Employees' Perception on Quality of Work Life (QWL) in Sugar Mills of U.P: A Comparative Study Based on Working Environment Factor

Dr. Sudhir Chandra Das*
Mr. Anil Kumar Gope**

*Associate Professor, Faculty of Commerce
Banaras Hindu University, Varanasi-5
UP State-India

**Junior Research Fellow Faculty of Commerce
Banaras Hindu University, Varanasi-5
UP State-India

Abstract

Quality of work life especially working environment factor has recently emerged as an important area of concern and receiving widespread attention in more and more organizations, for their contribution to job satisfaction, motivational tool, productivity and organization successes. The study is confined to only working environment construct of QWL consists ten variables namely Comfortable Work Space (CWS), Lighting Facilities (LF), Level of Temperature (LT), Safety Measures (SF), Health Facilities (HF), Physical Working Condition (PWC), Employee Welfare Facilities (EWF), Standard of Welfare Facilities (SWF), Supervisor Interference (SI), and Job Stress (JS). The main focus of the study is to make comparison towards measures of QWL among Private and Cooperative sugar mills and to identify the prominent variables of working environment factor of QWL influencing effective motivation. The study is descriptive in nature of sample size of 360 distributed in the ratio of 3:1 among private and cooperative sugar mills employees in U.P. Keeping in view of the nature of data, non-parametric statistics and Regression Model have been used for objectives validation. Empirical evidence proofs that private sector employees enjoy better QWL practices in comparison to cooperative sector employees. Further, it has been observed that six out of ten predictor variables of working environment factor creates significant variation on employees' motivation.

Keywords: QWL, Working Environment, Private and Cooperative, Sugar Mills, variables, and perception.

Introduction

Historically, work has been an important part in the life of human beings. Rosow (1974) explain the importance of work more in detail and relates it to success and failure of a man in society. According to him 'work is the core of life considering the deeper meaning of work to be individual and to life's values; work means being a good provider, it means autonomy, it plays off in success and it establishes self- respect or self worth. Within this frame-work, the person who openly confesses active job satisfaction is virtually admitting failure as a man, a failure in fulfilling his moral role in society'. Therefore, employees love their work and love where they work comes with the quality of work life. Nowadays, the improvement of employees' quality of work life has become one of the most important purposes of the organization and the employees (Moheb Ali, 1995). The concept of QWL is based on the assumption that a job is more than just a job. It is the center of a person's life. Quality of work life has recently emerged as an important area of concern and receiving widespread attention in more and more organizations, for their

contribution to job satisfaction, productivity and organization successes (Biswas, 1993). Quality of work life (QWL) is a philosophy, a set of principles, which holds that people are the most important resource in the organization as they are trustworthy, responsible and capable of making valuable contribution and they should be treated with dignity and respect (Straw & Heckscher, 1984). QWL consists of opportunities for active involvement in group working arrangements or problem solving that are of mutual benefit to employers, based on labour - management cooperation (Cunningham & Eberle, 1990). QWL encompasses mode of wages payment, working conditions, working time, health hazards issue, financial and non-financial benefits and management behavior towards employees (Islam and Siengthai 2009). Another author Sangeeta Jain (1991) defines that any conscious effort that is aimed at improving working conditions, work content and its attendant conditions like safety, security wages and benefits can legitimately qualify as QWL activity. Ultimately, QWL is a concern not only to his improves life at work, but also life outside work. According to Royuela *et al.* (2007), European Commission (EC) proposed ten dimensions for QWL, which are (1) intrinsic job quality, (2) skills, life-long learning and career development, (3) gender equality (4) health and safety at work, (5) flexibility and security, (6) inclusion and access to the labor market, (7) work organization and work-life balance, (8) social dialogue and worker involvement, (9) diversity and non-discrimination, and (10) over all work performance.

This review on the definitions of QWL indicates that it is a multi-dimensional construct, made up of a number of interrelated factors that need careful consideration to conceptualize and measure. It is associated with job satisfaction, job involvement, motivation, productivity, health, safety and well-being, job security, competence development and balance between work and non work life as is conceptualized by European Foundation for the Improvement of Living Conditions (2002).

Status of Sugar Industry and Motivation of the Study

India is known as the original home of sugar and sugarcane. In global sugar economy, the Indian sugar industry has achieved a number of milestones. India is the second largest producer of sugarcane next to Brazil (accounting 15% of the world's sugar production). The Indian sugar industry is the second largest agro-based industry after textile located in rural India. In an era where there is a need for inclusive growth, the sugar industry is amongst the few industries that have successfully contributed to the rural economy. It has done so by commercially utilizing the rural resources to meet the large domestic demand for sugar and by generating surplus energy to meet the increasing energy needs of India. The industry is a key driver of rural development, supporting over about 55 million sugarcane farmers, their dependents and a large mass of agricultural laborers involved in sugarcane cultivation, harvesting, machine manufacturing etc. of almost 527 sugar mills and ancillary activities, and constituting 7.5% of the rural population (Sanyal et al., 2008). It is worth mentioning that the industry employs over five lakh skilled and unskilled workers mainly from the rural areas (ISMA, 2005). The total value of sugarcane produced in the country is estimated at Rs.24000 crore per year (Department of Economic Analysis and Research, 2010). Sugar production in India is likely to be about 26 million tons in the current season (SY: 2011-12) while domestic consumption is estimated at about 22 million tons. Thus the sugar industry has been a focal point for socio-economic development in the rural areas by mobilizing rural resources, generating employment and higher income. The sugar industry's contribution, to the Indian economy is presently enormous with its total turnover of over Rupees Fifty Five Thousand Crores (12 billion US Dollars) per year. The Indian sugar industry is amongst the largest tax payers to the Central exchequer contributing rupees two thousand six hundred crores per annum (0.568 billion US Dollars) as tax, cess, and excise duty every year (Ministry of Food, Government of India, 2006). The Indian sugar industry has been accounting for around 1% GDP of the country in the recent past. Besides sugar production, the industry has also diversified into manufacturing of by-products like molasses for alcohol, ethanol and chemical industries, bagasse for paper industry and also has the potential to generate over 9700 mw of power from bagasse. Combinations of all these ancillary activities immensely contribute towards the productivity and profitability for the industry thereby presenting a highly prospective opportunity for investments in this promising field.

Though current growth of this sector has been restricted by technological obsolescence, fragmented structure, low productivity and low-end quality products, but in future technology would play a lead role in this sector and will improve quality and productivity levels. It is known fact that above problems lead poor performance and sickness of sugar mills which is stamped by different researchers and policy makers. The major findings of most of the studies attribute the causes of sickness either to raw material shortages or to defective government policies towards sugar industry or to efficient management. Not a single attempt has been made to diagnose the problem of sickness by means of QWL which has its applications in various other industry studies. The study will be trying to identify whether any latent factor i.e., quality of work life are working behind the grim position of UP sugar industry. In this context, the study would be very helpful for policy makers, mill owners and employees by providing better working condition. Finally, the study will give new outlook by increasing productivity through improving effective work life and greater contribution in UP as well as in Indian economy.

Literature Review

The evolution of QWL began in late 1960s emphasizing the human dimensions of work that was focused on the quality of the relationship between the worker and the working environment (Rose *et al.* 2006). The growing importance of the quality of working life has engendered efforts to identify major variables which impact on the well-being of individuals at work (Cooper and Mumford, 1979). In Indian context, the physical working environment is a deterrent of quality of work life, because in a large number of Indian organizations it is still far from satisfactory (Rainaye, 2005). Hackman and Oldhams (1980) highlighted the constructs of QWL in relation to the interaction between work environment and personal needs. The work environment that is able to fulfill employees' personal needs is considered to provide a positive interaction effect, which will lead to an excellent QWL. Johnston (1975) supported that studies which view that workers often value factors such as job interest and good working condition above pay. Cunningham and Eberle (1990) The elements that are

relevant to an individual's quality of work life include the task, the physical working environment, social environment within the organization, administrative system and relationship between life on and off the job. Delamotte and Walker (1974) indicated that the number of emphasis have been made in the humanization of work including: the need to protect the worker from hazards to health and safety, the wage work bargain, the protection of workers from hazards of illness and unemployment and the protection of the worker from arbitrary the authority of management. Che Rose et al (2006) concluded that the most important predictor of QWL is organizational climate, followed by career achievement, career satisfaction and career balance. Runcie (1980) remarked that should an employee have positive perception of the quality of work life in the company, he would further probably strive to further improve the working conditions, increase production and quality products. Mirvis and Lawler (1984) suggested that Quality of Working Life was associated with satisfaction with wages hour and working condition, 'describing the basic element of good quality of work life' as safe work environment, equitable wages, equal employment opportunities' and opportunity for advancement. At the final, it is concluded that a happy and healthy quality of work life among employees will give better turnover, make good decisions and positively contribute to the organizational success. Heskett, Sasser and Schlesinger (1997) 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. QWL is a stage of focusing workers to get satisfaction in achieving a field of carrier. It includes consideration needs and aspirations of people, working conditions, compensation, personal and professional development, safety, social interaction, positive relationship between work life balances. (Sirgy et al, 2001; Gur and Tzafrir, 2007). (Lau & May, 1998) suggested that companies offering better QWL and supportive work environments would likely gain leverage in hiring and retaining valuable people and companies with high QWL enjoy exceptional growth and profitability. Muqtada et al. (2002) assert that workers had their common complaints related to wage and working conditions such as working hours, late attendance, and working lunch. Workers perceived that management always pays them (workers) inadequate wages and low overtime, few days of leave, long work hour without compensation and enterprises are very strict about late attendance. This complaint creates disputes and dissatisfaction at work. Worrall and Cooper (2006) reported that a low level of well-being at work is estimated to cost about 5-10 per cent of Gross National Product (GDP) per annum, yet Quality of Working Life as a theoretical construct remains relatively unexplored and unexplained within the organizational psychology research literature.

Objectives of the Study: The following three objectives have been taken for the study:

I. To make comparison towards measures of QWL among Private and Cooperative sugar mills:

II. To identify the prominent variables working environment factor influencing effective motivation; and

III. To suggest policy measures for improving QWL in sugar industry in India.

Development of Hypothesis

I. There is no significant difference between Cooperative and Private Sugar mills with regards to QWL practices; and

II. There is no significant impact of predictor variables on effective employees motivation.

Research Methods

A. Research Instruments

The study mainly based on primary data. Questionnaire survey method was used to gather primary data in the present study. Thus a structured questionnaire was designed based on the literature review for achieving the objectives of the study (Karla and Gosh, 1984; Carlson, 1978; and Walton, 1973).The questionnaire contains two parts, first part deals with the collection of socio-economic background of respondents, second part compacts with the factors influencing on quality of work life of the sugar mills employees. The following ten components of working environment factor under QWL have been considered for the study i.e., (1) Comfortable work space, (2) Lighting facilities, (3) Level of temperature, (4) Safety measures, (5) Health facilities, (6) Physical working condition, (7) Employee welfare facilities, (8) Standard of welfare facilities, (9) Supervisor interference and (10) Job stress. The study is based on the data collected to measure the employee perception and satisfaction for assessing their QWL. Hence, the study uses mainly three scale i.e., nominal, ordinal and interval scale.

B. Data Collection and Analysis Tools

The universe of the study comprises all the employees of selected twelve sugar mills of Uttar Pradesh. Primary Data has been collected by visiting the private and cooperative sugar mills of Uttar Pradesh and distributing the questionnaires for obtaining the responses. All the respondents were contacted individually and given a brief description about the nature and purpose of the study. In total, twelve sugar mills were considered for the survey based on convenience sampling method, of which eight (8) were private sugar mills and the rests are cooperative sugar mills. The stratified random sampling method was adopted for the selection of respondent for the study. In total the sample consists of 360 respondents. Further, the sample has distributed in the ratio of 3:1 among private and cooperative sector respectively. Therefore, 270 respondents from private sugar mills and 90 respondents have been taken from cooperative sugar mills. Secondary data were collected from research studies, books, various published journals, magazines websites and online articles.

The data collected from primary sources were consolidated, tabulated and analyzed by using statistical tools like descriptive statistics, ANOVA, Spearman Correlation Matrix and Mann-Whitney test. Analysis of the significance of association between the opinions on each variables of quality of work life of the respondents and the nature of industry was carried out. The Spearman correlation matrix test was conducted to examine the individual relationship between the quality of work life dimensions. Hypothesis test has been performed to declare about

the existence of significant difference between two independent samples – Private and Cooperative sugar mills employees.

Data Analysis and Interpretation

Table 1: Descriptive Statistics

Identified Variables	Mean		Standard Deviation		Variance Coefficient	
	Private	Cooperative	Private	Cooperative	Private	Cooperative
1.Comfortable Work Space (CWS) **Scale:-Yes:1; No: 2**	1.31	1.41	.465	.495	41.15	35.10
2. Lighting Facilities (LF) **Scale:-SD:1; D:2; U:3; A:4;SA:5**	4.07	3.80	.853	1.041	20.95	27.39
3.Level of Temperature (LT) **Scale-Yes:1; No:2**	1.20	1.33	.398	.474	33.16	35.63
4. Safety Measures (SM) **Scale- Poor:1; Satis.:2: Good:3; Excellent:4**	2.36	1.81	.932	.685	39.49	37.84
5. Health Facilities (HF) **Scale-SA:1; A:2; U:3; D:4; SD:5**	2.84	2.12	1.309	1.207	46.09	56.93
6. Physical Working Condition (PWC) **Scale-SA:1; A:2; U:3; D:4; SD:5**	3.03	2.89	1.261	1.285	41.61	44.46
7.Employee Welfare Facilities (EWF) **Scale-Com.:1; Mod.:2; Satis.:3; Poor:4**	1.86	1.38	1.211	.881	65.10	63.84
8.Standard of Welfare Facilities (SWF) **Scale-Poor:1; Satis.:2; Good:3; Excellent:4**	2.33	1.79	.924	.695	39.65	38.82
9. Supervisor Interference (SI) **Scale-Nev.:1; Sometimes: 2; Often:3; Always:4**	2.03	1.84	.833	.898	41.03	48.80
10. Job Stress (JS) **Scale-Yes:1; No:2**	1.55	1.51	.499	.503	32.19	33.31

A. Identified Variables of Quality of Work Life and Descriptive Statistics: Table: 1 summarized the facet QWL and the mean, SD and CV scores of private and cooperative sector. The descriptive result shows that the elements of working environment factor that obtained relatively high scores are like lighting facilities, and employee welfare facilities in case of private sugar mills, whereas supervisor interference, physical working condition and comfortable workspace projects the maximum score. The coefficient of variation of few variables namely health and employee welfare facilities indicates more volatile in both the sector. The lowest C.V of lighting facilities in both the case projects less volatile and stable opinion.

Table: 2- Results of Two Independent Samples (Mann-Whitney U Test)

Identified Variables of QWL (WEF)	Mill Wise Statistics			Mann-Whitney U Test	Asymp.Sig. (2-tailed)
	Nature of Mill	Mean Rank	Sum of Rank		
1.Comfortable Work Space **(CWS)**	Private	176.17	47565	10980	.095
	Cooperative	193.50	17415		
2. Lighting Facilities **(LF)**	Private	186.54	50366.5	10518.5	.026*
	Cooperative	162.37	14613.5		
3. Level of Temperature **(LT)**	Private	174.33	47070	10485	.008**
	Cooperative	199.00	17910		
4. Safety Measures **(SM)**	Private	194.99	52648	8237	.000**
	Cooperative	137.02	12332		
5. Health Facilities **(HF)**	Private	194.22	52439.5	8445.5	.000**
	Cooperative	139.34	12540.5		
6. Physical Working Condition **(PWC)**	Private	182.95	49397	11488	.409
	Cooperative	173.14	15583		
7.Employee Welfare Facilities **(EWF)**	Private	191.41	51680.5	9204.5	.000**
	Cooperative	147.77	13299.5		
8.Standard of Welfare Facilities **(SWF)**	Private	195.03	52659	8226	.000**
	Cooperative	136.90	12321		
9. Supervisor Interference **(SI)**	Private	187.10	50518	10367	.026*
	Cooperative	160.69	14462		
10. Job Stress **(JS)**	Private	182.17	49185	11700	.542
	Cooperative	175.50	15795		
Total Score of Working Environment Factor (TWEF)	Private	199.94	53985	6900	.000**
	Cooperative	122.17	10995		

*Indicates significant at 0.05 level and ** Indicates significant at 0.01level

B. QWL of Private and Cooperative Sugar Mills: Nonparametric Approach: Mann-Whitney U Test results indicates (Table 2), at 1% significance level, median response of private mills employees significantly varies from that of cooperative employees for the dimensions of working environment construct of QWL i.e., SM, HF, EWF, SWF, SI, and **JS**. As a whole, median QWL of private sugar mills is also significantly differs from that of cooperative mills employees at 1% level. The mean values of the cases of private mills is greater than their cooperative counterparts , which signifies that the private sugar mills employees are more satisfied with their SM, HF, EWF, SWF, SI, and JS than the cooperative mills workers. As per the Mann-Whitney U Test result, the perception of private and cooperative employees does not differ significantly in terms of comfortable work space (CWS) and job stress (JS). The overall specific facet of QWL of the private sugar mills employees varies significantly from that of the Cooperative mills employees according to the Mann-Whitney U Test result. Finally, it can be determined that the private mill employees have a better QWL in UP, as the mean and median values indicates this phenomenon. Thus the research hypothesis: 1 does not confirm the result and it can be concluded that there is significant difference between QWL practices between private and cooperative sugar mills.

C. Analysis of Correlation Coefficient between Working Environment and its Variables: Since the serious violations of the distribution assumptions of parametric tests alternative non-parametric technique i.e., Spearman's Rank Order Correlation analysis has been conducted to determine the relationship between the construct or latent variables. From the Table: 3 of correlation matrix, it has been found that most of the associated pairs of variables were significant at the level of 0.01. As cited in Wei et. al. 2009, Noordin and Sadi, 2010; and Wong and Hiew, 2005, the correlation coefficient value ranges from 0.10 to 0.29 is considered weak, from 0.30 to 0.49 is considered medium and from 0.50 to 1.00 is considered strong. Field (2005) indicated that multicollinearity may arise if correlation coefficient found to be more than 0.80. In Table: 3, the highest correlation coefficient is 0.654 between the constructs of health facilities and overall score and this correlation is significant at the significance level of 0.01. All other variables are significantly correlated with each other. Further, there is no existence of multicollinearity in measuring the Employee's Perception on Quality of Work Life with regard to working environment construct in Indian select Sugar Mills.

Table: 3-Spearman Correlation Matrix

Constructs	CWS	LF	LT	SM	HF	PWC	EWF	SWF	SI	JS	Overall
1.Comfortable Work Space (CWS)	1										
2.Lighting Facilities (LF)	-.311**	1									
3.Level of Temperature (LT)	.360**	-.284**	1								
4.Safety Measures (SM)	-.299**	.443**	-.284**	1							
5.Health Facilities (HF)	-.191**	.087	-.196**	.288**	1						
6.Physical Working Condition (PWC)	-.164**	.230**	-.122*	.247**	.428**	1					
7.Employee Welfare Facilities (EWF)	.163**	-.184**	.127*	-.079	.008	-.082*	1				
8.Standard of Welfare Facilities (SWF)	-.394	.425**	-.322	.477**	.297**	.285**	-.164**	1			
9.Supervisor Interference (SI)	.078	-.010	.038	-.056	-.013	-.098	.072	-.011	1		
10.Job Stress (JS)	-.280**	.232**	-.208**	.258**	.150**	.206**	-.163**	.276**	-.111*	1	
Overall	-167**	.439**	-.109*	.573**	.654**	.367**	.187**	.560**	.172**	.313**	1

*Correlation is significant at the .05 level (2 tailed)

** Correlation is significant at the .01 level (2 tailed)

D. Standardized Regression Analysis: In measuring the employees perception towards quality of work life and its effects on motivation, F-statistics produced was significant at (F= 7.318, p< 0.01) at one percent level of significance (Table: 4), thus confirming the fitness for the model. Therefore, there is statistically significant relationship between the factors of QWL (Working Environment Factor) and motivation. The coefficient of determination R^2 was found to be 15% which is significantly accounted of quality of work life to motivate the workers. In natural science research it is not uncommon to get R square values as high as 0.99, as much lower value (0.10-0.20) of R square is acceptable in social science research (Gaur et al 2010).

Regression result has been used to test the hypothesis: 2 to measure with the variables of Comfortable work space, Lighting facilities, Level of temperature, Safety measures, Health facilities, Physical working condition, Employee welfare facilities, Standard of welfare facilities, Supervisor interference and Job stress with motivation. Table: 5 show the degree of relationship of QWL variables with motivation. Comfortable work space is significant with motivation and the level of significant was 5% and it explained 12.6% of total variance. Safety measures have a positive and significant relationship with motivation at the level of .05 that explained 14.4% of total variance. Health facilities have positive and significant relationship with motivation at the level of 5% that explained 19.2% of total variance. Standard of health facilities also has a positive relationship with motivation at the level of 5% that explained 16.7% of total variance. All the ten variables in equation: 2 is account for 65.4% of total variance. Result further revealed that level of temperature, physical working condition, employee welfare facilities, physical working condition, employee welfare facilities, supervisor interference were not related to motivation.

Table: 4a Model Summary

Model	R	R square	Adjusted R Square	F	Sig.
1	.416[a]	.173	.150	7.318	0.000

a = Comfortable work space, Lighting facilities, Level of temperature, Safety measures, Health facilities, Physical working condition, Employee welfare facilities, Standard of welfare facilities, Supervisor interference and Job stress.

b = Dependent variable: Effective Motivation

Table 4b: Coefficient

Model I		Unstandardized Coefficient		Standardized Coefficient	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
	Constant	.568	.300		1.950	.052		
	Comfortable Work Space	.178	.080	.126	2.224	.027	.738	1.355
	Lighting Facilities	.087	.043	.119	2.012	0.45	.678	1.475
	Level of Temperature	-.065	.087	-.041	-.752	.452	.789	1.268
	Safety Measures	.106	.004	.144	2.428	.016	.676	1.480
	Health Facilities	.097	.029	.192	3.378	.001	.732	1.367
	Physical Working Condition	-.041	.030	-.078	1.378	.169	.735	1.360
	Employee Welfare Facilities	-.017	.030	-.030	-.585	.559	.899	1.113
	Standard of Welfare Facilities	.124	.046	.167	2.715	.007	.625	1.600
	Supervisor Interference	-.005	.039	-.006	-.125	.900	.962	1.039
	Job Stress	.082	.071	.061	1.160	.247	.846	1.182

Conclusion

The main focus of the study is to differentiate the QWL practices of employees in private and cooperative sector and to identify the probable predictors of effective employees' motivation. Ten different issues of working environment facet or QWL have been examined by using non-parametric test statistics. Five issues namely LT, SM, HF, EWF, and SWF found differs significantly at 1% level in private and cooperative sector, whereas two variables (CWS and JS) found insignificant difference. Finally, it can be concluded with regard to first objective that private sector employees enjoys better QWL practices in comparison to cooperative sector, as it is evident mean scores of four variables (SM, HF, SWF and LF) are higher in case of private sector, whereas two variables (EWF and SI) mean scores higher in cooperative sector.

Before application of regression Analysis, multicollinearity has been tested by Spearman Correlation Matrix and result says significant association and absence of multicollinearity. Fitness of model have been tested and found ten select variables collectively contributes 15% variations on effective motivation, which is acceptable in social science. Degree of relationship facet QWL with motivation has been measured with coefficient to justify the second objective and found that six variables (CWS, LF, SM, HF, SWF, and JS) constitutes 65% variations to motivate employees in both the sector, whereas HF and SWF scores the highest variation scores followed by SF, CWS and LF. Thus it can be concluded that six out of ten predictor variables creates significant variation on employee motivation.

As this is a descriptive study, able to pinpoint some lacking areas with respect to the factors of quality of work life in both the sector of sugar industry. The study identifies four different latent issues i.e. level of temperature at work place, physical working condition, employee welfare facilities and supervisory interference and recommended the management of both the sector should take appropriate step to address the problems with suitable modifications that fit their organization. In conclusion, to improve Quality of work life is first to identify and then try to satisfy employee's important needs through their experience in their working environment. Depending upon the situational requirements, management may select the relevant needs of the employee's to improve them with a short term plan.

Limitations and Future Research Direction

However, several limitations exist in the present study that warrants review. First, the present study includes only few variables relating to working environment factor of QWL aspect. Therefore, future research should include more variables including demographic characteristics of sugar mills employees to examine the real picture of quality of work life. Second, the sample size was considerably low. Therefore, future research should be conducted on a larger sample considering more private and cooperative sugar mills to authenticate the differences between employees' perceptions about QWL. Third, the study does not include consequences of quality of work life. Fourth, Impact of quality of work life on employees' behavior (turnover, absenteeism, organizational commitment, job involvement & engagement) and organizational performance can be assessed in the Indian manufacturing industry.

References

Biswas, S.K. (1993), Quality of Work Life- What Is It? The Indian Journal of Labour Economics, .36 (4), 759-64.

Carlson, C. (1978). General motor's quality of work life efforts. Personnel, 55 (4), 11-23.

Che Rose, R., Beh L.S, Uli, J., Idris K. (2006). An analysis of Quality of Work Life (QWL) and Career-Related Variables, *American Journal of Applied Science 3 (12)* 2151-2159.

Cooper, C. L. and Mumford, E. (1979), The Quality of Working Life in Western and Eastern Europe, Greenwood, Westport, Conn.

Cunningham, J.B. and T. Eberle, (1990). A guide to job enrichment and redesign. Personnel, 67, 56-61.

Delamotte, Y. and Walker, K. F., (1974) "Humanization of Work and the Quality of Working Life -Trends and Issues", International Institute for Labour Studies Bulletin, 11, 3-14.

Directorate of sugar (2006). Revitalization of sugar industry, Department of food and public distribution, Ministry of food, consumer affairs and public distribution, GOI, Krishi Bhawan , New Delhi.

Field, A. (2005). Discovering statistics using SPSS (2nd ed.). London: Sage.

European Foundation for the Improvement of Living Conditions, (2002). "New work organization, Working Conditions and Quality of Work: Towards the Flexible Firm?" Online Available: wwweurofound.eu.int.

Gur, A. B. A & Tzafrir, S. S. (2007). HRM practices and perceived service quality: The role of trust as a mediator. *Research and Practice in Human Resource Management, 15*(2), 1-20.

Hackman, J.R., and G.R., Oldham, (1980). *Work Redesign*. Reading, M.A: Addison-Wesley.

Heskett, J.L. Sasser W.E. and Schlesinger, L.A.(1997) *The Service Profit Chain*, New York, Basic Books, performance. *South Dakota Business Review*, 58 (2), 3-7.

Islam, MZ & Siengthai, S. (2009). Quality of work life and organizational performance: Empirical evidence from Dhaka Export Processing Zone, paper presented to ILO Conference on Regulating for Decent Work, Geneva.

ISMA (2005). 'Sugar situation, Indian sugar mills association'. Http// www.indiasugar.com.

J.L. Heskett, W.E. Sasser and L.A. Schlesinger,(1997) *The Service Profit Chain*, New York, Basic Books, performance. *South Dakota Business Review*, 58 (2), 3-7. Bernama Online, 9/11/2011. Kajian: Separuh pekerja Malaysia kerja lebih lapan jam sehari.

Jazani, Nasrin, (2000) The human sources Management, first publication, Tehran, Ney Publications.

Jonston,R. (1975). Pay and job satisfaction: A study of sum

research finding. *International labour Review, 111* (5), 441-49.

Karla, Satish kumar and Gosh, Sadana. (1984). Quality of work life : a study of associated factors. *Indian Journal of Social Work, XIV. 3*.

Lau, R. S. M., & May, B. E. (1998). A win-win paradigm for quality of work life and business performance. *Human Resource Development Quarterly*. 9 (3), 211-226.

May, B. E., Lau, R. S. M., & Johnson, S.K. (1999). A longitudinal study of quality of work life and business.

Mirvis. L, and Lawler. B. (1984), Quality of work life and organizational commitment of employees, *Review of Industrial Psychology*, 12(2), 42-55.

Moheb, Ali, Davood, (1995), "Better work life,a factor in increasing the productivity", The management sciences quarterly, 14.

Muqtada, M., Singh, A.M., and Rashid, M.A., (2002), "Bangladesh: Economic and Social Challenges of Globalization" The University Press Limited, Dhaka, Bangladesh. A study prepared for the International Labor Office, Geneva.

Noordin, M.F. and Sadi, A.H.M.S. (2010) Adoption of Mobile Commerce in Malaysia: An Exploratory Stud on Extension of Theory of Planned Behaviour *Business Analyst*, **31(1)**: 115-150.

Rainaye, Riyaz. (2005). Quality of Work Life in banks: A Micro-level Comparative analysis. *The Indian Journal of Commerce, 58*(4), 112-121.

Rose, R. C., Beh, L. S., Uli, J., Idris, K. (2006) Quality of Work Life: Implications of Career Dimensions, *Journal of Social Sciences,* 2(2), 61-67.

Rosow, J.M. (1977) 'Quality of Working Life and productivity', the double pay off, A paper presented at Conference held at America Institute Inc., Chicago.

Royuela, V., Tamayo, J. L., Suriñach, J. (2007) The Institutional vs. the Academic Definition of the Quality of Work Life. What is the focus of the European Commission? *Research Institute of Applied Economics, Working Papers 2007/13*, Geneva: AQR-IREA Research Group, University of Barcelona.

Runcie, J. F. (1980), "Dynamic Systems and the Quality of Work Life", *Personnel*, 57(6), 13- 24.

Sanyal, N., Bhagria, R.P. & Ray, S.C. (2008). "Indian Sugar Industry", Yojana, 52(4), 13-17.

Seashore, S.E., (1975), Defining and measuring the quality of working life. In L.E. Davis and A.B.

Sirgy, M. J., Efraty, D., Siegel, P. & Lee, D. (2001). A new measure of quality of work life based on need satisfaction and spillover theories. Social Indicators Research, 55, 241-302.

Walton, R.E. (1973). Quality of working life. What is it? *Sloan Management Review, 15*(1), 11-21.

Worrall, L. & Cooper, C. L. (2006) The Quality of Working Life: Managers' Health and Well-being. Executive Report, Chartered Management Institute.

Wei,T.T; Govindan M., Alain Y.C., Keng-Boon O., Seetharam A. (2009) What drives Malaysian commerce adoption? An empirical analysis, *Industrial Management & Data Systems*, Vol. 109 Iss: 3, pp.370 – 388.

Wong, C. C., & Hiew, P.L. (2005). Factors influencing the adoption of Mobile entertainment: Empirical evidence from a Malaysian survey. In W. Brookes, E. Lawrence, R. Steele, & E. Chang (Eds), Proceedings of the International Conference on Mobile Business (P P . 682- 685). Los Alamitos, CA: IEEE Computer Society.

Reports of Department of Economic analysis and Research (2010). National Bank for agriculture and rural development.

Tzafrir, S. S. & Gur, A. B. A. (2007). HRM practices and perceived service quality: The role of trust as a mediator. *Research and Practice in Human Resource Management, 15*(2), 1-20.