



2528-9705



EMOTIONAL INTELLIGENCE AND TEAMWORK RESULTS OF VIETNAMESE STUDENTS

Thi Hao NGUYEN¹, Van Hau NGUYEN^{1*}, Hong Hanh VO¹, Ngoc Thong LE¹, Thi Thu Phuong NGUYEN¹,
Hong Kien VO²

¹ Faculty of Political Theory, National Economics University, Hanoi, Vietnam.

² Faculty of Development Economics, National Economics University, Hanoi, Vietnam.

*Corresponding Author

E-mail: nvhau@neu.edu.vn

ABSTRACT

This study explores the direct effect of emotional intelligence on teamwork performance and the mediating role of individual goals and forms of grouping in the relationship between emotional intelligence and teamwork performance of university students in Vietnam. The study used a combination of in-depth interviews and large-scale surveys at a number of universities in the economic sector in Hanoi, Vietnam. 372 valid questionnaires from students were used in the study to investigate the direct and indirect effect between emotional intelligence and teamwork performance. Collected data went through quantitative analysis steps including Cronbach's Alpha reliability test, exploratory factor analysis (EFA), confirmation factor analysis (CFA) and structural equation modeling (SEM) to test scales and hypotheses using SPSS and AMOS software. The research results have confirmed the direct relationship and mediating role of positive individual goal and self-managed teams in the relationship between emotional intelligence and teamwork performance. Based on the results of the study, the authors give some suggestions for students, managers and lecturers at universities to enhance students' teamwork performance.

Keywords: Emotional intelligence, Teamwork, Individual goals, Forms of grouping, Vietnam.

INTRODUCTION

The definition of a team includes more than just a collection of individuals working cooperatively or under the direction of a manager; it also includes a group of people with complementary abilities and a shared willingness to shoulder responsibility for an objective (Hackman & Walker, 1990). Because of this, team members must communicate with one another and the team leader while also relying on one another's knowledge to do their work. Teamwork plays an important role in many real-life contexts, and much literature confirms the benefits of teamwork for university students (Marin-Garcia & Lloret, 2008). 1st, group projects give students the chance to practice and learn skills that will be useful in the workplace in the future. 2nd, the results of student learning, motivation, and attitudes about learning have all been linked favorably to teamwork (Gatfield, 1999; Holtham *et al.*, 2006; Kalliath & Laiken, 2006). Teamwork has traditionally played a significant role in university instruction due to its benefits (Bacon *et al.*, 1999; O'Doherty, 2005).

Researchers have found that teamwork performance is affected by various factors. Many studies have shown that emotional intelligence has a direct influence on teamwork performance

Geliş tarihi/Received: 20.05.2022 – Kabul tarihi/Accepted: 14.09.2022 – Yayın tarihi/Published: 30.09.2022

© 2022 Journal of Organizational Behavior Research. Open Access - This article is under the CC BY NC SA license

<https://creativecommons.org/licenses/by-nc-sa/4.0/>



(Brackett & Mayer, 2003; Peterson, 2012). The indirect effect of emotional intelligence on teamwork performance has also been addressed through mediating factors such as individual goals such as positive individual goals and negative individual goals (Martinez-Pons, 1997), and the form of grouping as self-managed and cross-functional teams (Kirkman & Rosen, 1999; Lovelace *et al.*, 2001; Gujral & Ahuja, 2011).

Using the analysis from above, this study was conducted with three objectives in mind. First, to research how emotional intelligence directly affects how well Vietnamese university students collaborate. Second, in order to better understand the relationship between emotional intelligence and collaboration abilities of university students in Vietnam, it is also important to investigate the mediating effects of individual goals and types of grouping. Thirdly, to provide managers, instructors, and university students with some suggestions for enhancing their performance in cooperation.

Theoretical Background and Hypotheses

Direct Influence of Emotional Intelligence on Teamwork Performance

The term "emotional intelligence" was first conceptualized and coined by Salovey and Mayer (1990), who took inspiration from Gardner's (1983) multi-intellectual theory. The definition of emotional intelligence is then provided in numerous studies by numerous academics. Emotional intelligence, according to Mayer and Salovey (1997), is "the capacity to accurately perceive, evaluate, and express emotions; the capacity to reach and/or create emotions when they think; the capacity to understand emotions and knowledge about emotions; and the capacity to regulate emotions in order to facilitate emotional and intellectual development." Goleman (1998) defined emotional intelligence as the capacity to recognize one's own and other people's emotions and use them to inform decisions. The definition of emotional intelligence is "the capacity to (a) perceive emotions, (b) use emotions to aid thought, (c) comprehend emotions, and (d) manage emotions to foster emotional and intellectual progress" (Mayer *et al.*, 2004). "The ability to be aware of and to handle one's emotions in various situations" according to Goleman (2004). The five components of emotional intelligence—self-awareness, self-regulation, self-motivation, empathy, and social skills—have been highlighted recently by Issah (2018).

The ideational model that guides this research is founded on Mayer and Salovey's (1997) work on the four branches of the emotional intelligence model. These authors argue that emotional intelligence can be described as four related but distinct possibilities: (a) emotional awareness, (b) emotional use, (c) emotional comprehension, and (d) emotional management.

Meanwhile, teamwork has emerged as a key agent of learning in organizational environments (Yost & Tucker, 2000; van Offenbeek, 2001). Teamwork is defined by Harris and Harris (1996) as a team or general-purpose work unit through which members develop mutual relationships to achieve goals/tasks. Teamwork performance is the degree to which a team's output meets quantity, quality, and timeliness (Hackman & Walker, 1990). This definition is used by the authors in the research because it is a suitable concept for the modern economic context. This concept does not have specific characteristics of any particular field and can be applied to subjects being students in universities.



Many previous studies have confirmed a link between teamwork performance and emotional intelligence, one of which is the work of Gujral and Ahuja (2011). According to these authors, emotional intelligence plays an important role in how they collaborate and when team members work on a shared mission and goals. The values of effective teamwork, according to Mccallin and Bamford (2007), are centered around emotional intelligence's core competencies of self-awareness, self-management, social awareness, and social skills. According to Stephens and Carmeli (2016), emotional intelligence can enhance a team's ability to communicate, be receptive to different viewpoints, and use emotions to boost performance and decision-making (Clarke, 2010). According to the research by Brackett and Mayer (2003), there is a connection between students' cooperation abilities and emotional intelligence. Emotional intelligence has been shown to give students the chance to reflect on and effectively apply teamwork skills while doing practical exercises, according to these authors' studies of the relationship between emotional intelligence and teamwork performance of students in the medical-health educational environment. People with high emotional intelligence may effectively control negative behaviors to foster a good environment that promotes collaboration, enhances decision-making procedures, and improves team outcomes. This makes emotional intelligence a valuable skill in the setting of a group (Arfara & Samanta, 2016).

Bearing these results in mind, we can pose the following hypothesis:

H1. Emotional intelligence has a positive influence on the teamwork performance of university students.

Indirect Influence of Emotional Intelligence on Teamwork Performance

Locke and Latham (2002) define an individual goal as an idea of the future or a member's desired outcome for a working group that has planned and committed to achieving it. These authors claim that strong, difficult, specific goals lead to higher performance than ambiguous goals or through instruction.

In this paper, individual goals are viewed from two angles: positive and negative. According to Volet and Mansfield (2006), positive individual goals are described as high-volume goals, focused on performance and learning, combined with social and friendship goals. Based on this definition, it can be understood that the positive goal of student teamwork is understood as completing group assignments with high results, the working efficiency of the members, and collective cohesion. Volet and Mansfield (2006) also introduce the concept of negative individual goals, which are goals of individuals that are not of high value and cannot be used to evaluate effectiveness in the community, but only to complete the work. This definition, when applied to students' teamwork, can be understood to mean that team members often bring personal feelings or interests to bear in deciding or influencing the work processes or results of the team. In addition, students with the attitude of careless completion of work because they do not attach great importance to learning results often cause disagreements about controversy or delay work, causing teamwork performance to decline.

Martinez-Pons (1997) has successfully researched and tested the predictive ability of emotional intelligence for individual activities, including individual goal orientation in teamwork. Sushil (2013) suggest that the willingness to adjust individual goals to meet the team's goals helps to do well in teamwork. Stajkovic *et al.* (2009) also confirm a positive relationship between individual goals and teamwork performance.



These results lead us to pose the following hypotheses:

H2. Emotional intelligence has a positive influence on the positive individual goals of university students.

H3. Positive individual goals have a positive influence on the teamwork performance of university students.

H4. Emotional intelligence has a negative influence on negative individual goals of university students.

H5. Negative individual goals have a negative influence on the teamwork performance of university students.

H6. Positive individual goals mediate the relationship between emotional intelligence and teamwork performance of university students.

H7. Negative individual goals mediate the relationship between emotional intelligence and teamwork performance of university students.

Self-managed teams are defined by Moravec *et al.* (1998) as a non-decentralized workgroup that is responsible for specific areas or tasks within the organization. Zafft *et al.* (2009) argue that self-managed teams are made up of individuals who self-regulate and are responsible for several activities such as planning, scheduling, performance evaluation, and continual improvement. In addition, self-managed teams are understood as groups where individuals are interdependent and the team members can self-regulate their behavior concerning tasks (Goodman *et al.*, 1988). Based on the definition of Goodman *et al.* (1988), the authors argue that a student's self-management team is a team in which individuals are interdependent and team members have full discretion to decide on tasks such as work tasks, methods of doing work, and schedule activities.

Cross-functional teams within an organization are groups of highly skilled personnel from various functional areas who collaborate to accomplish a certain objective (Webber, 2002). Cross-functional teams are utilized for a variety of tasks, including the development of new products (Bunduchi, 2009), organizational transformation (Tabrizi, 2007), accelerating market access (Griffin, 1997), and many more. The authors assert that a student's cross-functional team is a team made up of students with specialized competence based on Webber's (2002) definition (or specialized knowledge). University students from many academic fields collaborate to accomplish a common goal, and team members share leadership responsibilities. In self-managed teams, where orienting and integrating members, monitoring team member behavior, altering team direction, and persuading members are shared activities, emotional intelligence competencies emerge notably (Lehner, 2020). Gujral and Ahuja (2011) found a larger association between emotional intelligence and self-managed teams than with cross-functional teams when analyzing the relationship between emotional intelligence and self-managed teams. That suggests that self-managed teams are smarter emotionally and intellectually, contributing to higher teamwork performance compared to cross-functional teams. This is explained by Gujral and Ahuja (2011) because the cohesion between the members of self-managed teams is higher than that of cross-functional teams. In addition, Kirkman and Rosen (1999) identify that self-managed teams help improve team productivity.



Horwitz (2005) points out that the diversity of knowledge in cross-functional teams positively affects performance due to the different perspectives each member brings to the team.

This important interrelation leads us to pose the following hypotheses:

H8. Emotional intelligence has a positive influence on self-managed teams of university students.

H9. Self-managed teams have a positive influence on the teamwork performance of university students.

H10. Emotional intelligence has a positive influence on cross-functional teams of university students.

H11. Cross-functional teams have a positive influence on the teamwork performance of university students.

H12. Self-managed teams mediate the relationship between emotional intelligence and teamwork performance of university students.

H13. Cross-functional teams mediate the relationship between emotional intelligence and teamwork performance of university students.

MATERIALS AND METHODS

Sample

After studying the secondary data, the authors conducted semi-structured interviews with two groups of subjects (i) 05 university lecturers; (ii) 05 students to clarify the scales: emotional intelligence, teamwork performance, individual goals, and forms of grouping in the context of universities in Vietnam. The authors then went on to design questions to aid the inquiry based on the findings of the in-depth interviews and the research summary. The scales inherited from earlier investigations are used in the research model with observed variables.

The authors distributed and collected survey forms at Hanoi's National Economics University, Banking Academy, University of Economics, National University, Foreign Trade University, Academy of Finance, and University of Commerce from July to October 2020 in order to gather accurate data. A convenience sampling technique was used to choose the study sample. The survey questionnaire was divided into two sections: the first section inquired about respondents' perceptions of emotional intelligence; teamwork effectiveness; individual goals; and grouping structures; the second section delved into personal details like gender, class year, and how frequently respondents worked in teams.

385 surveys from college students were gathered by the writers. 372 questionnaires were used for the study after the screening was completed. Questionnaires that lacked information or were not reliable after this step was removed. **Table 1** shows that slightly more than 50% of the respondents were male (accounting for 50.8%). Third-year students accounted for the highest percentage (44.6%). Most students usually work in teams (71.0%), followed by sometimes working in teams (25.8%).

Table 1. Descriptive statistics of sample demographics

Demographic information	Frequency	Percent	Mean	Standard Deviation	
Gender	Female	182	48.9	1.513	0.5058
	Male	189	50.8		



Year of students	1st	52	14.0	2.605	0.9271
	2nd	101	27.2		
	3rd	166	44.6		
	4th	48	12.9		
	other	5	1.3		
Frequency of teamwork	never	2	0.5	3.672	0.5543
	rarely	10	2.7		
	sometime	96	25.8		
	usually	264	71.0		

Procedure

A set of standardized questions about emotional intelligence, teamwork performance, individual goals, and forms of grouping were used through a questionnaire survey to collect data from students in some economics universities in Vietnam. The authors have reached out to students in classrooms and public areas such as libraries, dorms, and canteens. The objectives of the study were briefly explained to the respondents, which enabled them to answer the survey accurately (Figure 1).

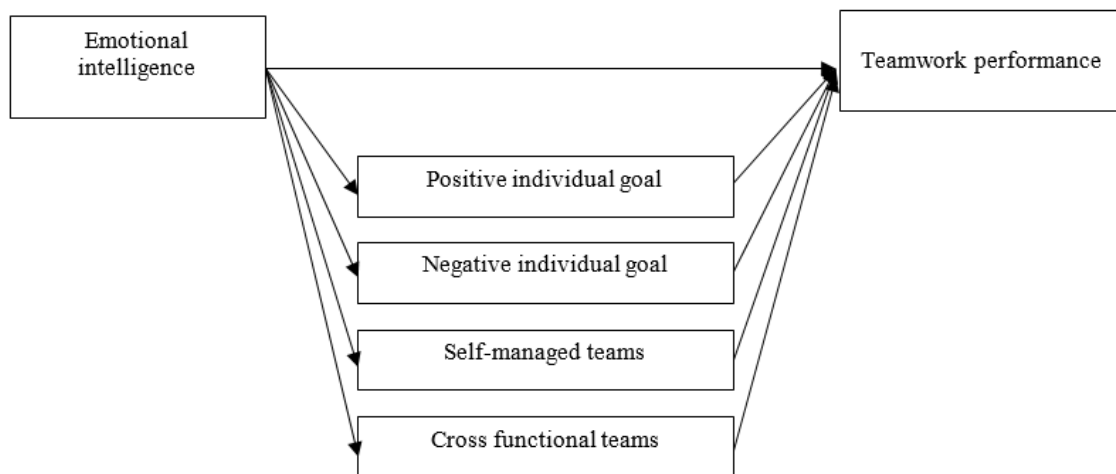


Figure 1. The conceptual model

Measures

Emotional Intelligence (EI). In order to assess four dimensions—emotional awareness (EA), using emotions (USE), understanding emotions (UDE), and managing emotions (ME)—Mayer and Salovey (1997), Bar-On (1997), and Goleman (2001) developed an 18-item scale with α values of 0.865, 0.817, 0.888, and 0.849, respectively. I am aware of personal feelings when I meet someone, for instance. Each item received a score between 1 (strongly disagree) and 5 (strongly agree). The item-total correlation was less than 0.3, hence USE1 was disqualified. The scale underwent a confirmatory factor analysis (CFA), and the outcome showed that the model fit was satisfactory: $\chi^2 = 256.666$, $df = 113$, $p = 0.000$, $CMIN/df = 2.271$ (between 1 and 3) (Kettinger *et al.*, 1995), $CFI = 0.959 > 0.9$, $SRMR = 0.057 < 0.08$, $RMSEA = 0.059 < 0.06$, $PClose = 0.068 > 0.05$ (Hu & Bentler, 1999), suggesting that the dimensions reflected the overall constructivity.

Teamwork Performance (TP). The 6-item scale created by Hackman (1990) was used to evaluate teamwork performance ($\alpha = 0.876$). It is a sample item. My group cooperated to finish the task quickly. Each item received a score between 1 (strongly disagree) and 5 (strongly agree).

Individual Goals (IG). Individual goals included positive individual goals (PIG) and negative individual goals (NIG) which were measured by Volet and Mansfield (2006) (α 's = 0.888 and 0.913 respectively). PIG2, PIG4, NIG1, and NIG 5 were excluded due to the item-total correlation < 0.3 . A sample item is. My goal is to get good grades and develop skills as a team." Each item was rated from 1 (strongly disagree) to 5 (strongly agree).

Forms of Grouping (FG). Forms of grouping included self-managed teams (SMT) and cross-functional teams (CFT) which were measured by Goodman *et al.* (1988) and Webber (2002) (α 's = 0.949 and 0.786 respectively). A sample item is. I am willing to express my opinion on issues even when the members of the team think differently." Each item was rated from 1 (strongly disagree) to 5 (strongly agree).

RESULTS AND DISCUSSION

Validity Analyses (Common Method Bias)

We conducted a confirmation factor analysis (CFA) To ensure that there was sufficient discriminant validity among constructs. The model is consistent with the data: $\chi^2 = 1187.950$, $df = 704$, $p = 0.000$, $CMIN/df = 1.687$ (between 1 and 3) (Kettinger *et al.*, 1995), $CFI = 0.949 > 0.9$, $SRMR = 0.049 < 0.08$, $RMSEA = 0.043 < 0.06$, $PClose = 0.997 > 0.05$ (Hu & Bentler, 1999). These CFA outcomes indicated adequate discriminative importance and revealed no common technique bias.

Factor loadings (standardized estimates), average variance extracted (AVE), and composite reliability are three major indications of convergent validity (CR). Each construct's standardized estimates vary from 0.603 to 0.963 and are statistically significant (p-values). AVE values range from 0.507 to 0.791, and CR values range from 0.800 to 0.950. According to Hair *et al.* (2010), the results of standardized estimates, AVE, and CR are all in the acceptable range, providing evidence for concept convergent validity (Appendix).

Descriptive Statistics and Correlation

Table 2 shows means, standard deviations, and correlations among the related variables. Emotional intelligence was significantly correlated with teamwork performance, positive individual goals and self-managed teams ($r = 0.514, 0.555$ and 0.489 respectively, $p < 0.01$). Teamwork performance was significantly correlated with positive individual goals and self-managed teams ($r = 0.600$ and 0.625 respectively, $p < 0.01$) and has a negative relationship with negative individual goals ($r = -0.240$, $p < 0.01$).

Table 2. Means, standard deviations, and correlations among the related variables

	Mean	Std. Deviation	EI	TP	PIG	NIG	SMT	CFT
EI	3.6382	0.52391	1					
TP	3.7531	0.56482	0.514**	1				



PIG	3.9887	0.69560	0.555**	0.600**	1		
NIG	2.8100	0.95311	0.011	-0.240**	-0.165**	1	
SMT	3.8511	0.70629	0.489**	0.625**	0.469**	-0.129*	1
CFT	3.7829	0.63672	0.007	0.057	0.061	-0.102*	0.092

Notes: n = 372; *p < 0.05; **p < 0.01

Hypotheses Analysis

Structural equation modeling (SEM) suggested that the hypothesized model fit the data well ($\chi^2 = 1272.477$, $df = 727$, $p = 0.000$, $CMIN/df = 1.750$ (between 1 and 3) (Kettinger *et al.*, 1995), $CFI = 0.943 > 0.9$, $SRMR = 0.06 < 0.08$, $RMSEA = 0.045 < 0.06$, $PClose = 0.979 > 0.05$ (Hu & Bentler, 1999). The hypothesized model shows the relationship between six factors in the model including: emotional intelligence, teamwork performance, positive individual goals, negative individual goals, self-managed teams and cross functional teams.

Figure 2 and Table 3 show the overall structure model with standardized path coefficients. Hypotheses H1, H2, H3, H5, H8, and H9 are accepted. Emotional intelligence has a positive relationship with teamwork performance, positive individual goals, and self-managed teams ($\beta = 0.167$; 0.737 and 0.660 respectively). Positive individual goals and self-managed teams have a positive relationship with teamwork performance ($\beta = 0.252$ and 0.309 respectively). Negative individual goals have the opposite relationship with teamwork performance ($\beta = -0.084$).

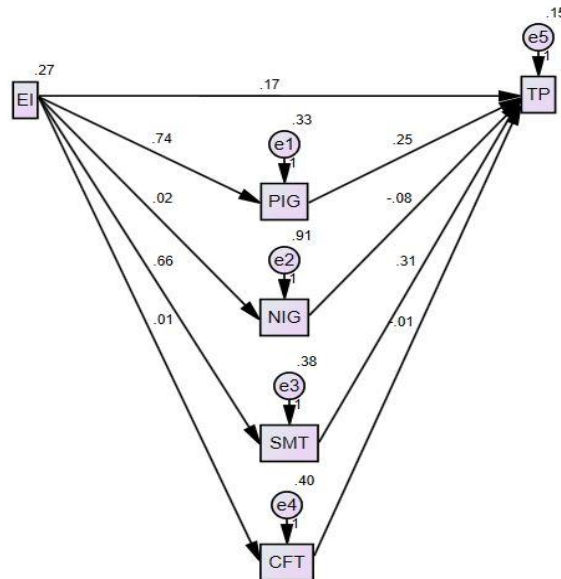


Figure 2. Results of a structural equation modeling

Table 3. The results of the path analysis among variables with standardized regression weights

Relationships	Estimate	S.E	C.R	P-value	Results
EI → TP	0.167	0.050	3.325	***	Supported
EI → PIG	0.737	0.057	12.858	***	Supported

PIG → TP	0.252	0.034	7.322	***	Supported
EI → NIG	0.021	0.094	0.220	0.826	Rejected
NIG → TP	-0.084	0.021	-4.049	***	Supported
EI → SMT	0.660	0.061	10.806	***	Supported
SMT → TP	0.309	0.032	9.567	***	Supported
EI → CFT	0.009	0.063	0.140	0.888	Rejected
CFT → TP	-0.011	0.031	-0.362	0.718	Rejected

The results of the mediation test with PROCESS v3.5 by Andrew F. Hayes are shown in **Table 4**. Emotional intelligence increased teamwork performance through the positive individual goal ($\beta_{\text{inpositive effect}} = 0.2721$, $p < 0.05$) and as a result, H6 (positive individual objectives influence the association between emotional intelligence and university students' teamwork performance) was not rejected. Self-managed teams mediated the link between emotional intelligence and teamwork performance ($\beta_{\text{inpositive effect}} = 0.2587$, $p < 0.05$) so H12 (self-managed teams mediate the relationship between emotional intelligence and teamwork performance of university students) was not rejected. The linkage between emotional intelligence and teamwork performance was not mediated by a negative individual goal and cross-functional teams so H7 and H13 were rejected.

Table 4. Mediation test: positive individual goal, negative individual goal, self-managed teams, and cross-functional teams

	Inpositive effects	SE	95% confidence interval	
			LLCI	ULCI
Emotional intelligence → positive individual goal → teamwork performance	0.2721*	0.0351	0.2048	0.3410
Emotional intelligence → negative individual goal → teamwork performance	-0.0030	0.0122	-0.0285	0.0205
Emotional intelligence → self-managed teams → teamwork performance	0.2587*	0.0395	0.1849	0.3411
Emotional intelligence → cross functional teams → teamwork performance	0.0004	0.0037	-0.0082	0.0080

Note: Results are based on trimmed scales. LLCI: Lower level of a confidence interval. ULCI: Upper level of a confidence interval. SE: Standard errors. * $p < 0.05$.

In line with the findings of recent studies (Goleman, 1995; Verona, 1999; Tucker *et al.*, 2000; Cherniss, 2001; Brackett *et al.*, 2004; Gujral & Ahuja, 2011; Troth *et al.*, 2012), this study finds that emotional intelligence has a positive relationship with teamwork performance. In particular, Gujral and Ahuja (2011) assert that emotional intelligence plays an important role in how they collaborate and when team members come together in the form of a mission and a shared goal. The ability to use social intelligence, process personal emotional information and other relationships will help students adapt to and handle the fluctuations of the work or study environment. When students can process emotional information, recognize, use, understand,



and control emotions well, they can learn a lot from their friendships and listen to lecturers more effectively. Their knowledge and skills, both professional and social, are improved, helping students develop the qualifications and quality of work that are useful for themselves in the future.

Previous studies (Volet & Mansfield, 2006; Grant *et al.*, 2012) affirmed the positive relationship between emotional intelligence and positive individual goals of university students. Positive individual goals will bring motivation and more hard-working attitudes to team members. They will have specific plans to aim for goals such as self-improvement, improving relationships, or achieving a certain success in work or university... Many students with a high degree of emotional use and understanding are more likely to rethink their individual goals because of inherent subtlety or sensitivity. They understand what they want to think and act more purposefully towards positive results and are ready to act with effective high enthusiasm. In this study, emotional intelligence is a factor that strongly affects positive individual goals ($\beta = 0.737$), so improving emotional intelligence will increase students' ability to achieve individual goals in teamwork and make the process of completing work smooth and fast thanks to the progress of individual goals.

Positive individual goals are thought to influence teamwork performance. Many authors also agree with this statement, such as Boekaerts (2002); Grant *et al.* (2012). In addition, Volet and Mansfield (2006) also concluded that the change of positive individual goals also affects the working process of student working teams. Positive individual goals, such as personal achievement, the importance of relationships, or beneficial personal skills, contribute to increased teamwork performance.

The relationship between negative individual goals and teamwork performance of university students is also confirmed in research by Volet and Mansfield (2006). Team leaders and members need to limit negative individual goals such as working only for grades, or for short-term achievement... to always have positive thoughts, and strive to achieve worthy achievements in study or job.

The results of the study confirm that emotional intelligence influences self-managed teams. Emotional intelligence has a relatively high standardized path coefficient ($\beta = 0.660$) in self-managed teams. This conclusion is consistent with the result of the study by Gujral and Ahuja (2011). Self-managed teams are non-decentralized workgroups that are responsible for specific areas and tasks within the organization. Therefore, self-managed teams have clearly defined the team's goals, the main results to be achieved, and the alignment of the team's goals with those of the organization. From there, individuals in the team will self-understand, control their emotions, and recognize the emotions of other members to reduce conflict, increase trust, and increase the ability to share knowledge in the team. The higher emotional intelligence of the self-managed teams of students will get better results.

The research results confirm that self-managed teams have an impact on teamwork performance. This conclusion is consistent with the results of many studies, such as the studies of Cohen and Ledford (1994), Goodman *et al.* (1988), Kirkman and Rosen (1999), and Trist (1977). Self-managed teams that operate efficiently and with high productivity will help teamwork performance to achieve good results. Therefore, to improve the teamwork performance of university students, it is necessary to promote the form of self-managed teams.



Theoretical Implications

1st, the authors' research helps to reinforce models of emotional intelligence and collaboration success. The study's findings also aid in the clarification of a direct and indirect relationship via the mediating aspects of emotional intelligence and teamwork performance.

2nd, the authors point out that the factor that belongs to individual goals and forms of grouping affects the relationship between emotional intelligence and teamwork performance. Therefore, if influencing these two factors, the authors believe that teamwork performance will increase.

3rd, The research concentrates on the association between emotional brilliance and university students' collaborative performance. As a result, the study's findings will improve comprehension of theories of emotional intelligence and teamwork effectiveness when applied to a specific situation, namely, university students.

Practical Implications

In Vietnam, traditional methods of teaching and learning in universities are still taking place (Nguyen & Dong, 2017). In addition, inadequate infrastructure, lack of funding, and lack of connectivity between managers, lecturers, and students have hindered efforts to prepare students with the skills and knowledge to meet the requirements of the contemporary labor market (Dapice *et al.*, 2008; Tran, 2012). Limited skills are considered to be one of the biggest barriers that make it difficult for Vietnamese students to get a job after graduation (Tran, 2013). The ultimate goal of the research is to use the relationship between the scales in the research model to make recommendations to enhance student performance through enhanced teamwork performance, a teaching and learning method that strengthens students' skills.

For university students, the authors give some suggestions to enhance teamwork performance as follows:

Firstly, the student needs to be aware that the development of emotional intelligence plays an important role in interactions with others. Students must actively participate in collective activities and create collective emotional attachments, in addition to actively learning and reading various books and references. Through experience, students need to know and understand their feelings and know how to use and control emotions appropriately.

Secondly, building a happy, sociable environment based on consensus among team members to develop the team's goals and each member's goals. When working in teams, it is necessary to focus on creating consensus and wanting to be willing to cooperate in the team because consensus helps strengthen relationships and exchanges. To reach a consensus, the team leader plays an important role in developing the method and strategy for developing group exercises based on a harmonious view of the team goals and the individual goals.

Thirdly, students need to define their own goals and then find out effective methods of teamwork to achieve individual goals. Each student's goal is an important determinant of an individual student's efforts in the university environment. When students understand what they want, they can more easily think and act with purposefulness and are ready to act with high enthusiasm effectively. This goal is not only shown on the score but also broader than the goal when entering the university doors: the goal of achieving a good, or excellent degree, or the goal of studying abroad.

Fourthly, the team leader needs to determine the common goals of the team and know the goals of each member, thereby directing individual goals to achieve the common goals. The fact that



the team leader sets the common goal too low or too high also affects the individual goals of each member because each individual's abilities and goals are different. The team leader needs to agree on a common goal based on the wishes of the members to ensure the best results when working in teams.

Finally, students should form teams in the form of self-managed teams in which team members have full authority to decide on tasks such as assigning tasks, methods of doing work, and scheduling activities. This will help increase the team performance of university students.

For managers and lecturers at universities, the authors give some suggestions to enhance teamwork performance as follows:

Firstly, Fisher (2005) agrees on the importance of learning environment design and educational physical space for student outcomes and learning. Lizzio *et al.* (2010) also confirmed that students' perception of the university environment is a strong predictor of academic performance. Hillyard *et al.* (2010) showed that successful teamwork is not only in the efforts of the lecturers but also in the initiatives to improve the university environment. Therefore, universities need to build collective activities in universities, classes, and teams to create a dynamic and inclusive environment for students to participate in teamwork activities. Such teamwork activities will help students gain more confidence when expressing themselves in front of the team and have greater responsibility for themselves and their team.

Secondly, encouraging students' creativity, and motivating students with personal achievement from subjects in the university or college is a way for each student to think about their individual goals and find out the fastest, most effective way to accomplish their goals.

Finally, organizing short courses or seminars to share personal emotional management and control skills, skills in shaping individual goals, and building common goals for each teamwork.

Limitations

The current study has significant limitations that will need to be investigated more in the future. 1st, the research model developed to investigate the association between emotional intelligence and teamwork performance directly and through some mediating factors is limited to university students. 2nd, the authors just focus on researching some scales affecting the relationship between emotional intelligence and teamwork performance. Thus, future studies need to explore the effects of other factors. 3rd, the demographics of a group of university students have not been exploited by authors to understand their differences in emotional intelligence and teamwork performance. Finally, the authors use convenient sampling with some economic sector universities in the Hanoi area, so it is not guaranteed to be representative of all undergraduate students in Vietnam.

CONCLUSION

Based on qualitative and quantitative research, the authors investigated the relationship between emotional intelligence and teamwork performance both directly and indirectly through individual goals and forms of grouping. The research results show that emotional intelligence has a positive relationship with teamwork performance, positive individual goals, and self-managed teams; positive individual goals and self-managed teams have a positive relationship with teamwork performance; negative individual goals have the opposite relationship with



teamwork performance. At the same time, positive individual goals and self-managed teams mediate the relationship between emotional intelligence and teamwork performance of university students. Based on the research results, the authors have made several recommendations for managers, lecturers, and students at universities in Vietnam to enhance teamwork performance by promoting factors that are proven to have a relationship with teamwork performance.

ACKNOWLEDGMENTS: This research was funded by National Economics University, Hanoi, Vietnam.

CONFLICT OF INTEREST: None

FINANCIAL SUPPORT: None

ETHICS STATEMENT: None

References

- Arfara, C., & Samanta, I. (2016). The impact of emotional intelligence on improving team-working: the case of Public Sector (National Centre for Public Administration and Local Government-NCPALG). *Procedia-Social and Behavioral Sciences*, 230, 167-175.
- Bacon, D. R., Stewart, K. A., & Silver, W. S. (1999). Lessons from the best and worst student team experiences: How a teacher can make the difference. *Journal of Management Education*, 23(5), 467-488.
- Bar-On, R. (1997). *BarOn emotional quotient inventory*. Multi-health systems.
- Boekaerts, M. (2002). Bringing about change in the classroom: Strengths and weaknesses of the self-regulated learning approach—EARLI Presidential Address, 2001. *Learning and Instruction*, 12(6), 589-604.
- Brackett, M. A., & Mayer, J. D. (2003). Convergent, discriminant, and incremental validity of competing measures of emotional intelligence. *Personality and Social Psychology Bulletin*, 29(9), 1147-1158.
- Brackett, M. A., Mayer, J. D., & Warner, R. M. (2004). Emotional intelligence and its relation to everyday behavior. *Personality and Individual Differences*, 36(6), 1387-1402.
- Bunduchi, R. (2009). Implementing best practices to support creativity in NPD cross-functional teams. *International Journal of Innovation Management*, 13(4), 537-554.
- Cherniss, C. (2001). Emotional intelligence and organizational effectiveness. in Cherniss, C. and Goleman, D. (Eds). *The Emotionally Intelligent Workplace*, Jossey Bass, San Francisco, CA, 3-12.
- Clarke, N. (2010). Emotional intelligence and its relationship to transformational leadership and key project manager competencies. *Project Management Journal*, 41(2), 5-20.
- Cohen, S. G., & Ledford Jr, G. E. (1994). The effectiveness of self-managing teams: A quasi-experiment. *Human Relations*, 47(1), 13-43.



- Dapice, D., Perkins, D., Nguyen X. T., Vu T.T. A., Huynh T. D., Pincus, J., & Saich, T. (2008). *Choosing success: The lessons of East and Southeast Asia and Vietnam's future*. Cambridge: Harvard University.
- Fisher, K. (2005). Research into identifying an effective learning environment. *Evaluating Quality in Educational Facilities*, Organisation for Economic Co-operation and Development Programme on Educational Building, Paris, 159-67.
- Gardner, H. (1983). *Frames of Mind: The Theory of Multiple Intelligences*. New York, N.Y.: Basic Books.
- Gatfield, T. (1999). Examining student satisfaction with group projects and peer assessment. *Assessment & Evaluation in Higher Education*, 24(4), 365-377.
- Goleman, D. (1995). *Emotional intelligence: why it can matter more than IQ*. New York: Bantam Books.
- Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam Books
- Goleman, D. (2001). An EI-based theory of performance. *The emotionally intelligent workplace: How to select for, measure, and improve emotional intelligence in individuals, groups, and organizations*, 1(1), 27-44.
- Goleman, D. (2004). What makes a leader?. *Harvard Business Review*, 82(1), 82-91.
- Goodman, P. S., Devadas, R., & Hughson, T. L. (1988). Groups and productivity: Analyzing the effectiveness of self-managing teams. *Productivity in Organizations*, 295-327.
- Grant, O. M., Davies, M. J., Johnson, A. W., & Simpson, D. W. (2012). Physiological and growth responses to water deficits in cultivated strawberry (*Fragaria × ananassa*) and in one of its progenitors, *Fragaria chiloensis*. *Environmental and Experimental Botany*, 83, 23-32.
- Griffin, A. (1997). The effect of project and process characteristics on product development cycle time. *Journal of Marketing Research*, 34(1), 24-35.
- Gujral, H. K., & Ahuja, J. A. Y. A. (2011). Impact of emotional intelligence on teamwork—A comparative study of self-managed and cross-functional teams. *International Journal of Multidisciplinary Research*, 1(6), 178-185.
- Hackman, M. Z., & Walker, K. B. (1990). Instructional communication in the televised classroom: The effects of system design and teacher immediacy on student learning and satisfaction. *Communication Education*, 39(3), 196-206.
- Hair, J. F., Anderson, R. E. Jr., Tatham, R. L., & Black, W. C. (2010). Confirmatory factor analysis". In *Multivariate data analysis 7th Ed*, Upper Saddle River: Pearson Prentice Hall.
- Harris, P. R., & Harris, K. G. (1996). Managing effectively through teams. *Team Performance Management: An International Journal*, 2(3), 23-36
- Hillyard, C., Gillespie, D., & Littig, P. (2010). University students' attitudes about learning in small groups after frequent participation. *Active Learning in Higher Education*, 11(9), 9-20.



- Holtham, C. W., Melville, R. R., & Sodhi, M. S. (2006). Designing student group work in management education: Widening the palette of options. *Journal of Management Education*, 30(6), 809-817.
- Horwitz, S. K. (2005). The compositional impact of team diversity on performance: Theoretical considerations. *Human Resource Development Review*, 4(2), 219-245.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55.
- Issah, M. (2018). Change Leadership: The role of emotional intelligence. *SAGE Open*, 8(3), 2158244018800910.
- Kalliath, T., & Laiken, M. (2006). Use of teams in management education. *Journal of Management Education*, 30(6), 747-750.
- Kettinger, W. J., Lee, C. C., & Lee, S. (1995). Global measures of information service quality: a cross-national study. *Decision Sciences*, 26(5), 569-588.
- Kirkman, B. L., & Rosen, B. (1999). Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal*, 42(1), 58-74.
- Lehner, J. A. (2020). Teamwork, Emotional Intelligence, and the Skills Organizations Need Now. *Advances in Library Administration and Organization*, 41, 143-156.
- Lizzio, A., Wilson, K., & Simons, R. (2010). University students' perceptions of the learning environment and academic outcomes: implications for theory and practice. *Studies in Higher Education*, 27(1), 27-52.
- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57(9), 705.
- Lovelace, K., Shapiro, D. L., & Weingart, L. R. (2001). Maximizing cross-functional new product teams' innovativeness and constraint adherence: a conflict communications perspective. *Academy of Management Journal*, 44(4), 779-793.
- Marin-Garcia, J. A., & Lloret, J. (2008). Improving teamwork with university engineering students. The effect of an assessment method to prevent shirking. *WSEAS Transactions on Advances in Engineering Education*, 5(1), 1-11.
- Martinez-Pons, M. (1997). The relation of emotional intelligence with selected areas of personal functioning. *Imagination, Cognition, and Personality*, 17(1), 3-13.
- Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence. *Emotional development and emotional intelligence: Educational Implications*, 3, 31.
- Mayer, J. D., Caruso, D. R., & Salovey, P. (2004). Emotional intelligence: Theory, Practice, and Implications. *Psychology Inquiry*, 15, 197-215.



- McCALLIN, A. N. T. O. I. N. E. T. T. E., & Bamford, A. (2007). Interdisciplinary teamwork: is the influence of emotional intelligence fully appreciated?. *Journal of Nursing Management*, 15(4), 386-391.
- Moravec, M., Johannessen, O. J., & Hjelmas, T. A. (1998). The well-managed SMT. *Management Review*, 87(6), 56-59.
- Nguyen, T. H. V., & Dong, V. H. (2017). The Solutions for Improving the Education Quality of University in Vietnam. *World Wide Journal of Multidisciplinary Research and Development*, 3(7), 235-238.
- O'Doherty, D. M. (2005). Working as part of a balanced team. *International Journal of Engineering Education*, 21(1), 113-120.
- Peterson, C. H. (2012). Building the emotional intelligence and effective functioning of student work groups: Evaluation of an instructional program. *College Teaching*, 60(3), 112-121.
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality*, 9(3), 185-211.
- Stajkovic, A. D., Lee, D., & Nyberg, A. J. (2009). Collective efficacy, group potency, and group performance: meta-analyses of their relationships, and test of a mediation model. *Journal of Applied Psychology*, 94(3), 814.
- Stephens, J. P., & Carmeli, A. (2016). The positive effect of expressing negative emotions on knowledge creation capability and performance of project teams. *International Journal of Project Management*, 34(5), 862-873.
- Sushil, S. (2013). Motivation and retention: HR strategies in achieving quality of work life. *Global Journal of Management and Business Studies*, 3(7), 763-768.
- Tabrizi, B. N. (2007). *Rapid Transformation: A 90-day Plan for Fast and Effective Change*, Harvard Business School Publishing, Boston, MA.
- Tran, J. (2012). Vietnamese Higher Education and the Issue of Enhancing Graduate Employability. *Journal of Teaching and Learning for Graduate Employability*, 3(1), 2-16.
- Tran, T. T. (2013). Limitation on the development of skills in higher education in Vietnam. *Higher Education*, 65(5), 631-644.
- Trist, E. (1977). A concept of organizational ecology. *Australian Journal of Management*, 2(2), 161-175.
- Troth, A. C., Jordan, P. J., & Lawrence, S. A. (2012). Emotional intelligence, communication competence, and student perceptions of team social cohesion. *Journal of Psychoeducational Assessment*, 30(4), 414-424.
- Tucker, M. L., Sojka, J. Z., Barone, F. J., & McCarthy, A. M. (2000). Training tomorrow's leaders: Enhancing the emotional intelligence of business graduates. *Journal of Education for Business*, 75(6), 331-337.



-
- van Offenbeek, M. (2001). Processes and outcomes of team learning. *European Journal of Work and Organizational Psychology*, 10(3), 303-317.
- Verona, G. (1999). A resource-based view of product development. *Academy of Management Review*, 24(1), 132-142.
- Volet, S., & Mansfield, C. (2006). Group work at university: Significance of personal goals in the regulation strategies of students with positive and negative appraisals. *Higher Education Research & Development*, 25(4), 341-356.
- Webber, S. S. (2002). Leadership and trust facilitating cross-functional team success. *Journal of Management Development*, 21(3), 201-14.
- Yost, C. A., & Tucker, M. L. (2000). Are effective teams more emotionally intelligent? Confirming the importance of effective communication in teams. *Delta Pi Epsilon Journal*, 42(2), 101.
- Zafft, C. R., Adams, S. G., & Matkin, G. S. (2009). Measuring leadership in self-managed teams using the competing values framework. *Journal of Engineering Education*, 93(3), 273-282.

