European Scientific Journal April 2017 /SPECIAL/ edition ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431

Work Stress Management in Constructions Industry and the Contractors' Commitment Level with the Labor Law

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Abstract

Stress was defined as the challenges that excites and weaken the individual, these challenges, when removed, most people's lives will become easier. The methodology of this work was based on two types of collecting data methods; the qualitative and quantitative. Qualitative method was based on conducting a critical literature review and investigating case studies related to the main reasons of work stress. While the quantitative method was based on collecting and analyzing data obtained from distributing 450 questionnaires to the employees in a private construction company as a case-study. The results of the data analysis showed that the stress's effect has many consequences on employee such as: low job involvement, a lack of interest for the organization, low performance (quality and quantity), a loss of creativity and responsibility, accident prone behavior as well as voluntary turnover. Also, the results have showed that the stress reduces the performance of workers and also decreases the quality of service by 33.9%, adversely impact on health of employees by 42.2%. Also, the stress leads to lack of the employees' interest of the organization and reduces their affiliation to it by 66%. Finally the results illustrated that the rate of the contractor's commitment to the texts of the Kuwaiti Labor Law was 68% as well the contractors are fair and give the employees their specified rights in the Kuwaiti Labor Law by 42.6%.

Keywords: Stress, employee, Labor law, Questionnaire and statistic

Intoduction

The term stress was used to describe affliction, adversity, strain or hardship back in the 17th century. It originally refers to the feeling that anyone have inside under stress. In the 18th century, the same term referred

to the strong strain, pressure, force or efforts that effect to the individual and his mental or organs power (CIOB, 2006). Stress was defined by Chowhiu, 2009. as the challenges that excites and weaken the individual and keeps him on his toes, these challenges, when removed, most people's lives will become easier, but more dull and boring. It also refer to the situations where the individual cannot meet the requirements and demands that are asked from him either psychologically or physically, which leads to breakdown of him or anyone else related. So, stress is a two sided weapon, it can be either life saver or destroyer. In this manner, demands are an equivalent term to stressors. Another definition of stress was presented by Ibem et al. (2001), where he described it as a cognitive, physical arousal and cognitive state. It is normally caused by the environment simulators and the perceived demands. When the body, emotions and intellect are simulated, the behavior of the individual will change. Therefore, stress is required in some level for normal life, accepts for when it comes out of control.

Stress effects

Sometimes stress has a short term impact, while other types of stress have a longer ones. Short term stresses have a small and quick to go impact on the individual and happens in the simulating events like sports or in meetings. On the other hand, long term stresses can cause series and permanent psychological or physical damage to the individual, the thing that can affect the moral of the whole team (Haq Z. 2008). Work pressures leads to bring about health concerns and turn out pressure on employees as well as effect on job performance of the employees. The pressures effect has many consequences for example; low job involvement, a lack of interest for the organization, low performance (quality and quantity), a loss of creativity and responsibility, accident prone behavior as well as voluntary turnover (Health 2011) addition, high stress leads to negative effect on the behaviors of employees, (ILO, 2001 and Leung 2006) said the stress leads to induces boredom, and a lack of motivation and initiative to carry any work and effort as well as a lack of concentration (Pflanz, 2006).

Stress Resources

According to Ibem et al, 2001 in general, the stress sources between the categories of workers in the construction industry can be divided to the five main groups. Table-1 shows a list of the different characteristics of work in addition to associated stressors. It is clear from this table that the main sources stresses include relationship related sources, personal, organizational policy as well as position related sources, characteristics related sources, environmentally and situation related sources in addition to work- time and nature related sources.

Table -1: Stress Sources (Ibem et al, 2001)

Working Characteristics	Stressors
Organizational function and culture	Environment, task environment, poor communication, poor development practices as well as problem-solving
Participants	Low post in decision making
Career development and job status	Job insecurity or redundancy, career uncertainty, work status and low pay, in addition to stagnation
Role in organization	conflict in task performance and role assignment as well as role ambiguity
Job content	lack of variety, high accuracy in job process, physical constraints, fragmentation of work in addition to under-utilization of skills,
Workload and work place	Lack of control over speed of work, deadlines and time pressure, work under-load and work over-load.
Work time	Long work hours, inflexible work schedule as well as unpredictable hours of work,
Interpersonal relationship at work	Low relationship with managers and supervisors, physical and social isolation, conflict among staff in addition to low social support from other staff,
Preparation and training	Concern about technical skill and knowledge as well as not enough preparation for dealing with additional difficult aspect of a job.
Other problems	Poor working environment (for example poor ventilation, poor lighting, not enough temperature control and etc) as well as staff shortages and also lack of resources.

Stress signs & symptoms

According to Somerville and Langford (1994), there are two main sets of stress indicator: The first one is healthy and the second is unhealthy. Some examples of healthy indicators are stimulation, abundant energy, and calmness, ease of adaptability, decisiveness, control as well as rational and clear thought. Also some examples of unhealthy indicators are difficulty in thinking, sleeplessness, fatigue, anxiety, high levels of aggression in addition to inflexibility. Healthy indicators are considered desirable thing; however, unhealthy stress indicators lead to high stress level. Somerville and Langford

(1994) in the research further classified the stress symptoms into different three aspects

- Behavioral Symptoms
- The Psychological Symptoms
- Physical Symptoms

Research Methodology

The methodology of this work is based on two types of collecting data; the first one is qualitative method and the second is quantitative method. As shown in figures 1-3 below, qualitative method will be based on conducting a critical literature review and carrying out interviews. On the other hand, quantitative method is based on distributing a questionnaire, collecting, and analyzing data obtained from it in addition to build model.

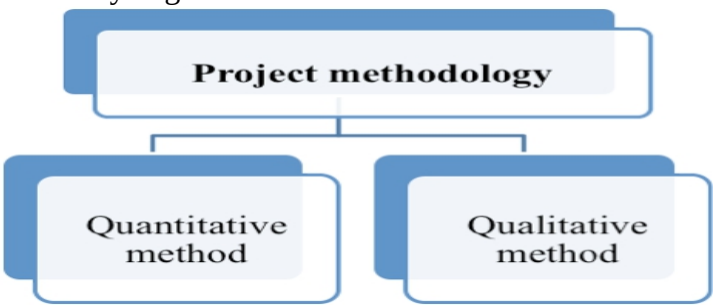

Figure 1: The project methodology

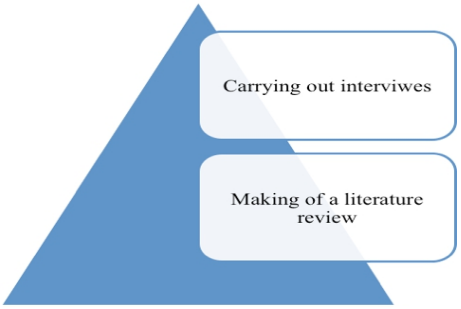

Figure 2: Qualitative method

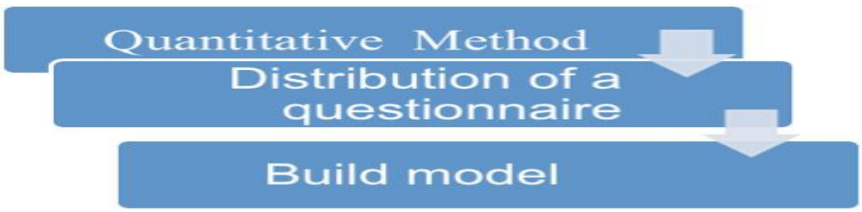

Figure 3: Quantitative Method

Research Sample and Population

The research population in this project is all the employees in Mohammad Abdalmuhsen & Sons Company in Kuwait. The number of employees in this company is very large, so the sample of questionnaire was a random sample represented by the (%25) of the workers. In this work 450 questionnaires have been distributed, 4 of them have been lost, and 14 of them have not been answered. The questionnaire was designed to make an assessment to the effect of stress on the performance of the workers as well as to determine the main reasons of work stress as well as to establish the level and extent of the contractors' commitment level with the Kuwaiti labor law.

Target group

The target group in this part was the workers in the construction projects. The variety among the workers is due to the age, gender, education level and position. This information will be answered by each participant in the questionnaires at the beginning of the paper under the (personal information) headline.

Mechanism

The questionnaire was distributed randomly to almost every worker in the shift that will be working during the researcher's visit. The visits and distribution process will be permitted by the management. Every participant will be asked to willingly to answer the questions under the supervision of the researcher, where any question or unclear ideas will be clarified. After completing the questions, every worker will be asked to return them to the researcher.

Questionnaire scale

The type of questionnaire is a quantity survey, where the questions are multiple choice from five scale questionnaire (strongly agree, agree, uncertain, disagree and strongly disagree), where these choices determine whether the facing statement is true or not and the degree of its truth or untruth, the questionnaire results as shown in table-1.

Table-1 Questionnaire's results

Question #	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	Not specified
Kuwaiti labor law as well as the extent of the contractor's commitment in the texts that exist in Kuwaiti Labor.						
1	19	284	109	17	3	14
2	75	115	203	33	5	15
3	54	216	124	29	8	15
4	45	145	168	60	13	15
5	58	231	111	21	9	16
6	54	217	108	42	9	16
7	43	127	162	87	11	16
8	30	210	144	35	11	16
9	25	199	152	33	21	16
Stress effect						
10	63	217	111	25	16	14
11	25	126	224	40	17	14
12	15	180	201	33	2	15
13	69	228	108	19	7	15
14	74	114	206	26	11	15
15	77	217	115	15	7	15
16	69	113	185	53	11	15
17	78	201	124	18	10	15
18	54	139	184	41	13	15
19	66	194	138	28	5	15
20	33	215	138	31	14	15
21	53	108	227	33	9	16
22	43	216	120	43	8	16
23	34	170	187	32	7	16
The manager's behavior with the workers						
24	25	136	187	72	11	15
25	71	202	129	21	8	15
26	66	129	166	61	9	15
27	67	195	123	36	10	15
28	53	141	177	45	15	15
29	49	195	128	43	16	15
30	20	146	176	76	13	15
31	56	96	235	36	7	16
32	39	133	192	56	10	16
33	19	132	183	79	17	16
34	32	232	129	24	13	16
35	34	126	200	58	12	16

Statistical Analysis

1- Participant's gender: This part represents mean, mode, median and frequency distribution as well as standard deviation for the gender of the

participants in the questionnaire. Where "Valid" is represents the acceptable data in order to analyze process. While, "Missing" is represents the data that have no value**.**

Table-2: Statistics "Gender type"

Number	Valid	446
	Missing	0.0
Mean		1.00
Median		1.00
Mode		1.0
Standard Deviation		0.000

Table -2 Shows that the average value of the participant answers to gender type is Mean =1.00, also, the most frequent value of the gender type is Mode =1.00, and median = 1.00. Where is the standard deviation = 0.00.

Table -3 and Figure-4 below illustrate that all participants were male, and contributes with 100%.

Table -3: Frequency Distribution "Gender type"

Gender type		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	446	100.0	100.0	100.0

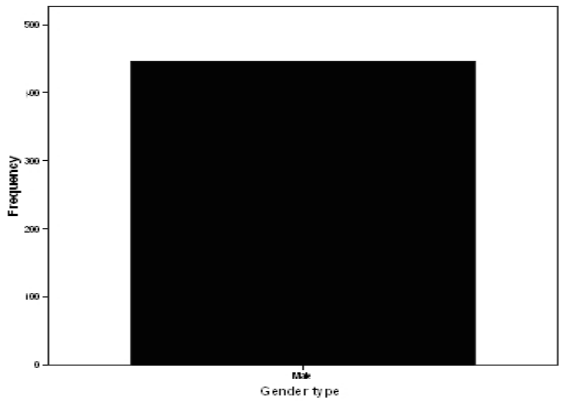

Figure- 4: Frequency Distribution "Gender"

2- Participant's ages: This part concerns the age of the respondents. The results are shown in table-4 and Fig.3. Table-4 Shows that the average value of the participant's age answers is:

Mean =33.7523, also, the most frequent value of the answers that occurs most of time is Mode = 29.00, and the median value is considered the middle value of participant's answers is 33.00. The median is particularly useful when separating data into two parts. The value of standard deviation is equal to (5.36748) that provide an idea of how close the entire group of participant's answers is to the value of mean. While with a small value of

standard deviation have tightly grouped, accurate data. Data groups with large value of standard deviations have data spread out over a wide range of values. Also table-4 illustrates that Participants' ages ranging from (23 to 55 years) who contribute with 99.6%. In addition to two participants did not answer about their ages, who contribute with 0.4%. While Fig.3 shows that the frequency distribution of table-5, it is clear that the ages between 29 and 31 are the most dominant.

Table -4 Statistics "Age"

Number	Valid	444
	Missing	2.0
Mean		33.7523
Median		33.0000
Mode		29.00
Standard Deviation		5.36748

Table-5 Frequency Distribution "Age"

Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	23.00	1	.2	.2	0.2
	24.00	7	1.6	1.6	1.8
	25.00	8	1.8	1.8	3.6
	26.00	6	1.3	1.4	5.0
	27.00	15	3.4	3.4	8.3
	28.00	13	2.9	2.9	11.3
	29.00	52	11.7	11.7	23.0
	30.00	37	8.3	8.3	31.3
	31.00	50	11.2	11.3	42.6
	32.00	30	6.7	6.8	49.3
	33.00	10	2.2	2.3	51.6
	34.00	43	9.6	9.7	61.3
	35.00	29	6.5	6.5	67.8
	36.00	15	3.4	3.4	71.2
	37.00	33	7.4	7.4	78.6
	38.00	18	4.0	4.1	82.7
	39.00	12	2.7	2.7	85.4
	40.00	13	2.9	2.9	88.3
	41.00	2	.4	.5	88.7
	42.00	12	2.7	2.7	91.4
	43.00	5	1.1	1.1	92.6
	44.00	10	2.2	2.3	94.8
	45.00	18	4.0	4.1	98.9
	46.00	1	.2	.2	99.1
	47.00	1	.2	.2	99.3
	50.00	1	.2	.2	99.5
	53.00	1	.2	.2	99.8

	55.00	1	.2	.2	100.0
	Total	444	99.6	100.0	
Missing	1.00	2	.4		
Total		446	100.0		

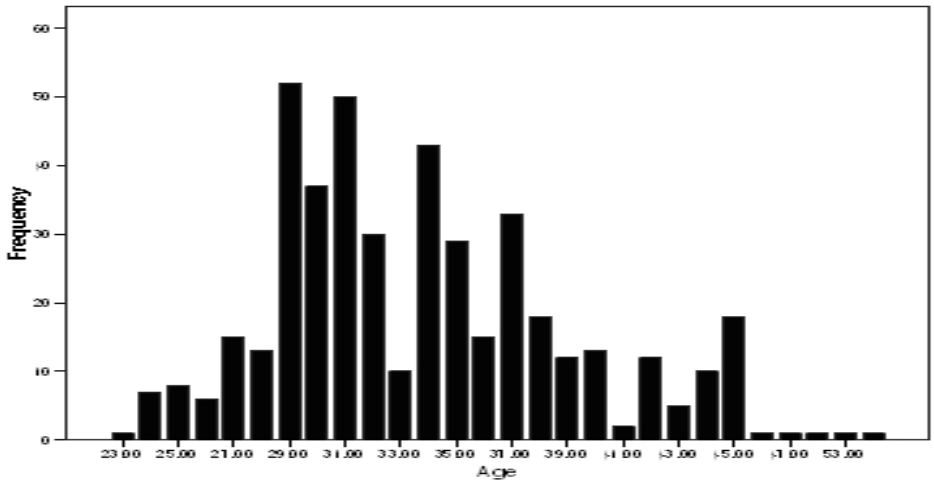

Figure - 1: Frequency Distribution "Age"

3- Participant's positions: Table-6 explains that the average value of the participants answers to the position is of mean value =1.7833. Also, the most frequent value of the position or answer that occurs most of time is of mode = 2.00, and median = 2.00 that is considered the middle value of participant's answers. While the value of standard deviation = 0.41247, which again provides an idea of how close the entire group of participant's answers is to the value of mean.

Table-6 Statistics "position"

Number	Valid	443
	Missing	3.0
Mean		1.7833
Median		2.0000
Mode		2.00
Standard Deviation		0.41247

Table-7 and figure-5 illustrate that the total of participants are 446, and their position divided as the following; 96 of them were administrative, who contribute with 21.5%. Most of participants were workers and who contribute with 77.8%. In addition to three participants did not answer about their positions, who contribute with 0.7%.

Table -7 Frequency Distribution "Position"

Position		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Administrative	96	21.5	21.7	21.7
	Worker	347	77.8	78.3	100.0
	Total	443	99.3	100.0	
Missing	Not specified	3	0.7		
Total		446	100.0		

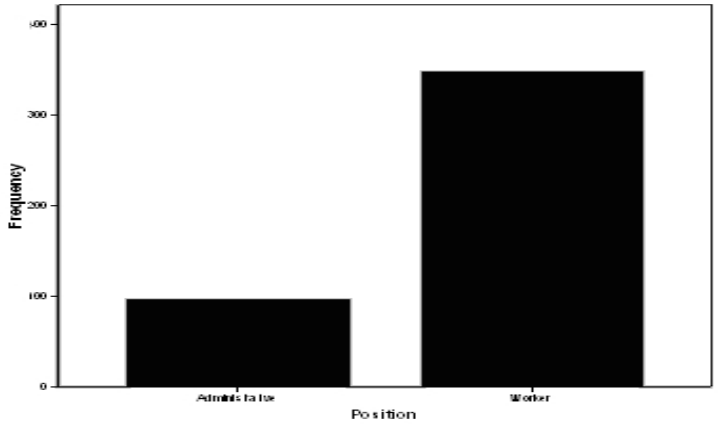

Figure -5 Frequency Distribution "Position"

4- Participant's education: The statistical analysis of this part is shown in tables (8&9) and Fig.6.These illustrate that the total of participants are 446, which show that the number of participants who obtained bachelor degree were 53 and who contributes with 11.9%, and the number of participants who obtained high school was 265 and who contributes with 59.4%.The number of participants who obtained higher education was 30 who contributes with 6.7%. Also, the number of non- educated participants was 75 who contribute with 16.8%. In addition to 23 participants did not specify their education level and who contribute with 5.2%. The previous tables show that the average value of the participant answers to position is of Mean value =2.6430, the most frequent value of the position is of Mode =3.00, and median = 3.00. While the value of standard deviation = 0.78959.

Table -8 Statistics "Education"

Number	Valid	423
	Missing	23
Mean		2.6430
Median		3.0000
Mode		3.00
Standard Deviation		0.78959

Table 9: Frequency Distribution "Education"

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor	53	11.9	12.5	12.5
	Not educated	75	16.8	17.7	30.3
	High school	265	59.4	62.6	92.9
	Higher education	30	6.7	7.1	100.0
	Total	423	94.8	100.0	
Missing	Not specified	23	5.2		
	Total	446	100.0		

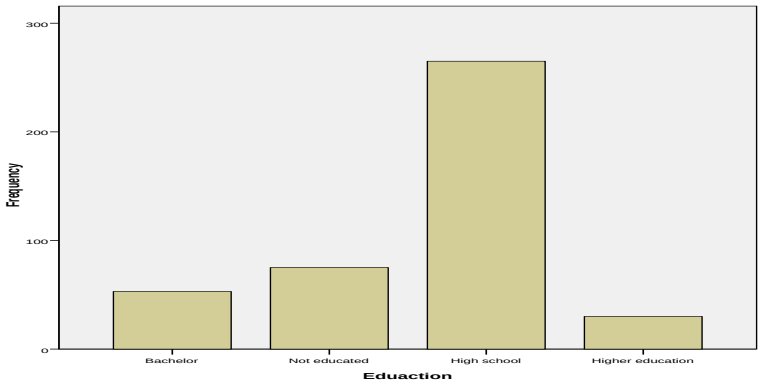

Figure 6: Frequency Distribution "Education"

Samples of the statistical analysis of participant's questions: First question: Are contractors committed to the texts of the Kuwaiti Labor Law?

Tables 10, 11 and Fig.7 illustrate the results of this question. The statistical analysis of the participant's is of Mean = 2.31, also, the most frequent value of the position is of Mode =2.00, and median = 2.00. While, the value of standard deviation = 0.650. The number of respondents who strongly agreed was 19, it represents 4.3%. While the number of respondents who agreed was 284 contributes with 63.7%, as well as 109 uncertain who contribute with 24.4%, while the number of respondents who strongly disagreed was 3 who contribute with 0.7%, and the disagreed was 17 who contribute with 3.8% and about 14 respondents did not answer to this question and contributes with 3.1%.

Table 11: Statistics "First question"

Number	Valid	432
	Missing	14
Mean		2.31
Median		2.00
Mode		2
Std. Deviation		.650

Table 12: Frequency distribution "Q #1"

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	19	4.3	4.4	4.4
	Agree	284	63.7	65.7	70.1
	Uncertain	109	24.4	25.2	95.4
	Disagree	17	3.8	3.9	99.3
	Strongly Disagree	3	.7	.7	100.0
	Total	432	96.9	100.0	
Missing	Not Specified	14	3.1		
	Total	446	100.0		

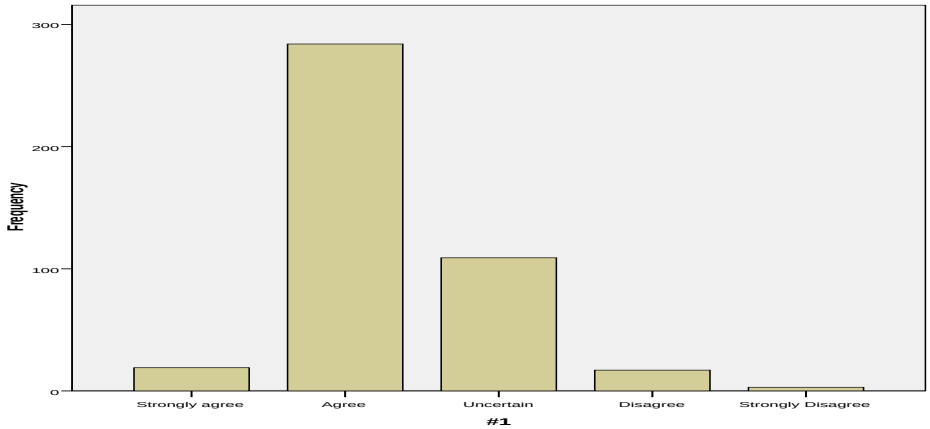

Figure 7: Frequency distribution "Q #1"

Question 2: Did the work time and nature in addition to the organizational policy within the company consider as the main reasons of work stress?

Tables 12, 13 and Fig.8 illustrate the results of this question. The statistical analysis of these tables explain that the average value of the participant's answers to the question is of Mean =2.34, also, the most frequent value of the position is of Mode = 2.00, and median = 2.00. Finally the value of standard deviation = 0.925. The number of respondents and their percentages as follows:- The strongly agreed was 63 who contribute with 14.1%, who agreed was 217 contributes with 48.7%, as well as 111 uncertain persons contributes with 24.9%, while who strongly disagreed was 16 who contribute with 3.6%, and who disagreed was 25 who contribute with 5.6%. In addition to 14 persons did not answer to this question and contributes with 3.1%.

Table 12: Statistics "Q#2"

Number	Valid	432
	Missing	14
Mean		2.34
Median		2.00
Mode		2
Standard Deviation		.925

Table 13: Frequency Distribution "Q#2"

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	63	14.1	14.6	14.6
	Agree	217	48.7	50.2	64.8
	Uncertain	111	24.9	25.7	90.5
	Disagree	25	5.6	5.8	96.3
	Strongly Disagree	16	3.6	3.7	100.0
	Total	432	96.9	100.0	
Missing	Not Specified	14	3.1		
	Total	446	100.0		

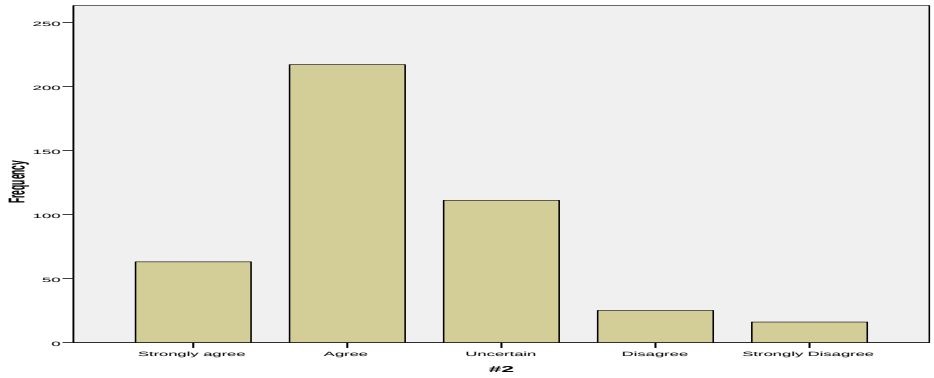

Figure 8: Frequency Distribution "Q#2"

Question 3: Does the work stress reduce the workers performance and also decreases the quality of services, which affects adversely on the performance of the organization in general?

The results of this question are shown in tables 14 and 15 and Fig-9. These show that the M=2.76 and the Mode =3.00, and the median =3.00. While the value of standard deviation = 0.848. The number of respondents who strongly agreed was 25 which represent 5.6%, while the number of respondents who agreed was 126 which represent 28.3% and 224 uncertain respondents contributes with 50.2%, while the number of persons who strongly disagreed was 17 who contribute with 3.8%, the respondents who

disagreed was 40 who contribute with 9.0%. Finally, 14 respondents did not answer to this question and contributes with 3.1%.

Table 14: Statistics "Q#3"

Number	Valid	432
	Missing	14
Mean		2.76
Median		3.00
Mode		3
Standard Deviation		.848

Table 15: Frequency Distribution "Q#3"

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	25	5.6	5.8	5.8
	Agree	126	28.3	29.2	35.0
	Uncertain	224	50.2	51.9	86.8
	Disagree	40	9.0	9.3	96.1
	Strongly Disagree	17	3.8	3.9	100.0
	Total	432	96.9	100.0	
Missing	Not Specified	14	3.1		
	Total	446	100.0		

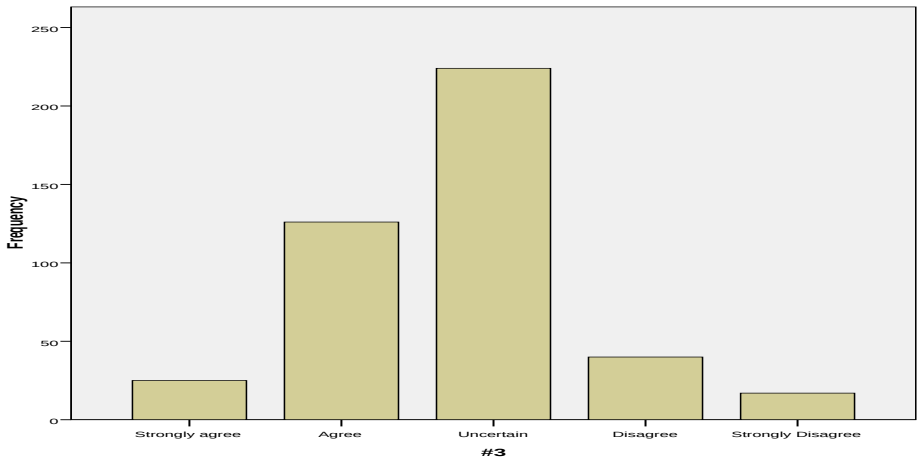

Fig-9 Frequency distribution of Q3

Conclusion

Based on the analysis above the main points which can be drawn from this work are:

- Work stress reduces the performance of workers and also decreases the quality of service by 33.9%.
- Work stress has adversely impact on health of workers by 42.2%.

- Work stress leads to lack of the workers interest of the organization and reduces their affiliation to it by 66%.
- The contractor's commitment to the texts of the Kuwaiti Labor Law was 68% as well the contractors are fair and give the workers their specified rights in the Kuwaiti Labor Law by 42.6%.
- The Rate of the interest from the work force authorities in implementing the Kuwaiti Labor Law in construction was 60.8 %.
- The continuous monitoring of the construction sites from the related agencies by 38.1%
- The basic rights of the workers are preserved in the construction industry in Kuwait by 50.2%.
- Work time and nature in addition to the organizational policy within the company were the main reasons of work stress by 62.8%.
- The workers carry out their task in high quality in the case of work stress by 66.6%.

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