

# Effects of Demographic Factors on Employee's Quality of Work life in Pharmaceutical Industry – A study

R. Sarumathi, Vidyadhar Reddy Aileni, Mohammed Abbas Ali

**Abstract:** *There are many factors to determine the employee's quality of work life. Though, the demographic variables occupies wide place which means that there are lot of changes in between the employees groups when they are divided with demographic factors. For the study, two major demographic factors were selected to analyze i.e., employee's age, and designation. The data was collected by proportionate sampling method by using close ended questionnaires with 4 point scale. The research problem was identified as whether the selected demographic factors are influencing the quality of work life or not. To solve the problem, an ANOVA analysis was done to find out the changes on the responses between employee groups based on the employee's age and designation. Then, found that there is a significant difference is observed on their responses about the QWL factors adequate and fair compensation, availability of resources, opportunity for carrier growth, job security, working time, work and life balance and work itself and also found that there is no significant difference was observed between the employee groups on health and safety working conditions.*

**Keywords:** *Quality of work life, Age, Designation, Pharmaceutical industry, Health and safety, Fair compensation.*

## I. INTRODUCTION

### A. Quality of Work Life

The term quality of work life is dated back in industrial revolution. When higher productivity is emphasized to such an extent that workers were considered as machines or it can say human factor is totally misplaced. Soon the negative results of this practice became prevalent in the form of absenteeism, low turnover, poor morale and occasional sabotage, boredom, fatigue, accidents resulting from inattention, alcoholism, drug addiction etc. Therefore, in early 20th century legislation was enacted to avoid job-injuries and dangerous working conditions. Job security was stressed in the unionization movement (1930- 1940), mainly because of the production process and economic gains for the workers. During 1950's and 1960's, various theories were developed by psychologists suggesting a "positive relationship between morale and productivity", and the possibility that improvement in human relation would lead to enhance the both.

**Revised Version Manuscript Received on February 06, 2017.**

**R. Sarumathi**, Department of Business Management, University College of Commerce and Business Management, Osmania University, Hyderabad- 500007, India.

**Dr. Vidyadhar Reddy Aileni**, Professor & Director, Centre for Management Studies, NALSAR University of Law, Hyderabad-500007, India.

**Dr. Mohammed AbbasAli**, Professor, Department of Business Management, University College of Commerce and Business Management, Hyderabad-500007. India.

The term "Quality of Work Life" has appeared in 1970's in the Research Journals and press in USA. Louis Davis coined the term quality of work life. In 1972, the first International quality of work life conference was held in Toronto and in the same year, the international council for quality of work life was established (Jain bindu and Swami Yasikha(2014).

Quality of life is defined as the level of enjoyment in a person's life. In general, it is based on many factors. At a minimum, a person's basic needs must be met for them to have a high quality of life, they must be generally healthy, have enough to eat and have a place to live. Once a person's basic needs are met, that person's quality of life is largely determined by their own personality, their desires and their level of personal fulfilment. A person with a high quality of life tends to feel as though all of his/her important needs and wants are fulfilled. So, he/she is generally happy and in overall their life is good. A person without quality of life is lacking in one or several basic areas of his life. For example, the very ill or those who are no longer able to care for themselves or their activities. They do not enjoy because of physical, mental or financial restrictions are often said to have a low quality of life.

### B. Definition

There is an all round demand for developing the humanized jobs which can satisfy worker's higher needs, employ their higher skills and make them better citizens, spouses and parents. The jobs need to be excellent both from the point of view of technology and human needs. The traditional job design needs to be replaced by enriched job design. This demand for redesigning of jobs has come to be known as quality of work life. It enjoins management to treat workers as human resources that are to be developed rather than simply used.

### C. Literature review

The quality of work life refers to a person's subjective perception of their work and the total working environment such as the compensation and development opportunities (Sirgy et al 2001). Salary and safety needs are not only the motivational factors nowadays the employees have different need about quality of work life (Zohouri et al 2007). The Quality of work life is related to the interaction between the work environment and personal needs. Personal needs are satisfied when rewards from the organization such as compensation, promotion, recognition, and development meet the employees expectations (Hackman and oldham1980).Quality of work life involves the compensation, welfare, work safety, work protection of employees. It depends up on fair pay and autonomy (G NaslSaraji et al. 2006). The parameters in a study among them pay and benefits and safety and health conditions

# Effects of Demographic Factors on Employee's Quality of Work life in Pharmaceutical Industry – A study

occupied the place at first (Seyed Mehdi Hosseini et al 2010) and (Chandranshu Sinha 2012) also mentioned the same in his study about Quality of work life. The age and adequate and fair compensation are having significant relationship with quality of work life. However there is no significant relationship between respondent's age and the other dimensions of quality of work life such as health and safety working conditions etc. The study also inferred that there is a significant relationship between respondent's years of experience and adequate and fair compensation, employee's income and health and safety working conditions. However there is no significant relationship was observed between respondent's years of experience and other dimensions of quality of work life such as health and safety working conditions, employee's income and adequate and fair compensation (SivarethinaMohan (2013)). Quality of work life may not be an important as other factors as they still have to first satisfy their basic needs which can be achieved by having good wages and financial benefits etc. (Zohurul Islam et al., (2009)). There is no significant relationship was approved between gender and quality of work life, but relationship between QWL and age, QWL and work experience, and income were approved (Elamparuthi & Jambulingam (2015)). A moderate level of Quality of Work Life is found among the faculty members and the demographic variables have a significant influence over the Quality of Work Life of the faculty members (Aarthiyand M Nandhini 2016).

There is a significant difference was observed between experience, age and income factors. Among them age has positive impact on QWL as the older people are having higher degree of QWL than younger (BarkhaGupta(2015)). Another study also shows significant relationship between Quality of Work Life and gender, age, institution type and years of work experience. There was no relationship with educational qualification. Essentially, librarians' Quality of Work Life need to be a positive one in all areas and for all concerned for job retention and good productivity (EbeleAnyaku (2016)).

## II. OBJECTIVE OF THE STUDY

The objective of the study is to find out the level of significant difference between the employees groups based on their demographic factors age and designation about the responses on the Quality of work life factors (Adequate and fair compensation, health and safety working conditions, availability of resources, opportunity for carrier growth, Job security, working time, work life balance and work itself).

## III. RESEARCH METHODOLOGY

A descriptive cum diagnostic design has been adopted for the study. The universe of the study included the employees who are working in pharmaceutical industry, Hyderabad. Over the industry three major organizations were selected and 424 respondents were identified for data collection by using proportionate sampling method by using questionnaire. The questionnaire was constructed with close ended questions with 4 point scale. Among the 424 respondents only 364 responses were collected then coded in excel sheet according to their demographic factors age

and designation, the respondents were divided in different groups. Then the following hypothesis was framed and tested by using one way Anova and frequency distribution with the help of SPSS database.

The Null hypothesis ( $H_0$ ) = There is no significant difference was observed between employee groups based on their demographic factors and,

The Alternative hypothesis ( $H_1$ ) = There is a significant difference was observed between employee groups based on their demographic factors.

### 3.1. Sample design

The age profile of the respondents is tabulated and observed that 65.4% of respondents are between 30 and 40 years, 23.1% of respondents are below 30 years, 7.7 % of respondents are more than 50 years and remaining 3.8 % are between 41 and 50 years of age (Table 1.0).

**Table 1.0 Age Profile of the Respondents**

Age Group of the Respondents	Frequency	Percentage (%)
Below 30 years	84	23.1
30- 40 years	238	65.4
41-50 years	14	3.8
More than 50 years	28	7.7
<b>Total</b>	<b>364</b>	<b>100</b>

### Source: Primary Data

The data from the above table confirms that 50% of the respondents are considered as middle level employees, remaining 30.8% and 19.2% of the respondents are working as lower level employee and upper level management, respectively (Table2.0).

**Table 2.0 Designation of the Respondents**

Designation of the Respondents	Frequency	Percentage (%)
Lower level (Technician to Officer)	112	30.8
Middle level (Sr. Officer to Manager)	182	50
Upper level (Sr. Manager and above)	70	19.2
<b>Total</b>	<b>364</b>	<b>100</b>

### Source: Primary Data

## IV. DATA ANALYSIS AND DISCUSSIONS

Very common, the age factor determines our behaviour towards others. Every person's statement may take place by considering their age. Here at first, will discuss about the demographic factor employee's age and will see the changes in employees response about quality of work life factors according to their age groups. The following table (3) shows the tested results:

Table 3.0 Tested Results by ANOVA Analysis based on Age

ANOVA Analysis							
Parameter	Source	Sum of Squares	DF	Mean Square	F-calculated value	Probability	F-table value
Adequate and fair compensation	Between Groups	53.973	3	17.991	23.689	.000	2.63
	Within Groups	273.412	360	.759			
	Total	327.385	363				
Health and safety working conditions	Between Groups	.285	3	.095	.050	.985	2.63
	Within Groups	685.176	360	1.903			
	Total	685.462	363				
Availability of resources	Between Groups	219.566	3	73.189	150.914	.000	2.63
	Within Groups	174.588	360	.485			
	Total	394.154	363				
Opportunity for growth	Between Groups	681.756	3	227.252	210.469	.000	2.63
	Within Groups	388.706	360	1.080			
	Total	1070.462	363				
Job security	Between Groups	52.833	3	17.611	22.912	.000	2.63
	Within Groups	276.706	360	.769			
	Total	329.538	363				
Working time	Between Groups	522.360	3	174.120	205.347	.000	2.63
	Within Groups	305.255	360	.848			
	Total	827.615	363				
Work and life balance	Between Groups	739.519	3	246.506	232.907	.000	2.63
	Within Groups	381.020	360	1.058			
	Total	1120.538	363				
Work itself	Between Groups	396.772	3	132.257	62.661	.000	2.63
	Within Groups	759.843	360	2.111			
	Total	1156.615	363				

**Df: Degrees of freedom Inference (Table 3.0)**

**A. Adequate and fair compensation**

The opinion of the respondents with age profile of 41-50 years and >50 years (with respect to their earning from their job) stated as “Much more than they deserve” was found to be 100%; however, the response of 33.3% and 82.4% was noticed for <30 years and 30-40 years, respectively. The respondents reflection as “More than they deserve” for <30 years and 30-40 years of age profile was 66.7% and 11.8%, respectively. Only 5.9% respondents stated as “As much as they deserve” from the age profiles of 30-40 years and none of the answerers were noticed to be “Less than they deserve” irrespective of their age profile. The opinion of the respondents with age profile of 41-50 years (with respect to their job income and family expense) stated as “Sufficient” was found to be 100%; however, 66.7% and 58.8% response was noticed for <30 years and 30-40 years, respectively. The respondents reflection as “Not enough” for <30 years and 30-40 years of age profile was 33.3% and 41.2%, respectively. The reply from 28% respondents as “More than enough” was observed for the age profiles of >51 years and none of the answerers were noticed to be “I have to borrow” irrespective of their age profile.

The opinion of the respondents (with respect to their fringe benefits) of age profiles of >50 years stated as

“Not too true” was found to be 100%; however, 33.3% and 17.6% response was noticed for <30 years and 30-40 years, respectively. The respondents reflection as “Somewhat true” for <30 years and 30-40 years of age profile was 33.3% and 58.8%, respectively. The reply from 33.3% respondents as “Very true” was observed for the age profiles of <30years. The table 3.0 Anova analyses shows that, the calculated F-value (23.689) is greater than the Fisher tabulated value (2.63) at 95% level of significance for 3,360 degrees of freedom. Hence there is a significant difference was observed between employee groups based on their age regarding to the QWL factor Adequate and fair compensation.

**B. Health and safety working conditions**

The respondents who have accepted their working conditions (with respect to their health and safety among the studied age profiles) as “Agree” were in the range between 66.7% and 100% and respondents exhibited as “Strongly agree” for age profile of <30 years and 30-40 years were found to be 33.3% and 29.4% respondents, respectively and none of the answers were noticed to be either “Strongly disagree” or “Disagree” irrespective of their age profiles. The respondents expressed (with respect to their management support for health and safety working

conditions) as “Agree” were in the range between 66.7% and 100% and respondents exhibited as “Strongly agree” for age profile of <30 years and 30-40 years were found to be 33.3% and 17.6% respondents, respectively and none of the answers were noticed to be either “Strongly disagree” or “Disagree” irrespective of their age profiles. The respondents who were agreed with their general health conditions as “Good” and “Very good were in the range between 37.5% and 100% among selected age profiles and none of the answers were noticed to be either “Poor” or “fair” irrespective of their age profiles.

The respondents have accepted (with respect to workers safety by management) as “Strongly agree” and “Agree” were in the range between 33.3% and 100% among selected age profiles and none of the answers were noticed to be either “Strongly disagree” or “Disagree” irrespective of their age profiles. The opinion of the respondents with age profile of <30 years, 30-40 years, 41-50 years and >50 years (with respect to their mental health) stated as “Below 5 days” was found to be 100%, 70.6%, 100% and 100%, respectively. The respondent's reflection as “5-10 days” for 30-40 years of age profile was 11.8% and percent respondents exhibited as “Above 15 days” was 17.6% (for the age profile of 30-40 years). The opinion of the respondents with age profile of <30 years, 30-40 years, 41-50 years and >50 years (with respect to their job and health) stated as “Not too true” was found to be 66.7%, 52.9%, 100% and 100%, respectively. The respondents reflection as “Not at all true” for <30 years of age profile was 33.3%. Percent respondents exhibited for 30-40 years of age profile as “Somewhat true” was found to be 47.1% and none of the answerers were noticed to be “Very true” irrespective of their age profile.

The table 3.0 expressed the calculated F-value (0.05) is less than the Fisher tabulated value (2.63) at 95% level of significance for 3,360 degrees of freedom. Hence there is no significant difference was observed between employee groups based on their age with respect to the QWL factor health and safety working conditions.

### C. Availability of Resources

The respondents were asked to express their feeling about getting enough help & information to get the job done. The opinion of the respondents with age profile of <30 years and >50 years stated as “Very true” was found to be 100%. The respondents reflection as “Somewhat true” for 30-40 years and > 50 years of age profile was 58.8% and 100%, respectively. Percent respondents from 30-40 years age profile expressed as “Not too true” was 17.6% and none of the answerers were noticed to be “Not too true” irrespective of their age profile.

The respondents were asked to express their feeling about getting enough help and information to get the job done and the response with respect to age profile was compared. The opinion of the respondents with age profile of 30-40 years, 41-50 years and >50 years stated as “Somewhat true” was found to be 88.2%, 100% and 100%, respectively. The respondents reflection as “Very true” for <30 years and 30-40 years of age profile was 100% and 11.8%, respectively and none of the answerers were noticed

to be either “Not at all true” or Not too true” irrespective of their age profile.

It could found from the table 3.0, the calculated F-value (150.914) is greater than the Fisher tabulated value (2.63) at 95% level of significance for 3,360 degrees of freedom. Hence there is a significant difference was observed between employee groups based on their age regarding the QWL factor availability of resources.

### D. Opportunity to carrier growth

The opinion of the respondents with age profile of <30 years, 30-40 years and 41-50 years (with respect to their promotion as part of their career growth) stated as “Somewhat true” was found to be 33.3%, 52.9% and 100%, respectively. The respondents reflection as “Very true” for <30 years age profile was 66.7%. Percent respondents for 30-40 years and >50 years of age profile stated as “Not too true” was found to be 47.1% and 100%, respectively and none of the answers were noticed to be “Not at all true” irrespective of their age profile.

The respondents were asked to express their opinion about the opportunities to develop their own special abilities with respect to their career growth and the opinion of the respondents with age profile of 41-50 years and >50 years (with respect to their career growth) stated as “Somewhat true” was found to be 100%; however, 66.7% and 41.2% response was noticed for <30 years and 30-40 years, respectively. The respondents reflection as “Very true” for <30 years and 30-40 years of age profile was 33.3% and 5.9%, respectively. Percent respondents (52.9%) respondents stated as “Not too true” from the age profiles of 30-40 years and none of the answerers were noticed to be “Not at all true” irrespective of their age profile.

The opportunity to perform the job safely and competently (as part of their career) among the selected age wise profile were evaluated and the opinion of the respondents with age profile of 41-50 years and >50 years stated as “Not too true” was found to be 100%; however, 41.2% response was noticed for 30-40 years. The respondents reflection as “Very true” for <30 years and 30-40 years of age profile was 100% and 23.5%, respectively. Percent respondents (35.3%) stated as “Somewhat true” from the age profiles of 30-40 years and none of the answerers were noticed to be “Not at all true” irrespective of their age profile.

The table 3.0 shows that the calculated F-value (210.469) is greater than the Fisher tabulated value (2.63) at 95% level of significance for 3,360 degrees of freedom. Hence, there is a significant difference was observed between employee groups based on their age about the QWL factor opportunity for carrier growth.

### E. Job Security

The response on employee's job security among the selected age profiles were evaluated and the opinion of the respondents with age profile of <30 years, 30-40 years, 41-50 years and >50 years stated as “Somewhat true” was found to be 33.3%, 29.4, 100% and 100%, respectively. The respondents reflection as “Very true” for <30 years and 30-40 years of age profile was 66.7% and 35.3%, respectively. Percent respondents expressed as “Not too true” was 23.5%;

percent response of 11.8% respondents stated as “Not at all true” from the age profiles of 30-40 years.

The response on employee’s confidence on getting another job (with respect to job security) among the selected age profiles were evaluated and the impression of the respondents with age profile of 41-50 years and >50 years posited as “Somewhat easy” was found to be 100%; however, 66.7% and 76.5% response was noticed for <30 years and 30-40 years, respectively. The respondents rumination as “Not east at all” for <30 years and 30-40 years of age profile was 33.3% and 23.5%, respectively. However, the statement such as neither “Not possible” nor “Very easy” was also annotated.

The response on employee’s opinion to having strong trade union (with respect to job security) among the selected age profiles were evaluated and the opinion of the respondents with age profile of 41-50 years and >50 years noted as “Agree” was found to be 100%; however, 33.3% and 52.9% response was noticed for <30 years and 30-40 years, respectively. The respondents reflection as “Disagree” for <30 years and 30-40 years of age profile was 66.7% and 47.1%, respectively. However, the response such as “neither strongly agrees nor strongly disagree” was also observed.

The table 3.0 showed that, the calculated F-value (22.912) is greater than the Fisher tabulated value (2.63) at 95% level of significance for 3,360 degrees of freedom. Hence there is a significant difference was observed between employee groups based on their age about the QWL factor job security.

#### **F. Working Time**

The responses about their normal working hours per day (with respect to employee’s working time) among the selected age profiles were evaluated and the opinion of the respondents with age profile of <30 years, 30-40 years and 41-50 years of age profiles stated as “Upto 10 hours” was found to be 66.7%, 82.4% and 100%, respectively. The respondents reflection as “Upto 8 hours” for <30 years and 30-40 years and >50 years of age profile was 33.3%, 5.9% and 100%, respectively. Only 11.8% respondents stated as “More than 12 hours” from the age profiles of 30-40 years.

The opinion of the respondents with age profile of 41-50 years and >50 years stated as “>6 days” was found to be 100%; however, 11.8% response was noticed for 30-40 years. The respondents reflection as “1-2 days” for <30 years and 30-40 years of age profile was 100% and 64.7%, respectively. Percent respondents stated as “5-6 days” and “3-4 days” from the age profiles of 30-40 years was 11.8%.

The response on employee’s coercion to work additional hours among the chosen age profiles were evaluated and the respondents expressed as “Yes” was found to be in the range of 70.6% to 100% for <30 years, 30-40 years and 40-50 years of age profiles. Percent respondent’s impression stated as “No” was in the image between 16.7% and 100% when the age profiles covered (< 30 years, 30-40 years and >50 years).

The opinion of the respondents (with respect to flexible work time/hours) with age profile of 41-50 years and >50 years stated as “Rarely” was found to be 100%; however, 35.3% response was noticed for 30-40 years of age profiles. The respondents reflection as “Sometimes” for <30 years

and 30-40 years of age profile was 100% and 11.8%, respectively. Percent respondents stated as “Never” from the age profiles of 30-40 years was 52.9% and none of the answerers were noticed to be “Often” irrespective of their age profiles.

The table 3.0 resulted that the calculated F-value (205.347) is greater than the Fisher tabulated value (2.63) at 95% level of significance for 3,360 degrees of freedom. Hence, there is a significant difference was observed between employee groups based on their age response about the QWL factor working time.

#### **G. Work and life balance**

The responses on additional work requirement (demand) from home (with respect to work and life balance) among the studied age profiles were evaluated and the opinion of the respondents with age profile of 30-40 years and >50 years stated as “About once a week” was found to be 52.9% and 100%, respectively. The respondents reflection as “About once a month” for <30 years and 30-40 years of age profile was in the range of 29.5% to 66.7%. Percent respondents expressed as “A few times a year” <30 years and 30-40 years of age profile was 33.3% and 11.8%, respectively. The response as “Never” was noted for the age profile for 30-40 years and 41-50 years was 5.9% and 100%, respectively.

The opinion of the respondents with age profile of <30 years and 30-40 years and >50 years stated as “Somewhat hard” was found to be 100%, 52.9% and 100%, respectively. The respondent’s reflection as “Very hard” for 30-40 years and 41-50 years of age profile was 5.9% and 100%, respectively. Percent respondents stated as “Not too hard” from the age profiles of 30-40 years of age was 41.2% and none of the answerers were noticed to be “Not at all hard” irrespective of their age profiles.

The opinion of the respondents with age profile of 30-40 years and 41-50 years of age (with respect to interference in their family life) stated as “Rarely” was found to be 47.1% and 100%, respectively. The respondents reflection as “Sometimes” for <30 years and 30-40 years of age profile was 33.3% and 47.1%, respectively. The response of 66.7% observed as “Often” from the age profiles of <30 years. Percent response for 30-40 years and >50 years as “Never” was found to be 5.9% and 100%, respectively.

The opinion of the respondents with age profile of < 30, 30-40 years and > 50 years of age (with respect to interference in their job) stated as “Rarely” was found to be 33.3%, 35.3% and 100%, respectively. The respondent’s reflection as “Sometimes” for 30-40 years and 41-50 years of age profile was 52.9% and 100%, respectively. The response of 66.7% and 5.9% observed as “Often” from the age profiles of <30 years and 30-40 years. Percent response for 30-40 years as “Never” was found to be 5.9%.

The opinion of the respondents with age profile of 41-50 years and >50 years (with respect to their leisure time) stated as “More than 4 hours” was found to be 100%; however, 76.5% response was noticed for 30-40 years. The respondents reflection as “2-4 hours” for <30 years and 30-40 years of age profile was 100% and 11.8%, respectively.

# Effects of Demographic Factors on Employee’s Quality of Work life in Pharmaceutical Industry – A study

Only 11.8% respondents stated as “Below 2 hours” from the age profiles of 30-40 years.

The opinion of the respondents (with respect to normal sleeping hours per day) stated as “4-6 hours” was found to be in the range of 52.9% to 100% for <30 years, 30-40 years and 41-50 years of age profiles. The respondent’s reflection as “6-8 hours” for 30-40 years and >50 years of age profile was 29.4% and 100%, respectively. The response of 17.6% was observed as “>8 hours” from the age profiles of 30-40 years.

It could found from the table 3.0, the calculated F-value (232.907) is greater than the Fisher tabulated value (2.63) at 95% level of significance for 3,360 degrees of freedom. Hence there is a significant difference was observed between employee groups based on their age about the QWL factor work and life balance.

## H. Work Itself

The respondents opinion about their job lets them learn new things as “Agree” was in the 30-40 years of age profile was 35.3% and respondents exhibited as “Strongly agree” for age profile of <30 years, 41-50 years and above 50 years were found to be 100% and 64.7% of respondents from 30-40 years of age profile also strongly agreed.

The respondents opinion expressed (job requires to work fast) as “Agree” were in the range between 64.7% and 100% and respondents exhibited as “Strongly agree” for age profile of 30-40 years was found to be 23.5% and 11.8% of them were dissatisfied. However, none of the answers were noticed to be either “Strongly disagree” irrespective of their age profiles.

The respondents who have expressed their working conditions (with respect to have sufficient time to get the job done) as “Agree” were in the range of 33.3%, 52.9% and 100% for the age profile of <30 years, 30-40 years and >50 years respectively, and respondents exhibited as “Strongly agree” for age profile of <30 years was found to be 66.7%. However, 47.1% and 100% of the respondents stated for the age group of 30-40 years and 41-50 years, respectively and none of the answers were noticed to be “Strongly disagree” irrespective of their age profiles.

The respondents (with respect to work load to perform well) have agreed their workload is heavy (100% ) from the age profiles of <30 years and 41-50 years and 76.5% respondents from 30-40 years of age profile expressed as “Agree” and other respondents exhibited as “Strongly agree” for age profile of >50 years was found to be 100%. The percent respondents (56%) revealed as “Disagree” from 30-10 years of age profiles and none of the answers were noticed to be “Strongly disagree” irrespective of their age profiles.

The respondents opinion about their job description (knowledge/clarity on job description) was stated as “Strongly agree” were found to be 100% among their age profile of 41-50 years and >50 years and 5.9% of respondents also observed from 30-40 years of age profile. The respondents exhibited as “Agree” for age profile of <30 years and 30-40 years were found to be 100% and 88.2%, respectively. However, 5.9% of 30-40 years of age profile expressed as “Disagree” and none of the answers were noticed to be “Strongly disagree” irrespective of their age profiles.

The respondents opinion about their job opportunities (to use their skills and abilities) was stated as “Strongly agree” were found to be 100% among their age profile of 41-50 years, and >50 years, and 66.7% and 17.6% of respondents also observed from <30 years and 30-40 years of age profile respectively. The respondents exhibited as “Agree” for age profile of <30 years and 30-40 years and >50 years were found to be 33.3%, 76.5% and 100% respectively. However, 5.9% of 30-40 years of age profile expressed as “Disagree” and none of the answers were noticed to be “Strongly disagree” irrespective of their age profiles.

The respondents are asked to convey their feelings on respect that they have at their work place and response was tabulated based on their age profiles. It is stated that almost all the participants confirmed that they work with honour and pride among the selected age groups; however, ~11% of the respondents have either disagreed or strongly disagreed to the statement on respect at work place from the age profile of 30-10 years.

The employees expression with respect to their work stress were evaluated at different age profiles and the respondents expressed as “Never” was found to be 17.6% and 100% for the age profiles of 30-40 years and 41-50 years of age profiles, respectively. The remaining participants confirmed as either “Rarely” or “Sometimes with respect to their work stress

According to the table 3.0, the calculated F-value (62.661) is greater than the Fisher tabulated value (2.63) at 95% level of significance for 3,360 degrees of freedom. Hence there is a significant difference was observed between employee groups based on their demographic factor age about the QWL factor work itself.

It could understand from the above table 3.0 and followed by the analysis the demographic factor age is playing a vital role among the respondents response about their quality of work life and there are different opinion among the respondents based on their age groups. The following table 4.0 explains the respondent’s responses about the QWL factors based on their demographic factor designation. The table and discussions are as follows.

**Table 4.0 Tested Results by Anova Analysis based on their Designation**

ANOVA Analysis							
Parameter	Source	Sum of Squares	DF	Mean Square	F-calculated value	Probability	F-table value
Adequate and fair compensation	Between Groups	78.508	2	39.254	56.938	.000	3.02
	Within Groups	248.877	361	.689			

	Total	327.385	363				
Safe and healthy working conditions	Between Groups	5.519	2	2.760	1.465	.232	3.02
	Within Groups	679.942	361	1.883			
	Total	685.462	363				
Availability of resources	Between Groups	209.031	2	104.515	203.811	.000	3.02
	Within Groups	185.123	361	.513			
	Total	394.154	363				
Opportunity for growth	Between Groups	555.719	2	277.860	194.869	.000	3.02
	Within Groups	514.742	361	1.426			
	Total	1070.462	363				
Job security	Between Groups	58.396	2	29.198	38.874	.000	3.02
	Within Groups	271.142	361	.751			
	Total	329.538	363				
Working time	Between Groups	485.585	2	242.792	256.258	.000	3.02
	Within Groups	342.031	361	.947			
	Total	827.615	363				
Work and life balance	Between Groups	532.108	2	266.054	163.223	.000	3.02
	Within Groups	588.431	361	1.630			
	Total	1120.538	363				
Work itself	Between Groups	77.646	2	38.823	12.989	.000	3.02
	Within Groups	1078.969	361	2.989			
	Total	1156.615	363				

**Df: Degrees of freedom Inference (Table 4.0)**

### 1. Adequate and fair Compensation

The opinion of the respondents from upper level (Sr. Manager and above) with respect to their earning from their job stated as “Much more than they deserve” was found to be 100%; however, 50% and 76.9% was observed for lower level (Technician to Officer) and middle level (Sr. Officer to Manager), respectively. The respondents reflection as “More than they deserve” for lower level (Technician to Officer) and middle level (Sr. Officer to Manager) was 50% and 15.4%, respectively. Only 7.7% respondents answered as “As much as they deserve” from middle level (Sr. Officer to Manager) and none of the answers were noticed to be “Less than they deserve” irrespective of their designation level. The opinion of the respondents (with respect to their job income and family expense) from lower level (Technician to Officer) stated as “Sufficient” was found to be 75%; however, response of 46.2% and 60% were observed for middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above), respectively. The respondent’s reflection as “Not enough” for lower level (Technician to Officer) and middle level (Sr. Officer to Manager) was 25% and 53.8%, respectively. However, 40% of respondents answered as “More than enough” from upper level (Sr. Manager and above) and none of the answers were noticed to be “I have to borrow” irrespective of their designation level.

The respondents (with respect to their fringe benefits) exhibited as “Not at all true” was in the range between 0% and 30.8%. Percent respondents confirmed as “Not too true”, “Somewhat true” and “Very true” were in the range of 15.4%-60%, 20%-53.8% and 0%-25%, respectively. It could found from the table 4.0 is that the calculated F-value (56.938) is greater than the Fisher tabulated value

(3.02) at 95% level of significance for 2,361 degrees of freedom. Hence there is a significant difference was observed between employee groups based on their designation regarding to the QWL factor adequate and fair compensation.

### 2. Health and safety working conditions

The opinion of the respondents (with respect to their health and safety working conditions) from upper level (Sr. Manager and above) stated as “Agree” was found to be 100%; however, response of 75% and 61.5% respondents were observed for lower level (Technician to Officer) and middle level (Sr. Officer to Manager), respectively. The respondent’s reflection as “Strongly agree” for lower level (Technician to Officer) and middle level (Sr. Officer to Manager) was 25% and 38.5%, respectively and none of the answers were noticed to be either “Strongly disagree” or “Disagree” irrespective of their designations level. The opinion of the respondents (with respect to their management support for health and safety) for lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) stated as “Agree” was found to be 75%, 76.9% and 100% respondents, respectively. The respondent’s reflection as “Strongly agree” for lower level (Technician to Officer) and middle level (Sr. Officer to Manager) was 25% and 23.1%, respectively and none of the answers were noticed to be either “Strongly disagree” or “Disagree” irrespective of their designations level.

The opinion of the respondents (with respect to their general health) for lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr.

## Effects of Demographic Factors on Employee's Quality of Work life in Pharmaceutical Industry – A study

Manager and above) stated as “Good” was found to be 62.5%, 84.6% and 60% respondents, respectively. The respondent's reflection as “Very good” for lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) was found to be 37.5%, 15.4% and 40%, respectively and none of the answers were noticed to be either “Poor” or “Fair” irrespective of their designations level. The opinion of the respondents (with respect to workers safety by management) for lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) stated as “Agree” was found to be 62.5%, 53.8% and 60% respondents, respectively. The respondent's reflection as “Strongly agree” for lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) was found to be 37.5%, 46.2% and 40%, respectively and none of the answers were noticed to be either “Strongly disagree” or “Disagree” irrespective of their designations level.

The opinion of the respondents for lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) with respect to their mental stress stated as “Below 5 days” was found to be 100%, 61.5% and 100%, respectively. The respondent's reflection as “5-10 days” for middle level (Sr. Officer to Manager) was 15.4% and 23.1% respondents answered as “Above 15 days” from middle level (Sr. Officer to Manager). The opinion of the respondents of lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) with respect to their job and health stated as “Not too true” was found to be 62.5%, 53.8% and 80%, respectively. The respondent's reflection as “Not at all true” for lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) was found to be 12.5%, 46.2% and 20%, respectively; none of the answers were noticed to be “Very true” irrespective of their designation level.

From the table 4.0 the calculated F-value (1.465) is less than the Fisher tabulated value (3.02) at 95% level of significance for 2,361 degrees of freedom. Hence there is no significant difference was observed with respect to the QWL factor health and safety working conditions.

### 3. Availability of Resources

The respondents were asked to express their feeling about getting enough help & information to get the job done and compared the responses by designation profiles. The opinion of the respondents of lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) as “Somewhat true” was 12.5%, 53.8% and 80%, respectively. Percent respondents for lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) expressed as “Very true” was 87.5%, 23.1% and 20%, respectively. The opinion from middle level (Sr. Officer to Manager) exhibited as “Not too true” was 23.1% and none of the answerers were noticed to be “Not at all true” irrespective of their designation profiles.

The respondents were asked to express their feeling about getting enough help and information to get the

job done and the response was compared among the selected designation profiles. The opinion of the respondents of lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) stated as “Somewhat true” was found to be 12.5%, 92.3% and 100%, respectively. The respondent's reflection as “Very true” for lower level (Technician to Officer) and middle level (Sr. Officer to Manager) was 87.5% and 7.7%, respectively and none of the answers were noticed to be either “Not at all true” or “Not too true” irrespective of their designation level.

From the table 4.0, the calculated F-value (203.811) is greater than the Fisher tabulated value (3.02) at 95% level of significance for 2,361 degrees of freedom. Hence there is a significant difference was observed between employee groups based on their designation.

### 4. Opportunity to carrier growth

The opinion of the respondents (with respect to their promotion as part of their career growth) for lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) stated as “Somewhat true” was found to be 37.5%, 53.8% and 40%, respectively. The respondents reflection as “Not too true” lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) was 12.5%, 46.2% and 60%, respectively. Percent respondents answered as “Very true” for lower level (Technician to Officer) was 50% and none of the answers were noticed to be “Not at all true” irrespective of their designation level.

The respondents were asked to express their opinion about the opportunities to develop their own special abilities with respect to their career growth. The opinion of the respondents from lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) stated as “Somewhat true” was found to be 75%, 23.1% and 100%, respectively. The respondent's reflection as “Very true” for lower level (Technician to Officer) and middle level (Sr. Officer to Manager) was 25% and 7.7%, respectively. Percent respondents answered as “Not too true” from middle level (Sr. Officer to Manager) was 69.2% and none of the answers were noticed to be “Not at all true” irrespective of their designation level.

The opportunity to perform the job safely and competently (as part of their career) among the selected designation wise profile were evaluated and the opinion of the respondents from upper level (Sr. Manager and above) as “Not too true” was found to be 100%; however, 12.5% and 30.8% was observed for lower level (Technician to Officer) and middle level (Sr. Officer to Manager), respectively. The respondent's reflection as “Very true” for lower level (Technician to Officer) and middle level (Sr. Officer to Manager) was 87.5% and 23.1%, respectively. Percent respondents (46.2%) answered as “Somewhat true” from middle level (Sr. Officer to Manager) and none of the answers were noticed to be “Not at all true” irrespective of their designation level.

From the table 4.0, the calculated F-value (194.869) is greater than the Fisher tabulated value (3.02) at 95% level of significance for 2,361 degrees of freedom. Hence there is

a significant difference was observed between employee groups based on their designation about QWL factor opportunity for carrier growth.

### 5. Job security

The response on employee's job security among the selected designation profiles were evaluated and the opinion of the respondents of lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) was found to be 37.5%, 23.1% and 80%, respectively. The respondents reflection as "Very true" for lower level (Technician to Officer), middle level (Sr. Officer to Manager) were 62.5% and 38.5%, respectively. Percent respondents for middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) exhibited as "Not to true" was 23.1% and 20%, respectively and 10.5% of the respondents stated as "Not at all true" from Middle level (Officer to Manager).

The response on employee's confidence on getting another job (with respect to job security) among the selected designation profiles were evaluated and the opinion of the respondents from upper level (Sr. Manager and above) stated as "Somewhat easy" was found to be 100%; however, 62.5% and 76.9% was observed for lower level (Technician to Officer) and middle level (Sr. Officer to Manager), respectively. The respondent's reflection as "Not easy at all" for lower level (Technician to Officer) and middle level (Sr. Officer to Manager) was 37.5% and 23.1%, respectively. However, the response such as neither "Not possible" nor "Very easy" was also commented.

The response on employee's opinion to having strong trade union (with respect to job security) among the selected designation profiles were evaluated and the opinion of the respondents from upper level (Sr. Manager and above) stated as "Agree" was found to be 100%; however, 37.5% and 46.2% was observed for lower level (Technician to Officer) and middle level (Sr. Officer to Manager), respectively. The respondent's reflection as "Disagree" for lower level (Technician to Officer) and middle level (Sr. Officer to Manager) was 62.5% and 53.8%, respectively. However, the response such as "neither strongly agree nor strongly disagree" was also commented.

It was found from the table 4.0 the calculated F-value (38.874) is greater than the Fisher tabulated value (3.02) at 95% level of significance for 2,361 degrees of freedom. Hence there is a significant difference was observed between employee groups based on their designation.

### 6. Working time

The responses about their normal working hours per day (with respect to employee's working time) among the selected designation were evaluated and the opinion of the respondents from lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) stated as "Up to 10 hours" was found to be 75%, 76.9% and 60%, respectively. The respondent's reflection as "Up to 8 hours" among the studied qualification was found to be between 7.7% and 40%. Only 15.5% respondents answered as "Up to 12 hours" from middle level (Sr. Officer to Manager) and none of the

answers were noticed to be "More than 12 hours" irrespective of their designation level.

The opinion of the respondents among the studied designation levels exhibited as "1-2 days" was in the range of 40-100% and respondents expressed as ">6 days" middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) was found to be 15.4% and 60%, respectively. The respondent's reflection as "5-6 days" and "3-4 days" for middle level (Sr. Officer to Manager) was 15.4%. The response on employee's obsession to working additional hours among the chosen designation levels were explored and the respondents stated as "Yes" among the studied designation profiles was found to be in the range of 40% to 84.6%. Percent respondent's opinion expressed as "No" was in the image between 15.4% and 60% among the explored designation levels.

The opinion of the respondents (with respect to flexible work time/hours) from upper level (Sr. Manager and above) stated as "Rarely" was found to be 100%; however, 25% and 15.4% was observed for lower level (Technician to Officer) and middle level (Sr. Officer to Manager), respectively. The respondent's reflection as "Sometimes" for lower level (Technician to Officer) and middle level (Sr. Officer to Manager) was 75% and 15.4%, respectively. Percent respondents answered as "Never" from middle level (Sr. Officer to Manager) was 69.2% and none of the answers were noticed to be "Often" irrespective of their designation level.

The table 4.0 resulted that the calculated F-value (256.258) is greater than the Fisher tabulated value (3.02) at 95% level of significance for 2,361 degrees of freedom. Hence there is a significant difference was observed between employee groups based on their designation about the QWL factor working time.

### 7. Work and life balance

The responses on additional work requirement (demand) from home (with respect to work and life balance) among the designation were evaluated and the opinion of the respondents from lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) stated as "About once a week" was found to be 12.5%, 46.2% and 80%, respectively. The respondent's reflection as "About once a month" for lower level (Technician to Officer) and middle level (Sr. Officer to Manager) was 50% and 38.5%, respectively. The response exhibited as "A few times a year" for lower and middle level was 37.5% and 7.7%, respectively. Percent respondents answered as "Never" from middle level and upper level was in the range of 7.7% to 20%.

The respondents who expressed as "Very hard" were in the range between 7.7% and 20% for middle and upper level. Percent respondent stated as "Somewhat hard" was ranging between 53.8% and 87.5% and the respondents expressed as "Not too hard" was in the range between 12.5% and 38.5% among the studied designations.

The opinion of the respondents (with respect to interference in their family life) stated as "Rarely" was in the range of 12.5% to 60% among the studied designation profiles. The respondent's reflection as "Sometimes" for lower level (Technician to Officer) and middle level (Sr.

# Effects of Demographic Factors on Employee's Quality of Work life in Pharmaceutical Industry – A study

Officer to Manager) was 37.5% and 53.8%, respectively. The respondents (50%) answered as “Often” from lower level. Percent respondents noticed as “Never” for Middle and upper level (Sr. Manager and above) was 7.7% and 40%, respectively.

The opinion of the respondents (with respect to family interference in their job) stated as “Rarely” was in the range of 37.5%, 30.8% and 60% among the studied designation profiles. The respondent's reflection as “Sometimes” for lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) were 12.5%, 61.5% and 20%, respectively. None of them answered from middle level as “Often” however, the respondents from lower level and upper level were expressed their opinion 50% and 20% respectively. Percent respondents noticed as “Never” for middle level was 7.7% and no response was there from lower and upper level.

The opinion of the respondents from upper level (Sr. Manager and above) with respect to their leisure time stated as “More than 4 hours” was found to be 100%; however, 12.5% and 76.9% was observed for lower level (Technician to Officer) and middle level (Sr. Officer to Manager), respectively. The respondent's reflection as “2-4 hours” for lower level (Technician to Officer) and middle level (Sr. Officer to Manager) was 75% and 15.4%, respectively. Only 12.5% and 7.7% respondents answered as “Below 2 hours” from lower level and middle level (Sr. Officer to Manager) respectively.

The opinion of the respondents (with respect to normal sleeping hours per day) stated as “4-6 hours” was in the range of 46.2% to 87.5% among the studied designation profiles. The respondent's reflection as “6-8 hours” was found to be in the range between 12.5% and 40% among the selected designation profiles. The respondents (23.1%) answered as “>8 hours” from middle level.

The table 4.0 shows that the calculated F-value (163.223) is greater than the Fisher tabulated value (3.02) at 95% level of significance for 2,361 degrees of freedom. Hence there is a significant difference was observed between employee groups based on their designation about the QWL factor work and life balance.

## 8. Work itself

The opinion of the respondents (with respect to learning new things) from middle level and upper level (Sr. Manager and above) stated as “Agree” was found to be 38.5% and 20%, respectively. However, The respondent's reflection as “Strongly agree” for lower level (Technician to Officer), middle level (Sr. Officer to Manager) and Upper level was 100%, 61.5% and 80%, respectively and none of the answers were noticed to be either “Strongly disagree” or “Disagree” irrespective of their designations level.

The opinion of the respondents (with respect to their job requires to work fast) for lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) stated as “Agree” was found to be 87.5%, 69.2% and 80% respondents, respectively. The respondent's reflection as “Strongly agree” for middle level (Sr. Officer to Manager) was 30.8% and 23.1%, respectively. 12.5% and 20% of respondents from lower and

upper levels were dissatisfied, and none of the answers were noticed to be either “Strongly disagree” or “Disagree” irrespective of their designations level.

The opinion of the respondents (with respect to have enough time to do the job) for lower level (Technician to Officer), middle level (Sr. Officer to Manager) and upper level (Sr. Manager and above) stated as “Agree” was found to be 50%, 46.2% and 60% respondents, respectively. The respondent's reflection as “Strongly agree” for lower level (Technician to Officer) were 25%, and the opinion as “Disagree” from middle level (Sr. Officer to Manager) and Upper level was 53.8% and 40% respectively, and none of the answers were noticed to be “Strongly disagree” irrespective of their designations level.

The opinion of the respondents (with respect to work load to perform well) from upper level (Sr. Manager and above) and lower level (Technician to Officer) stated as “Agree” was found to be in the range between 40% and 87.5%. However, response of 12.5% and 20 % respondents were observed as “Disagree” for lower level (Technician to Officer) and Upper level (Sr. Manager and above), respectively. The respondent's reflection as “Strongly agree” for Upper level was 40% and none of the answers were noticed to be either “Strongly disagree” irrespective of their designations level.

The opinion of the respondents with respect to their job description (knowledge/clarity on job description) from lower level (Technician to Officer) stated as “Agree” was found to be 100%; however, response of 84.6% and 40% respondents were observed for and middle level (Sr. Officer to Manager), upper level (Sr. Manager and above) respectively. The respondent's reflection as “Strongly agree” for upper level (Sr. Manager and above) and middle level (Sr. Officer to Manager) was 60% and 7.7%, respectively and another 7.7% of middle level respondents was stated as “Disagree” and none of the answers were noticed to be “Strongly disagree” irrespective of their designations level.

The opinion of the respondents with respect to their job opportunities (to use their skills and abilities) from lower level (Technician to Officer) stated as “Agree” was found to be 50%; however, response of 69.2% and 80% respondents were observed for and middle level (Sr. Officer to Manager), upper level (Sr. Manager and above) respectively. The respondent's reflection as “Strongly agree” for upper level (Sr. Manager and above), middle level (Sr. Officer to Manager) and upper level was 50%, 23.1% and 20%, respectively and another 7.7% of middle level respondents was stated as “Disagree” none of the answers were noticed to be “Strongly disagree” irrespective of their designations level.

The respondents are asked to express their opinion on respect that they have at their work place and response was tabulated based on their designation profiles. It is noticed that ~90 of the participants have expressed that they work with honour and pride among the selected designations, whereas ~15% of the respondents have not agreed to the statement on respect at work place from middle level profiles.

The percent respondents among the studied designation levels (with respect to their work stress) expressed as

“Never” was found to be 23.1% and 20% for lower and upper level, respectively. The statement as “Rarely” was found to be 37.5%, 76.9% and 60% for lower level, middle level and upper level, respectively. It is noted that the participants expressed as “Sometimes” was found to be in the range of 20% and 62.5% between lower level and upper level. According to the table 4.0 the calculated F-value (12.989) is greater than the Fisher tabulated value (3.02) at 95% level of significance for 2,361 degrees of freedom. Hence there is a significant difference was observed between employee groups based on their demographic factor designation about the QWL factor work itself.

## V. CONCLUSION

According to the study, the respondent’s responses about the quality of work life factors are not similar between employee groups based on their age and designation. From the statistical test Anova analysis found that the significant difference was observed between employee groups based on their demographic factors age and designation. Though, there was no significant difference was observed between employees about their responses on the QWL factor health and safety working conditions. Hence, it could say that there is no different opinion about health and safety. Moreover, most of the respondents from the study expressed that they are very happy with their working conditions at work place. It could found from the above analysis that the demographic factors, Employee’s age and designation is performing an important role while determining the employee’s quality of work life (QWL). The same result was found from the following researchers in their study about the quality of work life viz., Seyed Mehdi Hosseini et al (2010), Chandranshu Sinha (2012) Sivarethinamohan R (2013), M Aarthy & M Nandhini (2016).

## REFERENCES

1. Barkha Gupta, An Empirical Study of Impact of Demographic Variables on Quality of Work Life among Insurance Sector Employees in Indore Division, Pacific Business Review International, Volume 8, Issue 1, July 2015,
2. Chandranshu S, (2012) “Factors affecting quality of work-life Empirical Evidence From Indian Organization” Australian Journal of Business and Management Research, Volume:1; No.11; 31-40.
3. D.elamparuthi&s.jambulingam, Relationship between demographic variables and quality of work life, professionals in information technology Chennai, Innovative Journal of Business and Management 4: 2 March – April (2015)42 – 44.
4. EbeleAnyaku (2016), Demographic Determinants of Quality of Work Life of Librarians Working in Nigeria, Cloud Publications International Journal of Advanced Library and Information Science 2016, Volume 4, Issue 1, pp. 312-323, Article ID Sci-415 ISSN 2348-5167.
5. Hackman JR, Oldham RG, (1980) “Work Re-desig” Addison-Wesley, Readings, MA.
6. Jain Bindu and Swami Yashika , Quality of Work Life with Special Reference to Academic Sector, Research Journal of Management Sciences, Vol. 3(1), 14-17, January (2014) Res. J. Management Sci. ISSN 2319-1171.
7. M Aarthy, & M Nandhini, Influence of the Demographic Factors on Quality of Work Life of the Engineering College Faculty Members in Coimbatore District, International Journal of Commerce and Management Research , Volume 2; Issue 10; October 2016; Page No. 28-31 .
8. Md. ZohurulIslam, and SununtaSiengthai. Quality of work life and organizational performance: Empirical evidence from Dhaka Export Processing Zone. The paper presented in the Conference on ‘Regulating for Decent Work, has been held at the International Labour Office, Geneva during July 8-10, 2009.

9. NaslSaraji G, Dargahi H, (2006) “Study of Quality of Work Life (QWL), Dept of Health CareManagement, School of Allied Medicine, Tehran University of Medical Sciences”, Iran. Iranian J Publ Health, Volume: 35; No. 4; 8-14.
10. R.Sivarethinamohan, Effect of Quality of Work Life on Employee Retention in Private Sector Banks, International Center for Business Research Issue: Volume 2 – Apr 2013.
11. Seyed Mehdi Hosseini, GholamrezaMehdizadehJorjatki (2010) “Quality of work life (QWL) and Its relationship with performance”, University Of FirouzkouhBranch, Tehran.
12. Sirgy, M.J., Efraty, D., Siegel, P. And Lee, D.J. (2001), A New Measure of Quality of Work Life (QWL) Based on Need Satisfaction and Spillover Theories, Social Indicators Research, Vol. 55, No. 3, pp 241-302.
13. Zohouri, G., Rezaei, S., Jorfi, S., 2007. Effectiveness of cooperative management on job satisfaction of Agriculture bank staffs. Journal of Knowledge Management 21 (8), 61–76 (Persian).