



THE RELATIONSHIP BETWEEN A PROJECT MANAGER'S SELF- PERCEIVED LEVEL OF EMOTIONAL INTELLIGENCE AND PSYCHOLOGICAL CLIMATE, AS PERCEIVED BY PROJECT TEAM MEMBERS

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Abstract

Projects in organization involves deadlines that, usually speeds up time and intense all communications in team, that require from manager's to handle stress, manage differences among team, deal with changing requirements, manage conflicts and build the relations. Project manager's work can cause reputation of organization (Kirkland, 2011; Sadri, 2012) and underlines importance of human side in project managers' work and success (Cooke-Davies, 2002). Emotional intelligence is recognized to be a good tool for communication and for dealing with personal stress (e.g., Butler and Chinowsky, 2006), determining job performance (Goleman 1995, 1998) and manager's emotional intelligence create a positive climate (Klem, & Schlechter, 2008; Momeni, 2009).

The aim of this research is to study the relation between the project manager's emotional intelligence and the project team members perceived supervisory support and wiliness to involve. Sample – sixty project managers were invited participate in research, they fill newly developed emotional intelligence measure (by authors), project team members: supervisory support and involvement scales from Organizational climate measure (Patterson, et al., 2005).

Results show association between project manager's emotional intelligence factors and project team members perceived supervisory support and involvement.

Implications, limitations and advices for future research is provided.

Key words: *psychological climate, supervisory support, involvement, emotional intelligence; organizational climate.*

JEL code: M1

Introduction

Emotional intelligence is recognized to serve a number of important psychological functions in a different circumstance, e.g., leadership because of ability to influence others emotions and get the desirable responses (Goleman, 1998), reduces stress (e.g., Butler and Chinowsky, 2006), determining job performance (Goleman 1995, 1998) and manager's emotional intelligence create a positive climate (Klem, & Schlechter, 2008; Momeni, 2009).

Projects in organization involves deadlines that, usually speeds up time and intense all communications aspects in team that underlines importance of human side in their work (Cooke-Davies, 2002) and they do communicate most of project time (Strohmeier, 1992). From project manager's requires stress tolerance and manage team different opinions, conflicts, build the relations, etc. Project manager's work can cause reputation of organization (Kirkland, 2011; Sadri, 2012).

In some research emotional intelligence importance for project management was proved (Butler & Chinowsky, 2006; Mullar and Turner, 2007; Sunindijo et al, 2007). In communication, especially intensive as it in projects, important for a team member to understand the emotions of other, and lack of, will destroy positive and supportive communication that in turn makes it difficult to reach the goals of the project. Team members



under control of manager's with higher emotional intelligence, come up with more creative ideas (Sunindijo & Hadikusumo, 2013), with more effort (Cacamis & El-Asmar, 2013).

This research focuses on finding the relation between a project manager emotional intelligence and their subordinate's perceived managerial support and involvement.

Emotional Intelligence

There are many definitions of emotional intelligence, but in general: the ability to regulate and manage emotions will make people more intelligent (Brackett, Rivers, Shiffman, Lerner, & Salovey, 2006). Mayer, Salovey, Caruso, and Sitarenios (2001) defined emotion as "an organized mental response to an event that includes physiological, experiential and cognitive aspects..." (p. 233). Sternberg (1984) defined intelligence as "purposive selection and shaping of and adaptation to real-world environments relevant to one's life" (p. 312). A review of the various definitions of emotional intelligence found that there are common elements including the use of problem-solving, coping with demands, the understanding of one's self, and the ability to develop relationships (Bar-On, 2006; Barchard, 2003; Low et al., 2004; Mayer & Salovey, 1997). Low et al. (2004) defined emotional intelligence as "a learned ability to identify, experience, understand, and express human emotions in healthy and productive ways" (p. 9).

There are three major models of emotional intelligence: ability, integrative, and mixed-model or trait (Mayer et al., 2008):

1) Ability models focus on one emotional and mental capacity, such as emotional perception, emotion-facilitated thinking, emotional reasoning, or emotion management (Mayer et al., 2008). The researchers of these models consider only one specific element of emotional intelligence and how it is developed. Therefore this model is very specific and narrow. It doesn't provide a comprehensive picture of emotional intelligence.

2) Integrative models represent emotional intelligence as a cohesive, global ability integrating at least two abilities (Davies, Stankov, & Roberts, 1998; Mayer et al., 2008). Most frequently found in literature are the following two integrative models: A) Izard's model of emotional knowledge (1993) focused on emotion perception and labeling also known as EPL. A person with emotional knowledge is able to express and label emotions as well as understand the functions of such emotions. Such person changes his behaviour based on emotional motivation and arousal. The perception of emotion is a cognitive function. Therefore the person can label and make meaning of that emotion in social contexts (Izard, 2001). High emotional knowledge means the person's ability to accurately perceive, label, and utilize the emotions of himself/herself and others. According to this model understanding of emotions helps people to adapt and change. B) A second integrative model is the 4-Branch Ability model developed by Mayer, Salovey, and Caruso (2004). This model examines the ability of a person to understand his/her emotions and to deal with other people on four levels (branches). The first level/branch is the ability to perceive emotions and express emotions accurately. Perception of emotions means the observation and interpretation of both verbal and non-verbal cues and is basis for further emotional development. This leads to the second level of competence that is the ability to generate and access feelings during facilitation. For example, an individual interprets the non-verbal cues during presentation and uses emotions to generate sympathy. This is the high second level emotional intelligence (Mayer et al., 2001). In this model, every competency depends on the competencies developed previously. Development and competences forms hierarchy of



levels. The third level of the 4-Branch Ability Model (Mayer et al., 2004) is when an individual understands emotions within themselves and the emotions of others, so called the understanding emotions competency. This means that person with developed third level of emotional intelligence is able not only to interpret the physical and emotional cues, and generate feelings, but also to empathize with others. It is considered the person has reached the fourth level when a person has developed the ability to manage emotions. A person with this competency of emotional intelligence is able to control emotions in various situations to interpret others' emotions to come to the best solution for the group. This person does not allow his/her feelings to overwhelm and influence decisions. A person with a high emotional management competency is able to perceive, facilitate, and understand the emotions within him/her and the group, without letting those emotions control the situation. This integrative model illustrates the concept of emotional intelligence as a developmental exercise, with each branch building upon previous abilities. Therefore, these integrative models show that in order to become more emotionally intelligent person the one should develop different branches/competencies/areas.

3) Mixed-model approaches provide a broader definition of emotional intelligence including abilities, emotional and social behaviors, and aspects of personality theory (Mayer et al., 2008; Zeidner, Matthews, Roberts, & MacCann, 2003). Wang, Young, Wilhite, and Marczyk (2011) constructed a model based on four emotional component areas including self-awareness, empathy, self-management, and interpersonal relationship skills. These components are seen as a process of development on several levels. The first level is about development of self-awareness; the ability to observe one's own behavior and be aware of how one's emotions influence one's behavior. Next is empathy, the ability to understand another's emotions. The third level is self-management, where person uses self-awareness and empathy to actively manage one's emotions both personally and in social interactions. Finally, a person develops interpersonal relationship skills as an extension to the self-management skill. Specifically, an emotionally competent person would be able to have productive relationships and interactions during emotionally-charged situations. It is considered that these competencies can be developed through social and educational environments. This model was very closely aligned to integrative models (Izard, 1993; Mayer et al., 2004), however mixed-model approaches include a process or hierarchy of development. Petrides and Furnham (2000) defined Mayer's Four-Branch model as an ability-model focused on cognitive emotional ability. Petrides and Furnham (2000) divided models of emotional intelligence into only two categories: ability/information-processing or trait. Trait emotional intelligence is concerned with the development of emotional behaviors such as empathy, assertiveness, and optimism, which are personality variables. Trait emotional intelligence considers emotional intelligence as a personality trait that fits within the Five-Factor Model of Personality. Some of the personality traits that are directly related to emotional intelligence include adaptability, assertiveness, emotional appraisal and expression, self-esteem, and stress management. This mixed-model approach is a departure from other theories as Petrides and Furnham (2001) place emotional intelligence as a trait within personality as opposed to a separate construct. A seminal mixed model of emotional intelligence was developed by Reuven Bar-On (2006). It consists of five social and emotional competencies that individuals can develop to increase his/her emotional intelligence. Bar-On (2006) defined emotional-social intelligence as "a cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands." (p. 14). One competency is intrapersonal skills. It means the the ability to understand oneself, be aware of strengths and weaknesses, and to express emotions accurately. The next competency is the



person's ability to understand others' emotions and work cooperatively in a group. The third competency is the ability to manage one's stress level in regards to emotions. A person who possesses stress management ability can regard emotions objectively and keep them from influencing decisions and outcomes. A person with low emotional intelligence when stressed tends to be over-emotional and allow emotions to influence decisions and relationships. A person having high emotional intelligence in this competency can cope with stress in a healthy way and control emotions. The fourth competency in this model is adaptability. A person able to adapt to each situation and social group will be more successful in the workforce. Development of quick-thinking and decision making with regard to emotions, but not because of emotions will lead to high emotional intelligence. Finally, Bar-On (2006) believed that a person who developed high emotional intelligence would also have a strong sense of psychological wellbeing. In this regard, the final competency is general mood, including optimism, happiness, and self-motivation. The Bar-On model is one of the most cited and researched models of emotional intelligence and provides a comprehensive definition and explanation of the competencies that can be developed to increase a person's ability to adapt and handle different emotional situations (Leedy & Smith, 2012; Mayer et al., 2008; Reiff, Hatzes, Bramel, & Gibbon, 2001; Sparkman et al., 2012).

Psychological climate: managerial support and involvement perceived by subordinates

Managerial support is a part of psychological climate. Psychological climate, in general, refers to the shared perceptions by the members of an organization of the types of behavior and actions that are rewarded and supported by the organization's policies, practices, and procedures (Schneider, 1990). Some scholars distinguish organizational climate, referring to organizational attributes in a collective description of organizational practices and procedures, from psychological climate, pertaining to individual attributions in describing the same environment (James and Jones, 1974).

Climate as the recurring physical environment includes all factors in the organizational situation to which the employees react. These reactions, in the form of behaviors, attitudes, and emotions, create the climate. The people as well must be regarded as part of the organizational situation. Employee A is an environmental factor influencing employee B and vice versa. Thus, the interaction between employees is an important feature of the climate. At the individual level of analysis, the concept is called psychological climate. At this level, the concept of climate refers to the individual perceptions of behavioral patterns. When aggregated, the concept is called organizational climate. These are the objectively shared perceptions that characterize life in the organization (Isaksen, et al., 2000; Schneider, 1975).

Others state that both kinds of climates are based on perceptions what individuals get from their environment which they believe to be factual and intersubjective (Joyce and Slocum 1982). Psychological climate possesses measurable, enduring qualities, which influence the behavior of individuals in the organization (Field and Abelson, 1982). Being aware of organization's climate is important as it allows one to understand an individual's behavior so that he or she can be managed effectively and efficiently (Tustin, 1993).

To measure psychological climate scholars have identified a variety of overlapping dimensions, which, according to Litwin and Stringer (1968), include the following features: (1) *structure* (perception of formality and policies in the organization), (2) *challenge* (perception of challenge and opportunity for sense of achievement), (3) *reward and support* (focus on positive



reinforcement rather than punishment), and (4) *social inclusion* (sociability, belonging, and group membership). Campbell *et al.* (1970) suggest: (1) *autonomy/control*; (2) *degree of structure*; (3) *rewards*, and (4) *consideration, warmth and support*. As can be seen, Supervisory support is a constant feature that has been incorporated into the newest measures (Kopelman, Brief and Guzzo, 1990; Patterson *et al.*, 2005), that is why it has been chosen for this research. The other reason is that this research is focused on emotional intelligence effects in communication, and perceived supervisory support can only occur in leader-follower communication. Providing subordinates support through a positive, constructive and helpful attitude, managers keep in mind and convey the organizational goals that they want to reach. Supervisor support can be defined as the degree to which supervisors value subordinates' contributions and care about subordinates' well-being (Kottke & Sharafinski, 1988). Several scholars have suggested that supervisor support may enhance employees' job satisfaction. For example, Eisenberger and Rhoades (2002) stated that supervisor support may increase employees' job satisfaction through the mechanisms of satisfying employees' socioemotional needs, raising employees' performance – reward expectancies, and signaling the availability of needed help.

The relationship between leader emotional intelligence and psychological climate

Leader plays important role in psychological climate model (Field & Abelson, 1982). Support provided by managers as leaders is based on a positive, constructive and helpful attitude towards their subordinates in order to reach organisational goals. House, 1989 (cited in Cilliers & Kossuth, 2002) conceptualises managerial support as information support, appraisal support, instrumental support and emotional support. The way the above organisational climate dimensions are managed, as well as the quality of the leadership style of the manager, would therefore, influence the organisational climate. The leader influences the psychological climate by his/her managerial behaviour and leadership pattern, rewards and controls. Leadership involves both rational and emotional sides of human experience as people think, feel, hope and dream differently (Hughes, Ginnet & Curphy, 2002). Due to this fact, leaders use rational and/or emotional techniques to influence followers and should weigh up the consequences of their actions. Leader applying emotional intelligence should distinguish which technique to use, to ensure the desirable psychological climate in the follower.

Aim of the study

The aim of this study was to examine the relation between the project manager's emotional intelligence and project team members' perceived supervisory support and involvement.

Hypothesis

A direct positive relationship exists between the project manager's emotional intelligence and project team members' perceived supervisory support and involvement.

Method

Participants. Two sources of data were collected, from project managers and their subordinates.

Project managers: all together 60: females (n = 35, age M – 36,3, SD – 8,07) and male participants (n = 24, age M – 34,5, SD – 7,8).

Subordinates: data on the psychological climate were collected from 195 employees, approximately 3 to 4 from each unit, females (n = 107 age, M=35,45; SD=12,10) and males (n =



88, age $M=36,18$; $SD=11,76$). Managers vary from three to five years of experience to held position.

Organizations: In research, include 36 organizations, one until four project groups was chosen for inclusion in this study. All of the companies were located in Riga, the capital of Latvia.

Procedure. First, organizations were selected from address book, and asked for participation in research by telephone with short explanation of focus – psychological climate with motivation to give feedback of results in it.

Two sorts of data were combined: first, in organization selected project manager completed the emotional intelligence questionnaire. Second, after project manager complete questionnaire, his(her) subordinates was asked to participate in research, after agreed, completed Organizational psychological climate measure scales – the supervisory support and involvement. Data from subordinates, belongs single unit was calculated by Cohen's kappa coefficient of agreement.

Measures

Develop new emotional intelligence measure. Emotional intelligence measure (Bar-on, 1997) was adapted to Latvian, but factorial structure is somewhat different from original and some scales have low Cronbach's alphas that appeared in different research and adaptations (for review Roze, 2013). Original Emotional intelligence measure (Bar-on, 1997) was restructured (some statements taken out and some added), added some extra scales that is known as important for emotional intelligence (Use of emotions to facilitate performance, Understanding of others, Emotional stability, Influence others emotions). Participants responded to 97 items of the emotional intelligence measure on a 5-point Likert-type scale ranging from "strongly disagree" to "strongly agree". Structure of measure was checked and prove to be sufficient (Factorial analysis varimax rotation used) and Cronbach's alphas is satisfied (from, $\alpha = .72$. for Self-regard and $\alpha = .86$ for Well-being).

Organizational Climate Measure (OCM) was developed by Patterson with colleagues (2005), and was translated and adapted for the Latvian population by J.Roze (2010). OCM consists of 82 items with 17 items per scale, each of which was rated on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). It assesses the psychological climate in a social unit by means of the following two scales –Supervisory Support (SS) (consisting of 5 items, $\alpha = .85$, example: "Supervisors here are friendly and easy to approach") and Involvement (I) (consist 6 of items, $\alpha = .86$, example: "Management involve people when decisions are made that affect them").

Results

To answer on hypothesis, was made correlation between the project managers' emotional intelligence and their subordinates' perceived Supervisory support and Involvement scales.

Some guidelines how to analyse level of correlation coefficient do exist (Cohen 1988): 1) Small ($r = +/-0,10$ to $+/-0,29$), 2) Medium ($r = +/-0,30$ to $+/- 0,49$), 3) Large ($r = +/-0,50$ to $+/- 1,00$).



As we can see (see 1 table), the relationship between emotional intelligence scales and Supervisory support and Involvement scales do exist. Subordinates' perceived supervisory scale correlates with Emotional Self-Awareness ($r = .54, p < .01$), Independence ($r = -.16, p < .05$), Interpersonal Relationship ($r = .24, p < .01$), Empathy ($r = .35, p < .01$), Social Responsibility ($r = .43, p < .01$), Interpersonal Relationship ($r = .42, p < .01$), Impulse Control ($r = .28, p < .05$), Reality-Testing ($r = .48, p < .01$), Optimism ($r = .23, p < .05$), Using emotions for performance ($r = .26, p < .01$), Understanding of others ($r = .46, p < .01$), Influence other's emotions ($r = .58, p < .01$). Employee' perceived Involvement scale correlates with Self-Awareness ($r = .51, p < .01$), Empathy ($r = .44, p < .01$), Social Responsibility ($r = .39, p < .01$), Interpersonal Relationship ($r = .41, p < .01$), Reality-Testing ($r = .54, p < .01$), Using emotions for performance ($r = .27, p < .01$), Understanding of others ($r = .21, p < .01$), Influence other's emotions ($r = .55, p < .01$).

Table 1.

Correlation between project managers' emotional intelligence and their subordinates' perceived Supervisory Support and Involvement scales.

	M	SD	Supervisory Support	Involvement
1. Emotional Self-Awareness	28.52	5.36	.54**	.51**
2. Self-Regard	25.66	5.17	.17	-.05
3. Assertiveness	34.73	5.28	-.14	-.12
4. Independence	36.34	4.79	-.16*	.24
5. Self-Actualization	22.2	4.27	.09	-.10
6. Empathy	31.88	4.43	.35**	.44**
7. Social Responsibility	34.84	4.61	.43**	.39**
8. Interpersonal Relationship	37.76	5.7	.42**	.41**
9. Stress Tolerance	31.34	5.41	.23	.09
1. Impulse Control	33.84	5.16	.28*	.16
11. Reality-Testing	26.12	5.73	.48**	.54**
12. Flexibility	30.98	5.68	.17	.08
13. Problem-Solving	29.23	6.86	.18	.04
14. Optimism	37.32	5.17	.23*	.07
15. Happiness	33.1	4.49	.22	.09
16. Using emotions for performance	33.5	5.1	.26**	.27**
17. Understanding of others	24.49	3.45	.46**	.21**
18. Emotional stability	22.4	4.86	.14	.17
19. Influence other's emotions	23.49	3.43	.58**	.55**

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).



Discussion

Emotional intelligence measure – EQ-I (Bar-on, 1997) adapted to Latvian do not replicate original structure that is appear in all translated to Latvian version. In his research, new emotional intelligence measure was tested and proved sufficient (structure as well – Cronbach's alphas).

Results show that manager's emotion intelligence play important role for their subordinates. As higher a manager's emotional intelligence scores, as the higher the subordinates' perceived supervisory support and wiliness to involve. This supports hypothesis that Manager's emotional intelligence associated with subordinates' perceived supervisory support and involvement. This association has very high scores that is too much for two source of data (managers and subordinates), but it is possible, because of sample – managers, is very homogeny. Selected for research managers are narrow in age and experience being in position.

Results show that emotions play important role in managers-employees communication. If manager aware their own emotions, they can better manage their subordinates, especially for how employees perceive support from their managers'. This findings are similar to Klem, Schlechter and Momeni (Klem, & Schlechter, 2008; Momeni, 2009), but in this research managers' emotional intelligence defined broader that helps to look on results from different viewpoints. Leaders who better understands his or her subordinates emotions provide better communication in team and on individual level (manager – subordinate) supporting that, if the project manager understands the feelings of his subordinates, he or she can predict how subordinates to respond to different circumstances, events and changes and effectively manage these reactions (George, 2000). Project manager's social responsibility connects with the subordinates perceived supervisory support and wiliness to engage concern for their well-being, and have shown of Project manager's interest in the workers not only at the level of business, but also about family, hobbies etc. (Holstad, 2011). In addition, subordinates may appreciate that managers find subordinates' work as useful and meaningful to the wider sense. Perhaps, it increases subordinate awareness of the usefulness of their work to the public and increase their role and increase employee loyalty to the organization.

Conclusion

At the most general level, we can conclude that project managers' emotional intelligence play important role for the supervisory support and subordinates involvement.

The nature of this study, where a quasi-experimental design is used, does not make it possible to determine causality, but it does appear that the direction of influence likely that the project managers' emotional intelligence influence subordinates' perceived supervisory support and involvement, than vice versa. That encourages do draw *implications* – that focus of project managers development and selection should be based not only on professional knowledge and skills, but emotional intelligence should be in included in training courses and in selection process.

Limitation and further research direction

First, from project managers' research data were collected by self-report approach, but sufficient, when we deal with managers, to use of 360⁰ data collection method.



Second, it is impossible to generalise this findings for all managers and, because of small ample size, applied for project managers with caution.

Because of in privies research gender difference reported, it possible, that replication correlation separately for gender, some differences will appear.

In future research would be interesting to test results on managerial positions, as well to look separately for genders.

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