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## **EMOTIONAL INTELLIGENCE AMONG EMPLOYEES OF GOVERNMENT AND PUBLIC SECTORS**

### **Abstract:**

With time, the yardstick to measure the efficiency of a person has evolved and filtered into more refined format. Now, it not only includes the basic technical academic qualification but also the Emotional Intelligence which is considered to be an intangible attribute which has an overall control on the employees of an organization. So it becomes imperative to analyse this intelligence also. The main objective is to find out EQ level of employees working in public and government sectors in India and then to find the significance of sensitivity, maturity and competency between males and females responses. Emotional intelligence is the ability to sense, assess, understand and control the emotions of oneself, others or groups. EI is taken as distinct group of mental abilities. The emergence of Emotional intelligence is way back from the time of Darwin who emphasized on the importance of emotional expression for survival. The term " Emotional Intelligence " was first used by WAYNE PAYNE in their doctoral thesis, " A study of Emotion : Developing Emotional Intelligence ",1985. Then the publication of Daniel Goleman best seller "Emotional Intelligence: Why It Can Matter More Than IQ." was a breakthrough in this field in 1995. The study was conducted by collecting responses of employees from government and public sectors through a standardize questionnaire and then the scoring was done for the three parameters. The relevance of the three parameters of Emotional Intelligence was checked and then the significance of male and female responses was checked. For analysis, Eviews and Excel was used. On the basis of the test done, no major difference between male and female responses was found for the three parameters of Emotional Intelligence. The main reason could be the facilities, amenities and easy environment of public and government sectors. It may differ in private sector. The work life balance is found better in the public and government sectors.

### **Keywords:**

Emotional Intelligence, Sensitivity, Maturity, Competency

**JEL Classification:** J24

## **INTRODUCTION**

With time, the yardstick to measure the efficiency of a person has evolved and filtered into more refined format. Now, it not only includes the basic technical academic qualification but also something more than that which defines the intrinsic characteristics of the person. These attributes also helps in defining the efficiency of employees at workstation. So, it is imperative to judge and analyse these emotional attributes which are essential part of the defining the abilities of a person as an employee of an organization.

The emotional quotient is defined into three basic components, viz, (based on the questionnaire tool developed by Dr. Dalip Singh and Dr. NK Chadha) Emotional Competency, Emotional Maturity and Emotional Sensitivity.

**I. Emotional Competency** Many emotional competencies have been identified and analysed in Indian industry after a detailed research in the field. They all are needed to be learned by managers and they are:

### **Tackling emotional upsets**

This means tackling frustrations, conflicts, inferiority complexes etc. It also means avoiding emotional exhaustion such as stress, burnout and negativity of emotions. People in conflict are generally locked into a self-perpetuating emotional spiral in which the genesis of the conflict is usually not clear. Finding ways to deal with anger, fear, anxiety and sadness are essential signs of emotional competency. For example, learning how to manage your-self when upset, is one such asset. Being able to channelize emotions to a positive end is another key skill to raise your Emotional Quotient (EQ). Under Indian conditions, inferiority complex arising from issues such as knowledge, education, physical characteristics, religion, region, caste, sex and creed are not uncommon. Inferiority complex is also reflected in the low self-esteem, negative feelings and low opinion about oneself. Research shows that a high level of emotional intelligence helps overcome inferiority complex.

### **High self-esteem**

Many managers often give themselves a negative feedback. On the other hand, there are those who believe that optimism can be a useful asset. Research done in Indian organisations has indicated that leaders should learn to be optimistic to boost their self-esteem. High self-esteem gives a manager realistic confidence to perceive challenges as learning opportunities. As a result, one constantly grows and improves. High self-esteem is the greatest gift a manager can give to himself. Unfortunately, most of us suffer from a wounded self-esteem which often leads to a psychological invalidation of the self. The managers should learn to acquire high self-esteem which is reflected in the feelings of confidence and competence.

### **Tactful response to emotional stimuli**

This means being creative and practical towards emotional prompts elicited from the inner self and the immediate environment. An emotionally intelligent manager will try to manipulate the on-going environment to his/her advantage by reacting appropriately.

Handling egoism

Egoism is based on the view that the fundamental motive behind all emotional conduct is self-interest. A self-centred manager talks incessantly of himself and his doings and is interested in only his own concerns. Tackling ego problems without hurting one's self-esteem is the key to success. An 'I am never wrong' attitude may be harmful in many situations. One should not be an egoist. It is the root cause of problems in interpersonal relations. Taking the initiative to resume dialogue and breaking the ice in situations where both parties have stuck to their original stand and have refused to budge is a sign of emotional competency.

**II. Emotional Maturity** Emotional maturity is reflected in the behavioural pattern exhibited by the managers while dealing with the inner self and the immediate environment. Some of the important aspects of emotional maturity are:

Self-awareness

One of the basic emotional skills is the ability to recognise different feelings emanating from within and giving a name to them. Many managers are in fact unable to recognise their feelings and are inclined to deny them. Knowing one's own emotional strength and weaknesses is of great help. For instance, the inner self constantly responds to the outer world. It is generally believed that if one cannot interpret one's own emotions, he or she may not be able to do the same for others. This will reduce your effectiveness in handling interpersonal relationships.

(Source: Dr Dalip Singh & Dr. N.K. Chadha)

Developing others

Recognising the value of the contribution of others and encouraging their participation can often do good. Appreciating other's point of view and involving them actively in a project are signs of an emotionally intelligent manager. Unfortunately, we in India seem to lack this natural gift.

Delaying gratification

The managers may learn to delay the gratification of reacting to a particular situation instantaneously. This means to gain time to judge whether what is about to be said or done in the heat of the moment is the best course of action by expressing personal concern without anger or passivity, a manager may come out a winner. A manager must have loads of patience and must not allow emotions to get the upper hand. Delaying gratification 'is doing right' and has far-reaching consequences in attaining success in personal and professional life.

Adaptability and flexibility

Knowing how and when to take the lead and when to follow are both essential emotional skills. The managers should know when to be aggressive and when to be passive. He should also know that there is a time to confront, withdraw, speak and remain silent. However, to do so, the manager has to control powerful negative tendencies such as jealousy, manipulation and the feeling of self-grandeur.

**III. Emotional Sensitivity** In the psychological sense, sensitivity means the characteristic of being peculiarly sensitive and judge the threshold for various types of stimulations, evoking sensations, feelings and emotions. The managers may seek to evolve the following in their personality:

### Understanding threshold of emotional arousal

The managers should be in a position to respond to stimuli of low intensity. Equally important is the ability to be aware of the relationship between feelings and actions. What, for instance, triggered a particular emotion? What was the feeling behind a specific action? These are questions that managers ought to ask themselves to understand the intensity of emotions better.

### Empathy

Empathy is the ability to sense how other people feel. It is the ability to share and accept another person's feelings. In India, we tend to call it the quality of humanness. It is the ability to listen to others without getting carried away by personal emotions. It is necessary to be able to distinguish between what others do or say, and one's own personal reactions and judgements.

### Improving inter-personal relations

Developing quality inter-relationships has a positive effect on all the parties. Positive inter-personal relations are a sure sign of success. The key to good inter-personal relations is to believe in the basic elements of trust, confidence and reliance. Research has shown that the primary cause of failures among executives was their poor inter-personal relations at the workplace. A manager with poor inter-personal relations will experience considerable stress and anxiety and exhibit lack of trust in others.

(Source: Dr Dalip Singh & Dr. N.K. Chadha)

### Communicability of emotions

The influence of emotions is contagious and travels from one person to another instantaneously. A cheerful manager communicates a message of confidence and self-respect. In contrast, expressions of negative feeling by a manager communicate a message of pessimism, bitterness, suspicion and inferiority. Hence, the managers may learn how to communicate emotions through verbal and non-verbal mediums.

## EMOTIONAL INTELLIGENCE

The emergence of Emotional intelligence is way back from the time of Darwin who emphasized on the importance of emotional expression for survival. The term "Emotional Intelligence " was first used by WAYNE PAYNE in their doctoral thesis, "A study of Emotion : Developing Emotional Intelligence ",1985. Then the publication of Daniel Goleman best seller "Emotional Intelligence: Why It Can Matter More Than IQ." was a breakthrough in this field in 1995. Nancy Gibbs' Time magazine article in 1995 highlighted the book of Daniel Goleman.

Emotional Intelligence is a set of competencies which contributes to the ability of a person to manage and gauge his or her emotions and to judge emotional state of others. Daniel Goleman came up with a model in 1998 with five dimensions. They are as follow:

**SELF AWARENESS:** It is the ability to judge and recognize a feeling. It is accuracy of self assessment and confidence.

**SELF MANAGEMENT:** It is the ability to keep impulsive emotions in self-control. It helps to keep disruptive emotions in check and maintain standards of integrity and honesty, be adaptable, take responsibility of one's performance and be innovative.

**MOTIVATION:** It is the tendency of emotions which helps in guiding in attainment of goals .It includes the optimism, commitment, drive and initiative.

**EMPATHY:** It is the ability to understand and to be aware of needs of others.

**SOCIAL SKILLS:** It is the ability to sustain, thrive and persuade in social group. It is more about collective cooperation, leadership etc.

	<b>Self</b> Personal Competence	<b>Other</b> Social competence
<b>Recognition</b>	<p><b>Self-Awareness</b></p> <ul style="list-style-type: none"> <li>- Emotional self-awareness</li> <li>- Accurate self-assessment</li> <li>- Self-confidence</li> </ul>	<p><b>Social Awareness</b></p> <ul style="list-style-type: none"> <li>- Empathy</li> <li>- Service orientation</li> <li>- Organizational awareness</li> </ul>
<b>Regulation</b>	<p><b>Self-Management</b></p> <ul style="list-style-type: none"> <li>· Self-control</li> <li>· Trustworthiness</li> <li>· Conscientiousness</li> <li>· Adaptability</li> <li>· Achievement drive</li> <li>· Initiative</li> </ul>	<p><b>Relationship Management</b></p> <ul style="list-style-type: none"> <li>· Developing others</li> <li>· Influence</li> <li>· Communication</li> <li>· Conflict management</li> <li>· Leadership</li> <li>· Change catalyst</li> <li>· Building bonds</li> <li>· Teamwork &amp; collaboration</li> </ul>

(Source: The Emotionally Intelligent Workplace: Daniel Goleman, Chapter-3)

Emotional intelligence is the ability to sense, assess, understand and control the emotions of oneself, others or groups. EI is taken as distinct group of mental abilities.

This is one of the basic tool which facilitates high levels of collaboration and productivity. It justify that that human is a social animal. At workplace it helps leveraging awareness of emotions for maximum performance. EI helps in:

- 1) Ability to solve social problems.
- 2) Helps in surviving in social environment

EI also related to Big 5 personality traits, also called as Five factor model- OCEAN (Openness, conscientious, extraversion, agreeableness, neuroticism).

The model has much wide application in several areas, viz,

- 1) Impact on job performance and productivity
- 2) Impact on mental stability
- 3) Integral part of Leadership
- 4) Difference in EI on the basis of Gender, job position and experience.
- 5) Impact on artificial intelligence.
- 6) Impact on kids , using drugs

#### Issues:

There are many problems related to organizational neuroscience measurement. They are:

- 1) It is still not universally accepted that emotional intelligence is a real intelligence.
- 2) It is has little face and predictive value.
- 3) Certain questions on its importance over IQ.

#### Assumptions:

- 1) Considering EI as a real intelligence and having ability to solve problems.
- 2) EI can be measured.

#### **LITRATURE REVIEW:**

The term EI came into account in 1985. The first use of EI in terms of publication was by Keith Beasley in article in British Mensa Magazine in 1987. Also this term was used in work of Beldoch (1964), Leuner (1966). Then models were presented by Stanley Greenspan (1989), then also by Peter Salovey and John Mayer (1989). The difference between ability EI and trait EI was given in 2000.

According to *Encyclopedia of Applied Psychology* there are three major models of emotional intelligence.

- A) ABILITY MODEL(John Mayor and Peter salovey)
- B) MIXED MODEL( Daniel Goleman)
- C) TRAIT MODEL( K V Petrides)

### ABILITY MODEL

According to Salovey and Mayor, EI is a form of new intelligence which is “The ability to perceive emotions, integrate emotions to facilitate thought, understand emotions and to regulate emotions to promote growth”. This model considers emotions as good source of information which helps in sensing and navigating in social environment. This model has 4 types of abilities. They are Perceiving emotions, Using emotions, Understanding emotions and Managing emotions. The criticism of the above model is just on the base of absence of face and predictive value of the same. Its measurement is done by MSCEIT- MAYOR SALOVEY CARUSO EI TEST.

### MIXED MODEL

It was given by Daniel Goleman which states that EI as a wide array of competencies and skills that drive leadership performance. Five main constructs from HBR 1998 are Self-Awareness, Self-Regulation, Social skills , Empathy and Motivation .Goleman stated that emotional competencies are learned capabilities and not innate talent. It was measured by tools – ECI-EMOTIONAL COMPETENCY INVENTORY & ESCI-EMOTIONAL & SOCIAL COMPETANCY INVENTORY.

### TRAIT MODEL

It was suggested by K V Petrides according to whom it was referred as individual's self-perception of emotional abilities. It is measured by self-report.

### BAR-ON MODEL

Dr. Reuven Bar- On gave “Bar-On model of emotional intelligence” which is *Bar-On Emotional Quotient Inventory™* (the *EQ-i™*),. With Dr. James Parker, the *Bar-On EQ-i:YV™* was designed by Dr. Reuven Bar. It is the first commercially available test designed to assess emotionally and socially intelligent behaviour in children and adolescents. With the Collaboration of Dr. Richard Handley and Dr. Reuven Bar, the *Bar-On EQ-360™* and the *Bar-On EQ-interview™* were designed. Also in 2000, with Dr. Parker, he co-edited the *Handbook of Emotional Intelligence*, which is one of the first textbooks on this topic to be published. In 2007, he co-edited an book with Dr. Kobus Maree and Maurice Elias, titled *Educating People to Be Emotionally Intelligent*. With Dr. Handley, based on a training manual he wrote *Optimizing People*. He also co-developed the first web-based training program designed to improve emotional intelligence competencies and skills.

### NEED AND RELEVANCE OF THE STUDY

The efficiency of working environment in different organization is dependent on many factors. One of the imperative and intrinsic factor is the emotional level of the employee which has an essential role in providing the real time efficiency to

employee's performance. This factor of Emotional intelligence is intangible attribute which has an overall control on the employee. So, it is must to understand this concept and its components which forms it.

## **METHODOLOGY**

The exploratory method was chosen where a questionnaire tool (Dr. Dalip Singh and Dr. NK Chadha) was used to get the information from the target respondent. It was based on the three components of EI, viz , Sensitivity, Maturity, Competency.

The data was collected from various government and public organizations, as they were the focus of the study. The data was collected in form of questionnaire responses. Total data collected was 117. The further research was carried in E-Views and Excel.

## **OBJECTIVES**

To find the EQ level of the employees of government and Public sector institutions and to find the relevance of Sensitivity, Maturity and Competency for Emotional Quotient (EQ) . And to further find the significance of these three parameters in males and females.

## **HYPOTHESIS**

H1:On the measure of Sensitivity, there would be a significant difference between male and female.

H2:On the measure of Maturity, there would be a significant difference between male and female.

H3:On the measure of Competency, there would be a significant difference between male and female.

## **MEASURES**



The present EQ test measures three psychological dimensions such as **emotional sensitivity, emotional maturity and emotional competency**. This test has been standardized for professional managers, businessmen, bureaucrats, artists, graduate student, and adolescent population. The 22 situations measure the emotional responses to different situations.

## DATA ANALYSIS

The data was collected with age and gender parameters. Then sensitivity, maturity, competency was scored on the basis of certain specific scoring process for each question. And further percentile was calculated. Then t- test was done for each component for male and female.

### Sensitivity

The t-test was done for responses of Sensitivity of males and females. It was found that p values were more than 0.05, therefore not much difference could be analysed between males and females.

$$t(df, sig) = t(72, 0.05) = 2.00$$

t calculated < t critical            therefore, not significant .

p(0.1112) > 0.05                    therefore, not significant .

p(0.222) > 0.05                    therefore, not significant .

### Competency

The t-test was done for responses of Competency of males and females. It was found that p values were more than 0.05, therefore not much difference could be analysed between males and females.

p(0.399) > 0.05    therefore, not significant .

p(0.799) > 0.05    therefore, not significant .

### Maturity

The t-test was done for responses of Maturity of males and females. It was found that p values were more than 0.05, therefore not much difference could be analysed between males and females.

p(0.49) > 0.05    therefore, not significant .

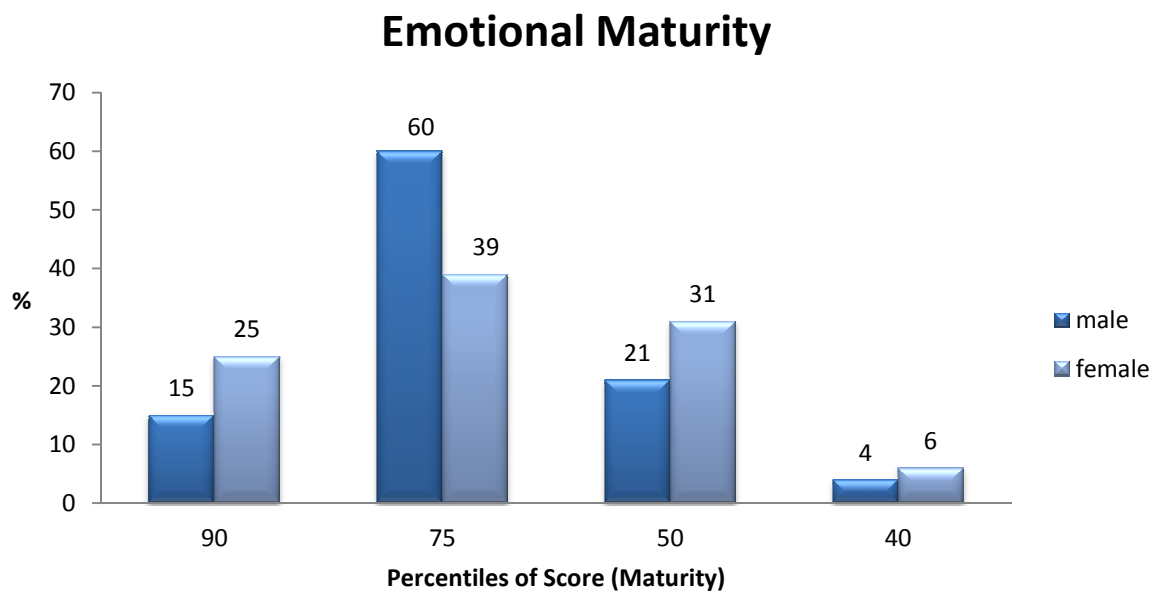
p(0.98) > 0.05    therefore, not significant .

Correlation is also checked between the parameters

Table 1 :

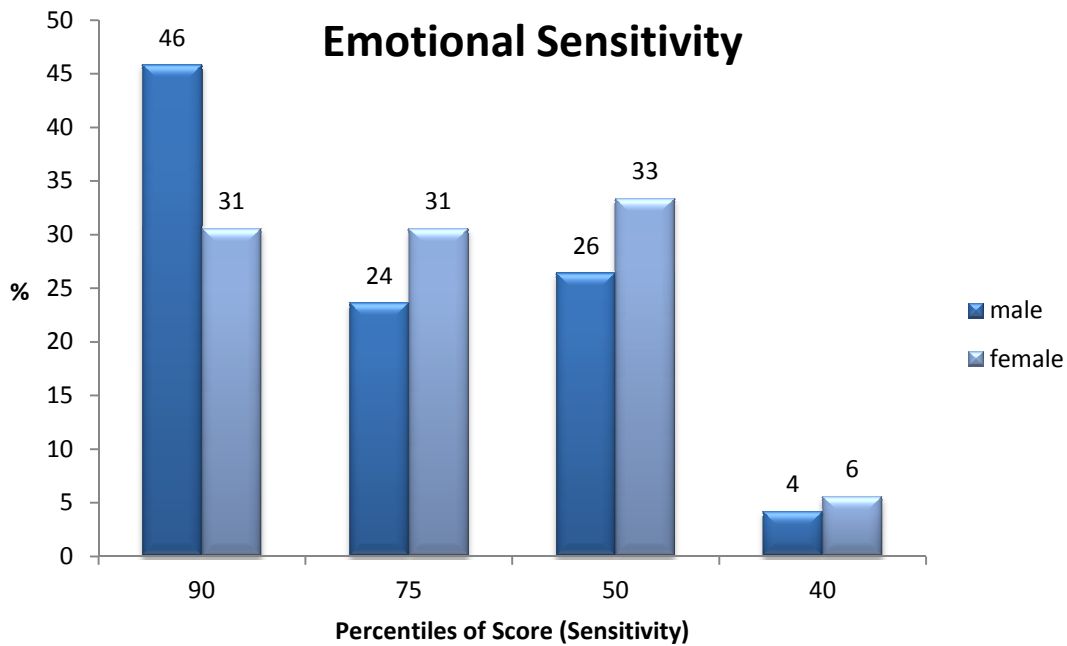
<u>CORRELATION</u>	<u>SENSITIVITY</u>	<u>MATURITY</u>	<u>COMPETENCY</u>
<u>SENSITIVITY</u>	1	0.499676922	0.511182284
<u>MATURITY</u>	0.499676922	1	0.465004821
<u>COMPETENCY</u>	0.511182284	0.465004821	1

As, it can be seen, that there is a moderate correlation among all the three parameters. Competency is more correlated to sensitivity.

Figure 1:

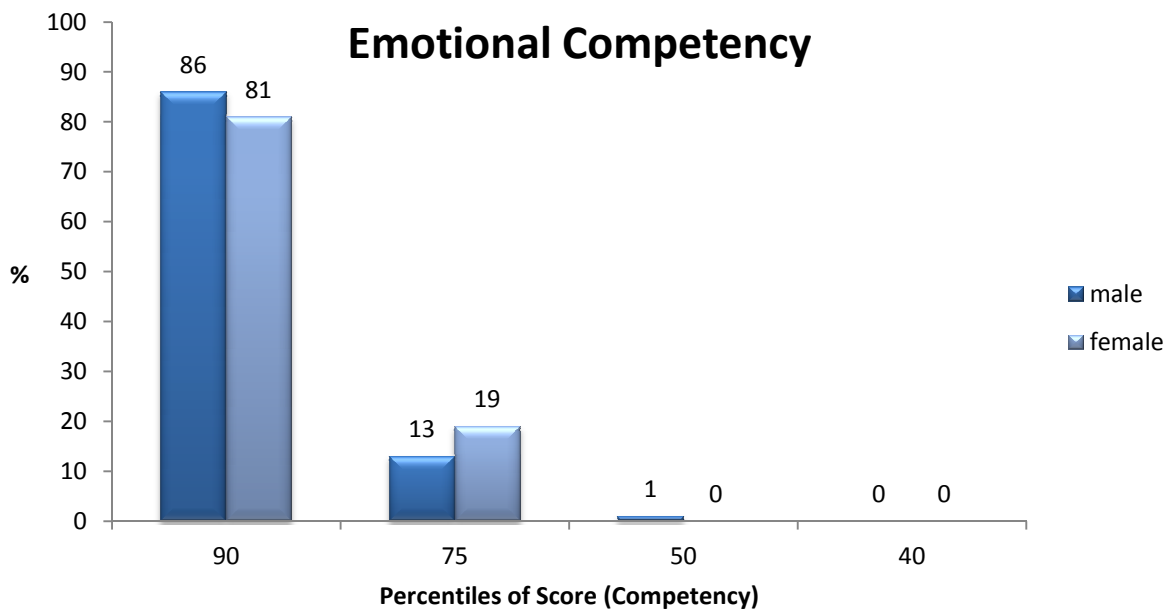
According to data above, higher maturity is found more in females and moderate maturity found more in male.

Figure 2:



As according to the data analysis, it can be seen that higher sensitivity found more in males and moderate sensitivity found more in females. Overall sensitivity is same in both male and female.

Figure 3:



According to the data above, higher competency found both in males and females. From this, it can be concluded that the gender response is not affected in government and public sector. Both have similar competencies based on their skills.

Table 2:

Dependent Variable:COMPETENCYMethod: LeastSquaresDate: 04/21/14 Time: 22:34Sample: 1 117Included observations: 117

<u>Variable</u>	<u>Coefficient</u>	<u>Std. Error</u>	<u>t-Statistic</u>	<u>Prob.</u>
<u>C</u>	62.90677797	12.84779034	4.896311062	3.25E-06
<u>SENSITIVITY</u>	0.582999649	0.139895516	4.167393392	6.02E-05
<u>MATURITY</u>	0.385999252	0.123229366	3.132364184	0.002204
<u>R-squared</u>	0.3198465	<u>Mean dependent var</u>		154.7009
<u>Adjusted R-squared</u>	0.307913983	<u>S.D. dependent var</u>		21.3579
<u>S.E. of regression</u>	17.76799871	<u>Akaike info criterion</u>		8.617982
<u>Sum squared resid</u>	35990.0027	<u>Schwarz criterion</u>		8.688807
	-			
<u>Log likelihood</u>	501.1519271	<u>Hannan-Quinn criter.</u>		8.646736
<u>F-statistic</u>	26.8046118	<u>Durbin-Watson stat</u>		1.901922
<u>Prob(F-statistic)</u>	2.87E-10			

Competency is impacted by sensitivity and maturity, as probability of t- statistics is less than 0.005. Also, overall F-statistics (probability) is also less than 0.005 and hence it is significant.

Table 3:Dependent Variable: MATURITYMethod: LeastSquaresDate: 04/21/14 Time: 22:32Sample: 1 117Included observations: 117

<u>Variable</u>	<u>Coefficient</u>	<u>Std. Error</u>	<u>t-Statistic</u>	<u>Prob.</u>
<u>C</u>	42.54616675	9.506763182	4.4753578	1.82E-05
<u>SENSITIVITY</u>	0.402610534	0.102825529	3.91547251	0.000154
<u>COMPETENCY</u>	0.205303489	0.065542663	3.132364184	0.002204
<u>R-squared</u>	0.309137866	<u>Mean dependent var</u>		108.7179
<u>Adjusted R-squared</u>	0.297017478	<u>S.D. dependent var</u>		15.45508
<u>S.E. of regression</u>	12.95816326	<u>Akaike info criterion</u>		7.986636
<u>Sum squared resid</u>	19142.19544	<u>Schwarz criterion</u>		8.057461

<u>Log likelihood</u>	464.2181794	<u>Hannan-Quinn criter.</u>	8.01539
<u>F-statistic</u>	25.5056074	<u>Durbin-Watson stat</u>	1.389732
<u>Prob(F-statistic)</u>	7.00E-10		

Maturity is impacted by competency and sensitivity as t-statistics (probability) is less than 0.005. Also the overall f-statistics (probability) is less than 0.005.

Table 4:

Dependent Variable: SENSITIVITY

Method: Least

Squares

Date: 04/21/14 Time: 22:29

Sample: 1 117

Included observations: 117

<u>Variable</u>	<u>Coefficient</u>	<u>Std. Error</u>	<u>t-Statistic</u>	<u>Prob.</u>
<u>C</u>	18.37978446	8.645384587	2.125964933	0.035664
<u>MATURITY</u>	0.294429174	0.075196333	3.91547251	0.000154
<u>COMPETENCY</u>	0.226763874	0.054413839	4.167393392	6.02E-05
<u>R-squared</u>	0.348872169	<u>Mean dependent var</u>		85.47009
<u>Adjusted R-squared</u>	0.337448873	<u>S.D. dependent var</u>		13.61387
<u>S.E. of regression</u>	11.08131502	<u>Akaike info criterion</u>		7.673704
<u>Sum squared resid</u>	13998.69185	<u>Schwarz criterion</u>		7.744529
<u>Log likelihood</u>	445.9117044	<u>Hannan-Quinn criter.</u>		7.702458
<u>F-statistic</u>	30.54041412	<u>Durbin-Watson stat</u>		1.67799
<u>Prob(F-statistic)</u>	2.39E-11			

Sensitivity is impacted by maturity and competency as t-statistics (probability) is less than 0.005. The overall f-statistics (probability) is less than 0.005, hence it is significant.

## CONCLUSION

On the basis of the test done, it can be interpreted that males and females are not showing significant relative response for above three factors. Thereby, meaning that there is no difference in the EQ level on the basis of three factors for males and females. The impact of gender is minimal on the EQ for an employee working in public or government sectors.

The main reason could be the facilities, amenities and easy environment of public and government sectors. It may differ in private sector.

Also, the three components, Sensitivity, Maturity and Competency, all are dependent on each other to some extent.

### **LIMITATION:**

- 1) The test has less observation for females.
- 2) Certain biasness or manipulation on part of respondent while filling the questionnaire.
- 3) The data collected is only for public and government sectors. It may not be able to generalize as a whole for all the working organizations.

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**ANNEXURE**Table 1:**CORRELATION**

<u>CORRELATION</u>	<u>SENSITIVITY</u>	<u>MATURITY</u>	<u>COMPETENCY</u>
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<u>Sum squared resid</u>	35990.0027	<u>Schwarz criterion</u>		8.688807
	-			
<u>Log likelihood</u>	501.1519271	<u>Hannan-Quinn criter.</u>		8.646736
<u>F-statistic</u>	26.8046118	<u>Durbin-Watson stat</u>		1.901922
<u>Prob(F-statistic)</u>	2.87E-10			

Table 3:Dependent Variable: MATURITYMethod: Least SquaresDate: 04/21/14 Time: 22:32Sample: 1 117Included observations: 117

<u>Variable</u>	<u>Coefficient</u>	<u>Std. Error</u>	<u>t-Statistic</u>	<u>Prob.</u>
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<u>COMPETENCY</u>	0.205303489	0.065542663	3.132364184	0.002204
<u>R-squared</u>	0.309137866	<u>Mean dependent var</u>		108.7179
<u>Adjusted R-squared</u>	0.297017478	<u>S.D. dependent var</u>		15.45508
<u>S.E. of regression</u>	12.95816326	<u>Akaike info criterion</u>		7.986636
<u>Sum squared resid</u>	19142.19544	<u>Schwarz criterion</u>		8.057461
	-			
<u>Log likelihood</u>	464.2181794	<u>Hannan-Quinn criter.</u>		8.01539
<u>F-statistic</u>	25.5056074	<u>Durbin-Watson stat</u>		1.389732
<u>Prob(F-statistic)</u>	7.00E-10			



Table 4:Dependent Variable: SENSITIVITYMethod: LeastSquaresDate: 04/21/14 Time: 22:29Sample: 1 117Included observations: 117

<u>Variable</u>	<u>Coefficient</u>	<u>Std. Error</u>	<u>t-Statistic</u>	<u>Prob.</u>
<u>C</u>	18.37978446	8.645384587	2.125964933	0.035664
<u>MATURITY</u>	0.294429174	0.075196333	3.91547251	0.000154
<u>COMPETENCY</u>	0.226763874	0.054413839	4.167393392	6.02E-05
<u>R-squared</u>	0.348872169	<u>Mean dependent var</u>		85.47009
<u>Adjusted R-squared</u>	0.337448873	<u>S.D. dependent var</u>		13.61387
<u>S.E. of regression</u>	11.08131502	<u>Akaike info criterion</u>		7.673704
<u>Sum squared resid</u>	13998.69185	<u>Schwarz criterion</u>		7.744529
	-			
<u>Log likelihood</u>	445.9117044	<u>Hannan-Quinn criter.</u>		7.702458

F-statistic 30.54041412 Durbin-Watson stat 1.67799  
Prob(F-statistic) 2.39E-11

Table 5:Sensitivity of male and female

t-Test: Two-Sample Assuming Unequal Variances

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	86.62337662	83.25
Variance	170.0273411	212.2435897
Observations	77	40
Hypothesized Mean Difference	0	
df	72	
t Stat	1.230615514	
P(T<=t) one-tail	0.111235979	
t Critical one-tail	1.666293696	
P(T<=t) two-tail	0.222471958	
t Critical two-tail	1.993463567	

Table 6:Competency of male and female

t-Test: Two-Sample Assuming Unequal Variances

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	155.0649351	154
Variance	463.4825701	452.8205128
Observations	77	40
Hypothesized Mean Difference	0	
df	80	
t Stat	0.255741671	
P(T<=t) one-tail	0.399403367	
t Critical one-tail	1.664124579	
P(T<=t) two-tail	0.798806734	
t Critical two-tail	1.990063421	

Table 7:

Maturity of male and female

t-Test: Two-Sample Assuming Unequal Variances

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	108.7012987	108.75
Variance	206.8438141	307.3717949
Observations	77	40
Hypothesized Mean Difference	0	
df	67	
t Stat	-0.015123039	
P(T<=t) one-tail	0.493989482	
t Critical one-tail	1.667916114	
P(T<=t) two-tail	0.987978965	
t Critical two-tail	1.996008354	