

ORIGINAL ARTICLE

Quality of Work Life among Malaysian OSH Personnel and General Workers from Different Industries in Malaysia

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ABSTRACT

Background: Quality of Work Life (QWL) is a subset of the quality of life which expresses the interactions between workers and their total working environment with individual or human dimension. **Objectives:** The objective of this study was to determine the prevalence of QWL among Malaysian workers. **Methods:** 2740 respondents (1921 males and 819 females) were randomly selected from 11 different industries from all states of Malaysia. Respondents were aged between 18 to more than 55 years and were a local OSH Personnel and local general workers. Face to face interviews were conducted in all the selected industries using a structured questionnaire form adapted from Malaysian OSH Profile 2016. Respondents have completed the questionnaire under instructions and supervision of the research team. **Results:** Majority of the respondents were male (70.1%) and from manufacturing industries (76.3%). 50% of the respondents identified a high level of QWL in each component like not having a stress with the work load (85.5%), good work environment (78.4%), family life (83.1% and 83.6%), enough income and distribution (58.9%), good communication and harmonies relationship between colleagues and boss (93.4% and 88.7%), good facilities (88.6%), welfare at work (71.3%) and productive working condition (80.8%). There is a significant difference between QWL and type of industries [$F(10)=12.897, p=0.001$] where agriculture industry had the highest QWL. There is significant difference between QWL and gender ($p=0.009$) where male reported higher QWL compared to female. **Conclusion:** These findings could be used by the organizations in order to enhance its performance, productivity, employees' commitment and satisfaction.

Keywords: Quality of Work Life (QWL), Work environment, Safety and health, Malaysian industries

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Quality of Work Life is considered as a subset of the quality of life which reflects the interaction between workers and the overall environment in which they work with consideration of human dimension (4). The purpose of the QWL is to promote an excellent work environment for employees and also for production (5;6). It aims at safer, healthier, more productive, and satisfied employees as well as a proficient, adaptive and productive organization. The concept of QWL includes the following factors: job satisfaction, work performance, motivation, efficiency, productivity, health, safety and welfare at work, stress, work load, burn-out, etc. These factors can be explained as physical and psychological results of work which impact the workers while performing their tasks (7). QWL reflects the degree to which members of a work organization have the ability and the potential to meet the main personal needs of their employees through their experience in the organization. QWL variables by itself is insufficient to measure employee's job satisfaction, thus, the researcher

INTRODUCTION

Quality of Work Life (QWL) and quality of life (QOL) are two of the most relevant and major topics in the organizational system. Organizations, as systems, need coordination and efficiency among their subsystems while manpower was the most important of subsystems and organizations considered it as important priorities (1). QWL became one of the fundamental areas of human resource management that is drawing attention and researchers around the globe (2). It was a viewpoint and a way of thinking that respects and praise the human lives and see them to be more important in the organization as future strengths rather than a budget to provide or to classify them as direct or indirect costs (3).

found that the average score for majority of the of the terms tested for job satisfaction, source of stress and job-related aspects, the QWL Likerts scale is to be around 2 (8). Daud (9) suggested investigating the relationship between Quality of Work Life and Organizational Commitment amongst Employees in Malaysia firm, and she declared that employers should consider the QWL as main concern in order to improve job satisfaction and commitment among employees (9).

Azril et al., (10) in their study investigated the impact of Quality of Work Life on work performance among agriculture workers (10). The study mainly assessed the QWL in enhancing work performance, furthermore, the authors examined the factor and variables affecting work performance. Results have shown a significant positive relationship between all of the nine components of work life and work performance, where individual and family life was the most significant with work performance.

Talebi et al., (11) examined the relationship between the employees' Quality of Work Life and the effectiveness in service organization like banking sector (11). Authors have investigated seven variables in order to find out the current status of the employees QWL; these variables were as follow: salary and benefits, ill-free and safe work environment, job security, skills and education, autonomy at work and job development direction. Sharma and Vishwavidyala, (12) explored QWL in small sized Industries in Indore, India. The findings determined seven main variables that reflects the employees QWL namely: job satisfaction, workplace environment, growth possibility, level of motivation provided by management, compensations either insured or uninsured, effective communication (verbal, written) and adjustable time to preform required tasks. Findings revealed also that QWL is not highly established at the industry based on the employees' perception (12). In the same baking sector, Reddy and Reddy, (13) have tested nine elements to evaluate QWL in public and private banks, these elements were as follow: risk and ill-free workplace and working conditions, social work relevance, social integration, career planning, constitutionalism, human capabilities, growth and development, organization structure and job enrichment (13). Their concluding results identified Quality of Work Life as: favorable conditions and positive workplace environments that target the well-being of employees and welfare facilities (14).

Naheran et al., (15) studied another aspect that demonstrates the effect of Quality of Work Life Programs on Quality of Life among workers at multinational companies in Bintulu, Sarawak, Malaysia. The study revealed a significant relationship between QWL programs and QOL where personal development, emotional well-being, interpersonal relations and social inclusions were the most influencing factors (15). Subhashini and Gopal, (16) investigated the

status of QWL among women workers in garment factories in Coimbatore district of Tamilnadu, and the study indicated a positive relationship between QWL and productivity; each increase in QWL results in an increase of productivity. Authors recommended that an attractive pay scale can be offered and permissible leave limits can be extended. A good quality of work life reduces absenteeism, accidents and attrition (17). Furthermore, QWL is has a high positive effects in improving the production and effectiveness of an organizational effectiveness, as well as the employees' morale satisfaction and economic development of the country (18). Therefore, an attempt has been made to know about the employees needs on quality of work life and its factors that influence on their working and social environment.

According to the Malaysian Economy in Figures 2016, the Quality of Work Life index, the statistic QWL increasing and decreasing by years in Malaysia. From 2007 to 2010, Quality of Work Life index was decreasing from 132.4 to 119.4, then slightly increased from the year 2011 to 2013 which from 125.7 to 128.6, then decreased from 2012 to 2014 by 125.3 to 114.4 (19). Moreover, based on previous studies relating with the quality of work life (1;11;20;21;22) most of them only focused in one type of industry, small group of workers and only covered certain components of quality of work life. This shows the importance of this study and the need of more research to investigate and improve the Quality of Work Life in different industries around Malaysia.

Thus, this cross sectional study was conducted (a) to determine the social demographical background of Malaysian workers, (b) to investigate the quality of work life among Malaysian workers, (c) to compare the QWL between industry types of Malaysian workers and (d) to identify the factors contributing to quality of work life in 11 types of industries and two group of local workers that covered all states of Malaysia. The results obtained can be used by researchers, OSH practitioners and consultants in future studies. The management of companies in different sectors can also use the findings to improve the QWL measures and take preventive steps in order to increase the job satisfaction of workers and improve the workplace environment as well.

MATERIALS AND METHODS

Participants

A total of 2740 respondent comprising of Occupational Safety and Health personnel and general workers have participated in this study. OSH Personnel can be any member of safety committee, safety technicians or safety officers with green book or without green book. General workers are represented by all skilled and unskilled workers who are carrying out any specific tasks at the industry including human resources or operation

managers. The respondents were selected according to the eligibility criteria which include all Malaysian local general workers and OSH personnel, male or female workers and their age between 18 to above 55 years. However, foreign workers were excluded from this study. Participants were selected from the 11 following industries: manufacturing, agriculture, forestry and fisheries, wholesale and retails, trades, banking and finance, governmental service/ statutory bodies, oil and gas, construction, mining and quarrying, utilities, hotel and restaurants and services. These industries were conveniently selected through a list of industries provided by the Department of Occupational Safety and Health (DOSH) officer in each state. Respondents were selected randomly based on their willing participation in each industry from all states of Malaysia which are Selangor, Melaka, Negeri Sembilan, Pulau Pinang, Sabah, Sarawak, Terengganu, Pahang, Perak, Kelantan, Perlis, Kedah and Johor respectively.

Instruments

The structured questionnaire used in this study was adapted from the Malaysian Occupational Safety and Health Profile (OSH Profile 2016), questions on quality of work life were extracted. The questionnaire aims to assess the QWL and focuses on OSH personnel and general workers that work at different types of industries. The questionnaire was given in English and Malay languages and it consisted of two main sections: section "A" covered the socio-demographic characteristics such as age and gender, and section "B" included 10 questions within the following components of quality of work-life: stress, working environment, family life, income, communication, facilities, welfare at work, and working conditions.

Data collection and analysis

After the ethical approval by Universiti Putra Malaysia under the reference: FPSK (EXP16-OSH) U027. Data was collected from each industry by a face-to-face interview from September 2016 to April 2017. Questionnaires were distributed to the respondents by the researchers with collaboration of DOSH officer using random sampling method. The data collected was coded and analysed using the Statistical Package of Social Science (SPSS for Windows, Version 22.0, 2016). Descriptive statistics were used to summarize and explain the characteristics of the variables as frequency and percentage. One-way ANOVA and independent t-test were used to compare the means of QWL between types of industries, age categories and gender respectively.

RESULTS AND DISCUSSION

Socio demographic background and occupation information

The highest frequency of respondent's age was among 26-35 years old (38.0%). While the lowest were among above 55 years old (4.7%). The male workers had

highest frequency which 70.1% than female workers, 29.9%. Almost all of the respondents, 76.3% were from manufacturing industries while the lowest frequency was from governmental services/ statutory bodies. Details are shown in Table I.

Table I: Frequency distribution of socio demographic background and occupational information of respondents

Variables	General Workers N(%)	OSH Personnel N(%)	Overall N (%)
Age			
18-25	244 (18.0%)	295 (21.5%)	539 (19.8%)
26-35	543 (40.0%)	495 (36.0%)	1036 (38.0%)
36-45	313 (23.1%)	306 (22.3%)	619 (22.7%)
46-55	195 (14.4%)	209 (15.3%)	404 (14.8%)
>55	62 (4.6%)	67 (4.9%)	129 (4.7%)
Gender			
Male	951 (69.4%)	970 (70.8%)	1921 (70.1%)
Female	419 (30.6%)	400 (29.2%)	819 (29.9%)
Type of Industries			
Manufacturing	822 (60.4%)	1259 (92.2%)	2081 (76.3%)
Agriculture, Forestry & Fisheries	36 (2.7%)	1 (0.1%)	37 (1.4%)
Trades, Banking & Finance	13 (1.0%)	29 (2.1%)	42 (1.5%)
Governmental Services/Statutory Bodies	8 (0.6%)	-	8 (1.3%)
Hotel & Restaurant	95 (7.0%)	14 (1.0%)	109 (4.0%)
Oil & Gas	168 (12.4%)	21 (1.5%)	189 (6.9%)
Construction	13 (1.0%)	-	13 (0.5%)
Mining & Quarrying	53 (3.9%)	3 (0.2%)	56 (2.1%)
Utilities	17 (1.3%)	2 (0.1%)	19 (0.7%)
Services	67 (4.9%)	28(2.0%)	95 (3.5%)
Wholesale & Retails	68 (5.0%)	9(0.7%)	77 (2.8%)

Quality of Work Life among Malaysian workers

The overall prevalence of QWL among respondents was high in each component. The results of percentage of QWL are presented in Table II.

Comparison of mean between the Quality of Work Life and industry types

There is a substantial different between quality of work life and type of industry where its p value is <0.001 and F-statistics is 12.897(10). Table III shows details of the mean differences between QWL and industry types.

Factors that contributing to the Quality of Work Life

Age factor

There is no significant difference of mean between the Quality of Work Life and age groups [F(4)=0.881, p=0.475]. Details are shown in Table IV.

Table II: Percentage of Quality of Work Life among respondents

	General Workers N (%)	OSH Personnel N (%)	Overall N (%)
Stress			
Yes	201 (14.8%)	193 (14.3%)	394 (14.5%)
No	1154 (85.2%)	1161 (85.7%)	2315 (85.5%)
Working Environment			
Yes	1066 (78.6%)	1063 (78.2%)	2129 (78.4%)
No	290 (21.4%)	296 (21.8%)	586 (21.6%)
Family Life			
Yes	201 (14.8%)	258 (19.1%)	459 (16.9%)
No	1157 (85.2%)	1096 (80.9%)	2253 (83.1%)
Income & Distribution			
Yes	819 (60.4%)	777 (57.4%)	1596 (58.9%)
No	537 (39.6%)	576 (42.6%)	1113 (41.1%)
Communication			
Yes	1262 (92.9%)	1278 (94.0%)	2540 (93.4%)
No	97 (7.1%)	82 (6.0%)	179 (6.6%)
Facilities			
Yes	1182 (87.0%)	1226 (90.2%)	2408 (88.6%)
No	176 (13.0%)	133 (9.8%)	309 (11.4%)
Welfare at Work			
Yes	970 (71.4%)	968 (71.2%)	1938 (71.3%)
No	388 (28.6%)	392 (28.8%)	780 (28.7%)
Working Condition			
Yes	1112 (81.9%)	1078 (79.7%)	2190 (80.8%)
No	245 (18.1%)	275 (20.3%)	520 (19.2%)

Gender factor

There is a significant difference of mean between the Quality of Work Life and gender. In table 5, p-value of Levene test is 0.009 (p<0.05), indicates that the variance of the gender group (female and male). Male workers had reported higher Quality of Work Life compared to female. Details are shown in Table V.

Table III: Comparison of mean between the Quality of Work Life and Type of Industries

Type of Industries	Mean (SD)	F-statistics (df)	p-value*
Manufacturing	6.73 (1.907)		
Agriculture, Forestry & Fisheries	7.49 (1.574)		
Trades, Banking & Finance	6.52 (1.851)		
Governmental Services/Statutory Bodies	7.25 (1.753)		
Hotel & Restaurant	7.40 (1.111)		
Oil & Gas	7.31 (1.388)	12.897 (10)	<0.001
Construction	5.92 (2.290)		
Mining & Quarrying	4.31 (3.625)		
Utilities	6.84 (0.958)		
Services	6.67 (2.131)		
Wholesale & Retails	6.87 (2.022)		

One-way ANOVA *p-value significant at 0.05 level (Bonferroni Alpha)

Table IV: Comparison of mean between the Quality of Work Life and Age

Respondent Age	Mean (SD)	F-statistics (df)	p-value*
18-25	6.73 (1.907)		
26-35	7.49 (1.574)		
36-45	6.52 (1.851)	0.881 (4)	0.475
46-55	7.25 (1.753)		
>55	7.40 (1.111)		

One-way ANOVA *p-value significant at 0.05 level (Bonferroni Alpha)

DISCUSSION

Socio demographic and occupational background

The frequency of age was higher among 26-35 years old and lower among above 55 years old. These happen due to an increase of level of socioeconomic development in the community which leads people to start their professional career at a later age. In the 19th century's generation, people started labor around the age of 16 to 18, however, people now start their employment almost around at the age of 26 to 28 years old. Moreover, there is a lack of youth employment; in Malaysia, the percentage of unemployed people with an age ranged between 15 to 24 years old in 2013 increased 11.10% from previous in 2010 was 10.20%. So, as now Malaysia

Table V: Comparison of mean between the Quality of Work Life and Gender

Variables	Mean (SD)		Mean Difference (95% CI)	T-statistics (df)	p-value*
	Male	Female			
Quality of Work Life	6.69(2.023)	6.90(1.738)	-0.214 (-0.373, -0.054)	-2.623 (2705)	0.009

Independent T-test

*p-value significant at 0.05 level

has provided many job opportunities for young people in order to pursue a high labor force and economically. The male workers had highest frequency which is 1921 (70.1%) than female workers, 819 (29.9%). This means that the current workforce in all industries is a mixture of male and female workforce with a ratio of 3:1. There is a cultural belief that role of women only needs to take care of home and child care rather than working in an organization. It was understood to play a larger role in gendered behavior than economist. Eswaran. M., (23) reviewed various studies that examined the cultural origins of men's and women's economic roles and why we think the way we do. The author explored the differences between men and women in their behavioral response in economic situations and their bargaining power within the household (23). Furthermore, the factor of the work task that does not suit to the female that shaped to the gendered division of labor. For example, in agricultural an economy, which requires great upper body strength, it gave an advantage to men in agricultural work.

Prevalence of Quality of Work Life among Malaysian Workers

A high level of quality of work life minimizes the likelihood of absenteeism and accidents occurrence. Moreover, QWL plays a big role in improving organizational effectiveness, production, employees' attitudes and the country's economic development. Katzell et al., (24) observed that an employee can perceive high QWL when he/she has a positive feeling towards his job and its future prospects, and that keeps the employee motivated to stay on the job and performs well (5). The finding of having a good QWL in this study was high and comparable with other studies. This study was indicated that percentage of company provided welfare at work was 71.3%. Rathamani & Ramchandra, (20) recorded that higher compensation, 40% of the respondents did affect QWL of the employees. If the welfare at work of employees was not in good practices there will be an indication of a high level of strain and imbalance between work and life commitments (20). So, organizational plays a role in minimize and controlling the level of strain and stress of their employees. The work environment is fundamental in retaining the employees in the organization and it influences their satisfaction

towards their employers. Employees will be happy to work in friendly, and suitable work environment, and this leads to an increase of productivity, reduce stress level and conflict and high commitment level among employees. In this study, 78.4% of them indicated that the work environment at their company was good and motivated them to work. Rethinam et al., (21) in their study investigated many factors in order to find out the meaning of quality of work life (QWL), their findings showed that one of the main factors is work environment (40.8%) (21). Information technology (IT) professionals who are highly influenced in the QWL shows as a result a dynamic change in work environment. The findings of this study showed that the percentage of workers had a good enough income and distribution was 58.9%. Mishra (25) in his study showed that QWL is not affected by the age and extent of services and that was as a consequence of income of the employees; income and higher level of education, both lead to higher level of QWL.

For this study, the prevalence of respondents claimed that they do not find it hard to ask for time off during work time manage any personal or family related matters and their employer was considerate if they have personal matters during work hours were 83.1% and 83.6%. Vetrimani & Maheswari, (26), a study on QWL among the employees of cement industry showed the percentage of work life balance is 65% which is more than half (26). Shamir & Salomon, (27) defined quality of work life (QWL) as the involvement of individuals' wellbeing and the impact of experience in reducing stress and increase performance in a global construct (27). The findings research showed that the respondents who are reported as not having a stress with the work load were 85.5%.

In this study, about 88.6% shown that the company had provided good facilities in the workplace among respondents. Subhashini & Gopal, (16) studied on QWL among women workers in garment factories in Coimbatore District found that 57.1% of providing good facilities contributes to the QWL (16). Shalla & Fazili, (28) found that the percentage values of job satisfaction across teaching and non-teaching staff for work conditions dimension was 61.45% and 45.79% (28). For this study,

the respondents reported that their working condition allows them to be more productive was high which is 80.8%. Vetrmani & Maheswari, (26) also showed that human relation (communication) was high, 51.7% (26). Which same as this study, the respondents reported that they had a good communication and harmonious relationship between their colleagues and their employers were 93.4% and 88.7%. Communication is important to convey messages and ideas in interacting with human, the employees and employers will lose their sense of belongingness in both work and social interaction once they are faced with communication difficulties.

Comparison between Quality of Work Life and Type of Industry

All the components of QWL namely stress, working environment, family life, communication, income and distribution, facilities, welfare at work and working conditions towards OSH personnel and general workers revealed that QWL did have a significant difference between type of industry, where its p value < 0.001 , which are between Mining & Quarrying and Manufacturing, Mining & Quarrying and Agriculture, Forestry & Fisheries, Mining & Quarrying and Governmental Services/ Statutory Bodies, Mining & Quarrying and Hotel & Restaurants, Mining & Quarrying and Oil & Gas, Mining & Quarrying and Utilities, Mining & Quarrying and Services, Mining & Quarrying and Wholesale & Retails, Mining & Quarrying and Trades, Banking & Finance, Manufacturing and Oil & Gas, Manufacturing and Hotel & Restaurants.

Factors that contributing to Quality of Work Life

Age Factor

The results showed no significant difference of mean between the Quality of Work Life and age groups. This finding was similar to the study conducted by Mishra (25), who found that age and length of service did not affect QWL (25).

Gender Factor

The research findings revealed the fact that gender has been influencing factor of QWL. Akdere, (29) has investigated the survey conducted by New York Times (1998) among working adults, he found that 83% of working mothers and 72% of working of fathers reported that they experienced conflict between job demands and the desire to meet their families (29).

CONCLUSION

From the above cross-sectional study, it was found that more than 50% of the respondents perceived high level of QWL and all of these components of QWL plays a special role in the formation of the good Quality of Work Life as soon as it increases internal effect from the labor activity that leads to the growth

of satisfaction from working achievements. Findings revealed also a significant difference between gender difference with regard to their overall QWL and its components. Furthermore, this finding contributes to the acknowledgment of the managerial level to ensure that the components of QWL (organizational social support and organization citizenship behavior) are practiced in organization in order to enhance the employee's satisfaction and productivity. Thus, this study recommends for the future study to investigate the other components that influences the quality of work life.

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REFERENCES

1. Asgari MH, Dadashi MA. Determining the Relationship Between Quality of Work Life (QWL) and Organizational Commitment of Melli Bank Staff in West Domain of Mazandaran in 2009-2010. *Australian Journal of Basic and Applied Sciences*. 2011;5(8):682–687.
2. Muftah HAI, Lafi H. Impact of Quality of Work Life on employee satisfaction case of oil and gas industry in Qatar. *Advances in Management and Applied Economics*. 2011;1(2):107–134.
3. Shariat A, Arumugam M, Danaee M, Ramasamy R, Sciences H, Sciences H, Sciences H. Prevalence Rate of Musculoskeletal. *Acta Medica Bulgaria*. 2016;43(1):54–63.
4. Isabelle B, Gilles D, Richard F. Quality of work life, burnout, and stress in emergency department physicians: a qualitative review. *European Journal of Emergency Medicine*, 2015;22(4):227–234.
5. Shariat A, Tamrin SBM, Daneshjoo A, Sadeghi H. The adverse health effects of shift work in relation to risk of illness/disease: A review. *Acta Medica Bulgarica*. 2015;42(1):63–72.
6. Tabassum A. Interrelations between Quality of Work Life Dimensions and Faculty Member Job Satisfaction in the Private Universities of. *European Journal of Business and Management*, 2012;4(2):78–90.
7. Arts SEJ, Kerkstra A, Zee J, Van Der, Abu SHH. Quality of Working Life and Workload in Home Help Services. *Scandinavian Journal of Caring Sciences*. 2017;15(1):12–24.
8. Chitra D, Mahalakshmi V. A Study on Employees' Perception on Quality of Work Life and Job Satisfaction in manufacturing organization – an

- Empirical study. *International Journal of Trade and Commerce*. 2012;1(2):175–184.
9. Daud N. Investigating the Relationship between Quality of Work Life and Organizational Commitment amongst Employees in Malaysian Firms. *Journal of Social Sciences*. 2010; 5(10):75–82.
 10. Azril MSH, Jegak U, Asiah M, Azman AN, Bahaman AS, Jamilah O, Thomas K. Can Quality of Work Life Affect Work Performance among Government Agriculture Extension Officers? A Case from Malaysia. *Journal of Social Sciences*. 2010;6(1):64–73.
 11. Talebi B, Pakdelbonab M, Zemestani G, Aghdami N. Investigating the Relationship between the Employee's Quality of Work Life (QWL) and Their Effectiveness in Banking. *European Journal of Experimental Biology*, 2012;2(5):1839–1842.
 12. Sharma N, Vishwavidyala DA. Importance of Quality of Work Life in Small Scale Industries for Employees. *International Journal of Latest Research in Science and Technology*. 2013;2(2):495–499.
 13. Reddy L. Reddy M. Comparative Analysis of Quality of Work Life among Public and Private Sector Bank Employees. *African International Journal of Research in Management*. 2013;1(2).
 14. Huang TC, Lawler J, Lei CY. The effects of quality of work life on commitment and turnover intention. *Social Behavior and Personality: an international journal*. 2007;35(6):735-50.
 15. Narehan H, Hairunnisa M, Norfadzillah RA, Freziamella L. The Effect of Quality of Work Life (QWL) Programs on Quality of Life (QOL) among Employees at Multinational Companies in Malaysia. *Procedia - Social and Behavioral Sciences*, 2014;112:24– 34.
 16. Subhashini S, Gopal CSR. Quality of Work Life among Women Employees Working in Garment Factories in Coimbatore District. *Asia Pacific Journal of Research*. 2013;1(12):22–29.
 17. Gayathiri R, Ramakrishnan L, Babatunde SA, Banerjee A, Islam MZ. Quality of work life– Linkage with job satisfaction and performance. *International Journal of Business and Management Invention*. 2013;2(1):1-8.
 18. Hammer LB, Zimmerman KL. Quality of Work Life. In: Zedeck S, editor. *Handbook of I/O Psychology*. Vol. 3. Forth coming. 2011
 19. The Malaysian Economy in Figure 2016. Economic Planning Unit, Prime Minister's Department. Retrieved from: <http://maddruid.com/wp/wp-content/uploads/2017/03/MEIF-2016.pdf>
 20. Rathamani P, Ramchandra R. A Study on Quality of Work Life of Employees in Textile Industry-Slpcot, Perundurai. *Research Journal of Commerce and Behavioral Science*. 2013;8(3):54–59.
 21. Rethinam, Guna S, Ismail M. Constructs of Quality of Work Life: A Perspective of Information and Technology Professionals. *Journal of Social Sciences*. 2007;(1):58–70.
 22. Rose RC, Beh L, Uli J, Idris K. (2006). Quality of Work Life: Implications of Career Dimensions. *Journal of Social Sciences*. 2006;2(2):61–67.
 23. Eswaran M. *Why gender matters in economics*. Princeton University Press; 2014.
 24. Raymond A. Katzell, Daniel Y. Review: Work, Productivity, and Job Satisfaction. 2012;3(1):86–89.
 25. Mishra. Perception of Quality of Working Life. 1985;3(1):39–46.
 26. Vetrimani M, Maheswari KK. Study on Quality of Work Life Among the Employees of Cement Industry. *Journal of International Academic Research for Multidisciplinary*, 2014;2(9):139–147.
 27. Shamir B, Salomon I. Work at Home and the Quality of Working Life. *Journal of Business & Economics*. 1985;10(3):455–464.
 28. Shalla SA, Fazili AI. Quality of Work Life And Employee Job Satisfaction- A. *Journal of Research in Management and Technology*. 2013;57–63.
 29. Akdere M. Improving Quality of Work Life: Implication for Human Resources. 2006;6(1):173–177.