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Linking Self-Efficacy and Emotional Intelligence to Creativity

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Abstract

The study explored the relationship of self-efficacy with emotional intelligence among creative and non-creative people. The sample (N = 400) consisted of 200 creative employees (100 females and 100 males) and 200 non- creative employees (100 female and 100 male) from Multan. Creative Disposition Scale (Mcshane & Glinow (2003), Emotional Quotient Scale (Goleman, 2001), and The General Self-Efficacy Scale (Sherer, Maddux, & Mercandante 1982) were used to measure creativity, emotional intelligence, and self-efficacy respectively. Results indicated that there is a significant positive relationship between self-efficacy and emotional intelligence, and creative employees have higher levels of emotional intelligence and self-efficacy as compared to non-creative employees. Findings suggested that females are more creative and are more emotionally intelligent as compared to males while the findings further reported no gender differences in the level of self-efficacy. It implies that female and male employees have equal levels of self-efficacy.

Keywords: Creativity, Efficacy beliefs, Emotional intelligence, Performance, Cognitive processing, Capabilities

Introduction

People are just not the product of environmental forces or internal psychic mechanism rather they can be viewed as innovative self-regulating and creative beings (Bandura, 1986). Individuals are mostly perceived as active, dynamic, and operative, adjusting themselves to the circumstances as compared to susceptible living beings moulded and directed through circumstantial powers or impelled by hidden inherent forces (Bandura, 1986). Research on the concept of self-efficacy has been derived from social cognitive theory propounded by Bandura (1997). Bandura (1994) is of the view that perceived self-efficacy is likely to affect individuals' beliefs about their abilities to produce desired level of performance. It has been further added that these beliefs determine how people experience, reflect, and motivate themselves. People with high level of self-efficacy than those with low levels of self-efficacy bent themselves highly challenging in tasks and assert firmer consignment to those tasks and destination (Bandura, 1994; 1995).

When the concept of self-efficacy applied to people with creative leanings, can be best described as their belief that they can work with novel changes, solvents, and innovations. They can cause new outcomes and resolutions (Gibson & Dembo, 1984). Competencies and strong sense of self-efficacy is likely to produce environments which are conducive to learning (Bandura, 1995).

In the past researches the focus has always been on emotions as a consequence rather than a cause of self-efficacy (Sutton & Wheatley, 2003). Emmer and Hickman (1991) emphasized the need to conduct a research on the relationship between self-efficacy and emotions. Efficacy beliefs are caused by various sources of information processing (Bandura, 1997) that Bandura termed as Somatic and Emotional states. According to (Bandura, 1997), somatic information is processed by physiological state and emotional states are regulated by person's own perception. Emotional intelligence indicates the ability to which one can understand his/her own and others' emotions (Atkins & Stough, 2005).

Bandura (1997) argued that people can differ in their patterns of thinking, feeling, and behaving in relation to their level of self-efficacy. People with low self-efficacy experience depression, anxiety and helplessness. Their self-esteem is also being adversely affected and their pattern of thought is generally pessimistic about their accomplishment (Schwarzer & Schmitz, 2005). High level of self-efficacy combined with competencies facilitates cognitive processes and performances in different settings that may include effective decision making and

accomplishments. People high on self-efficacy always prefer challenging jobs and are highly innovative and originative (Bandura, 1997). Having trust and assurance in one's quality of being able to perform and to bear and endure ambiguity, help the individual to take initiative in new endures (Baum & Locke, 2004). People with low self-efficacy fail to reach their goals in spite of the skills they have needed to accomplish their goals (Bandura, 2005).

The concept of Emotional Intelligence introduced by Goleman in 1995 postulated that emotional intelligence is much more effective than high IQ. Emotional Intelligence can best be defined as the ability to handle one's own and others' emotions, It doesn't employ being devoid of emotions but how those emotions can be canalized (Salovey & Mayer, 1990).

Research into the area of gender differences (Petrides & Furnham, 2000) accounted that men have greater score on self-measures of emotional intelligence as compared to women because women may have tendency towards self-denial and self-defence on self-report questionnaires. Many other investigators and generators have foster examined the association between gender and emotional intelligence (Barchard & Hakstian, 2004; Perry, Ball, & Stacey, 2004; Schaie, 2001; Van Rooy *et* al, 2005).

Although research investigating the concept of emotional intelligence is in its babyhood, studies at present also demonstrated that individuals who have strong level of intellectual aptitude seem to have healthy life style and emergence, and also found to have clear relationships with their peer groups and blood relations (Brackett & Mayer, 2003). It was also found by the work of Schutte, Malouff, Bobik, Coston, Greeson, Jedlicka, Rhodes and Wendorf (2001) that there is a strong relationship between societal expertise, creativity and emotional intelligence. The individuals who have higher levels of emotional intelligence seems to be more satisfied with their marital life, more gratified towards their work, and show high level of engagement at their work place (Abraham 2000).

Creativity is defined as one of the essential individual attribute. Akinboye (1976) defines that creativity basically encircle the spiritual feelings and the most unfamiliar sign of innovation, which is beneficial for an individual and societal values and mostly includes the emanation of comprehensive occasional concepts that are helpful in resolving individual and societal issues. Simonton (2000) define creativity as an important element for an individual that exhibits enthusiastic performance. Quigley (1998) describe it basically as a capability to give anything

influential and new. Standler (1998) describes a distinction between creativity and intelligence. He was of the view that intelligence is the capability to master, acquire, and imagine, on the other hand creativity is an ability to discover new ideas which have never been worked by any other person before. An assumed example of this concept is that the creative individuals are basically intelligent but the converse is not every time true (Standler, 1998).

Candy and Edmonds, (2000) comment that creative people are ill-famed for dissenting stiff conventional approach. Creative people have the intellectual and rational abilities to synthesize information, analyse ideas, and apply their ideas. When people have a rich base of information and have great experience on the matter, they become more creative. They also have a strong desire to arrogate personal responsibility for their goals and tasks. This need to achieve, along with at least a moderate level of self-confidence, gives creative people the energy to persist in the face of sceptics and setbacks that litter the path to success. Creative people think in novel ways rather than follow set patterns. In other words, they engage in divergent thinking more easily than most other people.

The flow of knowledge and happenings in most of the companies basically depends on how much alternative are provided to the people in organization to manage their tasks particularly when the level of self-efficacy is high and when the information or entropy is of high credibility (McManus, 2005). Creative people flourish in organizations when are with free-flowing communication. Team member improve creativity when they trust each other, communicate well, and are committed to the assigned project. In contrast, creativity is undermined when people criticize new ideas, compete against each other; and engage in political tactics to achieve personal goals.

Based on the available evidence, there is the likelihood that self-efficacy and emotional intelligence may influence creative behaviours in organizations. The issue therefore is: if creativity is so important in organizations, how do we identify factors that are relevant to it and that could predict it among freshly recruited employees? It was hypothesized that emotional intelligence and self-efficacy will be positively correlated with each other, and creative people will have higher levels of emotional intelligence and self-efficacy as compared to non-creative people. Role of gender will also contribute differently towards levels of creativity, emotional intelligence and self-efficacy of people.

Method

Sample

The sample consisted of 400 employees (200 creative; 100 males and 100 females, and 200 non-creative; 100 males and 100 females identified by Creative Disposition Scale by Mcshane and Glinow, (2003). Sample who scored above +5 on Creative Disposition Scale were considered as creative employees and who scored less than +5 were considered as non-creative employees. Their age range was between 29-47 years. They were of different educational levels ranging from graduation to above postgraduation. They were more or less similar with their cultural background. The sample was approached at different organizations including banks, colleges, and N.G.Os in Multan. Convenience sampling technique was used to select the sample.

Instruments

The following instruments were used to collect the data. The relevance of all the scales according to our Pakistani culture was first checked with help from educationists. The scales were then translated into English (from Urdu) by using the back-translation method. Finally, the instruments were administered to a sample of 50 employees to determine the reliability and validity of the scales.

The General Self-Efficacy Scale

General Self-Efficacy Scale (GSE) developed by Sherer, Maddux, & Mercandante (1982) measures the people's beliefs about how competent they are? The scale is designed for the general population of above age 12 years. This is a 5-point scale. It comprises of 17 items, each of which is scored according to the following five categories: Strongly agree = 1, Agree = 2, Neutral = 3, Disagree = 4, and Strongly disagree = 5. For the item no 1, 3, 8, 9, 12, 15, the scoring would be reversed as Strongly agree = 5, Agree = 4, Neutral = 3, Disagree = 2 and Strongly disagree = 1. Total score on all the responses of 17 items range from 17- 85.Cut off score is 34 which implies that higher than 34 scores indicate higher level of self-efficacy. The alpha reliability co-efficient of this scale is 0.88, and validity co-efficient is 0.76.

Creative Disposition Scale

The self-assessment exercise designed by Mcshane and Glinow (2003) was used to estimate the extent to which people have a creative personality. The list is an adjective checklist with 30 words. The students are asked to put a mark beside boxes for words that can accurately describe them. The exercise would be completed alone so that students access themselves without concerns of social comparison. The score may range from -12 to +18. Students who score above +5 are considered as creative people and who score less than +5 were considered as non-creative people. The scale has alpha reliability co-efficient of 0.72, and validity co-efficient of 0.72

Emotional Quotient Scale

The Emotional Quotient Scale developed by Goleman, (2001) was used to measure emotional intelligence. It is a 5-point scale with 12 items. A student can respond by opting "1" for "Strongly Disagree", "2" for "Disagree", "3" for "Neutral", and "4" for "Agree", and "5" for "Strongly Agree". The exercise was completed alone to avoid social pressures. The score may range from 10-60. The scores are obtained by adding the responses to each question Participants who score above 25 are considered as highly emotionally intelligent people. The scale has alpha reliability co-efficient of 0.91, and validity co-efficient of 0.79.

Procedure

The study consisted of two parts.

Part 1

The purpose of part I of the study was to adapt and validate the instruments to be used in main study. The relevance of all the instruments was firstly checked by a sample of 20 educationists. They were asked to examine all the statements carefully and rate which items are relevant to our culture. Analysis of responses revealed that all the statements were fairly relevant to our culture. To translate the original scales, Back Translation Method was adopted. This process of translation was completed into following three steps.

Step 1 (English to Urdu Translation): The bilingual educationists were asked to translate the statements in such a way that Urdu translation of each statement could convey the same meanings as the statements in English do.

Step 2 (Back Translation from Urdu to English): Back translation technique was used as a method of reducing errors and biases in translation. The scales translated into Urdu were given to another bilingual sample. They were unfamiliar with the original versions of the scales and were requested to translate Urdu version of scales into English as much as accurate translation as possible conveying the maximum similar meanings.

Step 3 (Reliability and Validity): The reliability and validity of all scales were determined in this step. All the scales were administered to a sample (N = 50). For the determination of reliability and validity Cronbach's Alpha Coefficient and cross language validity was computed.

Part II

To identify the creative and non-creative sample, several employees taken from different organizations in Multan were given the Creative Disposition Scale. People who scored above +5 were considered as creative people and who scored less than +5 were considered as non-creative people. From this pool 200 creative and 200 non-creative employees were selected. After the determination of the creativity and non-creativity dispositions of the sample, the General Self-Efficacy Scale and Emotional Quotient Scale were given to the creative and non-creative sample to fill out for them. All the participants voluntarily participated in the research and confidentiality was assured to them. After the completion of data collection, the whole data were statistically analysed through the SPSS (Statistical Package for Social Sciences).

Results

The present study was aimed at exploring the correlation between self-efficacy and emotional intelligence among creative and non-creative people. The relationship was also studied with reference to gender. For statistical analyses; Pearson's correlation and t-test were performed to access the findings of the study.

Table 1:

Correlation between Self-efficacy and Emotional Intelligence among creative and non-creative Employees (N =200, 200).

Employees	Variables	Correlation
Creative Employees	Self-efficacy	0.86
	Emotional Intelligence	
Non-creative Employees	Self-efficacy	0.59
	Emotional Intelligence	

Table 1 clearly indicates a significant positive correlation between emotional intelligence and self-efficacy. However the relationship is stronger for creative employees as compared to that of non-creative group.

Table 2:

Differences in the levels of Self-efficacy and Emotional Intelligence of Creative & Non-creative Employees

Scales	Creative Employees (*N*=200)		Non-creative Employees (*N*=200)			
	M	*SD*	*M*	*SD*	*t*	*p*
Self-efficacy	37.14	7.92	31.02	4.61	6.23	0.00***
Emotional Intelligence	29.15	5.47	24.51	2.78	3.26	0.00***

df = 398, ***$p < 0.001$

Table 2 indicates that creative and non-creative employees differ significantly in their levels of emotional intelligence and self-efficacy. It implies that creative employees are more likely to have higher levels of self-efficacy and emotional intelligence when compared to non-creative employees.

Table 3:

Gender Differences in the Creativity, Self-efficacy and Emotional Intelligence of Employees

Scales	Males (*N*=200)		Females (*N*=200)			
	M	*SD*	*M*	*SD*	*t*	*p*
Creativity	5.18	4.52	9.13	3.60	-5.02	0.00***
Self-efficacy	38.52	11.81	36.01	8.85	0.19	0.061
Emotional intelligence	24.15	5.47	32.51	6.78	-2.26	0.00***

df = 398, $^{*}p < 0.05$, $^{***}p < 0.001$, p = ns

Table 3 indicates gender differences in the disposition of creativity and emotional intelligence and self-efficacy. These findings suggest that females are more creative and are more emotionally intelligent as compared to males while the findings from Table 3 further indicate no gender differences in the level of self-efficacy. It implies that female and male students have equal levels of self-efficacy.

Discussion

The main objective of this study was to find out the link between emotional intelligence and self-efficacy among creative and non-creative employees. The findings of the study clearly indicated a significant correlation between emotional intelligence and self-efficacy. The result supports the assumption that emotional intelligence and self-efficacy are positively correlated with each other. With an increase in emotional intelligence, it is observed that there is a significant increase in the levels of self-efficacy. In this way, the present study confirms the connection between emotional intelligence and self-efficacy (Table 1).

These findings are in line with the work of Tschannen-Moran, Woolfolk Hoy, & Hoy (1998) who reported the importance of self-efficacy and its association with a wide range of learning outcomes. Self-efficacy has been shown to influence achievement, attitude and emotional growth. Furthermore, Sutton and Wheatley (2003) suggested that the substantial variation in people efficacy may results in part from variance in people' emotions. As Chan (2004) also found that self-efficacy

beliefs were significantly predicted by the components of emotional intelligence and suggested that differences between people might affect this relationship.

The results are analysed on the basis of the assumptions that creative people usually differ with non-creative ones, those who score low on creativity tests in various domains. The hypothesis of the study, which states that creative people, will have higher levels of emotional intelligence and self-efficacy as compared to non-creative people has been supported in the present study (Tables 3). The findings are in accordance with review literature discussed by Mcshane and Glinow, (2003) who reported that creative people usually differ with non-creative ones, those who score low on creativity tests in various domains. Moreover, creative people are more active, more prone to risks and dangers. They are more capable of manipulating their emotions as compared to non-creative people.

Creative people usually know how to mobilize their motivation, emotions and courses of action needed to successfully execute a specific task within a given context. The self-system allows people to observe and symbolize their own behaviour and to evaluate on the basis of anticipated future consequences. Thus, using these cognitive processes as a reference point, creative people are able to exercise some measure of self-direction or self-regulation as compared to non-creative students who are also characterized by self-directed. But they have all the characteristics to very lower extent.

Results suggested another important and surprising finding of the present study that females have more creative personalities as compared to male students. The assumption of the study that speculates gender differences in the levels of creativity is supported from the findings of the present study (Tables 4). There is a significant difference between males and females in showing their creativity disposition. The result is in favour of the findings of the work of Showers (1992) who explored the differences in the trait of creativity in relation to gender. The acceptance of the hypothesis might be attributed to the fact that higher level of creativity in female students can be explained in a way that females are often faced with more problems as compared to males, this is because of a male dominating society. In response to the daily life situations and in common problems, they think of new ideas to cope with the persisting situations and it helps them to raise their level of creativity.

In the present modern society, there is no discrimination between male and female. Females are no more considered inferior. They have opened new ways for themselves. We may attribute this higher level of creativity in females to the

phenomenon of globalization and advanced information technology, which has made this world a global village. At present, females have more opportunities and more awareness to excel in their careers as well as in their lives as compared to the past times. Besides this, all the female students who participated in this research had modern education and were having much awareness of themselves and the surrounding circumstances. They kept their spirits high in this male dominating society. All these factors contribute them to think about new and novel ideas, to think of unique solutions of problems, and in a way lift up their creativity level. But still it is a new trend regarding our research topic.

The assumption of the study also speculates gender differences in the levels of self-efficacy and emotional intelligence. No detectable gender differences were found in terms of self-efficacy (Table 4). The findings from Table 3 indicated that females and males are equal in their level of self-efficacy. It has been observed that the males usually have higher levels of self-efficacy. But the present results contradict the previous findings. However the findings of the present study are in accordance with, a study using the Teacher Sense of Efficacy Scale (TSES) (Tschannen-Moran, et al. 1998) yielded no significant differences for age or gender as expected. Bandura (1997) also postulated that age and gender would not correlate with efficacy because "there are many pathways through life and, at any given period, people vary substantially in how efficaciously they manage their lives".

Today is an age in which both genders compete with each other in approximately every field. That's why; they work out to get equal to the other partner in each and every dimension. At present, we usually observe that male and females differ from each other in very minor things. And wherever the difference exists, it is so small to be ignored. And the results of the present study are in agreement with the concept discussed above. Self-efficacy means to have confidence in one's self to do a certain task or to handle a specific situation. We can call it self-belief. And the young male and female people have set the self-beliefs very high.

Findings pertaining to gender differences in emotional intelligence also support this notion that females are more emotionally intelligent than males. The results are not in line with previous researches. As Schutte et al, (1998) and Van Rooy, Alonso and Viswesvaran (2005) argued that females have reported significantly higher emotional intelligence than do males. A similar result was found by Atkins and Stough (2005). It can be attributed that males are not considered to be so much emotionally intelligent. Girls are always considered emotionally intelligent

than boys. Perhaps it is a miss-conception. Because boys are more expose to the society. Their bare exposure to the society may add to their experiences and experiences counts much in intelligence. But on the other hand, as discussed earlier, females have more awareness and confidence in the present society. They don't lag behind the males in any field of life. They want to experience all those things that the males of the present society are experiencing. Another study by Perry et al, (2004) also strengthening the present findings that females reported significantly higher emotional intelligence than did males. Other studies show remarkably similar results (Day & Carroll, 2004). Women scored significantly higher than did men on overall emotional intelligence.

Conclusion

Major conclusions of the study are given below.

- Self-efficacy and emotional intelligence is positively correlated with each other
- Creative people have higher levels of emotional intelligence and self-efficacy as compared to non-creative ones.
- Results concerning gender differences indicated that females are more creative, and are more emotionally intelligent as compared to males.
- No gender differences were found in the levels of self-efficacy of the people.

Limitations & Suggestions

While the overall findings of the present research were encouraging, it is important to acknowledge its limitations as well. The sample used in the present research is not large enough to represent the whole population of creative and non-creative people. It is suggested that more researches should be carried out with a larger sample from different areas of Pakistan. The present study indicated only employees in its sample and that's why its findings can be generalized to only working sample with similar conditions. It is suggested that future research should also be conducted with sample other than employees as well, in order to draw comparisons. The present research is only focused on the exploration of gender differences. Other demographic variables are also important. An extensive study is recommended that would focus on age as a variable and thus check the difference that comes due to age gap.

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