Advances in Human Resource Development and Management
Vol. 2 (2026), No. 1, pp. 25-40
DOI: https://doi.org/10.55578/hrdm.2604.004

ARTICLE

Examining the Factors on Leaders' EQ Enhancement

Aw Jia Yi[1], Hemaloshinee Vasudevan[1,*]

[1] *Tun Razak Graduate School, Universiti Tun Abdul Razak, Wilayah Persekutuan Kuala Lumpur, Malaysia*

[*]Corresponding author. Email: hemaloshinee@unirazak.edu.my

Received: 7 April 2026, Accepted: 20 April 2026, Published: 21 April 2026

Abstract

Malaysia's IT industry plays a crucial role in its economic growth, impacting GDP and employment. The Malaysia Digital Economy Blueprint (MyDIGITAL) aims to establish the country as a regional digital economy hub, focusing on technology adoption to enhance productivity and competitiveness. As Malaysia's industry aims to lead the region's digital economy, it must embrace technological changes and address increasing global competition. The rapid advancement of technology across sectors has created a significant demand for skilled experts and leaders who fully understand these innovations. This study aims to examine the factors (educational training, organizational culture, personal traits and growth environment) on leaders' EQ enhancement at Malaysian IT industry. The research aims to use a quantitative method by utilized positivism research philosophy and deductive reasoning emphasizing fact-based data and statistical hypothesis to test variable relationships. The study targets employees and leaders from various IT sectors in Malaysia, including IT manufacturing, IT services, fintech, and e-commerce. This group was selected due to their educational background and organizational and personal goals that may influence their emotional intelligence (EQ) development. Non-probability – convenience sampling is practically oriented, often aimed at obtaining exploratory insights, facilitating quicker data collection, particularly when a complete sampling frame is unnecessary. Educational training and leader's EQ (H1: $p>0.319$), organizational culture and leader's EQ (H2: $p>0.695$), personal traits and leader's EQ (H3: $p<0.001$) and growth environment and leader's EQ (H4: $p<0.001$). The research emphasizes the need for leadership development programs to shift from standardized training to customized initiatives that enhance both professional competence and emotional development capabilities. The research addresses gaps in understanding Emotional Intelligence (EQ) enhancement and provides recommendations for leadership development programs. It lays the foundation for findings by identifying key constructs and a theoretical framework related to leadership EQ, contributing to the existing literature.

Keywords: Educational Training; Organizational Culture; Personal Traits; Growth Environment; Leader's EQ

1. INTRODUCTION

Malaysian IT industry has significantly developed over the past decade as the country shifts towards a knowledge-based economy, focusing on services, technology, and innovation. It plays a crucial role in economic growth, contributing to GDP and employment. The Malaysia Digital Economy Blueprint (MyDIGITAL) aims to establish the nation as a regional digital economy hub, enhancing productivity and competitiveness through technology adoption. Competition in the IT sector has intensified, necessitating leaders who can foster innovation, manage diverse teams, and build resilient organizations. The industry's high employee turnover, technological stress, and demand for growth create challenges. Effective leaders must have vision and drive digital transformation [27]. AirAsia Digital leaders recognize the significance of high emotional intelligence (EQ) in managing diverse teams and facilitating digital transformation, ensuring that the human aspects of the organization are not overlooked amid technological advancements. Based in Kuala Lumpur, AirAsia, a Malaysian low-cost airline, aims to evolve into a digital travel and lifestyle company through AirAsia Digital. Research shows that academic institutions prioritizing emotional and social learning can significantly

https://doi.org/10.55578/hrdm.2604.004

enhance students' emotional intelligence (EQ), preparing them for future leadership roles [21]. Additionally, companies like AirAsia Digital have incorporated EQ training in their leadership programs to improve skills in stress management, interpersonal communication, and team member management. Leaders can enhance their emotional intelligence (EQ) by fostering a supportive organizational culture that values psychological sensitivity. When employers promote open dialogue and care for subordinates, leaders can develop their emotional competencies, improve understanding, and build strong interpersonal relationships. Additionally, an environment that encourages experimentation and innovation helps leaders navigate change, manage emotions under risk, and motivate team acceptance of new situations, thereby enhancing their capacity for emotional coping and learning [1]. A study indicates a positive correlation between emotional intelligence (EQ) and leadership outcomes [37]. Leadership is linked to emotional intelligence (EQ), which is crucial for organizations in the competitive IT sector. Despite its multifaceted nature, effective strategies for developing EQ in leaders remain unclear. This proposal aims to explore factors that enhance EQ in leaders, facilitating IT organizations to identify necessary changes and implement leadership development programs that improve both leadership and organizational performance.

As Malaysia seeks to enhance its position in the regional digital economy, the industry must adapt to technological changes amidst rising global competition. Rapid advancements have created a high demand for leaders with both technical expertise in emerging technologies—such as artificial intelligence, big data, cloud computing, and IoT—and emotional intelligence to navigate human aspects of technology adoption. Despite the importance of interpersonal skills, educational institutions and corporate training continue to prioritize technical competencies above all else. Leaders require a consistent set of emotional intelligence (EQ) competencies for effective performance, though current assessment tools for EQ and leadership outcomes remain subjective [41]. Methods like self-reports and observer ratings may introduce biases. EQ training in fields like surgery has been shown to enhance workplace culture by increasing job satisfaction, fostering teamwork, and reducing burnout, leading to a better organizational environment [12]. It promotes empathy and dialogue in diverse settings, helps prevent conflicts, and builds mutual understanding. Additionally, it supports comprehensive EQ development in goal setting, self-awareness, respect for others, perseverance, and resilience, which are crucial for leadership success [3]. Various studies in public sector, healthcare industry, banking industry and others field, the research emphasizes its importance in enriching the understanding of emotional intelligence (EQ) and leadership while aiding practical implementations of related initiatives. It aims to enhance theoretical concepts and identify factors for improving EQ, providing organizations with actionable insights for bolstering leadership development programs. To bridge gaps in understanding, the study highlights key success factors for enhancing Emotional Intelligence (EQ), enabling organizational leaders to develop frameworks that foster high EQ. It takes an integrative approach, considering how education, organizational environment, personality traits, and personal growth contribute to the evolution of emotional intelligence among participants.

2. LITERATURE REVIEW

The study offers a conceptual framework for enhancing a leader's emotional intelligence (EQ) by examining how various variables interact. It includes an overview of research questions, relevant theories, identified research gaps, a proposed framework, and the research hypothesis. Leadership is closely linked to emotional intelligence (EQ), influencing the actions and decisions of both leaders and their subordinates [40,50]. Emotional Intelligence (EQ) development is significantly influenced by structured training and education programs that emphasize competencies like empathy, emotional self-control, and interpersonal communication. Key questions remain regarding the long-term effects of these interventions and the integration of EQ training within leadership development initiatives. These theories aid in understanding how individuals develop and utilize emotional skills in organizations. Future research [2] should focus on creating a coherent framework to explain the development of leaders' emotional intelligence (EQ). A proposed conceptual framework aims to merge existing research and introduce new dimensions that consider both individual and contextual factors, examining the links between education and training, organizational culture, individual traits, and growth environments, and their collective impact on a leader's EQ.

2.1. Educational Training and Leader's EQ

The opportunity for education and training is crucial for developing leadership skills, including emotional intelligence (EQ). Key components of such programs include self-awareness training, emotional intelligence management tools, and pro-social skills training, essential for fostering EQ. Boyatzis and Sala [7] affirm that EQ training programs are effective across different cultures, highlighting education and training as crucial for emotional intelligence (EQ). Bar-On [5] indicates that emotion-focused training interventions can develop EQ skills, enhancing leadership performance. The research supports the hypothesis that education and training significantly increase EQ in various contexts.

H1: There's a positive relationship between educational training and leader's EQ.

2.2. Organizational Culture and Leader's EQ

Organizational culture, as defined by Patterson et al. [36], pertains to the collective views held by individuals within an organization regarding its activities. Additionally, socialization, characterized by shared beliefs and emotional support, contributes to the development of emotional intelligence (EQ). Empirical research by Sarros et al. [42] highlights the impact of culture on leadership and emotions within organizations. Companies that emphasize emotional skills tend to have leaders with higher emotional intelligence (EQ), as noted by Goleman [19], who states that leaders in emotionally supportive environments achieve better EQ scores. This indicates that cultural support is positively related to EQ development in organizations, reinforcing the hypothesis presented in earlier studies.

H2: There's a positive relationship between organizational culture and leader's EQ.

2.3. Personal Traits and Leader's EQ

Emotional intelligence is influenced by various personal traits, which can affect individuals and their emotions. According to Costa and McCrae's Big Five personality traits model, five dimensions are assessed: openness, conscientiousness, extraversion, agreeableness, and neuroticism. Research indicates that personality traits like openness and agreeableness are linked to improved emotional self-regulation and better interpersonal interactions, supported by Schmitt et al. [43] cross-cultural study highlighting their association with emotional regulation and social relations. Goleman [19] found that employees with higher scores in openness and agreeableness tend to achieve greater emotional intelligence (EQ) competencies. This consistent positive relationship among personal traits and EQ supports the hypothesis that certain personal attributes are linked to enhanced emotional intelligence.

H3: There's a positive relationship between personal traits and leader's EQ.

2.4. Growth Environment and Leader's EQ

Kaplan [28] identified that growth-promoting resources, opportunities, and support systems play a key role in developing emotional and professional skills [14]. found that a growth-oriented environment enhances emotional intelligence in both workplaces and classrooms. Goleman [19] suggests that emotional intelligence (EQ) can grow and improve when leaders operate in a growth-conducive environment, supported by empirical literature that shows a positive link between such environments and the development of EQ.

H4: There's a positive relationship between growth environment and leader's EQ.

2.5. Gaps and Empirical Studies

In recent years, research on leaders' emotional intelligence (EQ) has increased, yet there is scant literature on this topic in the Malaysian context, particularly within the evolving IT sector. This lack of localized research presents challenges for policymakers and organizations aiming to foster conducive growth in Malaysia and similar environments, as most existing studies focus on Western cultures and may not be applicable due to differing values, economic conditions, and sector specificities [29,51]. Research on the impact of organizational culture on employee development in Western IT companies often overlooks the unique characteristics of Malaysian IT businesses, such as collectivism and regulatory differences [33,46]. The absence of validated tools to assess growth environments in Malaysia complicates studies aimed at understanding the factors influencing industry growth.

Therefore, further research is needed to define 'growth environment' within the Malaysian IT context, taking into account cultural specifics and their effects on individuals and organizations. This study discusses the need to identify culturally and contextually specific methods for examining growth environments and their impacts on individuals and organizations, particularly in the Malaysian IT industry. Addressing these gaps aims to improve understanding and provide practical strategies for growth and innovation.

3. CONCEPTUAL FRAMEWORK

Figure 1 presents the proposed research model synthesizes findings from the literature review and outlines constructs related to the study. It emphasizes the moderating influence of emotional intelligence (EQ) on leadership performance. It referenced [31] definition, which supports leadership roles by enhancing leaders' understanding of effective regulation within emotional intelligence frameworks. This capacity affects decision-making, interpersonal relationships, and leadership within organizations. Baron [6] and Goleman [20] highlight how emotional intelligence (EQ) positively influences leadership outcomes, with leaders possessing high EQ fostering a favorable organizational climate and achieving objectives effectively. This is compounded by Cavallo and Brienza's [11] study, which shows that autocratic leadership behaviors are common among organizational leaders who lack emotional efficacy and exhibit low levels of emotional competencies such as self-awareness, self-regulation, sensitization, and social adroitness, as evidenced in the leadership culture of Johnson & Johnson Consumer Care. Education, both formal and vocational, plays a crucial role in developing emotional intelligence (EQ). Boyatzis & Sala [7] found that structured training significantly improves emotional competencies. Additionally, a positive organizational culture is essential for sustaining EQ, as highlighted by Patterson et al. [36] and Hofstede [24], who suggest that it upholds shared values and communication practices. Personal traits, particularly those in the Big Five personality traits model, are crucial in evaluating candidates. Traits such as openness and agreeableness enhance emotional intelligence (EQ) by promoting self-control and interpersonal skills. Cross-cultural findings by Schmitt et al. [43] reinforce the positive relationship between these traits and EQ. The training and experience within an organization influence the expected levels of emotional intelligence (EQ) of its employees. Bandura's Social Learning Theory illustrates how behaviors are learned and reinforced within family contexts, particularly during adolescence. Family members and socializing agents play a crucial role in shaping behaviors, positively or negatively, as supported by Gavazzi & Lim [17], which aligns with the conceptual framework discussed. Experience, training, organization culture, personality traits, and growth environment influence emotional intelligence (EQ), which moderates leadership outcomes. The interrelationships among these factors, as illustrated in Figure 1, underscore the need for leaders to grasp these dynamics to enhance leadership program development.

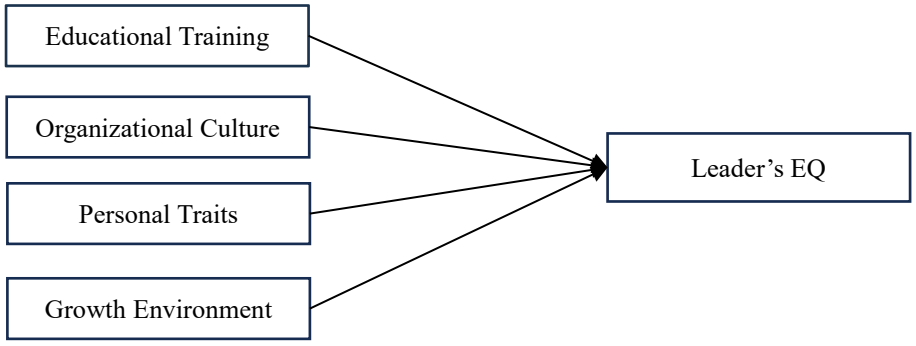

Figure 1. Conceptualized the Factors on Leaders' EQ Enhancement

4. MATERIAL AND METHODS

This work utilizes positivism research philosophy, emphasizing fact-based realistic data and statistical hypothesis testing to explore the relationships between variables. This study adopts a positivist epistemology, positing that personal traits and a leader's emotional intelligence (EQ) are

measurable entities. It investigates whether greater differentiation in personality scores correlates with higher EQ levels. The aim is to find concrete evidence that confirms or refutes the relationship between personal traits and EQ. The study utilizes a quantitative research methodology, specifically focusing on survey research, in alignment with the outlined research objectives. The study targets employees and leaders from various IT companies in Malaysia, including sectors like IT manufacturing, IT services, fintech, and e-commerce. This group is selected due to their educational background and individual organizational goals, which may influence their emotional intelligence (EQ) enhancement. Malaysia's IT industry experienced a 1.6% increase in employment, totaling 1.24 million employees in the sector. In this study, convenience sampling is a non-probability method that involves selecting easily obtainable respondents, making it cost-effective, efficient, and straightforward to implement. IT professionals are often busy and distributed across various organizations, making convenience sampling methods like online surveys, professional networks, or internal company distribution a practical approach to reach them. Cochran's formula is utilized for estimating non-probability sample size to determine population proportions and is expressed as n= (Z^2 p(1-p))/E^2. In survey research, a 5% margin of error at 90% confidence is a standard practice, balancing speed and accuracy. This allows for effective data utilization, ensuring insightful decisions. The required sample size, calculated with Cochran's formula, is 271. SPSS is used for analyzing descriptive and inferential statistics, while basic data manipulation and graphs are retained in Excel and Google Sheets. Statistical methods will analyze data from closed Likert-scale questions in online surveys to reveal the relationship between leadership emotional intelligence (EQ) and the survey results. A structured questionnaire is the primary tool for data collection, featuring well-designed questions that minimize ambiguity for accurate responses. It includes 25 questions, with five for each research variable, ensuring a balance between thoroughness and respondent engagement. The questionnaire utilizes a Likert scale consisting of five ratings: 5 (Strongly agree), 4 (Agree), 3 (Neutral), 2 (Disagree), and 1 (Strongly disagree). Validated scales like WLEIS, LDS, OCAQ, the Big Five Personality Traits Model, and PGIS enhance the credibility and reliability of the research instrument. The study aims to generate analyzable questionnaire responses regarding emotional intelligence in IT sector leaders in Malaysia, with a structured overview of the questionnaire provided in a subsequent table. This scale is widely used in social sciences research to convert abstract constructs such as perceptions, attitudes, and beliefs into measurable data. Table 1 display a measurement items.

Table 1. Measurement Items

Variables	Items	Source	Likert Scale
EQ	L1: I have a good sense of why I have certain feelings most of the time. L2: I am sensitive to the feelings and emotions of others. L3: I always set goals for myself and then try my best to achieve them. L4: I am a self-motivating person. L5: I am quite capable of controlling my own emotions.	[4]	5 Likert Scale
Educational Training	E1: If training and development opportunities are available within my workplace, I will participate in them. E2: I spend as much time as I can to learn new things at work. E3: I decide what learning and development goals are important to me. E4: Learning new knowledge and skills is important for my job. E5: My workplace provides training in advanced skills.	[47]	5 Likert Scale

Table 1. Measurement Items (continued)

Variables	Items	Source	Likert Scale
Organizational Culture	O1: People in my organization are flexible and adaptable when changes are necessary. O2: People in my organization value and make use of one another's unique strengths and different abilities. O3: People in my organization believe in teamwork, the "what's in it for us" approach rather than "what's in it for me." O4: There is a clear structure and hierarchy in my organization. O5: My organization appreciates and celebrates the employees' contributions; they also offer support to employees for their professional development.	[10,18,38]	5 Likert Scale
Personal Traits	P1: I understand myself to be naturally reserved. P2: I help people without expecting anything in return. P3: I see myself as someone who is easily distracted. P4: I see myself as someone who remains calm in tense situations. P5: I see myself as someone who is curious about many different things.	[13]	5 Likert Scale
Growth Environment	G1: I have a good sense of where I am headed in my life. G2: If I want to change something in my life, I initiate the transition process. G3: I can choose the role that I want to have in a group. G4: I have a specific action plan to help me reach my goals. G5: I take charge of my life.	[16,49]	5 Likert Scale

5. RESULTS AND DISCUSSIONS

A total of 320 surveys were distributed to working groups and professional networks in Malaysia's IT industry, leveraging platforms like LinkedIn and employing personalized and pre-contact methods. These strategies have proven effective in enhancing participant engagement and response rates in electronic surveys. The study achieved a response rate of 88%, receiving a total of 282 responses, with 34 responses utilized in a pilot test. The representativeness of the selected sample is critical for the generalizability of research findings to the entire population, as a high response rate does not ensure that the sample accurately reflects the targeted population.

5.1. Respondent Profile

This research evaluated 282 respondents based on age, gender, years in management, industrial sector, and academic background to understand the diversity and appropriateness of the sample population for research goals. In Table 2, Participants in the study were divided into four age groups: under 30, 30-39, 40-49, and over 50. Data showed that 35.8% were in the 30-year-old group, 34% were 40 years old, and 23.4% were over 50. The results indicated a significant proportion of mid-career and senior leadership participants, aligning with the study's focus on leadership emotional intelligence. The survey included three gender options: male, female, and non-disclosure, yielding responses of 55.3%, 44%, and 0.7%, respectively. This distribution supports a balanced perspective on leadership emotional intelligence in the IT sector. Among participants, 25.9% had 5-10 years of managerial experience, 42.9% had over ten years, and 31.2% had less than five years. This diversity in leadership experience facilitates meaningful analysis of emotional intelligence development across various professional levels.

The research participants were divided into various sectors, with 87.6% in corporate roles, 2.1% in government, 1.4% in non-profit, and 8.9% in other affiliations. The results indicate a focus on private-sector leadership trends due to the high representation of corporate employees. Regarding education, 69.1% held diplomas or degrees, 24.8% had master's degrees, 1.4% had doctorates, and 4.6% graduated from high school, reflecting a predominance of highly educated respondents in the leadership research context. The data collected reflects a diverse representation of Malaysian leadership within the IT sector, focusing on middle and senior levels. This allows for a comprehensive analysis of emotional intelligence enhancement factors across various demographics, such as age, gender, experience, industry, and education. A detailed descriptive analysis of the main study variables will follow.

Table 2. Profile of Respondents

Demographic	Groups	Frequency (n=282)	Percentage (%)
Age	Below 30	19	6.7
	30 - 39	101	35.8
	40 - 49	96	34.0
	50 and above	66	23.4
Gender	Male	156	55.3
	Female	124	44.0
	Prefers not to disclose	2	0.7
Years of Managerial Experience	Less than 5 years	88	31.2
	5 – 10 years	73	25.9
	More than 10 years	121	42.9
Industry Sector	Corporate	247	87.6
	Government	6	2.1
	Non-Profit Organization	4	1.4
	Other(s)	25	8.9
Education Level	High School	13	4.6
	Diploma or Degree's	195	69.1
	Master's	70	24.8
	Doctorate	4	1.4

5.2. Reliability Test

Reliability testing in quantitative measurement uses Cronbach's Alpha to evaluate internal consistency of group items. The methodology combines average item correlations with the count of test items. Reliability is categorized into three levels: a minimum of 0.7 is required, 0.8 indicates good reliability, and values above 0.9 signify exceptional reliability. A study demonstrates strong internal consistency through Cronbach's alpha values of 0.840 to 0.852, indicating reliable measurement of constructs, as shown in Table 3. A correlation among all items in each construct suggest that the scale maintains consistency and dependability, establishing the reliability for analyzing the measured constructs.

Table 3. Reliability Test

Construct	No. of Item	Item	Cronbach's Alpha Value
Leader's EQ	5	I have a good sense of why I have certain feelings most of the time.	.847
		I am sensitive to the feelings and emotions of others.	.851
		I always set goals for myself and then try my best to achieve them.	.843
		I am a self-motivating person.	.841
		I am quite capable of controlling my own emotions.	.844

Table 3. Reliability Test (continued)

Construct	No. of Item	Item	Cronbach's Alpha Value
Educational training	5	If training and development opportunities are available within my workplace, I will participate in them.	.848
		I spend as much time as I can to learn new things at work.	.844
		I decide what learning and development goals are important to me.	.843
		Learning new knowledge and skills is important for my job.	.844
		My workplace provides training in advanced skills.	.846
Organizational Culture	5	People in my organization are flexible and adaptable when changes are necessary.	.844
		People in my organization value and make use of one another's unique strengths and different abilities.	.841
		People in my organization believe in teamwork, the "what's in it for us" approach rather than "what's in it for me."	.841
		There is a clear structure and hierarchy in my organization.	.845
		My organization appreciates and celebrates the employees' contributions; they also offer support to employees for their professional development.	.841
Personal Traits	5	I understand myself to be naturally reserved.	.852
		I help people without expecting anything in return.	.844
		I see myself as someone who is easily distracted.	.866
		I see myself as someone who remains calm in tense situations.	.843
		I see myself as someone who is curious about many different things.	.845
Growth Environment	5	I have a good sense of where I am headed in my life.	.841
		If I want to change something in my life, I initiate the transition process.	.844
		I can choose the role that I want to have in a group.	.843
		I have a specific action plan to help me reach my goals.	.840
		I take charge of my life.	.842

5.3. Correlation Analysis

Statistical analysis relies on Pearson's correlation coefficient and p-value correlation matrices to measure linear relationships between variable pairs. The Pearson correlation coefficient (r) ranges from -1 to +1, indicating strong positive correlations near +1, strong negative correlations near -1, and values near 0 signifying no linear correlation. A statistical evaluation of correlations relies on p-values, with significance indicated when the p-value is below 0.05 [25]. The Pearson's r values from Table 4 show positive correlations between 0.202 and 0.606 with a statistically significant p-value of <0.001. This indicates a strong positive relationship between the dependent variable (DV) and independent variables (IVs), confirming that increases in IVs result in corresponding growth in DV. The data illustrates a robust correlation that supports the predicted relationships in the research, indicating a reliable potential for future inferential studies.

Table 4. Correlation Matrix

		Leader's EQ	Educational training	Organizational Culture	Personal Traits	Growth Environment
Leader's EQ	Pearson Correlation	1	.331**	.202**	.427**	.606**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001
Training & Education	Pearson Correlation	.331**	1	.388**	.355**	.370**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001
Organizational Culture	Pearson Correlation	.202**	.388**	1	.228**	.271**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001
Personal Traits	Pearson Correlation	.427**	.355**	.228**	1	.279**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001
Growth Environment	Pearson Correlation	.606**	.370**	.271**	.279**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	

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

5.4. Multicollinearity Analysis

Table 5. Multicollinearity Analysis

Coefficients [a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Toler ance	VIF
1	(Constant)	.982	.237		4.150	<.001		
	Training & Education	.052	.052	.053	.998	.319	.727	1.375
	Organizational Culture	-.013	.033	-.019	-.392	.695	.825	1.212
	Personal Traits	.305	.056	.268	5.486	<.001	.843	1.186
	Growth Environment	.442	.042	.517	10.453	<.001	.823	1.215

a. Dependent Variable: Leader's EQ

Strong linear interactions among independent variables lead to multicollinearity, resulting in unstable regression coefficients and inflated standard errors, complicating the understanding of each predictor's impact. All independent variables show VIF values below 2, indicating no severe multicollinearity issues. The multicollinearity of a regression model can also be assessed using the statistical tolerance value, which quantifies the extent to which independent variables can predict one another. The closeness of 1 in tolerance value indicates minimal correlations with other predictor variables, while a value near 0 suggests significant multicollinearity, showing that the variable can be estimated by other regression model variables. Tolerance values exceeding 0.727 confirm the absence of multicollinearity, thereby ensuring the reliability of regression coefficients. Standardized coefficients, represented as "β" (beta), allow for the comparison of regression coefficients, enabling researchers to identify the relative strength of predictors on the outcome variable, regardless of differing measurement units. The outcome variable changes by β standard deviations with a one standard deviation increase in the predictor variable. Significant positive relationships to leader's emotional intelligence (EQ) are noted for growth environment ($\beta = 0.517$, $p < 0.001$) and personal traits ($\beta = 0.268$, $p < 0.001$). The integration of supportive growth environments and personal traits

development significantly enhances a leader's emotional intelligence (EQ). However, the relationships between training & education and organizational culture with a leader's EQ are statistically non-significant, as indicated by their p-values exceeding 0.05.

5.5. Multiple Regression

The strength of relationships in multiple linear regression is assessed using the correlation coefficient (R), where values close to 1 indicate a strong positive correlation between variables. Research shows that a correlation coefficient of 0.664 suggests a moderate to strong positive relationship between the dependent variable (leader's EQ) and independent variables such as growth environment, organizational culture, personal traits, and educational training. The R-squared value ranges from 0 to 1, with higher values indicating stronger relationships between variables and better explanation of variance [26]. Hair et al. [15] suggest that an R-squared value of 0.13 indicates moderate explanatory power, while values above 0.26 suggest substantial predictive ability. In this case, the independent variables collectively account for 44.1% of the variance in leaders' emotional intelligence (EQ), reflecting a strong explanatory capacity. The adjusted R-square value of 0.433 indicates stability as it adjusts for the number of predictor variables. The lower standard error of the estimate (SEE) of 0.389 suggests that the model's predictions closely match actual data, resulting in reliable forecasts regarding variations in leaders' emotional intelligence (EQ).

Table 6. Multiple Regression

Model Summary [b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.664[a]	.441	.433	.38900

a. Predictors: (Constant), Growth Environment, Organizational Culture, Personal Traits, Educational training

b. Dependent Variable: Leader's EQ

5.6. Regression ANOVA

The Anova table assesses the statistical significance of the regression model using the F-value, which tests the null hypothesis regarding the model's explanatory power without independent variables. A higher F-value and a p-value below 0.05 indicate that the independent variables collectively have a significant impact on the dependent variable. Table 7 demonstrates the model's statistical significance with an F-statistic of 54.742 ($p < 0.001$), indicating that at least one independent variable effectively predicts a leader's emotional intelligence (EQ). The coefficient of determination (R^2) is a key metric for assessing model goodness of fit, calculated by comparing the Sum of Squares due to Regression (SSR) to the Total Sum of Squares (SST). A higher R^2 value signifies improved model fit quality as SSR increases relative to SST. The predictive model in table 7 exhibits significant effectiveness, illustrated by an R^2 value of 0.441, indicating that the regression models account for 44.1% of the total variance of 75.051, based on their sums of squares of 33.135 and 41.916.

Table 7. Regression ANOVA

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.135	4	8.284	54.742	<.001[b]
	Residual	41.916	277	.151		
	Total	75.051	281			

a. Dependent Variable: Leader's EQ

b. Predictors: (Constant), Growth Environment, Organizational Culture, Personal Traits, Educational training

5.7. Discussion of Hypothesis Testing

The analysis identifies hypotheses confirmation or rejection and assesses the results' relation to prior studies, yielding benefits that validate theoretical foundations and provide implications for scholars and industry professionals. The following discussion will highlight these benefits and suggest future research paths [22].

Table 8. Summary of Hypotheses Testing

Item	Hypotheses	Significant ($p<0.05$)	Status
H1	An insignificant relationship between education and training and leader's EQ.	.319	Rejected
H2	An insignificant relationship between organizational culture and leader's EQ.	.695	Rejected
H3	A positive relationship between personal traits and leader's EQ.	<.001	Accepted
H4	A positive relationship between growth environment and leader's EQ.	<.001	Accepted

H1: An insignificant relationship between educational training and leader's EQ.

Results indicate that education and training do not significantly correlate with a leader's emotional intelligence, as shown by a beta coefficient of 0.053 and a p-value of 0.319, exceeding the 0.05 significance threshold. This study challenges the idea that such educational measures enhance emotional intelligence, and highlights the ineffectiveness of EQ training programs across different cultural contexts. The findings contradict earlier research by Boyatzis and Sala [7], which showed that structured training aids emotional intelligence (EQ) competency development. The current research suggests that education and training alone are inadequate for determining EQ levels; instead, personal history events, demographic profiles, and innate personality traits are more significant factors in the development of leaders' EQ [44]. In the context of school education perspective, this situation clearly illustrates that the workload of secondary school teachers at this time is still not over. This challenge requires teachers to be more motivated, dedicated and committed enough in carrying out their daily tasks. Indeed, having highly committed teachers is considered an asset in any school. In this regard, the role of educational leaders cannot be ignored because they are responsible for ensuring that subordinates under their leadership are always in a healthy working environment. In this context, the leader himself should have a peaceful emotion and mind in leading his leadership in the school so that he can be a stimulus for teachers to continue to be committed to the organization [48]. Research indicates that organizations need to reassess their leader development approaches in conjunction with emotional intelligence training. They should incorporate diverse methods like mentorship and experiential learning, complemented by long-term behavioral strategies, to enhance emotional intelligence in leadership. Further research is required to identify effective variables and training protocols for measurable growth in leader emotional intelligence.

H2: An insignificant relationship between organizational culture and leader's EQ.

The study data refutes the original hypothesis, indicating no significant relationship between organizational culture and leaders' emotional intelligence, as evidenced by a standardized beta coefficient of -0.019 and a p-value of 0.695, both exceeding the 0.05 significance threshold. This research contests earlier conclusions by Gladwin and Hofstede [20] regarding the impact of organizational culture on leadership emotional dynamics. It argues that Hofstede's cultural values do influence leader interactions and approaches, yet organizational culture alone does not adequately account for the development of emotional intelligence skills in leaders. The complex nature of emotional intelligence, influenced by various situational and personal factors, complicates the understanding of these outcomes beyond mere cultural norms, as noted by Simić et al [44]. The structure and culture of an organization shapes how formal tasks and reporting relationships and collaborations are controlled and coordinated to achieve organizational goals [9]. Organizational culture or structure can be viewed as relatively more formal or informal, or more mechanistic or organic. However, the degree to which it is formal or informal and mechanistic or organic is determined by public or management organizational policies in accordance with the degree of stability and uncertainty of the organizational environment [8]. In performing knowledge work such as in EG agencies, group-based structures are more needed to allow employees to interact to help build capabilities that produce innovation [23]. The study indicates that while organizational culture influences the development of emotional intelligence (EQ), it does not determine leaders' EQ levels. Organizations are encouraged to seek methods beyond cultural changes and ethical alignment to

enhance emotional intelligence in leadership. Further research is needed to explore how organizational culture interacts with environmental and individual factors affecting emotional intelligence development.

H3: A positive relationship between personal traits and leader's EQ.

The study findings confirm that personal traits have a significant impact on emotional intelligence (EQ) scores of leaders, with a standardized beta coefficient of 0.268 and a p-value below 0.001. Specifically, an increase of one unit in personal traits results in an elevation of EQ scores by 0.268 standard deviations. The ANOVA regression results indicate statistical significance for the leader's emotional intelligence (F-statistic = 54.742, $p < 0.001$), confirming that at least one independent variable significantly influences emotional intelligence development. This supports Goleman's [19] theory that individuals with higher openness and agreeableness excel in EQ competencies. Leaders with strong personality traits enhance self-awareness, empathy, and communication skills, thereby improving their emotional intelligence, as shown by Pandey et al. [34]. Emotional intelligence is a core component of personality that is less influenced by external factors like training and culture. The study emphasizes the importance of personality evaluation tools in selecting leadership candidates and guiding their professional development. Further research is needed to explore how personality traits interact with external work environments and stress-reduction techniques to improve leadership development programs.

H4: A positive relationship between growth environment and leader's EQ.

The research findings confirm a significant positive relationship between growth environment and emotional intelligence, indicated by a standardized beta coefficient of 0.517 and a p-value of <0.001. Enhanced growth resources and support systems are linked to measurable improvements in leaders' emotional intelligence abilities [35]. The survey results validate [30] findings regarding the critical role of environmental support in fostering emotional competence and professional skills. Leaders in supportive work environments that encourage continuous learning and emotional mentorship, alongside psychological safety, tend to improve their emotional intelligence [39]. Emotional regulation and self-awareness in employees enhance when they utilize developmental resources and receive appropriate feedback during leadership development, fostering emotional intelligence [32]. Organizations should create engaging work environments that support skill development based on research evidence. Longitudinal assessments should analyze how these environments influence leaders' emotional intelligence by tracking changes over time.

5.8. Practical and Policy Contribution and Implications

The study emphasizes the need for HR professionals to enhance leadership development programs by shifting away from traditional emotional intelligence (EQ) training. Instead, it recommends incorporating experiential learning, mentorship, and continuous feedback. Creating supportive learning environments is crucial for fostering growth in emotional intelligence among leaders. Organizations are urged to apply these findings to improve leadership initiatives and strengthen personality assessments to promote EQ development.

The research underscores the need to reassess leadership development policies in both businesses and educational systems. It calls for the evaluation of executive education programs, competency frameworks, and leadership training models, emphasizing the development of assessment tools based on personality profiles and extended experiential learning. Organizations and policymakers are tasked with this responsibility, as findings suggest that leadership development must transition from standardized training to customized programs that enhance professional competence and emotional development. The significant impact of personal characteristics on emotional intelligence necessitates the incorporation of psychometric assessment methods in educational curricula. These evaluations enhance students' emotional awareness and foster vital regulatory systems for their academic and personal development. Additionally, such assessments assist organizations and HR departments in recognizing leadership potential and cultivating emotional intelligence within their workforce.

Research findings indicate that leadership development in Malaysia's Information Technology sector relies more on personality traits and growth environments than on formal training. It is recommended that practitioner development emphasize experience-based training, combining mentoring with practical training and performance evaluations. HR should use psychometric

evaluations for identifying potential emotionally intelligent leaders. Organizations must create environments promoting psychological safety and continuous learning to enhance emotional intelligence (EQ) development. Strengthening leadership frameworks with EQ offers competitive advantages for IT organizations amid complexities. The study advocates for experiential leadership skill development tailored to individual traits in emerging Malaysian markets [45].

6. LIMITATION AND RECOMMENDATION

This study highlights valuable findings but identifies significant constraints concerning emotional intelligence (EQ) assessment. The primary drawback lies in the self-report instruments that, despite their ease of administration, introduce social biases that artificially inflate scores, resulting in misleading outcomes [34]. Observer assessments of participants provide external perspectives but may show inconsistencies among assessors. Their operational and predictive validity is limited, affecting their practical use in organizational settings. Recent literature highlights ongoing debates regarding the ecological validity of these assessments, as workplace dynamics necessitate advanced evaluation skills.

Emotional intelligence (EQ) provides a meaningful perspective on leadership behaviors and organizational dynamics. However, researchers have not consistently matched its predictive validity with established measures such as mental ability and personality traits. Improved assessment methods and contextual measures are essential for accurate interpretations of EQ in the development of leadership programs. The study emphasizes the importance of examining the connections between organizational culture, environmental factors, and individual elements in the development of emotional intelligence (EQ). It suggests that future research should investigate the long-term effects of growth environments on EQ development, particularly focusing on leaders' developmental experiences over extended periods. Additional variables, such as hierarchical position and the duration of leadership experience, are recommended for exploration to deepen understanding of leader development. This research aims to enhance methods for leadership development and improve emotional intelligence across various professional settings.

7. CONCLUSION

In this study, RO3 and RO4 are supported, while RO1 and RO2 are not accepted. The study outlines the need for HR professionals and managers to enhance leadership development programs by incorporating experiential learning, mentorship, and continuous feedback. It argues that traditional EQ training methods are ineffective, calling for the establishment of growth-promoting learning environments. These environments significantly enhance leaders' emotional intelligence, necessitating organizations to improve leadership development initiatives and bolster personality assessment methods for better EQ growth support. The research highlights the need for evaluating leadership development policies in both businesses and educational systems. It suggests that executive education programs, competency frameworks, and leadership training models should incorporate assessment tools rooted in personality profiles and experiential learning. This responsibility falls on organizations and policymakers. The research emphasizes the need for leadership development programs to offer customized training that fosters both professional competence and emotional intelligence. It advocates for the integration of psychometric assessments in educational curricula to enhance students' emotional understanding and regulation skills, benefiting their development. These evaluations also assist organizations in identifying leadership potential and promoting emotional intelligence within their workforce.

Funding Statement: No external funding was received for this research.

Contribution: J.Y. Aw performed the literature review and experimental design and analyzed and interpreted the data, and H. Vasudevan prepared the manuscript text and manuscript edition with AI summarizing. J.Y. Aw and H. Vasudevan performed the experiments and literature review, compiled the data, and prepared the manuscript. J.Y. Aw performed the data analysis and findings, while H. Vasudevan compiled the data analysis and findings for the manuscript edition.

Informed Consent Statement: Ethical consideration letter for data collection obtained from UniRazak.

Data Availability Statement: Data are available upon request from the authors.

Conflict of Interest Statement: The authors declare no conflict of interest.

REFERENCES

1. Alissai, M., & Al Daraai, S. B. (2026). The role of emotional intelligence in innovative leadership. In *Aligning talent management and organizational innovation goals* (pp. 139–164). IGI Global Scientific Publishing.
2. Alon, I., Lankut, E., Gunkel, M., Munim, Z. H., Taras, V., & Richter, N. F. (2023). Predicting leadership emergence in global virtual teams. *Entrepreneurial Business and Economics Review, 11*(3), 7–23. https://doi.org/10.15678/eber.2023.110301
3. Andres, F. (2025). The role of emotional intelligence in self-awareness and well-being. In *Development of self-awareness and wellbeing: Global learning challenges in a shifting society* (pp. 1–46). IGI Global Scientific Publishing.
4. Balgiu, B. A., Simionescu-Panait, A., & Mărgărit, A. I. (2024). Adapting and validating the Wong and Law emotional intelligence scale among Romanian students. *Journal of Educational Sciences & Psychology, 15*(76)(2), 215–226. https://doi.org/10.51865/jesp.2024.2.18
5. Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory.
6. Baron, R. A. (2000). Psychological perspectives on entrepreneurship: Cognitive and social factors in entrepreneurs' success. *Current Directions in Psychological Science, 9*(1), 15–18.
7. Boyatzis, R. E., & Sala, F. (2004). Assessing emotional intelligence competencies. *The Measurement of Emotional Intelligence, 2*, 147.
8. Burns, T., & Stalker, G. M. (2009). The organization of innovation. In *Knowledge management and organisational design* (pp. 77–92). Routledge.
9. Carrell, M. R., Jennings, D. F., & Hearin, C. (1997). *Fundamentals of organizational behaviour*. Prentice Hall International.
10. Cameron, K., & Sine, W. (1999). A framework for organizational quality culture. *Quality Management Journal, 6*(4), 7–25.
11. Cavallo, K., & Brienza, D. (2001). Emotional competence and leadership excellence at Johnson & Johnson: The emotional intelligence and leadership study. Retrieved from the Consortium for Research on Emotional Intelligence in Organizations website.
12. Chaudry, A., Wong, Z., Leighton, P., Makhdoom, N., & Karantana, A. (2024). 1145 The role of emotional intelligence in surgical leadership: A qualitative study. *British Journal of Surgery, 111*(Supplement_6). https://doi.org/10.1093/bjs/znae163.174
13. Chayka, R. (2024). Relationship between objective and subjective career success and their characteristics: A comprehensive analysis in the Ukrainian IT sector. *ПСИХОЛОГІЯ, 124*.
14. Druskat, V. U., & Wolff, S. B. (2001). Building the emotional intelligence of groups. *Harvard Business Review, 79*(3), 80–91.
15. Hair, J. F., Jr., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review, 26*(2), 106–121.
16. Freitas, T. P., Oliveira, J. T. D. S., Vidaurre, G. B., & Rodrigues, B. P. (2018). Environmental effect on chemical composition of eucalyptus clones wood for pulp production. *Cerne, 24*(3), 219–224.
17. Gavazzi, S. M., & Lim, J. Y. (2023). Family systems theory. In *Families with adolescents: Bridging the gaps between theory, research, and practice* (pp. 35–45). Springer International Publishing.
18. Gelencsér, M., Szigeti, O., & Szabó-Szentgróti, G. (2020). A feldolgozóipari munkavállalók munkaerő-megtartása. *Vezetéstudomány/Budapest Management Review, 51*(9), 67–79.
19. Goleman, D. (1998). The emotional intelligence of leaders. *Leader to Leader, 1998*(10), 20–26.

20. Galdwin TN, Hofstede G (1981) Culture's consequences: International differences in work-related values. The Academy of Management, 6(4).
21. Herut, A. H., Muleta, H. D., & Lebeta, M. F. (2024). Emotional intelligence as a predictor for academic achievement of children: Evidence from primary schools of southern Ethiopia. *Social Sciences & Humanities Open, 9*, 100779.
22. Heun, R. (2018). A systematic review on the effect of Ramadan on mental health: Minor effects and no harm in general, but increased risk of relapse in schizophrenia and bipolar disorder. *Global Psychiatry, 1*(1), 7–16.
23. Hidding, G. J., & Catterall, S. M. (1998). Anatomy of a learning organization: Turning knowledge into capital at Andersen Consulting. *Knowledge and Process Management, 5*(1), 3–13.
24. Hofstede, G. (1980). Culture and organizations. *International Studies of Management & Organization, 10*(4), 15–41.
25. Jaffrey, M., & Dushkoff, M. (2020). Derivation of analytic formulas for the sample moments of the sample correlation over permutations of data. *arXiv preprint arXiv:2002.08543*.
26. Janková, J., Shah, R. D., Bühlmann, P., & Samworth, R. J. (2020). Goodness-of-fit testing in high dimensional generalized linear models. *Journal of the Royal Statistical Society: Series B (Statistical Methodology), 82*(3), 773–795.
27. Jawawi, D., Jamal, N., Halim, S. A., Sa'adon, N., Mamat, R., Isa, M., & Hamed, H. A. (2022). Nurturing secondary school student computational thinking through educational robotics. *International Journal of Emerging Technologies in Learning (iJET), 17*(3), 117–128.
28. Kaplan, R. E. (1964). *The stability of laminar incompressible boundary layers in the presence of compliant boundaries* (Doctoral dissertation, Massachusetts Institute of Technology).
29. Korn, C. W., Fan, Y., Zhang, K., Wang, C., Han, S., & Heekeren, H. R. (2014). Cultural influences on social feedback processing of character traits. *Frontiers in Human Neuroscience, 8*. https://doi.org/10.3389/fnhum.2014.00192
30. Li, S., Tang, Y., & Zheng, Y. (2023). How the home learning environment contributes to children's social–emotional competence: A moderated mediation model. *Frontiers in Psychology, 14*, 1065978.
31. Mayer, J. D., Salovey, P., & Caruso, D. R. (2007). What is emotional intelligence and what does it predict? In *Extending intelligence* (pp. 267–291). Routledge.
32. Mohammadi Sharkanloo, M., Taghizadeh Honameh, F., & Seadate Shamir, M. (2023). A qualitative study on the role of constructive feedback in the development of individual skills in startup environments. *Dynamic Management and Business Analysis, 2*(3), 108–115.
33. Naqshbandi, M. M., Kaur, S., Sehgal, R., & Subramaniam, I. D. (2015). Organizational culture profile of Malaysian high-tech industries. *Asia-Pacific Journal of Business Administration, 7*(1), 2–19. https://doi.org/10.1108/apjba-08-2013-0088
34. Pandey, J. K., Rai, M., & Ray, S. (Eds.). (2025). *The role of emotional intelligence and artificial intelligence in organizations: Harmonizing human and machine*. CRC Press.
35. Pattanaik, S. R., Bansal, S., & Paramita, P. (2024). Understanding the impact of emotional intelligence and leadership qualities in an organization. *Frontiers in Multidisciplinary Research Studies, 1*(2), 107. https://doi.org/10.31531/fmrs.1000107
36. Patterson, M. G., West, M. A., Shackleton, V. J., Dawson, J. F., Lawthom, R., Maitlis, S., & Wallace, A. M. (2005). Validating the organizational climate measure: Links to managerial practices, productivity and innovation. *Journal of Organizational Behavior, 26*(4), 379–408.
37. Pushkarna, M. (2022). Significance of emotional intelligence in leadership roles for financial planners. *International Journal of Advanced Research, 10*(11), 382–387. https://doi.org/10.21474/ijar01/15682
38. Putri, S. T., Fardhani, I., Mulyati, Y., Kurniawan, B. R., & Putri, A. (2024). Developing global warming module based on education for sustainable development to increase middle school students' understanding and sustainability awareness. *Jurnal Pendidikan Sains Indonesia, 12*(2), 247–263.
39. Roberts-Olatawura, S. (2025). *The mediating role of emotional intelligence between psychological safety and employee creativity* (Doctoral dissertation, Keiser University).

40. Saferdin, W. A. A. W. M., Jani, S. H. M., Jislan, F., & Rosidi, R. M. (2023). The relationships between emotional intelligence and leadership effectiveness in selected Malaysian public sectors. *Information Management and Business Review, 15*(3), 466–476. https://doi.org/10.22610/imbr.v15i3(i).3556
41. Salters-Pedneault, K. (2023, April 14). The use of self-report data in psychology. *Verywell Mind*. https://www.verywellmind.com/definition-of-self-report-425267
42. Sarros, J. C., Gray, J., & Densten, I. L. (2002). Leadership and its impact on organizational culture. *International Journal of Business Studies, 10*(2).
43. Schmitt, D. P., Allik, J., McCrae, R. R., & Benet-Martínez, V. (2007). The geographic distribution of Big Five personality traits: Patterns and profiles of human self-description across 56 nations. *Journal of Cross-Cultural Psychology, 38*(2), 173–212.
44. Šimić, L. M., & Štimac, H. (2012). Competitiveness in higher education: A need for marketing orientation and service quality. *Economics and Sociology, 5*(2), 23–34.
45. Sulaiman, S., Yusof, S. N. L. M., & Amaran, M. A. (2024). State of entrepreneurship education in Malaysia: A critical review on the present setup of entrepreneurship programs in public universities Malaysia compared to international. *Journal of Economics and Sustainability, 6*(2), 84–103.
46. Tantawi, R., Ishak, I. M., Noviana, N. A. H., Botutihe, M., & Hidayat, F. (2026). Understanding Indonesian organizational culture through Hofstede insights: A comparison with Malaysia, Singapore, and Thailand. *Jambura Science of Management, 8*(1), 42–61.
47. Tones, M., & Pillay, H. (2009). Stability of the learning and development survey: Findings for mature aged local government and private healthcare organisations. In *Proceedings of the 8th National Conference of Emerging Researchers in Ageing* (pp. 185–190). Monash University.
48. Vetriveilmany, U. T. (2024). Hubungan antara kecerdasan emosi pemimpin pendidikan dan komitmen organisasi guru. *Global Journal of Education Research & Management (GERMANE), 4*(2), 12–24.
49. Weigold, I. K., Weigold, A., Dykema, S. A., Drakeford, N. M., & Ethridge, E. T. (2024). Personal growth initiative: Relation to coping styles, strategies, and self-efficacy. *Journal of Happiness Studies, 25*(6), 80.
50. Westover, J. (2024). Leading with heart: The importance of emotional intelligence for effective 21st century leadership. *Human Capital Leadership, 13*(4). https://doi.org/10.70175/hclreview.2020.13.4.9
51. Yang, Z. (2024). How East Asian culture influences the personality traits of its residents: An exploration of cultural characteristics and the emphasis on interdependence. *Communications in Humanities Research, 31*(1), 44–50. https://doi.org/10.54254/2753-7064/31/20231831