Assessing Primary School Leaders' Emotional Intelligence: A Gender Based Comparative Study

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Abstract

Emotional intelligence is considered crucial for the leaders. School leaders in Pakistan particularly of primary schools are appointed just on the basis of seniority and the common mismanagement issues in the schools can be due to lack of emotional intelligence among them. Therefore, an effort using gender based comparative survey has been made to assess the level of emotional intelligence among primary school leaders. TEIQue has been employed to obtain data from 260 school teachers about the emotional intelligence of their school leaders. Results revealed moderate level of emotional intelligence on most of its facets among male and female school leaders. However, male school leaders have comparatively better level of EI as compared to female school leaders. The concerning authorities may timely focus to assess EI for the appointment and professional development of school leaders.

1. Introduction

Leaders are regarded as catalyst for change (Brown, 2014) and high level of emotional intelligence is a crucial factor to be an effective and successful leader. Moreover, leadership is reflected through effective followership (Komives, Lucas, & McMahon, 2009). In researchers' context, disciplinary issues among school leaders and teachers indicate possible flaw either in emotional intelligence of school leaders or followership among teachers. Moreover, emotional intelligence of school leaders is least addressed through recruitment process and professional development courses. Therefore, the study is planned to assess level of school leaders' emotional intelligence and followership among teachers. Moreover, it will focus to explore the impact of school leaders' emotional intelligence on followership among teachers.

Leadership of an individual is his ability to positively impact others to achieve certain goals (Mihelic, Lipicnik, & Tekavcic, 2010). So, leadership has two basic elements, the first is influencing others and the second is accomplishment of goals. Moreover, according to Northouse (2018), leaders must have ethical traits because of their responsibility to be aware of concerns of the followers, as, Leaders and followers have to work cooperatively for organizational success.

According to Bennis (2009) and Dumitru, Motoi, and Budica (2015) leaders possess passion, directorial vision, and integrity. Generally, leadership is considered crucial for individuals as well as organizations. Sharma and Jain (2013) describe leadership as a process in which leader's influence the members of the organization to achieve goals and make actions to direct the organization for success. This idea is almost similar to Northouse (2018) that leaders must have ethical traits because of their responsibility to be aware of concerns of the followers.

The scenario of the traits of leadership works same when applied to the organization system of schools and their leaders. According to Louis et al., (2010) school leadership creates working conditions and opportunities for the teachers to work as a professional. Similar to the purpose, Notman (2010) explored the school leaders that effective principals use to manage their schools. These strategies are clarity of vision; focus on student achievement, school

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improvement practices, consultation with teachers, strong senior leadership team and personnel support systems.

In the researcher's context, the school leaders are being selected through a competitive exam and interview that is generally subject-based. Hence, the cause of ineffective school leadership is surely not related to the academic qualification. The possible cause of ineffective leadership can be a low EI level of the school leaders that are considered critical for successful leaders. As Cherniss and Goleman (2001) stressed that about 90% of leaders Success is due to his high level of EI. Moreover, Gaur, and Gupta (2017) claim that a high level of EI supports the leaders to promote a positive and trustworthy environment in the organization.

The primary task of leaders is to focus inward, outward, learns about their own attention and directs their attention to others (Goleman, 2013). This is almost similar to Salovey and Mayer's (1990) statement about EI that the emotionally intelligent people have the ability of self-assessment and modulating their actions to guide others. On the contrary, Petrides and Furnham (2001) claim about EI that it is a personality trait instead of cognitive ability. In his updated article, Mayer et al., (2016) views EI as a type of intelligence established on emotional aptitudes that is considered as a mental ability due to involvement of reasoning about emotions. It shows variety in viewpoints of the researchers about EI. However, Gaur and Gupta (2017) enlist four competencies of EI which include "self-awareness, self-management, social awareness, and relationship management". The models and competencies of EI are important to discuss because these are linked to effective leadership (Chakrabarti & Chatterjea, 2018).

Research Questions
1. Do the male and female primary school leaders possess high level of emotional intelligence?
2. Is there significant difference between male school leaders' trait EI mean score and scale mean score?

2. Literature Review
EI is a renowned factor that is thought to be most effective for leadership success. However, there is conflict among researchers in terms of measuring EI. Resultantly, EI models can be categorized into three types i.e. ability, mix and trait models, based on the type of measuring instruments (Joseph & Newman, 2010).

Ability Model
Salovey and Mayer (1990) developed the ability model i.e. the first EI model. Later on, Mayer et al., (2016) in his EI as a type of intelligence established on emotional aptitudes that is considered as a mental ability due to involvement of reasoning about emotions which focuses on processing of higher-order information. Moreover, Bratton, Dodd and Brown (2011) explains the ability model of Solvey and Mayer is the most critical and empirical effort to combine emotions and intelligence.

Nguyen and Anglim (2017) claims the ability model implicates maximum ability measures and cannot measure typical behaviors of individuals like trait EI measures. Earlier, Mayer and Salovey (2002) developed "Mayer-Salovey-Caruso EI Test" grounded on the assumption of EI as the ability to solve emotional problems through the performance tests that have correct and incorrect range of responses. Schlegel, Grandjean, and Scherer (2014) explain that the ability model estimation is completely based on the perception of emotions present in the external stimuli. External stimuli can be a facial expression, tone of voice, diagram of the tree, body postures, any artistic work, etc. Salovey and Mayer (1990) developed the ability model that is the first EI model.

O'Connor et al., (2019) argue that one advantage of Mayor's model is that it cannot be faked. Respondents are advised to answer the question correctly; resultantly they try to score better.

Another advantage is that these tests require more concentration as compared to simply rating the statements.

Along with advantages, there are some major limits of ability EI measures. First, experts' criticizes the ability model due to having similar nature like intelligence tests (O'Connor et al., 2019). Moreover, these measures have poor evidences of reliability and validity (Miao, Humphrey, & Qian). Maul (2012) also highlighted the limitation of consensus-based scoring, reliability, and poor representation of EI through the most frequently and widely used ability EI test, MSCEIT. Similarly, Mayer et al., (2016) also criticized the ability tests due to the limitation of unreliable measurement.

Goleman (1995) identified five aspects of Mix-Model of EI i.e. "self-awareness, motivation, self-regulation, empathy and social skills". It is known as 'mixed-model' due to having a mixture of cognitive abilities and personality traits (Walter et al., 2011; Walter, Cole & Humphrey, 2011). Similarly, Fiori *et al*., (2014) describes mix model EI representation through mixture of cognitive, personality, and affective attributes. Mayer et al., (2000) criticizes mix model by arguing that this approach is measure of a person's reputation in his work place instead of EI and the reputation can be due to his treatment with the members of that organization.

Mixed measures of EI are specifically appropriate to be applied in workplace as it has a group of competencies that can be developed among the members of organization (Boyatzis & Goleman, 2007). Secondly, the model uses 360° forms of assessment that can be used as self-report or report from others measures (O'Connor et al., 2019). Later on Goleman, Boyatzis, and McKee (2002) modified the five factor model into four factor model with 20 competencies. They initially developed 27 competencies which were finalized after refinement process. This model uses self-reporting or reporting from others method of data collection (Fiori *et al*., 2014). Gonzalez and Ruiz (2014) defines trait EI as "an umbrella construct of emotion related dispositions and self-perceptions, located at the lower levels of personality hierarchies". Trait EI Model (Petrides, Pita, & Kokkinaki, 2007) is the latest approach to understand and measure EI. It generally uses self-report and others report method for measuring EI (Walter, Cole, and Humphrey, 2011). The Trait Emotional Intelligence Questionnaire (TEIQue; Petrides, 2009) is most cited and used test related to the trait model.

The trait EI perspective was criticized mainly due to using self-reports for data collection. Critics argue about the subjectivity of reporting self-perceptions that become the cause of unreliable measurement (Boyatzis, 2018). Moreover, it has been criticized due to too much correlation with existing Big Five personality traits (Mikolajczak, 2009). Petrides et al. (2017) also proved the very similar nature of trait EI and personality traits but earlier Petrides et al., (2010) argue supportively that the pattern of relationship between trait EI and the Big Five model strengthen measurements of each other. Moreover, Petrides et al. (2017) has developed multiple forms of the measure for EI that are based on self-report, others' report and 360°.

Trait EI measures give preference to self-report method because of considering it subjective and personal aspect of someone's life. But, certain cares are required to focus while administration process such as avoiding distortion of information through fake responses. However, variety of techniques is available to protect data from the validity threats and these are focusing validity indices and reliability measures (Petrides, 2009). Decision of study scale is dependent on many parameters such as the context (Professional, non-profession etc.), demography of respondents (age, qualification etc.), and the depth of data required (global, or facet scores). According to these criterions, trait EI measures are evident of considerable psychometric properties (Haynes & Lench, 2003).

TEIQue 360°, TEIQue 360° Full Form-Facet Bases, and TEIQue 360° Short Form-Facet Based are the forms of TEIQue 360° that are frequently used to obtain self and observer ratings for data collection. These forms are specifically used to compare self and observed scores on 15

facets of trait EI such as evident in Clarke et al. (2011). Short form of the TEIQue is freely available for academic purpose on the official website of K.V. Petrides.

Austin, Saklofske, and Mastoras (2010) claims that the ability model and trait model measures are not same. She argues that trait EI is evident of high correlation with dimensions of personality. As, Petrides, Fredrickson, and Furnham (2004, 278) refer to these elements 'as a constellation of behavioral dispositions and self-perceptions concerning one's ability to recognize, process, and utilize emotion-laden information'. Trait EI is related to emotional dispositions and generally measures through self-report method, whereas ability EI includes emotion related cognitive abilities that supports maximum performance test as best measures (Petrides, Furnham, and Mavroveli, 2007).

The supporters of Ability EI relate it with cognitive abilities and dimension of mental intelligence alone. Mayer, Salovey, and Caruso (2008) suggest the problem solving measures of self-reporting as most appropriate tools for EI measurement. Moreover, they criticize Trait EI measures due to perceptual self-reporting on Likert scale. However, Matthews, Roberts, and Zeidner (2004) criticize ability model measures due to having less contextual measures and least cost effectiveness. Petrides, Furnham, and Mavroveli (2007) conclude the major issue with ability EI is narrowness of operationalization related to real life situations.

On the other hand, trait EI measures are comparatively less expensive to maximum performance tests. These measures can be employed to larger group of people in short time for the purpose of evaluation in workplace (Goleman, Boyatzis, & McKee 2002).There is great increase in studies related to leadership aspects and trait EI, for example, transformational leadership and EI traits (Harms and Crede 2010); EI, leadership and decision making (Hess and Bacigalupo 2011); EI and group cohesiveness (Li, Lu, Wang and Huang 2009); EI and team settings (Zhou and George 2003); as well as EI and leader/member exchange (Dasborough and Ashkanasy 2002). A rationale is provided in the research methodology section for adopting trait EI model and questionnaire concerning the school leadership.

Moreover, Trait EI is scientific in nature (Petrides, 2010) because it is *testable*, *falsifiable* and general (i.e., not restricted to a single instrument). In addition to these scientific properties, trait EI also has three other advantages as compared to other models. First, trait EI theory accepts the subjective nature of emotional experience that means it views emotions as abstract, detached and fully acknowledges the subjective nature of emotional experience, thus resolving multiple problems plaguing models that view emotions as something abstract, detached from individuals who experience it. Second, trait EI theory conceptualizes the construct with major theories of psychology instead of claiming it an entirely new entity. Third, it offers the extension to associated areas (e.g., social intelligence) instead of presenting constraint to a single distinct model (Petrides, Mason, & Sevdalis, 2011).

3. Research Methodology

The research design of the study is causal comparative. Independent variable in this research is gender with two categories that is male and female school leaders. Dependent variable in the research is emotional intelligence of the school leaders with fifteen facets. Emotional intelligence is assessed through TEIQue developed by Petrides (2009). Population of the study is interested set of subjects for a researcher (Gravetter, Wallnau, & Larry 2016). Population of the study comprises of all the primary school leaders and teachers of Punjab, Pakistan. There are total 36317 primary schools in Punjab. The accessible population to the researcher is all the primary schools of division Gujranwala and there are 1090 primary schools in Gujranwala division with 149609 teachers (Government of Punjab, 2018). According to Fraenkle, Wallen, & Hyun (2011) stated that for descriptive type surveys a sample size of 100 individual is enough. Stratifies with Multi-stage random sampling technique has been used to collect data. At first stage 65 primary schools each from male and female category were selected. Then two

school teachers from each selected school were selected to obtain data about trait EI of the school leader.

Instrumentation
Trait emotional intelligence questionnaire 360° has been adopted in the research. Petrides et al. (2017) has developed multiple forms of the measure for EI that are based on self-report, others' report and 360° degree and is freely available for academic purpose. The scale contains thirty items that are linked to fifteen facets and four major components. For ensuring reliability of the questionnaire, pilot testing was conducted on seventy teachers initially and the Cronbach alpha was found .856 overall. The alpha values are acceptable as Fraenkle et al. (2016) recommends a minimum level of .70 for the Cronbach alpha. Cronbach alpha is appropriate technique of estimating internal reliability when the scoring is multi-chotomous (Linn, 2008).

4. Results and Discussion
This portion deals with analysis of data collected from 260 primary school teachers, 130 each from boys and girls primary schools. The data was collected on five point Liker scale *i.e.* strongly agree, agree, no opinion, disagree and strongly disagree. Table 4.1 shows the values given to responses for data analysis in SPSS are "strongly agree (SA); 5", "agree (A); 4', "no opinion (NO); 3", "disagree (DA); 2" and "strongly disagree (SD); 1". For negatively constructed items these values are reversed in SPSS.

Table 1
Determining the Mean Score and Level of Scientific Attitude

Sr. No.	Range of scores	Judgment
1	1.00 to 1.33	Low level of EI
2	2.34 to 3.66	Moderate level of EI
3	3.67 to 5.00	High level of EI

Table 1 determines the mean score with the level of EI. Three equal groups of mean score ranging from 1 to 5 were formulated. The judgment about level of EI is mentioned against each range accordingly.

Table 3
Male primary school leaders' EI

Facet	Mean	Mean of Mean	SD	Judgment
Happiness	7.80	3.90	1.64	High
Self Esteem	7.26	3.63	2.42	Moderate
Optimisms	7.81	3.91	2.41	High
Self-Motivation	8.20	4.10	1.48	High
Emotion Regulation	7.43	3.72	0.64	High
Low Impulsiveness	7.23	3.61	0.98	Moderate
Stress Management	7.83	3.91	1.33	High
Adaptability	7.44	3.72	1.35	High
Emotional Expression	6.84	3.42	1.74	Moderate
Empathy	7.06	3.53	2.48	Moderate
Emotional Perception	7.04	3.52	0.56	Moderate
Emotional Management	5.60	2.80	1.90	Moderate
Social Awareness	7.23	3.61	1.58	Moderate
Relationships	7.43	3.71	2.44	High
Assertiveness	7.43	3.71	1.44	High

n=130

Table 2 shows the male school leaders' emotional intelligence level in terms of its 15 facets. Happiness (3.90), optimist (3.91), self-motivation (4.10), emotional regulation (3.72), stress management (3.91), adaptability (3.72) and relationship assertiveness (3.71) are found with high level among male primary school leaders. However, self-esteem (3.63), low impulsiveness (3.61), emotional expression (3.42), empathy (3.53), emotional perception (3.52), emotional management (2.80) and social awareness (3.61) are found with moderate level among the male school leaders. Low level of emotional intelligence is not found on any facet. But, the moderate level on certain facets of emotional is of major concern. The following graph displays the findings more clearly.
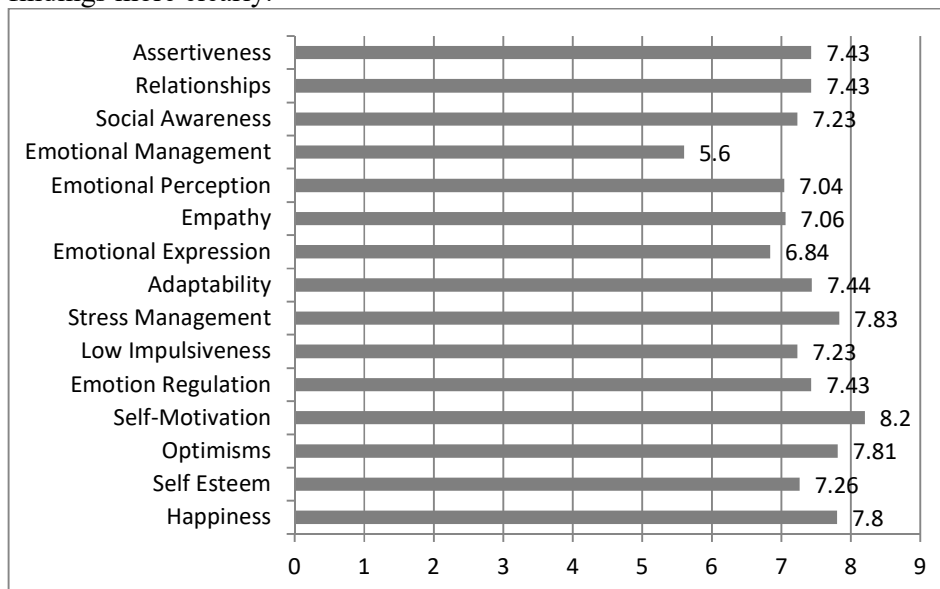

Figure1: **Bar Graph representing Male School Leaders' Emotional Intelligence**

Table 3
Female primary school leaders' EI

Facet	Mean	Mean of Mean	SD	Judgment
Happiness	5.61	2.81	0.67	Moderate
Self Esteem	7.07	3.53	0.78	Moderate
Optimism	7.80	3.90	0.97	High
Self-Motivation	7.07	3.54	0.78	Moderate
Emotion Regulation	7.06	3.53	1.75	Moderate
Low Impulsiveness	4.89	2.45	1.19	Moderate
Stress Management	7.06	3.53	0.74	Moderate
Adaptability	6.36	3.18	0.87	Moderate
Emotional Expression	5.66	2.83	0.84	Moderate
Empathy	6.38	3.19	1.26	Moderate
Emotional Perception	5.63	2.82	1.67	Moderate
Emotional Management	5.63	2.82	1.67	Moderate
Social Awareness	6.38	3.19	1.01	Moderate
Relationships	5.63	2.82	1.67	Moderate
Assertiveness	6.36	3.18	1.22	Moderate

n=130

Table 3 shows the female school leaders' emotional intelligence level in terms of its 15 facets. Only level of optimism among female school leaders is found high. All the other fourteen facets are found with moderate level. However, none of the face is found at low level among female primary school leaders. The moderate level of fourteen facets is found a major issue. The following bar graph presents the facet mean values.
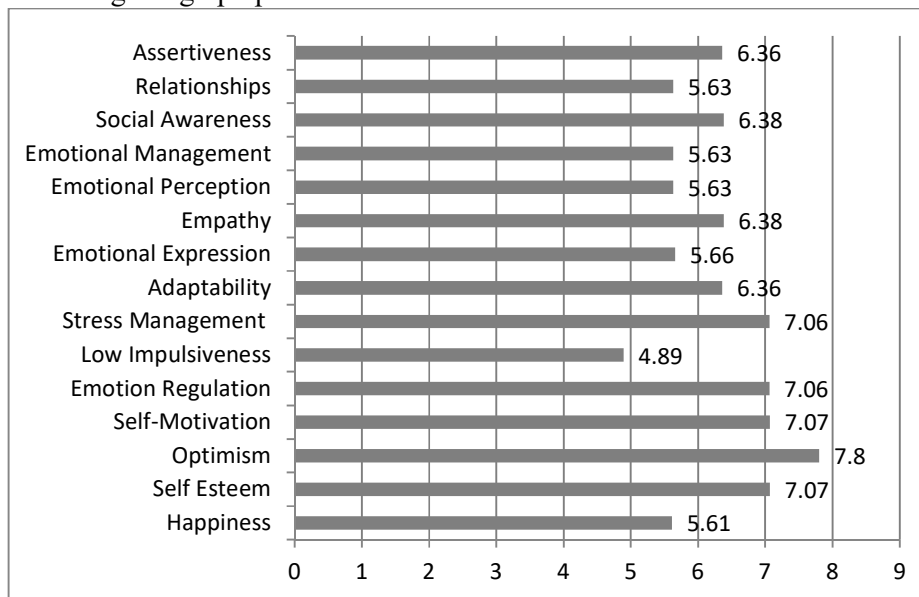

Figure1: **Bar Graph representing female School Leaders' Emotional Intelligence**

Table 4
Comparison of Male and Female School Leaders' EI

Facets of Trait EI	Male		Female			Sig.
	Mean	SD	Mean	SD	t-value	(2-tailed)
Happiness	7.80	1.64	5.61	0.67	6.62	.000
Self Esteem	7.26	2.42	7.07	0.78	0.69	.485
Optimisms	7.81	2.41	7.80	0.97	0.03	.975
Self-Motivation	8.20	1.48	7.07	0.78	4.18	.000
Emotion Regulation	7.43	0.64	7.06	1.75	1.40	.163
Low Impulsiveness	7.23	0.98	4.89	1.19	6.48	.000
Stress Management	7.83	1.33	7.06	0.74	3.01	.003
Adaptability	7.44	1.35	6.36	0.87	3.82	.000
Emotional Expression	6.84	1.74	5.66	0.84	3.51	.001
Empathy	7.06	2.48	6.38	1.26	2.31	.022
Emotional Perception	7.04	0.56	5.63	1.67	4.34	.000
Emotional Management	7.04	1.56	5.60	1.90	4.37	.000
Social Awareness	7.23	1.58	6.38	1.01	2.81	.005
Relationships	7.43	2.44	5.63	1.67	5.65	.000
Assertiveness	7.43	1.44	6.36	1.22	3.70	.000

df=258

Table 4 shows application of independent samples t-test to find out significant difference on fifteen facets of emotional intelligence between male and female primary school leaders. Male school leaders were found significantly better on happiness (t-value= 6.62, sig. =.000), self-motivation (t-value= 4.18, sig. =.000), low impulsiveness (t-value= 6.48, sig. =.000), stress management, adaptability (t-value= 3.01, sig. =.003), emotional expression (t-value=3.82, sig. =.000), empathy (t-value= 2.31, sig. =.022), emotional perception (t-value= 4.34, sig. =.000), emotional management (t-value= 4.37, sig. =.000), social awareness (t-value= 2.81, sig. =.005), relationships (t-value= 5.65, sig. =.000) and assertiveness (t-value= 3.70).
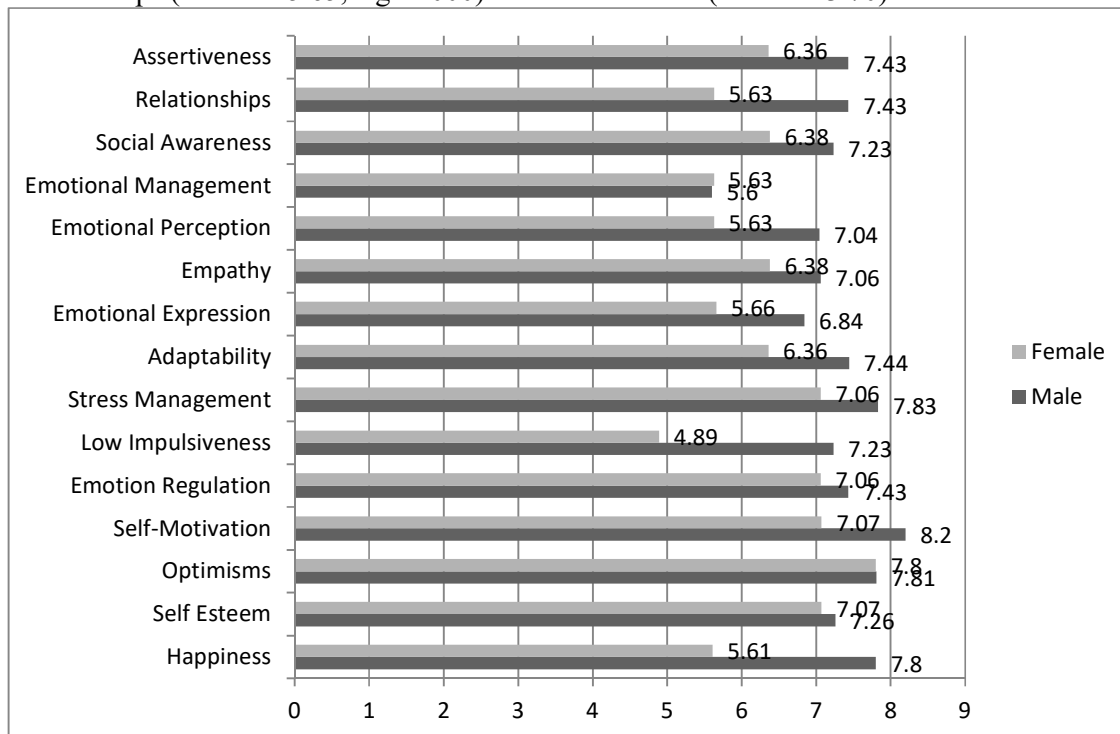

Figure 3: **Comparison of Male and Female School Leaders' EI**

5. Conclusions and Discussion

The purpose of the research was to assess male and female primary school leaders' emotional intelligence. Leadership of an individual is his ability to positively impact others to achieve certain goals (Mihelic, Lipicnik, & Tekavcic, 2010). So, leadership has two basic elements, the first is influencing others and the second is accomplishment of goals. Moreover, according to Northouse (2018), leaders must have ethical traits because of their responsibility to be aware of concerns of the followers, as, Leaders and followers have to work cooperatively for organizational success. Results on male school leaders' emotional intelligence reflect somewhat better results as compared to female school leaders. However, Male school leaders' emotional intelligence is found moderate on self-esteem, low impulsiveness, emotional expression, empathy, emotional perception, emotional management and social awareness. Leaders are regarded as catalyst for change (Brown, 2014) and high level of emotional intelligence is a crucial factor to be an effective and successful leader. Moreover, leadership is reflected through effective followership (Komives et al., 2009). Results revealed moderate level of emotional intelligence its fourteen facets among female school leaders at primary level. The following bar graph presents the facet mean values. Male school leaders were found significantly better on happiness, self-motivation, low impulsiveness, stress management, adaptability, emotional expression, empathy, emotional perception, emotional management, social awareness, relationships, and assertiveness. The school leaders are being selected through a competitive exam and interview that is generally subject-based. Hence, the cause of ineffective school leadership is surely not related to the academic qualification. The possible cause of ineffective leadership can be a low EI level of the school leaders that are considered critical for successful leaders. Cherniss and Goleman (2001) stressed that about 90% of leaders Success is due to his high level of EI. Moreover, Gaur and Gupta (2017) claim that a high level of EI supports the leaders to promote a positive and trustworthy environment in the organization.

Research Implications

Conclusions and discussion presents EI as a major indicator for leadership success and there are many facets of trait EI which are under developed. The situation if ignored may be most directly problematic for the most important element of education i.e. student. Moreover, managerial issues will be miss-managed due to lack of EI among school leaders. The possible reason of this lack may be flaw in recruitment process, professional development programs about development of EI among them. Educational managers, professional development organization and recruitment authorities of the teachers in Pakistan may focus on EI

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