The influence of emotional intelligence on improving team performance: case study in food crop resilience and horticulture office of north sumatera province

Dewi Suma

Department Management, Universitas Pembinaan Masyarakat Indonesia, Medan, Indonesia

A R T I C L E I N F O	ABSTRACT
	This study aims to determine the effect of emotional intelegence on improving team performance. This research was conducted at Food Crop Resilience and Horticulture Office of North Sumatera Province. This research uses associative research statistics with a quantitative approach with SPSS Program versi 25.0 chosen as the test tool in this study. The sample of this research is totaling 60 people. The measurement method used in this study uses a Likert scale. The application used is simple linear regression in the structural model using test hypotheses and performing data analysis. Based on the results of the study, it can be concluded that emotional intelligence influence on improving team performance, emotional intelligence has a positive and significant effect on improving team performance. The emotional intelligence variable shows that the analysis value of the tcount variable is greater than ttable, (10.949 > 2.009), or sig < (0.05), meaning that the emotional intelligence variable influences team performance at the food crop resilience and horticulture office of North Sumatra Province, thus the hypothesis is accepted. *This is an open access article under the CC BY-NC license.*

Corresponding Author:

Dewi Suma,
Department Management,
Universitas Pembinaan Masyarakat Indonesia, Medan,
Jl. Teladan No. 15B, Medan, 20227, Indonesia,
Email: dewisuma@upmi.ac.id

INTRODUCTION

Human Resources (HR) an organization is a very important role because the success of an organization in achieving its goals cannot be separated from its employees. (Ni Kadek Nita Suwandewi, 2016). According to Weiss and Cropanzano, organizational events are proximal causes of employees' affective reactions that have direct influences on employees' behaviors and attitudes. (Oluremi B. Ayoko, 2008). (Kotsou, 2019) Emotional intelligence (EI) is defined as the ability to feel, express, interpret, manage, and use one's own and others' emotions. On the other hand, Mayer et al., (2000) the ability model views EI as "the ability to engage in sophisticated information processing about one's own and others' emotions and the ability to use this information as a guide to thinking and behavior.

Taken from the ability model, emotional intelligence under (Wong, 2002)'s view point can be operationalized in four aspects: (1) an individual's capacity to detect and communicate one's own feelings is referred to as emotional self assessment. (2) Emotional appraisal of others is the capacity to recognize appropriate emotions in others. (3) Emotional usage entails emotional guidance toward positive activities. (4) Emotion regulation is defined as the capacity to control one's emotions.

Emotional intelligence has been proved to have an impact on team performance. EI teams, according to (Stephens, 2016), are critical in providing a supportive environment that encourages good team performance. (Lindsjrn, 2016), (Jamshed, 2018), and (Liu, 2013) all claim that team members' capacity to manage mood, thoughts, and emotions affects team performance. Furthermore, studies have shown that emotional intelligence help to build optimistic working moods (Ashkanasy, 2017) and alleviate emotional issues such as tension and depression, which leads to better team performance (Greenidge, 2014). Such findings suggest that EI can be seen as a valuable ability with which teams use it to collect and share knowledge relevant to their target, as well as to execute activities, to achieve overall success (Barczak, 2010). A team with strong emotional intelligence creates a social and emotional atmosphere that develops empathy and helpful attitudes, improves cooperation, and leads to greater results (Maqbool, 2017); (Troth, 2012); (Rezvani, 2019).

Emotionally intelligent teams build a set of norms that recognize and manage team members' emotions. Members have clearer roles in handling each other's negative emotions, so these emotions do not affect collaboration or hinder performance. Team emotional intelligence can thus reduce the negative feelings caused by task and relationship conflict, improve task focus, and facilitate open discussion without resulting in interpersonal hostility, which in turn has a positive effect on team effectiveness. (Jiang, 2013) show that teams with members skilled in emotion regulation moderate the negative effects of task conflict and relationship conflict on team performance. By building collaborative norms dealing with task conflict, such teams foster collaboration and productive interaction between members, which in turn improves team performance. Team emotional intelligence can also promote cognitive understanding of tasks and the exchange of different ideas and perspectives, and team members are more likely to use diverse information to perform tasks and innovate. As emotionally intelligent teams can prevent cognitive overload, team members are likely to engage in information processing and creative problem solving, thus reducing the negative effects of task conflict on innovation.

RESEARCH METHOD

The data for analyzing the study model was collected through an online survey. Literature-based scales were used. They were asked for feedback on the questionnaire's clarity and intelligibility. The survey was completed based on the comments.

The official online survey took three weeks to complete. The participants were chosen in a non-probabilistic way. Self-employed people and those who have worked in Food Crop Resilience and Horticulture Office of North Sumatera Province for more than a year received an email with a link. As a result, some questions concerning jobs and experience must be included in the questionnaire to filter the candidates. There were about 193 persons that answered. Finally, 60 questionnaires will be used for further testing and interpretation after the replies that had an excess of straight-lined answers or were outliers were removed.

Table 1 shows the demographic characteristics of the respondents. Males made up (46,7) of the total useable sample, while females made up (53,3%). The participants were between the ages of 22 and 50. Around 5% of those who responded were under the age of 22 and 30; 30% were between the ages of 30 and 50. The majority (65%) had a bachelor's degree or above. Furthermore, more than 50% of the respondents had worked for less than three years.

Table 1. The demographics of the respondents

Measure	Value	Frequency	Percent
Gender	Male	28	46,7
	Female	32	53,3
Age	22-30	3	5,0
	31-40	8	13,4
	41-50	26	43.3
	> 51	23	38,3
Education	High School	12	20,0
	Diploma	1	1,6
	Bachelor	39	65,0
	Master	8	13,4
Level	IIa – IId	11	18,3
	IIIa – IIId	45	75,0
	IVa - IVd	4	6,7

Source: Author's calculations

To evaluate the research model, we employed the two-step analytic technique suggested by (Sugiyono, 2016) with SPSS Program version 25.0. The validity and reliability of constructs were first tested. Then, we investigate the significance levels of the simple linear regression in the structural model using test hypotheses and performing data analysis.
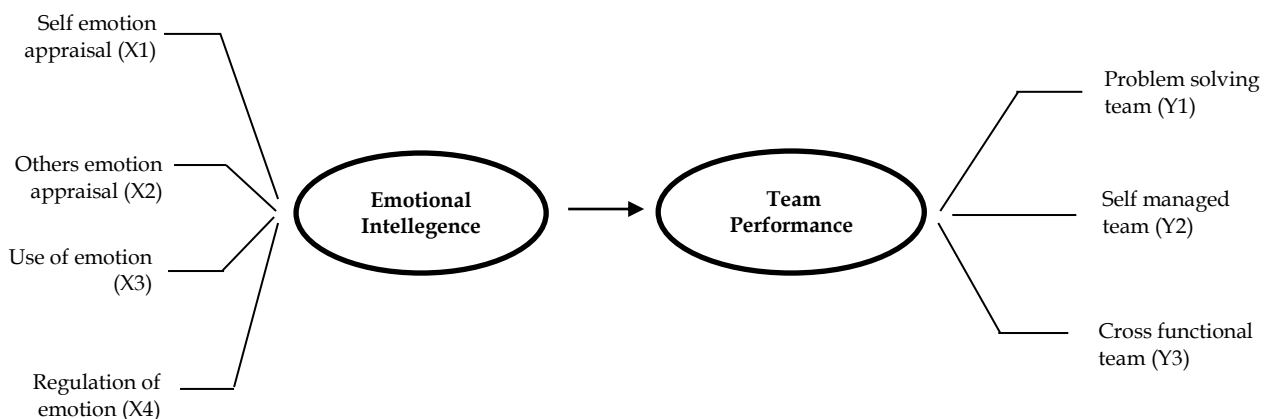

Figure 1. The proposed framework

Taken from the ability model, emotional intelligence under (Wong, 2002)'s view point can be operationalized in four aspects: (1) Self emotion appraisal. (2) Others emotion appraisal. (3) Use of emotion. (4) Regulation of emotion. Thus, according to Hariandja (2009) view point can be operationalized in three aspects: (1) Problem solving team. (2) Self managed team. (3) Cross functional team.

RESULTS AND DISCUSSIONS

The table below showed all variables and indicators, including their validity and reliability value. The whole of indicators for every variable has a correlation value larger than 0.21, and hence the research instrument is declared valid. Meanwhile, the Cronbach's alpha value for each of the variables is larger than 0.70. Thus, the research instrument is reliable, as well.

Table 2. Validity and reliability testing results

Variables	Sub Indicators	Validity		Reliability	
	X1	0,376	Valid		
	X2	0,307	Valid		
	X3	0,391	Valid		
	X4	0,320	Valid		
Emotional	X5	0,410	Valid		
Intelligence	X6	0,452	Valid	0,715	Reliable
	X7	0,388	Valid		
	X8	0,523	Valid		
	X9	0,397	Valid		
	X10	0,463	Valid		
	Y1	0,299	Valid		
	Y2	0,356	Valid		
	Y3	0,299	Valid		
Team	Y4	0,372	Valid		
Performance	Y5	0,321	Valid	0,751	Reliable
	Y6	0,316	Valid		
	Y7	0,374	Valid		
	Y8	0,310	Valid		
	Y9	0,390	Valid		

Source: SPSS Program, 2023

Simple linear regression analysis aims to determine the linear relationship between emotional intelligence and team performance. The confidence level used in this research is 5%. The results of the simple linear regression test can be seen in the following table:

Table 3. Simple Linear Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	12,414	9,897		1,254	,216
	Emotional intelligence	,520	,267	,771	10,949	,000

a. Dependent variable: team performance

From the table above, the results of calculating emotional intelligence on team performance at the Food Crop Resilience and Horticulture Office of North Sumatra Province can be arranged in a model as follows:

$$Y = 12,414 + 0,520 x$$

From this model it can be explained as follows: (a) Constant is 12.414, which means that if the emotional intelligence value is 0, then the team performance value is 12.414. (b) b = 0.520, meaning that for every change in emotional intelligence there is an increase of 1%, the team's performance increases by 0.520.

Table 4. Coefficient Analysis

Model		T	Sig.
1	(Constant)	1,254	,216
	Emotional intelligence	10,949	,000

a. Dependent variable: team performance

The emotional intelligence variable shows that the analysis value of the tcount variable is greater than ttable, (10.949 > 2.009), or sig < (0.05), meaning that the emotional intelligence variable influences team performance at the food crop resilience and horticulture office of North Sumatra Province, thus the hypothesis is accepted.

The coefficient of determination is a quantity that shows the magnitude of the dependent variables that can be explained by the independent variables. In other words, this coefficient is used to measure how far the independent variables explain the dependent variable.

Table 5. Results of Coefficient of Determination Analysis (R2)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,771[a]	,673	,054	3,56649

a. Predictors: (constant), emotional intelligence
b. Dependent variable: team performance

The results of the analysis of related variables show that the coefficient of determination is 0.673. This means that the emotional intelligence variable has a contribution of 67.3% to the team performance variable, while the remaining 32.7% is explained by other factors outside of this research.

The influence of emotional intelligence on improving team performance

The output produced in this research shows that emotional intelligence has a positive and significant effect on improving team performance, so Ha is accepted. The results of this research are supported by (Risma, 2012), (Made Suwandewi, 2022), (S, 2019), (Shakeel, 2022), (Oluremi B. Ayoko, 2008) and (Changyu Lee, 2017) which states that emotional intelligence has an influence on team performance in an organization. By building collaborative norms dealing with task conflict, such teams foster collaboration and productive interaction between members, which in turn improves team performance.

CONCLUSION

Finding indicate that emotional intelligence influence on improving team performance, emotional intelligence has a positive and significant effect on improving team performance. There are several limitations to this study. First, as we collected data from a small scope, future research should be conducted by collecting more team samples and using a longitudinal design. Second, although we focus on how emotional intelligence to improving team performance, Future studies should investigate the effects of cross-level interaction between team emotional intelligence and individual members' emotional intelligence on individual conflicts and performance. Third, more evidence is needed to generalize our findings to other settings. Future research may thus be conducted on more diverse teams and organizational contexts to examine the generalizability of our findings.

Refferences

Ashkanasy, N. M. (2017). Emotions in the workplace. *Annual Review of Organizational Psychology and Organizational Behavior*, 67-90.

Barczak, G. L. (2010). Antecedents of team creativity: An examination of team emotional intelligence, team trust and collaborative culture. *Creativity and innovation management*, 332-345.

Budi Alamsyah Siregar, D. S. (2022). *The Influence Of Leadership Behavior, Work Environment, Compensation On Employee Work Outcomes*. jurnal Mantik, 2311-2321.

Budi Alamsyah Siregar, D. S. (2022). *The Influence Of Work Characteristics, Organizational Culture, And Leadership Ethics On The Loyalty Of Employees In Indo Furniture*. PENANOMICS: International Journal of Economics, 173-180.

Changyu Lee, C. S. (2017). The effect of team emotional intelligence on team process and effectiveness. *Journal of Management & Organization*, 1-6.

Dewi Suma, B. A. (2022). *Performance Of Indonesian Higher Education Under The Influence Of Organizational Culture And Lecturer Performance*. Strategic Management Business Journal, 126-135.

Dewi Suma, B. A. (2023). *The Influence Of Leadership And Work Ability On Work Motivation, And Their Implications On The Performance Of Education Department Employees In South Sumatra Province*. IJEBAR: International Journal of Economic, Business, And Accounting Research, 843-861.

Greenidge, D. D. (2014). The relationship between ability-based emotional intelligence and contextual performance and counterproductive work behaviors: A test of the mediating effects of job satisfaction. *Human Performance*, 225-242.

Jamshed, S. A. (2018). Emotionally intelligent teams: Can emotional intelligence enhance performance. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 1-11.

Jiang, J. Y. (2013). Emotion regulation as a boundary condition of the relationship between team conflict and performance: A multi-level examination. *Journal of Organizational Behavior*, 714-734.

Kotsou, I. M. (2019). Improving emotional intelligence: A systematic review of existing work and future challenges. *Emotion Review*, 151-165.

Lindsjrn, Y. S. (2016). Teamwork quality and project success in software development: a survey of agile development teams. *Journal of Systems and Software*, 274-286.

Liu, X. Y. (2013). Effects of team leader emotional intelligence and team emotional climate on. *Nankai Business Review International*, 180-198.

Made Suwandewi, T. (2022). Pengaruh Kecerdasan Emosional Dan Lingkungan Kerja Terhadap Kinerja Karyawan Pada Dinas Kebudayaan Kabupaten Buleleng. *Prospek: Jurnal Manajemen dan Bisnis*, 16-23.

Maqbool, R. S. (2017). he impact of emotional intelligence, project managers' competencies, and transformational leadership on project success: An empirical perspective. *Project Management Journal*, 58-75.

Ni Kadek Nita Suwandewi, I. G. (2016). Pengaruh Kecerdasan Emosional Dan Dukungan Organisasional Terhadap Organizational Citizenship . *E-Jurnal Manajemen Unud*, 3958-3985 .

Oluremi B. Ayoko, V. J. (2008). The Influence of Team Emotional Intelligence Climate on Conflict and Team Members' Reactions to Conflict. *Small Group Research, Sage Publications*, 121-149.

Rezvani, A. B. (2019). Investigating the relationships among team emotional intelligence, trust, conflict and team performance. *Team Performance Management: An International Journal*, 120-137.

Risma, D. (2012). Pengaruh Kecerdasan Emosional Terhadap Kinerja Karyawan : Penelitian Eksperimen. *Educhild*, 86-97.

S, L. (2019). The Effect of Emotional Intelligence for Team Conflict: Case Study in Government Hospital. *Advances in Social Science, Education and Humanities Research*, 263-267.

Shakeel, U. (2022). Role Of Emotional Intelligence In Conflict Management As Part Of Customer Relationship Management In Select Public And Private Sector Banks. *Academy of Marketing Studies Journal*, 1-6.

Stephens, J. a. (2016). The positive effect of expressing negative emotions on knowledge creation capability and performance of project teams. *International Journal of Project Management*, 862-873.

Sugiyono. (2016). *Metode Penelitian Kuantitatif*. Bandung: Alfabeta.

Troth, A. C. (2012). Emotional intelligence, communication competence, and student perceptions of team social cohesion. *Journal of Psychoeducational Assessment*, 414-424.

Wong, C. S. (2002). The effects of leader and follower emotional intelligence on performance and attitude:An exploratory study. *The Leadership Quarterly*, 243–274.