL (e.g. [30], [34]). It has generally been agreed; however that QWL is conceptually similar to well-being of employees but differs from job satisfaction which solely represents the workplace domain [21].

2.2 Problem definition and motivation

Qatar has experienced rapid economic growth over the last several years. Economic policy is focused on developing Qatar's oil and gas industry which accounts for more than 50% of GDP and has made Qatar the second highest percapita income country in the world. Oil and gas companies in Qatar had to develop a different working environment not only to attract qualified people, but more significantly to retain them. Therefore, they believe that any company is only as good as the people it recruits. It has been emphasized that their performance always depends on their ability to attract and retain a qualified workforce. That's why they have developed a competitive compensation and benefits package, along with career development and corporate growth prospects, an emphasis on balance between life and work, and a multicultural and safety-oriented environment. This research discusses how far these factors may affect the QWL at the Oil and Gas companies. It considers Psychological factors, Physical factors and Social factors as the main drivers behind QWL where it believes that it has a positive effect on employee satisfaction.

2.3 Research Methodology

The theoretical model proposed in this research is represented in Figure 1. Table 1 provides a list for the model's variables followed by a description of the various constructs comprising such variables. The model is based on the hypotheses which explain that QWL has a significant influence on the employees' satisfaction. The model suggests that such influences are subject to few factors that mediate their effects. The model assumes that the influence of QWL factors is a function of the Physical factors, Psychological factors and social factors. Whereas the aforementioned relationship assumes that positive QWL factors have a positive effect on the QWL. In addition it suggests that physical factors affect both psychological and social factors. It is also expected that there is a significant relationship between social and psychological factors. Eventually, it is proposed that a higher level of QWL will certainly result in more employee satisfaction.

Based on the aforementioned discussion, this study will investigate the following hypotheses:

- H1: Positive physical factors affect psychological factors and social factors positively.
- H2: There is a significant relationship between psychological factors and social factors.
- H3: There is a positive relationship between QWL and employees' satisfaction. The QWL is represented by psychological factors, physical factors and social factors.

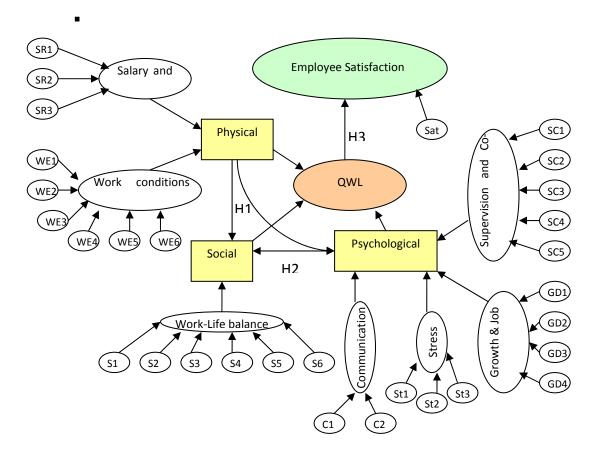


Figure 1: Research model

Table 1: Variables Description

Factors (Latent	Variables)	Observed Variables	Description
	Growth and Job	GD1	Use skills
	Development	GD2	Develop abilities
		GD3	Receive training
		GD4	Promotion chances
	Supervision	SC1	Supervisor helpful
	and Co- Workers	SC2	Disagree with supervisor
Psychological	Relationship	SC3	Supervisor listen
factors (PSF)		SC4	Co-worker helpful
		SC5	Co-worker acknowledge
	Stress	St1	Manage workload
		St2	Enough time
		St3	Stressful
	Communication	C1	Enough information
		C2	Clear understanding
		SR1	Achievement reward
	Salary and Rewards	SR2	Satisfied salary
	210 // 012 03	SR3	Fair salary
Physical		WE1	Safety
factors		WE2	Workplace comfortable
(PF)	Work	WE3	Adequate supplies
	conditions and environment	WE4	Health satisfaction
		WE5	Decision making
		WE6	Cultural diversity

		S 1	Job demand
		S2	Family demand
		S 3	Work at home
Social factors	Social	S4	change time
		S 5	Support balance
		S 6	Enough income
Satisfaction		Sat	Satisfaction

With regards to data collection methods, an on-line survey was conducted to collect data from one of the largest organization in the oil and gas industry in Qatar. An email with the link and the word document of the survey were sent to 300 staffs members, workers, and managers of that organization during the period from November 7th to December 2nd, 2010. The survey was designed with 3 sections. Section 1 assessed the respondents with a set of questions commonly identified in the literature as associated to the psychological and physical factors of QWL. Section 2 was designed to solicit information about the respondent opinions and feelings toward the social factors of QWL and the work-life balance. Section 3 collected demographic information from the respondent. Only 150 (50%) completed responses were obtained out of 300 on-line received participations. Reliability measurement is important to verify the variables consistencies. Cronbach's alpha is computed using SPSS scale reliability program for each set of constructs. The value of Cronbach's alpha coefficient is 0.892, which means statistically highly reliable.

Besides the survey, 15 personal interviews were conducted as a qualitative method, complementary to the quantitative study. Among the 15, 8 were females and 7 were males. 5 were single and 10 were married. 7 were seniors, 7 non-seniors and one middle manager. 6 were Qataris, 2 Asian Arab, 6 Asian non-Arabs and one European.

3 Main Results

Among the respondents, 47.3% were male and 52.7% were female. In terms of occupation, there were 41.3% who were senior staff and 38.7% non-senior. It has been found that the mean value of service span is 2 to 3 years (37.3%). It indicates that most of employees have not been in the company for many years. On the other hand, 74.7% of the respondents are married which may indicate that the company supports the employee's families. One of the major findings in this regard is that a significant portion of the respondents (i.e., 92.3 %) have a university degree or higher education. Also, it has been observed that most of the respondents are working more than 40 hours per week.

With regard to the growth and Job development scenario, it has been indicated that 42.7% agreed that they have had the opportunity to develop their professional abilities at work; which is consistent with the next finding which states that 40% agreed that they are receiving the training they need to do their job.

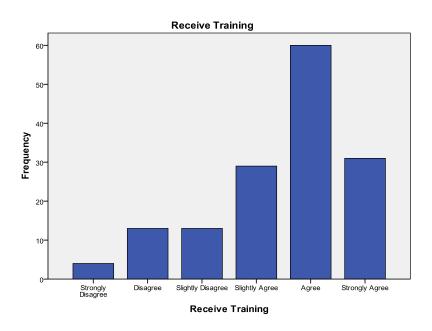


Figure 2: Receive Training

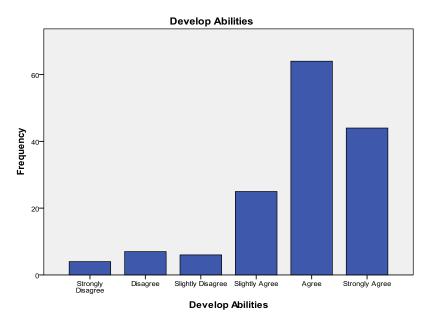


Figure 3: Develop Abilities

In the Supervision and Co-Workers Relationship part, 46% of the respondents have agreed that their supervisor is helpful and 48% agreed that their co-workers are helpful. While 43.3% of the respondents agreed that they are satisfied with their salary, while only 36.7% agreed that they are receiving a fair salary compared to others. On the other hand, the majority of the respondents (54%) agreed that the workload is manageable and 49.3% agreed that they have enough time to get the job done, but at the same time 69.3% (32% slightly agree, 26% agree and 11.3% strongly agree) believed that their work is stressful.

In terms of the Work conditions and environment, it has been noticed that 58% of the respondents have strongly agreed that the safety and health of workers is a high priority in the organization. 44% and 54% agreed that their workplace is physically comfortable and they have enough supplies/equipment to do their job (respectively). With regards to the social factors, 29.3% of the respondents disagreed that the demand of their job interfered in their family life, while 22.7% slightly agreed. In contrast, 39.3% disagreed that the demand of their family

interferes with their work, 20% slightly agree.

At the same time, 61.3% (31.3% slightly agree, 22.7% agree and 7.3% strongly agree) do work at home. 64.7% of the respondent are not allowed to change their starting and quitting times. Amazingly, it was found that all in all, 91.3% of the respondents are satisfied with their job.

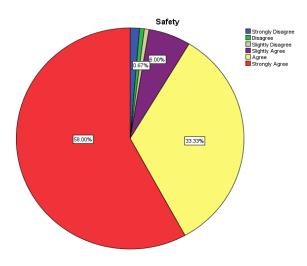


Figure 4: Safety

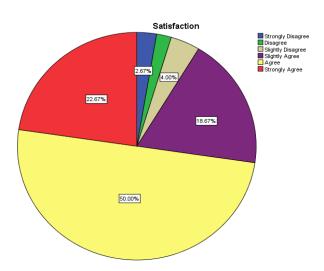


Figure 5: Satisfaction

3.1 Data analysis, result and discussion

3.1.1H1: Positive physical factors affect psychological factors and social factors positively.

Regression result has been used to test the effect of physical factors on psychological factors and on social factors. The correlation of coefficient was (+.787) and the R-square adjusted is .617. Thus, physical factors can explain 61.7% of the total variation in psychological factors and also the result is statistically significant at the level of 0.05.

Table 2: Model Summary^b for the effect of physical factors on psychological factors

Mode	R	R	Adjusted R	Std. Error
1	.787 ^a	.619	.617	.482

a. Predictors: (Constant), Physical factors

Beta column in the Coefficient table is used to predict psychological factors. Physical factors have a positive and significant relationship with psychological factors at the level of 5% that explained 78.7% of total variance.

Table 3: Coefficients^a for the effect of physical factors on psychological factors

Model		Stand						_
Unstan	dardized	Coeff	ici			Colli	nearity	
Coeff	icients	ents				Statistics		
	Std.				Sig	Tole-		
В	Error	Bet	a	T		rance	VIF	
(Constant)	1.438	.201		7.	163	.000		
Physical factors	.674	.043	.787	15.	.509	.000	1.000	1.000

a. Dependent Variable: Psychological factors

b. Dependent Variable: Psychological factors

According to Pearson correlation of coefficient result, there is a strong positive correlation between Physical factors and Psychological factors (r = 0.787 > 0.5 (strong), n = 150, p < 0.0005).

On the other hand, the regression result for the effect of physical factors on social factors showed that the correlation of coefficient was (+.388) and the R-square adjusted is .145. Thus, physical factors can explain only 14.5% of the total variation in social factors and also the result is statistically significant at the level of 0.05.

Table 4: Model Summary^b for the effect of physical factors on social factors

Model	R	R Square	Adjusted R	Std. Error of
1	$.388^{a}$.150	.145	.631

a. Predictors: (Constant), Physical factors

Beta column in the Coefficient table shows that physical factors have a positive and significant relationship with social factors at the level of 5% that explained 38.8% of total variance.

Table 5: Coefficients for the effect of physical factors on social factors

Model		Unstandardized Standardized Coefficients Coefficients				Collinea Statisti	•
		Std.					
	В	Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	2.432	.263		9.261	.000		_
Physical	.291	.057	.388	5.118	.000	1.000	1.00
factors							0

a. Dependent Variable: Total social

Again, a significant positive correlation between physical factors and social

b. Dependent Variable: Total social

factors is approved (r = 0.388 < 0.5 (medium), n = 150, p < 0.0005). These result shows that the influence of physical factors is more significant on the physiological factors than the social factors.

3.1.2: There is a significant relationship between psychological factors and social factors.

Pearson correlation of coefficient result has been used to test the relationship between the variables of psychological factors and social factors. The result shows that there is a significant positive correlation between psychological factors and social factors (r = 0.452 < 0.5 (medium), n = 150, p < 0.0005).

Table 6: Correlation between psychological factors and social factors

			Psychological
		Total socia	
Total social	Pearson	1	.452**
	Correlation		
	Sig. (2-tailed)		.000
	N	150	150
Psychological	Pearson	.452**	1
factors	Correlation		
	Sig. (2-tailed)	.000	
	N	150	150

^{**.} Correlation is significant at the 0.01 level (2-tailed).

3.1.3 H3: There is a positive relationship between QWL and employee's satisfaction.

It was indicated that the correlation of coefficient was (+.817) and the R-square adjusted is .660. Thus, the model composing of Psychological factors, Physical factors and social factors can explain about 66.0% of the total variation in employee's satisfaction and also the result is statistically significant at the level of 0.05.

Table 7: Model Summary ^b for the relationship between QWL and employee's
satisfaction

M	D	Adjusted	Std. Error		Cha	nge Stati	stics		
o de R	R Square	Adjusted R Square	of the Estimate	R	F	Df1	df2	Sig	g. F
1	.817	.667	.660	.624	.667	97.589	3	146	.000

a. Predictors: (Constant), Psychological factors, Total social, Physical factors

b. Dependent Variable: Satisfaction

The Scatterplot below indicates a positive relationship since the line drawn upward through the points. According to Pearson correlation of coefficient, there is a strong positive correlation between the QWL and employee's satisfaction (r = 0.796 > 0.5 (strong) for physical factors, r = 0.298 < 0.5 (medium) for social factors and r = 0.733 > 0.5 (strong) for psychological factors).

Figure 6: Scatterplot for the relationship between QWL and employee satisfaction

Physical factors are highly significant with employee's satisfaction and the level of significant was 5%. It explained 58.3% of total variance. Psychological factors have a positive and significant relationship with employee satisfaction at the level of .05 that explained 30.4% of total variance.

Table 8: Coefficients^a for the relationship between QWL and employee's satisfaction

	Model			Standar				
		Unstan	dardized	dized			Colli	nearity
		Coeff	icients	Coefficients			Stat	tistics
			Std.				Toler	
		В	Error	Beta	t	Sig.	ance	VIF
1	(Constant)	.195	.343		.570	.570		
	Physical factors	.686	.091	.583	7.521	.000	.380	2.634
	Total social	102	.084	065	1.213	.227	.793	1.261
	Psychologica l factors	.417	.110	.304	3.792	.000	.356	2.812
	a. Dependent Va	riable: Sat	isfaction					

The result of cross tabulation test between gender and social factors shows that 69.6% females are satisfied with the social factors. The chi-square result, which gives a value of 0.945 which is greater than 0.05 significance level, shows that there is no significant difference in the social factors satisfaction among different groups of marital status. A personal interview had been conducted with a married female who said that "I like working in this organization than the previous one especially for quality of work life. Being a mother and wife, I am still having time for my family and myself. In fact, I am learning how to not bring papers or work back home. The climate makes me feel that a balance between work and personal life can work together". According to Allen et al. [3], an employee who has greater work responsibility, which is a potential source of stress, will have

more spillover to family life which will create an imbalanced working environment. The result of cross tabulation test between occupation and social factors and stress shows that 33.3% of senior managers, 40% of middle managers and 47.1% of first line managers are not satisfied with the social factors, and 50% of middle managers and 47.2% of first line managers are not happy with total stress.

The chi-square results, which give a value of 0.814 for social factors and .089 for total stress, are greater than 0.05 significance level, which indicate that there is no significant difference among different group of occupation. A personal interview had been conducted with a male married middle manager who expressed the reasons of his dissatisfaction by saying "There are many factors that impact work quality and hence life quality which makes it difficult to maintain a life/work balance and some of these factors are: 1) Many meetings to attend. 2) A lot of new initiatives and projects (unplanned). 3) No clear corporate strategy that is linked to individual's objectives and hence no clear performance measures. 4) Many assessment activities throughout the year (internal audit, self assessment, business control, Quality ...etc) that keep employees and managers busy trying to close out findings. 5) Very little time left for middle managers to think strategically and hence plan accordingly or spend more time developing their employees through coaching and on-job training. The frequency result shows that 43.3% of the respondents agreed that they are satisfied with the salary, while only 36.7% agreed that they are receiving a fair salary compared to others.

However, during a small group discussion, there were some points raised in this regard: An Arabic married male mentioned that "With the rising cost of living, the salary is just enough to fulfill the basic needs of life and there is not much room for spending on recreation activities and accessories". An Asian non-arabic married female mentioned that "The QWLin Qatar for most women is discriminative. Women don't enjoy the benefits that men get though they do the same job. Additionally, it's discriminative for non-senior staff that gets less salary

& benefits although we all know that they are the more hardworking employees in the company. Diverse cultures also affect the quality since we all need to work hard to break the barrier. But on a positive note, the quality here is much better compared to my country of origin". Regression result has been used to test QWLfinding which is mentioned in the literature review. He found that age and length of service did not affect QWL. It was a function of income of the employees, income leads to high QWL, and higher level of education leads to higher level of QWL. However, the regression results showed that there are no significant relationships between those factors and QWL.

Table 9: Model Summary for the Relationship between QWL and other factors

M		R	Adjuste	Std. Error of			Change	Statist	tics
0	R	Square	d R	the Estimate	R	F	df1	df2	Sig. F
1	.09	.009	018	.671	.009	.338	4	145	.852

a. Predictors: (Constant), Service years, Education level, Monthly Income, Age

According to the above findings, the first hypothesis is revealed to be true. The study approved that positive physical factors affect psychological factors and social factors positively, a finding that was highlighted in earlier studies. For example, Hackman and Oldhams [16] had emphasized that personal needs are satisfied when work environment and rewards from the organization meet their expectations, which in turn was also found by Elisa and Ellen [10] to affect employees' personal and family responsibilities.

The second hypothesis is also accepted. The results showed that there is a significant correlation between psychological factors and social factors. Actually, such fact was approved through previous studies. For example, Allen et al.'s [3] analysis showed that the conflict between work and non-work life is associated with impaired psychological well-being.

b. Dependent Variable: Quality of Work life

Third hypothesis is also proved to be true. Statistical finding approved that the most important determinant of QWL is physical factors, followed by psychological factors and then social factors as highlighted by Taylor [32] in the literature review.

4 Conclusion

A large number of employees in the oil & gas companies in Qatar are playing a significant role for economic growth. This study focused on identifying the factors that associated with employees' satisfaction and their quality of work life. More specifically the study was held to identify the relationship between QWL and employees' satisfactions. All factors were found positively associated with QWL. The study indicated that QWL is positively and significantly related to employee satisfaction. The result of this study supports that the most important determinant of QWL is physical factors, followed by psychological factors and then social factors. It can also be concluded from the data, that the individual's family life correlates significantly with his/her level of QWL. This further suggests that a successful family life carries over into one's career and makes one more satisfied with personal achievements.

These positive results are expected within oil & gas companies because of their organizational culture, competitive HR polices & procedures that were so far success in attracting and retaining good talents, and because of their management or support. A recent announcement from the CEO of the oil & gas company (the hosted company of the survey of this study):

"We are pleased that the majority of employees have positive feelings and that there were clear improvements in our working environment, especially in the focus areas for improvement: communication, employee development, and reward for performance. We are so happy that you are satisfied with our safety culture, responsible business practices, values awareness, leadership and vision. We are also pleased that our graduates and trainees, as well as our mentors, have a very positive perception of our national development and mentoring processes".

Also, the findings are generally consistent with those from previous studies on QWL and employee satisfaction that were conducted in the industry and manufacturing sectors ([9], [28], [35]).

For future research regarding the QWL and its impact on employees' satisfaction, it's recommended to take a larger sample for the survey and cover all oil & gas companies in Qatar or even include QWL in other sectors as banking, or comparative study between oil & gas and other sectors as government. One of the main limitations of this research was the long list of restrictions and approvals from the company in which the survey was conducted. Also, a cross cultural approach has not been applied which somewhat limits the generalization of our findings. This might have limited the study's potential to uncover all aspects and factors that affect QWL. Fellow researchers are recommended to take these issues into account when validating this model in their future studies.

References

- [1] M. Abrams and J. Hall, *Measuring the quality of life using sample surveys, Partly reported*, in Stober et al., Technology assessment and the quality of life, Amsterdam, Elsevier, 1973.
- [2] V.H. Adams, A Paradox in African American Quality of Life, *Social Indicators Research*, **42**, (1996), 205-219.

- [3] T.D. Allen, D.E. Herst, C.S. Bruck and M. Sutton, Consequence Associated With Work-to-Family Conflict: A Review and Agenda for Future Research, *Journal of Occupational Health Psychology*, **5**, (2000), 278-308.
- [4] F.M. Andrews and S.B. Withey, Developing measures of perceived life quality, *Social Indicator Research*, **1**, (1974), 1-26.
- [5] B. Blishen and T. Atkinson, *Anglophone and francophone differences in perceptions of the quality of life in Canada*, In A. Szalai and F. M, Andrews (Eds.), The Quality of Life: Comparative Studies, (pp. 25-39), London, Sage Publications, 1980.
- [6] J. Boles, W. Howard and H. Donofrio, An investigation into the interrelationships of work–family conflict, family–work conflict and work satisfaction, *Journal of Managerial Issues*, 13(3), (2001), 376-391.
- [7] A. Campbell, P.E. Converse and W.L. Rodgers, *The Quality of American Life. Perceptions, Evaluations, and Satisfactions*, Russel Sage Foundation, New York, USA,1976.
- [8] K. Danna and R.W. Griffin, Health and well-being in the workplace: A review and synthesis of the literature, *Journal of Management*, 25, (1999), 357-384.
- [9] Ebrahim, Mohammadreza and Alireza, The relationship between QWL and job performance, *Middle-East Journal of Scientific Research*, **6**(4), (2010), 317-323.
- [10] J.GV. Elisa and A.E. Ellen, An Examination of Work and Personal Life Conflict, Organizational Support and Employee Health Among International Expatriates, *International Journal of Intercultural Relations*, 25, (2001), 261-278.
- [11] D. Elizur and S. Shye, QWL and its relation to quality of life, *Applied Psychology: An International Review*, **39** (3), (1990), 275-291.

- [12] K. Frye and J.A. Breaugh, Family-Friendly Policies, Supervisor Support, Work-Family Conflict, Family-Work Conflict, and Satisfaction, *Journal of Business and Psychology*, 19, (2004), 197-220.
- [13] J.G. Grzywacz and N.F. Marks, Re-conceptualizing the Work-Family Interface: An Ecological Perspective on the Correlates of Positive and Negative Spillover between Work and Family, *Journal of Occupational Health Psychology*, **5**, (2000), 111-126.
- [14] Guna S. Rethinam and Maimuna Ismail, Constructs of Quality of Work Life: A Perspective of Information and Technology Professionals, *European Journal of Social Science*, **7**, (2008), 58-70.
- [15] J. Hackman and G. Oldham, *The Job Diagnostic Survey*, New Haven: Yale University, 1974.
- [16] J.R. Hackman and G.R. Oldham, *Work redesign, Redesigns*, M.A: Addison-Wesley, 1980.
- [17] C.C. Hain and W.O. Einstein, QWL(QWL): What can union do? S.A.M Advanced, *Management Journal*, **55**(2), (1990), 17-22.
- [18] J. Hall, Subjective Measures of Quality of Life in Britain, *Social Trends*, **7**, (1976), 47 60.
- [19] J.L. Heskett, W.E. Sasser and L.A. Schlesinger, *The Service Profit Chain*, New York, Basic Books, 1997.
- [20] T. Lau, Y.H. Wong, K.F. Chan and M. Law, Information Technology and the Work Environment-Does it Change the Way People Interact at Work, *Human Systems Management*, **20**(3), (2001), 267-280.
- [21] E.E. Lawler, Strategies for Improving the Quality of Work Life, *American Psychologist*, **37**, (1982), 486-693.
- [22] K.A. Loscocco and A.N. Roschelle, Influences on the Quality of Work and Non-work Life: Two Decades in Review, *Journal of Vocational Behavior*, **39**, (1991), 182-225.

- [23] P.H. Mirvis and E.E. Lawler, Accounting for the Quality of Work Life, *Journal of Occupational Behaviour*, 5, (1984), 197-212.
- [24] P.K. Mishra, et.al., *Motivation and role stress in entrepreneurs*, In D. M. Pestonjee and U. Pareek (Ed.), Studies in organizational role stress and coping, New Delhi, Rawat Publications, 1997.
- [25] Daud Normala, Investigating the Relationship between QWL and Organizational Commitment amongst Employees in Malaysian Firms, *International Journal of Business and Management*, **5**(10), (2010), 75-82.
- [26] S. Parasuraman and C.A Simmers, Type of employment, work-family conflict and well-being: a comparative study, *Journal of Organizational Behaviour*, **22**, (2001), 551-568.
- [27] Philip J. Stone, *Organic solidarity and life quality indicators*, New York, Basic Books, 1978.
- [28] Raduan Che Rose, LooSee Beh, Jegak Uli and Khairuddin Idris, Quality of Work Life: Implications of Career Dimensions, *Journal of Social Sciences*, **2**(2), (2006), 61-67.
- [29] S.P. Robins, *Organizational Behavior: Concepts, Controversies, and Applications*, New Jersey, Prentice Hall, 1989.
- [30] M.J. Sirgy, D. Efraty, P. Siegel and D. Lee, A new measure of QWL(QoWL) based on need satisfaction and spillover theories, *Social Indicators Research*, **55**, (2001), 241-302.
- [31] W. Swanson, K.G. Power and R.J. Simpson, Occupational Stress and Family Life: A comparison of Male and Female Doctors, *Journal of Occupational and Organizational Psychology*, **71**, (1998), 237-260.
- [32] J.C. Taylor, C.L. Cooper and E. Mumford, *The quality of working life in Western and Eastern Europe*, ABP, (1979).
- [33] 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, **1**, (1975), 91-104.

- [34] P. Warr, J. Cook and T. Wall, Scales for the measurement of some work attitudes and aspects of psychological well being, *Journal of Occupational Psychology*, **52**, (1979), 129-148.
- [35] Zohurul Islam, Sununta Siengthai, QWL and Organizational performance: Empirical evidence from Dhaka Export Processing Zone (DEPZ) manufacturing enterprises in Bangladesh, *ILO Conference on Regulating for Decent Work*, (2009).
- [36] Qatar statistics authority 2004: http://www.qsa.gov.qa/eng/index.htm

Appendices

Table A1: Profile of Respondents

	Number	Percentage
Ethnic Group		
Qatari	40	26.7%
GCC	1	.7%
Other Arab States	32	21.3%
African non Arabs	3	2.0%
Asian non Arabs	47	31.3%
Australasian	5	3.3%
European	13	8.7%
North/Middle America	9	6.0%
Total	150	100.0%
Gender	Number	Percentage
Male	71	47.3%
Female	79	52.7%
Total	150	100.0%

Marital status	Number	Percentage
Married	112	74.7%
Single	33	22.0%
Divorcee	4	2.7%
Widow	1	.7%
Total	150	100.0%
Age	Number	Percentage
Between 18-25 years	21	14.0%
Between 26-35 years	56	37.3%
Between 36-45 years	45	30.0%
Between 46-55	25	16.7%
Above 56 years	3	2.0%
Total	150	100.0%
Educational Level	Number	Percentage
High school	10	6.7%
University	101	67.3%
Higher Education	39	26.0%
Total	150	100.0%

Table A2: Work related demographic

Monthly Income	Number	Percentage
Less than 10,000 QR	15	10.0%
between 10,001-20,000 QR	57	38.0%
between 20,001-30,000 QR	52	34.7%
Above 30,001 QR	26	17.3%
Total	150	100.0%
Occupation	Number	Percentage
Senior Manager	3	2.0%
Middle Manager	10	6.7%
First line Manager/	17	11.3%
Senior Staff	62	41.3%
Non-senior Staff	58	38.7%
Total	150	100.0%
Work Schedule	Number	Percentage
Standard work schedule	139	92.7%
Shift schedule	11	7.3%
Total	150	100.0%

Working hours	Number	Percentage
30-35	17	11.3%
36-40	40	26.7%
41-45	52	34.7%
46-50	25	16.7%
51-55	6	4.0%
56-60	10	6.7%
Total	150	100.0%
Service years	Number	Percentage
Less than one year	24	16.0%
Between 1-3 years	56	37.3%
Between 3-5 years	41	27.3%
Between 5-10 years	14	9.3%
Between 10-15 years	12	8.0%
Above 15 years	3	2.0%
Total	150	100.0%
Energy	Number	Percentage
0%	1	.7%
10%	1	.7%
20%	2	1.3%
30%	1	.7%
40%	4	2.7%
50%	4	2.7%
60%	21	14.0%
70%	20	13.3%
80%	38	25.3%
90%	31	20.7%
100%	27	18.0%
Total	150	100.0%