

# The Impact of Emotional Intelligence on Employees' Creativity in the Innovation Companies in Jordan

**Jumana M. Sakkijha, Rahmeh M. Hamdan, Tala M. Al-Nabulsi, Basil Alzougool**

King Talal School for Business & Technology

Princess Sumaya University for Technology

Amman, Jordan

[b.alzougool@psut.edu.jo](mailto:b.alzougool@psut.edu.jo)

## ABSTRACT

The aim of this study is to explore the impact of Emotional Intelligence (as measured by Emotional Quotient) on employees' creativity from the viewpoint of employees in three innovative companies in Jordan. A quantitative study (a questionnaire with 211 employees) was conducted in order to achieve the study objectives. The results showed that overall Intelligence and communication have an impact on employees' creativity while emotional self awareness and empathy slightly affect employees' creativity. On the other hand, self-management does not have an impact on employees' creativity. Several recommendations were suggested based on these findings.

**Keywords**— Emotional Intelligence; Emotional Quotient; Emotional Awareness; Self-Management; Creativity

## I. INTRODUCTION

We live in a dynamic world where people change, improve, face challenges, and surrounded by many factors that affect their emotions. Reference [1] stated that Emotional Intelligence (EI) describes the ability to effectively use emotions to facilitate reasoning and reasoning intelligently about emotions. Reference [2, P.5] defined EI as “an awareness of one’s own and others emotions and the ability to control those emotions and influence the emotions of others”. Emotional Quotient (EQ) is the measurement that assesses EI and the ability of a person to understand other people, what motivates them and how to work cooperatively with them [3]. EQ could constantly developed throughout the lifespan [4]. In the past organizations were not prone to develop their employees’ capabilities regarding EI. Nowadays, with the everlasting technological change, organizations would consider their employees’ EI in order to improve their productivity and staff’s creativity and competency [4]. Recently, the concept of EI has been explored and studied based on the science and experience in order to understand the different emotions and abilities that individuals possess [e.g., 4, 5].

References [5, 6] agreed that organizations could enhance employees’ creativity, innovation and help them cope up efficiently with stress, work well under pressure and prepare for organizational change through

boosting their EI and understanding their emotions. Reference [6] stated that lack of EQ could limits peoples mental abilities, their capability to manage things and others and additionally it reduces the skills of thinking outside the box. Therefore, it was agreed that creativity is directly influenced by EQ. Enhancing employees’ creativity would reinforce the organizational goals. For this purpose, reference [5] suggested that organizations should start considering EI in motivating their employees.

Globally, many research studies illustrated the importance of EI and its link to creativity and innovations. For instance, a study of Harvard graduates of business, law, medicine and teaching showed a negative or zero correlation between an IQ indicator through their entrance exams scores and their subsequent career success, moreover, the study showed that there was a positive relation between EQ and career success [3]. Many companies started to pay attention to EQ when they recruited talents or developing the staff’s skills. In Jordan, reference [7] conducted a study that explored the impact of managers’ EI on marketing creativity in the banking sector, and found that there was a positive relationship between being a creative marketer and EI.

However, to the best of our knowledge, examining the impact of EI/EQ on employees’ creativity in the innovation companies in Jordan has largely been overlooked in previous literature. Therefore, this study

represents a humble contribution to the field in general and to the innovation industry in particular. This research therefore aimed to address the following question:

***Does EI (as measured by EQ) impact on employee's creativity in the innovation companies in Jordan?***

The following sub-questions were addressed as well:

- Does emotional awareness impact on employee's creativity?
- Does self-management impact on employee's creativity?
- Does communication impact on employee's creativity?
- Does empathy impact on employee's creativity?

## II. LITERATURE BACKGROUND

EI/EQ refer to the skill and power to know, run, manage, and evaluate emotions. It is the ability to sense, recognize, and effectively apply the power and insight of emotions as a source of human energy [8]. It means being able to relate to others and make things happen. It contains Self-Management, Emotional-Awareness, Social Skills, Empathy and ability to communicate successfully with others [9]. One of the greatest fact about EQ is its ability to be improved [4]. Reference [10] stated that positive mood (by understanding the feelings and control the effect of emotions on our thoughts) increases both the volume of creative output and level of perceived creativity.

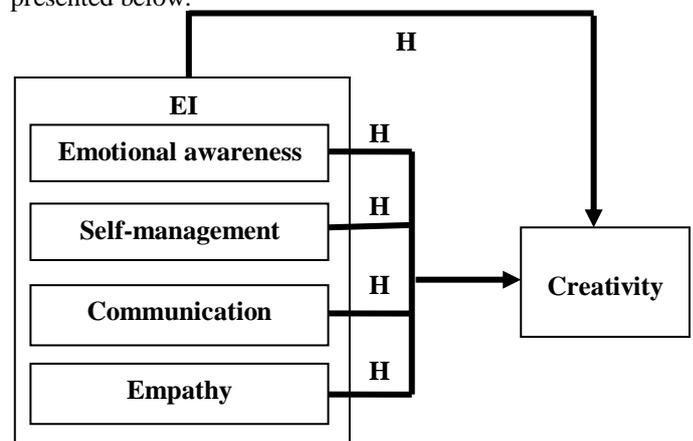
For long time, creativity was allied with writers, painters, musicians, and the artistic professions. Nowadays, creativity became an essential ingredient for entrepreneurship and to meet the needs of the increasing standards of competitiveness in the market. The development of technology and the creation of new business arenas creativity were transitioned into everyday business market [11]. Reference [12, P.17] defined creativity as "the act of turning new and imaginative ideas into reality" and "involves two processes: thinking, then producing". Therefore, it is essential to get rid of the box to boost creativity [13]. According to [12], creativity is an essential part of the innovation equation. It requires a whole-brain thinking; right brain imagination, artistic quality and intuition, in addition to the left-brain logic and planning. A variety of basic approaches were taken to distinguish creativity that should evolve in the organizations. Reference [14] identified four distinct approaches of creativity- the 4 Ps of creativity: Product, Person, Press and Process. Similarly, reference [15] and afterwards [16] identified four factors of creative thinking: Fluency, Flexibility, Originality, and Elaboration.

In regards to the relationship between EI/EQ and creativity, people with high EI/EQ could process their tasks in a better way than others and they have higher ability to solve problems, communicate better

and understand others in the workplace, which ultimately increase their creativity and lead to innovation [11]. High EQ score reflects the ability of utilizing the appropriate skills in certain situation. Therefore, people with high EQ are more competent to understand their emotions and control their behaviors or reactions [11]. Many workplace environments demand creativity and innovation. For this purpose, recruited employees should have a high EQ to increase their ability to regulate their emotions and enforce positive attitudes. EQ could also be an important aspect for people who have the potential to be creative and innovative [17]. Reference [18] stated that increased EI/EQ contributes to greater harmony in workplaces. Therefore, they suggested that organizations should seek employees with high EQ so they could perform better and achieve the organizational goals and strategy to attain the best results. Reference [10] displayed that comfortable work environment would increase the possibility of thinking "outside the box" and healthy discussion among coworkers would lead to enhance their productivity and innovation. Additionally, this tends to contribute to increased creativity and innovative problem-solving approaches [19]. Reference [20] highlighted the components of EI/EQ and their role with the creation of creativity. EQ is influenced by culture and environment, for example [2] examined the cultural influence on EQ. Reference [21] asked managers in an executive MBA program to react to fictional, strategic, and tactical management dilemmas and measured their brain activity using functional magnetic resonance imaging. They found that the strongest strategic performers showed significantly less neural activity than those whose brain activity was most associated with 'gut' responses, empathy, and emotional reasoning.

## III. RESEARCH MODEL AND HYPOTHESES

Based on the literature review and to fill the gap in the literature, we have developed a research model to guide us in this study. This model uses a combination of four EI/EQ variables that might impact on creativity. The model is presented in Figure 1. A short discussion on each factor is presented below.



**Figure 1.** Illustration of the research model

Emotional awareness is to know who exactly you are, to have a clear perception of your personality, your strength, weakness, beliefs, and thoughts. It measured by the self-awareness of emotions, listening to insight emotions, knowing and names the feelings at the moment, adapted from [22]. Being emotional awarded will help us to understand others better and to control our response to any situation, change our thoughts to fit for the society that will lead us to change the perceptions in our mind, and finally change our emotions. Therefore, the more an employee emotionally aware of him/her self the more he/she is likely to be creative. Based on the discussion in literature review section, we hypothesize that *emotional awareness has an impact on employee creativity* (Ha).

Self-management helps us to set our goals, manage the time, monitor and direct the aspects of tasks we must be dedicated to. Effective self-management can help us to avoid daily stress and provide greater opportunities in our life measured by strengths and weaknesses from others as a basis for self-improvement, improving to be self-disclosing to others (i.e. to share my beliefs and feelings). Moreover, self-management is the ability to monitor, control, and manage everything in our life then we can create more opportunities to come up with something new. Measured by strengths and weaknesses from others as a basis for self-improvement. This tool was adapted with assistance of a specialized physiologist. Therefore, the more an employee self-manges him/her self the more he/she is likely to be creative. Based on the discussion in literature review section, we hypothesize that *self-management has an impact on employee creativity* (Hb).

Communication is the process of transferring information from one person to another; it involves sender, message, receiver and feedback. Effective communication happens when the receiver understand the exact information (context of the message) that the sender intend to transmit (encoding the text), then the receiver decoding the text replying by a feedback. Measured by anticipating and predicting possible causes of confusion, when people talk trying to, see their perspectives. This tool was adapted with assistance of a specialized physiologist. Therefore, the more an employee communicates with others the more he/she is likely to be creative. Based on the discussion in literature review section, we hypothesize that *communication has an impact on employee creativity* (Hc).

Empathy is to understand the other person's feelings and being able to actualize the importance of certain incidents on their lives. It is the power of entering to others feelings and sense how they feel. This tool was adapted with assistance of a specialized physiologist. Therefore, the more an employee empathies with others the more he/she is likely to be creative. Based on the discussion in literature review section, we hypothesize that *empathy has an impact on employee creativity* (Hd).

Creativity starts with the process of thinking "outside the box", unusual thoughts and to see things in different way than others. Creative people have clear interaction between their left and right brains, they stimulates their brain and expose it to different situations and try to stretch the situation and expand their creative powers to solve an issue [4].

#### IV. METHODS

For the purpose of this study, a survey of the three companies namely KADDB, Kharabeesh, and iPark in Jordan was conducted. These companies represent three different sectors and all of them have "innovation" as a core component in their operations. The main method of data collection was a questionnaire which was distributed to a sample of employees in the three companies. The target population for this study is all employees in the three companies. The study sample consisted of various kinds of employees (e.g. technicians, engineers, stand-up comedians, animation creator, and scientific innovators in the field of medicine, and other heavy industries). A short description of each surveyed company, number of population and the sample is provided in Table I.

The survey items were adopted from EQ Map Questionnaire [23]; an instrument that was extensively researched, statically reliable and tested on an employee workforce in the United States and Canada. Some modifications were added to suit the context of this study. Section A in the survey relates to the employees profile such as (Gender, Age, educational level) and Section B includes the items used to measure the four factors of EI/EQ (Emotional awareness Self-management, Communication and Empathy) that might influence creativity. Section C includes the items used to measure creativity. A four-point response scale (1 = strongly disagree/never/not at all/ to 4 = strongly agree/always/very often) depending on the variable was used.

**TABLE I.** A SHORT DESCRIPTION OF THE PARTICIPATING COMPANIES

The companies	Short Description	Employees	Sample
King Abdullah II Design and Development Bureau "KADDB"	an independent government entity within the Jordan armed forces (JAF) that aims to be the globally preferred partner in designing and developing defense products and security solutions in the region	200	166
Kharabeesh	a Jordan based company that produces animated cartoons, music videos and talk shows that discuss political issues, social issues, personal issues; their mission is "to be a leading creative production, technology and publishing company for the new media platforms in the region and worldwide"	40	25
iPark	a Jordan based technology incubator and a semi collage that incubate the Jordanian innovators to protect and develop their inventions from all fields of studies. It was established in 2003 and owned by the Higher Council on Science and Technology, which is presided over by Prince Al- Hassan.	30	20

The questionnaire was tested by a specialized physiologist and necessary alterations were made. The survey was distributed through a personal visit by the first three authors. The participants were explained the purposes of the study and asked to complete the surveys. In all, 211 surveys were administered to employees in the three companies in Jordan. All the 211 surveys were returned and usable for this study.

**V. DATA ANALYSIS AND FINDINGS**

This study aimed to explore the impact of EI/EQ on creativity, from the perspective of employees in innovation Companies in Jordan. The data obtained from the study were analyzed through various techniques in SPSS 15.0 program. The descriptive statistics (mean and standard deviation) were used to identify the current state of EI/EQ of employees and their creativity. Simple linear and multiple regression and Pearson correlation were used to assess the impact of each factor on creativity considered in this study. Table 1 illustrates the mean (*M*) and standard

deviations (*SD*) of the employees' current state of EI/EQ and creativity in the innovation companies in Jordan; the following scale is used to facilitate reporting the employees' results:

- High emotional quotient: Calculated mean ( $M > 3.33$ ).
- Medium emotional quotient: Calculate mean ( $2.68 > M < 3.33$ ).
- Low emotional quotient: Calculated mean ( $M < 2.67$ ).

Table II clearly illustrates that the current state of the four dimensions of emotional quotient (Self-Management, Emotional self-awareness, empathy and communication) was high, however communication was the highest ( $m= 3.43$ ) and emotional self-awareness was the lowest ( $m= 3.40$ ). The table also shows the mean of the overall EQ value of (3.40), indicating that employees at the innovation sector in Jordan is high emotional intelligent. Moreover the current state of creativity was high too.

**TABLE II.** MEAN AND SD OF THE VARIABLES IN THE STUDY

Variables	N=211	
	Mean	SD
Self-Management	3.38	.194
Emotional Self Awareness	3.40	.214
Communication	3.43	.193
Empathy	3.39	.222
Overall EQ	3.40	.142
Creativity	3.33	.214

Table III shows the simple or multiple linear regressions results for the impact of EI/EQ on employees' creativity from employees' point of view. Pearson Correlation was also used (Table IV). As shown in the two tables there is a significant relationship between overall EI/EQ and creativity at  $p=0.000$ . Also Pearson correlation = 0.354 reflects moderate and positive relationship between the two variables. This means when emotional intelligence increases, creativity increases. There is also a relationship between communication and creativity at  $p=0.014$ . This means when communication increases, the creativity increases. In contrast, there is no relationship between self-management and creativity. This means regardless of the self-management level it did not effect on the creativity of the employees. There is a slightly significant relationship between empathy and creativity at  $p=0.061$ . There is a relationship between Emotional Self Awareness and creativity at  $p=0.082$ . However these two results needs more investigation.

**TABLE III.** A SUMMARY OF THE IMPACT OF THE FOUR DIMENSIONS OF EI/EQ ON CREATIVITY

EI/EQ Dimensions	B	Beta	t-test	P value
Self-Management	.044	.040	.605	.546
Emotional Self Awareness	.124	.124	1.745	.082
Communication	.203	.184	2.470	.014
Empathy	.142	.148	1.881	.061
Overall EI/EQ	.531	.354	5.469	.000

**TABLE IV.** PEARSON CORRELATION BETWEEN THE FOUR DIMENSIONS OF EI/EQ AND CREATIVITY

EI/EQ Dimensions	Correlation Coefficient	P value
Self-Management	.109	.116
Emotional Self Awareness	.235	.001
Communication	.292	.000
Empathy	.293	.000
Overall EI/EQ	.354	.000

#### Summary of findings:

- Communication is the main factor that affects creativity (Hc accepted)
- Emotional self awareness and empathy slightly affect creativity (Ha and Hd partially accepted)
- Self management does not affect creativity (Hb rejected)
- Overall emotional intelligence impact on creativity (H accepted).

#### VI. DISCUSSION

According to the results of the study the employees in the innovation sector in Jordan reported they are emotionally intelligent ( $m=3.40$ ), therefore the innovative employees have potential to emotional intelligence, moreover the communication was the highest ( $m=3.43$ ), while self management was the lowest ( $m=3.38$ ). On the other hand, the creativeness of employees in the three companies was high ( $m=3.33$ ).

Various statistical analyses were employed to examine if there is a relationship between emotional intelligence and creativity. As presented in the results section, the overall emotional intelligence has an impact on creativity. There also was a relationship between communication and creativity at  $p=0.014$ . That means when communication increases, the creativity increases. therefore communication is a tool to enhance employees' opportunities of getting higher in the hierarchy and the structure of the company so they can get new opportunities and promotion. communication is also the basic tool to communicate and transfer your thoughts and ideas clearly. In contrast, there was no relationship between self-management and creativity. This means regardless of the self-management level it did not effect on the creativity of the employees. Self management helps

employees to manage their selves and manage others, manage their own behaviors.

Moreover, there were slightly significant relationships between both empathy and creativity at  $p=0.061$  and between emotional self awareness and creativity at  $p=0.082$ . Emotional self awareness helps employees to know your emotions exactly and understand others emotions, beliefs, and thought. Empathy helps understanding each other, and feeling with others.

#### VII. CONCLUSION AND RECOMMENDATIONS

The problem of this study is that there was little research that explores the EQ in the employees. In this study therefore a survey was conducted to investigate the employees EQ and how it would affect their creativity.

The findings of this research indicated that there is a positive and significant correlation between EQ and creativity. In other words, EQ has positive and direct influence in performance of employees in creativity and innovation. EQ components can predict employee's level of potential creativity since the analysis showed that the whole means were between medium and high. High means they are already emotional intelligent but medium means they are fully potential to be high by a small training. Furthermore, it could predict the emotional skill set which is a core element for effective relations, better decision making, increasing efficiency, potential capability, and inventing solutions for difficult problems.

Emotions and feelings must be taken into consideration when dealing with creativity and further innovation. Again, emotional intelligence is one part of the wholeness of intelligence and creativity. In a way, it starts with a person's self awareness of his or her feelings and could be expanded to include the surrounding environment.

In conclusion, this research reflects the possibility of advancing creativity at the workplace and the performance of employees through enhancing their emotional intelligence. EQ is a dynamic factor could be enhanced by fostering one or more of personal and emotional skills.

In light of the above results, the research team suggest the following recommendations: KADDB Kharabeesh and Ipark could work on enhancing their employees' communication skills which would increase their creativity. All the three companies should pay attention to the set of emotional skills when they asses the employees performance. It is recommended that emotional intelligence and creativity should be taught, facilitated and assessed as a separate course, starting in the educational systems. Managers could encourage the culture of creativity and emotional intelligence values. These values should be recognized and rewarded. Working environment should be rich in team spirit, tolerance of the mistake caused by creative tendency of emotional sensitivity. In order for any organization to

succeed and prosper, it should consider EI during their hiring process, staff orientation and ongoing training and capacity building.

## REFERENCES

- [1] Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey, & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 3–34). New York: Basic Books.
- [2] Moore, G. (2007). *Emotional Intelligence, Creativity and Innovation*. Hawthorn Victoria: The E Zone.
- [3] Akers, M. and Porter, G. (2007). What is Emotional Intelligence (EQ)? *Psych Central*. Retrieved on April 30, 2014, from <http://psychcentral.com/lib/what-is-emotional-intelligence-eq/0001037>
- [4] Goleman, D. (1998). *Working with Emotional Intelligence*. New York: Bantam.
- [5] Goleman, D. (1995). *Emotional Intelligence: Why it can matter more than IQ?* New York: Bantam.
- [6] Zhou, J., & George, J. M. (2003). Awakening employee creativity: The role of leader Emotional Intelligence. *Leadership quarterly*, 14, 545-568.
- [7] Hashem, T. N. (2010). Impact of managers Emotional Intelligence on marketing. *Innovative Marketing*, 6 (3), 78-86.
- [8] Wall, B. (2007). *Coaching for emotinal intelligence*. New York: AMAKOM
- [9] Bar-On, R. (2006). The Bar-On model of emotional-social intelligence (ESI). *Psicothema*, 18 , suppl., 13-25.
- [10] Langley, S. (2011). The impact of emotions on creativity thinking: can inlueced mood change peoples' level of creativity? *Director*, 12.
- [11] Neale, S., Spencerarnell, L. and Wilson, L. (2009). *Emotional Intelligence Coaching* (eBook). Kogan Page Publishers.
- [12] Naiman, L. (2008). *Creativity at work*. New York.
- [13] Sawyer, k. (2013). *Thinking In New Boxes*. Retrieved from <http://keithsawyer.wordpress.com/category/enhancing-creativity/>
- [14] Sternberg, R. J. (1988). *The Nature of Creativity: Contemporary Psychological Perspectives*. New York: Cambridge university press.
- [15] Torrance, E. P. (1966). *Torrance tests of creativit thinking*. New Jersey: ETS, Prenceton.
- [16] Sharma, R. (2006). *Emotional Intelligence and Creativity*. 1-5.
- [17] Crommelinck, M. (2010). How Emotional Intelligence can influence creativity. Retrieved from <http://www.vigorinnovation.com/how-emotional-intelligence-can-influence-creativity>
- [18] Olatoye, R. A., Akintunde, S. O., & Yakasai, M. I. (2010). *Emotional Intelligence and Creativity*. *Ejrep*, 4-5.
- [19] Cherniss, C. (2001). *EMOTIONAL INTELLIGENCE AND ORGANIZATIONAL EFFECTIVENESS*. Retrieved from <http://mtpinnacle.com/pdfs/EMOTIONAL%20INTELLIGENCE%20AND%20ORGANIZATIONAL%20EFFECTIVENESS.pdf>
- [20] Jerus, B. (2013). *Creativity & Emotional Intelligence*. Success Dynamics.
- [21] Gilkey, R., Caceda, R., & Kilts, C. (2010). When Emotional Reasoning Trumps IQ. *Hravad Business Review*, p. 2.

[22] Cooper, R., & Sawaf, A. (1996). *Emotional Intelligence in leadership and organizations*. New York: Berkley publishin group.

[23] Cooper, R.K. (1997). *EQ map questionnaire: Mapping your emotional intelligence : an integrated EQ assessment & individual profile*. Q-Metrics; Version 4.5 edition, 18 pages..