ความสัมพันธ์ระหว่างความฉลาดทางอารมณ์กับผลการปฏิบัติงานด้านภาวะผู้นำและองค์การ: หลักฐานจากผลการศึกษากลุ่มธนาคารรัฐวิสาหกิจ

Relationships among Emotional Intelligence, Leadership Performance, and Organizational Performance: Evidence from Thai State Enterprise Banks

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บทคัดย่อ

เป็นที่เข้าใจกันอย่างกว้างขวางว่าผู้นำที่ดีสามารถนำพาองค์กรไปสู่ความสำเร็จได้ การเป็นผู้นำที่มีเชาวน์อารมณ์ (Emotional Intelligence) ถือเป็นลักษณะสำคัญประการหนึ่งของผู้นำที่ดี ผู้นำที่มีระดับของเชาวน์อารมณ์สูงกว่ามักจะมีผลการดำเนินงานที่ดีกว่าผู้นำที่มีเชาวน์อารมณ์น้อยกว่า ความสัมพันธ์ระหว่างการเป็นผู้นำที่ดี มีเชาวน์อารมณ์ในระดับสูงกับผลประกอบการขององค์กรมักมีความสัมพันธ์ไปในทิศทางเดียวกัน อย่างไรก็ดี ผลการศึกษาจากงานวิจัยนี้พบว่าความสัมพันธ์ระหว่างเชาวน์อารมณ์กับผลประกอบการขององค์กรที่อยู่ในอุตสาหกรรมการเงินมีทิศทางตรงกันข้ามอย่างมีนัยสำคัญ นั่นคือองค์กรที่นำโดยผู้นำที่มีระดับเชาวน์อารมณ์สูงมีผลการดำเนินการต่ำกว่าองค์กรที่บริหารโดยผู้นำที่มีเชาวน์อารมณ์ต่ำกว่า ผลการศึกษาจากงานวิจัยที่ขัดแย้งกับผลการศึกษาในอดีตน่าจะมีผลมาจากประเภทของผู้นำที่เป็นตัวอย่างในการศึกษานี้ การศึกษาในอดีตศึกษาผลกระทบของภาวะผู้นำประเภทเน้นการเปลี่ยนแปลงหรือปฏิรูป (Transformation Leader) ที่มีผลต่อผลการดำเนินงานขององค์กร ในขณะที่การศึกษานี้เน้นการศึกษาผลกระทบของภาวะผู้นำประเภทที่เน้นผลการปฏิบัติ (Transactional Leader) ซึ่งเป็นลักษณะของผู้นำในองค์กรในกลุ่มสถาบันการเงินหรือในที่นี้คือธนาคาร นั่นคือภาวะผู้นำประเภทเน้นผลการปฏิบัติจะเน้นที่ผลของงานมากกว่าผู้นำที่เน้นการเปลี่ยนแปลง ดังนั้นแบบสอบถามที่นิยมใช้กันเพื่อวัดระดับเชาวน์อารมณ์ของผู้นำเป็นการเน้นการวัดภาวะผู้นำประเภทเน้นการเปลี่ยนแปลงหรือ Transformational Leadership Style จึงไม่น่าแปลกใจที่ผลการศึกษานี้จะต่างจากการศึกษาในอดีต

คำสำคัญ: เชาวน์อารมณ์ ภาวะผู้นำ ผลการดำเนินงานขององค์กร

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ABSTRACT

It is widely believed that good leadership leads an organization to success. Emotional intelligence is deemed as one of the key components of a good leader. A leader with a higher emotional intelligence level tends to outperform a leader with a lower emotional intelligence. A relationship between good leaders with high emotional intelligence and firm or organizational performance was documented to be positively correlated. However, the result from this study exhibits that emotional intelligence and organizational performance have a significant negative correlation. This implies that an organization led by higher emotional Intelligence leader underperforms an organization led by lower emotional intelligence. Contradictions with previous studies may stem from different types of leaders focused in this studies. Previous studies explored effects of transformation leaders on firm performance. This study explores samples which are bankers who possess transactional leadership style. Transactional leadership styles of bankers emphasize job performance rather than transformational leadership, as documented in previous studies. While emotional Intelligence questionnaire is designed to measure emotional intelligence of a transformational leader, contradictory results should be expected.

Keywords: Emotional Intelligence, Leadership, Organization Performance

1. Introduction

Intelligence is one of the most popular topics in many areas that are related to humans. Areas of studies related to intelligence are divided into two areas. The first area is cognitive aspects relating to memory and problem solving, and the second area is non-cognitive aspects.

Intelligence Quotient (I.Q.) is the most addressed measurement for cognitive intelligence. Most psychologists claim that I.Q. is the most important factor for a person to have a successful work life. Moreover, it is believed that I.Q. is an intelligence that cannot be developed through time.

The other aspect of intelligence is the non-cognitive ability used to measure how well people live their lives. There are many studies stating that I.Q. is not the only factor that helps to indicate how well people do in their lives and work. What makes people do well in their lives and work is their abilities to handle their emotions and get along with others (Hunter & Hunter, 1984; Snarey & Vaillant, 1985; Sternberg, 1996).

In summary, both cognitive and non-cognitive abilities are very much related to each other. Emotional and social skills actually help improve cognitive functions (Cherniss, 2000).

Emotional intelligence is one of the non-cognitive intelligences, being a key factor for a person to live one's life well. Emotional Intelligence helps one adjust oneself to an environment different from what one is acquainted with. Furthermore, having both emotional and social skills helps one to live one's life well; or known as being successful in both life and workplace. Emotional intelligence (EQ) [ws1] is proposed as an important type of intelligences which can be measured as intelligence quotient (IQ) and other related tests. EQ is considered as a predictor for life satisfaction, healthy, psychological adaption, positive interactions with peers and family, and higher parental warmth. Lower emotional intelligence is found to be associated with violent behavior, illegal use of drugs and alcohol, and participation in irresponsible behavior. In the workplace, emotional intelligence is related to higher chance of being successful among people who have similar positions. Stys and Brown (2004) documented that a firm could have higher financial performance by hiring individuals with higher emotional intelligence as well as training existing employees to be develop more emotional intelligence.

Emotional intelligence is one of the most popular intelligences. It is applied to human resource development area in term of a factor that drives performance. It is believed that emotional intelligence is one key success factor of a good leader. This is because the concept of emotional intelligence is clearly defined as well understanding oneself and others. The leader with emotional intelligence will perform better than other leaders who have low level of emotional intelligence (Goleman, 1998). In general, an organization perspective, it is believed that emotional intelligence is one of the characteristics that helps leaders to perform better. Thus, many organizations focus on developing emotional intelligence within their organizations, especially at the management level. As a result, they will achieve great organizational performance and be a high performance organization, eventually.

There are five parts, including introduction part, in this study. Part two addresses literature reviews. Research Methodology and Data are in the third section. Research results and conclusion are in the fourth and the fifth section, respectively.

2. Literature Reviews

Concepts of Emotional Intelligence, capturing attention of philosophers and academicians, appeared in both practical and academic publications beginning in the early 1990s. There are two perspectives of Emotional Intelligence; the ability model and mixed model. The ability model regards emotional intelligence as a pure form of mental ability. Emotional intelligence is an innate ability of a person. The mixed model is a mixture conception of intelligence that relates mental abilities with personality characteristics such as optimism and well-being (Stys & Brown, 2004). Mayer, Salovey, and Carso (2000) proposed three famous models of emotional intelligence that are Mayer and Salovey's, Bar-On's, and Goleman's models under two perspectives of emotional intelligence. This means that three models are classified under two frameworks of emotional intelligence, namely the ability and the mixed model.

Mayer and Salovey (1997), under the ability model, defined emotional intelligence as the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others. Emotional intelligence can be considered as a form of pure intelligence or innate ability of a person (Stys & Brown, 2004). A wider form of intelligence documented by Mayer and Salovey (1997) and Cherniss and Goleman (2001) in terms of altruism stating that emotional intelligence is the ability

monitoring both one's own and others' feeling together with emotions. Further evidence on how emotional intelligence affects an individual problem solving skills by Mayer, Salovey, and Carso (2000) exhibits that emotional intelligence is the set of abilities to accurately understand information embedded in emotions. The more accurate understanding of emotion leads to the better problem solving skills in an individual's emotional life. Mayer and Salove, (1997) and Cherniss & Goleman (2001) provided strong support for the findings of Mayer, Salovey, and Carso (200), [ws2] stating that the ability to perceive, understand, integrate, and regulate emotion reacting to a situation one faces helps to promote success in both working and social life.

Emotional intelligence, under the second perspective or the mixed model, as defined by Bar-On (1997), states that emotional intelligence is considered as a mixed array of non-cognitive capabilities, competencies, and skills affecting a person's ability to deal with demanding and high pressure surroundings successfully. Stys & Brown (2004) extends Bar-On emotional intelligence model by proposing a model identifying determinants affecting a person's well-being. The extended model, taking into account the context of personality theory, emphasizes on co-dependence of the ability aspects of emotional intelligence with personality traits and their personality factors as determinants affecting a personal well-being.

Goleman (1995) defined Emotional Intelligence, under the mixed emotional intelligence model, as abilities in three dimensions. The first dimension is self-control ability. The second dimension covers enthusiasm and persistence. The third dimension is the ability to motivate oneself. Cherniss and Goleman (2001) extends the emotional intelligence model, defined by Goleman (1995), as the ability to recognize and regulate emotions in ourselves and others. Further studies by Goleman (2001) and Stys & Brown (2004) documented that emotional intelligence should take into account performance of a person or organization under consideration by integrating both cognitive ability and personality factors to determine a successful workplace. Goleman proposed the model taking into account performance, integrating individual's abilities and personalities, and applying their corresponding effects on performance in the workplace. The model focuses on how cognitive ability and personality factors determine workplace success.

This study focuses on Goleman's model in exploring effects of emotional intelligence on organization performance. There are three reasons why this paper based on Goleman's emotional intelligence model are discussed in this section. Firstly, application of emotional

intelligence to the business sector was documented in Goleman's works in which concepts or emotional intelligence together with the application in business practice are purported.

Moreover, Goleman's research had shown applications to both social and work life. As evidenced in Goleman's work, emotional intelligence is viewed as a key success factor for a person to succeed in both his/her life and work. Secondly, the emotional intelligence model proposed by Goleman combined both innate ability and personalities also known as the mixed model. The application of the mixed model, incorporating organization or firm performance, is a more appropriate model as the validity of any model application should be measurable via firm performance. This implies that the model possesses both abilities and personalities that can be applied to performance in the workplace. Thirdly, Goleman's model is linked to a set of competencies that follow four components of emotional intelligence (self-awareness, self-management, social awareness, and social skills). Emotional competencies directly relate to job performance. People can learn and develop their emotions to achievea great performance (Goleman, 2001; Stys & Brown, 2004).

An organization performance depends on various factors. Amount of asset used is one of the key driving factors. In addition, contributions from humans who best utilizs and operats the assets lead to high value creation inducing a higher level of monetary performance (Abhash & Phalguni, 2013). Thus, human capital is the important living asset in an organization.

Two schools of thoughts about human capital are accounting and management perspectives. In accounting perspective, human capital is considered as an expense, while in management perspective, human capital is an investment that generates predictable organizational growth.

Bontis (1999, 2001) suggested that human capital represents the individual stock of knowledge in an organization's collective capability used to extract the best solutions from its individual employees. Human capital is defined as the sum of the employees' skills, experiences, capabilities, and tacit knowledge.

Moreover, human capital includes intangible recourses of abilities, effort, and time that workers bring to invest in their work (Edvinsson & Malone, 1997; Davenport & Prusak, 1998; Bontis, 2007).

To enhance the level of employee performance, Becerra-Fernandez and Sabherwal (2001) suggested that an organization should increase the level of employees' competencies (Becerra-Fernandez & Sabherwal, 2001). As a result, by increasing job

performance, organizational monetary performance is improved (Davenport & Prusak, 1998).

Hence, it can be concluded that there is a relationship between human capital and financial performance of organizations. A higher level of financial performance of organizations is attached with higher and better organizational human capital (Youndt, Subramaniam, & Snell, 2004; Mahmood, Ahmad, & Hussain, 2011). Previous studies showed that human capital has a positive relationship with organizational performance.

Bontis (2007) documented that organizational performance is most influenced by superstar players who have some distinct capabilities such as a high level of intelligence, creative ideas, initiation, ambition, and inimitability. Therefore, human capital is one of the key success factors driving an organization to outperform.

Focusing on human capital, this study measures human value added in an organization. The assessment of human value added will be based on the calculation of human value added metrics. Human value added metrics measures the relationship between operating profits and human capital employment costs. There are three main value added performance metrics which are Human Economic Value Added (HEVA), Human Capital Value Added (HCVA), and Human Capital ROI (HCROI).

3. Research Methodology and Data

Three crucial factors for specific measurement of high performance organizations in terms of monetary performance, are emotional intelligence, leadership performance, and organization performance. Relationships among these three factors, in a Thailand context, specifically for state enterprises, have not been studied in-depth. To address relationships between three factors, this study has carefully stated a research question to explore those relationships properly. The research question is that is the relationship between emotional intelligence and human value added metrics persistent? In other words, the research question aims at determining whether emotional intelligence affects firm performance? In order to accomplish the purposes and answer the research questions, this study is designed to use mainly two statistical tests which are the one-way ANOVA and independent test (Chi-square).

3.1 Conceptual Framework

Based on literature reviews, this paper explores the relationships among emotional intelligence, leadership score, and human value added metrics**.** The conceptual framework is shown below**.**

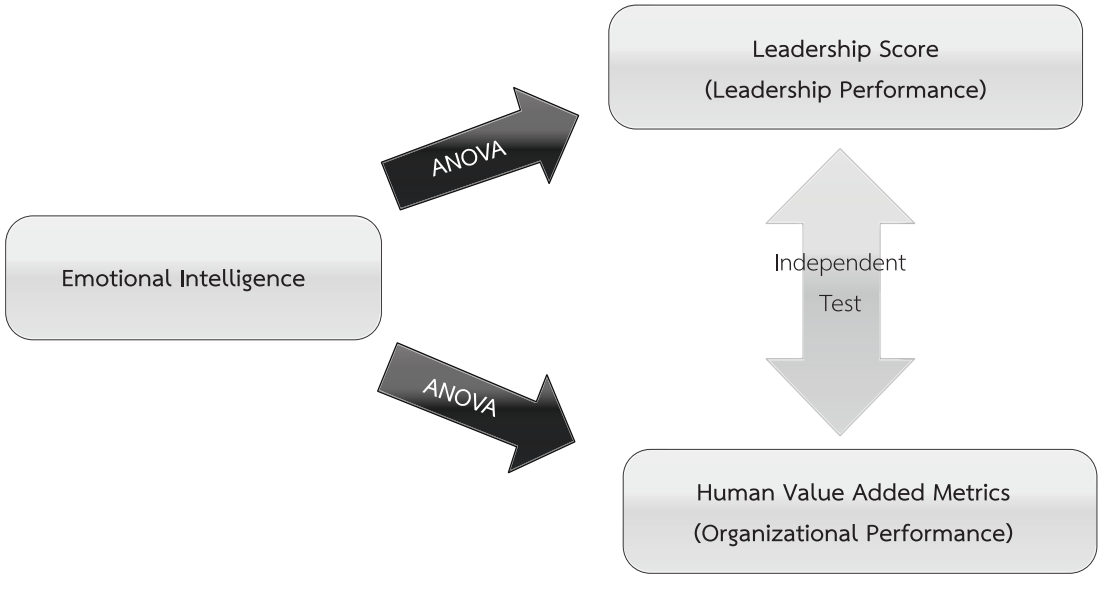

Figure 1 The Conceptual Framework of this Study

Figure 1 elaborates on the relationship among three individual frameworks, which are emotional intelligence, leadership score or leadership performance, and human value added metrics. Emotional intelligence affects both leadership and organizational performance. Analysis of variance is generally used to test whether two or more groups have the same or difference mean values. In this study, two-way analysis of variance is recommended. Two-way ANOVA compares expected value of each explanatory variable or two groups against dependent variable, SEPA Score or leadership performance. Expected value or mean value is used for statistical inference or for interpreting whether the data are alike or related. Relationships among three frameworks are tested. Three pairs of relationships are tested.

Testing whether a relationship between two sets of frameworks exist is performed via two way analysis of variance; and the independent test using chi-square test between leadership and organizational performance is conducted. The first pair of relationship is the test between emotional intelligence and leadership performance. The second pair of relationship is the test between emotional intelligence and organizational performance.

The third pair, leadership and organizational performance, is tested for independency between two frameworks.

In summary, the conceptual framework exhibits three tests among three individually related frameworks, two tests aim at pointing out whether emotional intelligence affects leadership and organizational performance and one test probes whether two performances are related or not.

3.2 Methodology

3.2.1 Assessment of Emotional Intelligence: Emotional Competence Inventory (ECI)

Integrating the work of Goleman (1995, 1998), Boyatzis (1982), and Boyatzis, Gloeman, and Rhee (1999), this study explores whether a person who demonstrates four competencies which are self-awareness, self-management, social awareness, and social skills performs effectively and efficiently at appropriate times and situations. The model of emotional intelligence is developed consisting of five clusters with 25 competencies embedded in each cluster (Boyatzis, 1982; Spencer & Spencer, 1993; Rosier, 1994-1997; Boyatzis, Goleman, & Rhee (2000)).

The first cluster is self-awareness consisting of three competencies as emotional awareness, accurate self-assessment, and self-confidence.

The second cluster is self-regulation consisting of five competencies as self-control, trustworthiness, conscientiousness, adaptability, and innovation.

The third cluster is motivation consisting of four competencies as achievement drive, commitment, initiative, and optimism.

The fourth cluster is empathy consisting of five competencies as understanding others, developing others, service orientation, leveraging diversity, and political awareness.

The last cluster is social skills consisting of eight competencies as influence, communication, conflict management, leadership, change catalyst, building bonds, collaboration and cooperation, and team capabilities.

The most common emotional intelligence questionnaire used in previous studies is based on the questionnaire suggested by Goleman. Emotional intelligence questionnaires adopted in Thailand by psychologist experts are also based on Goleman. Emotional intelligence questionnaires include both content and reliability tests. This study follows the common emotional intelligence questionnaire that is commonly used in Thailand, i.e., questionnaire by Pawanawiwat in 2009.

3.2.2 Assessment of Leadership Performance (SEPO)

Leadership performance will be measured based on categories and criteria set by the State Enterprise Policy Office (SEPO). SEPO is a government agency with specific objective aiming to improve and supervise state enterprises with specific focus on financial and accounting policy and human resources management.

There are two types of assessments in SEPA. The first assessment emphasizes on operational management which measures six areas. The second assessment is outcome assessments emphasize on six categories outcomes performed by the state enterprise being evaluated.

SEPA score reflects two types of assessments embedded in each state enterprise leader taking into account external internal factors. Good leader facilitates and supports collaborations of people in an organization resulting good outcomes stated in the seventh criteria of outcome measurements. Thus, this study treats SEPA score as a good proxy for leadership performance.

3.2.3 Assessment of Human Value Added Metrics

Organizational performance is commonly measured via financial status. High organization performance can measure both quantitative(financial measurements), and qualitative aspects. One of many important qualitative measurements, definitely, rested on human capital.

This study employs human value added metrics to capture both quantitative and qualitative aspects of measurement. Human value added metrics are calculated based on financial statements of an organization. It is a good reflection how organization performs given a specific level of human capital.

There are three assessments of human value added metrics as follows.

Human Economic Value Added:

$$HEVA = \frac{Operating\ Profit - 10\%\ Shareholder\ Equity}{Average\ Headcount}$$

Human Capital Value Added:

$$HCVA = \frac{Operating\ Profit + Employment\ Cost}{Average\ Headcount}$$

Human Capital ROI:

$$HCROI = \frac{Operating\ Profit + Employment\ Cost}{Employment\ Cost}$$

[ws3]

3.3 Data Collection

3.3.1 Sector Selection

State enterprises in Thailand can be categorized into 9 groups, which are: communication, infrastructure, industry, energy, transportation, finance, commercial and service, agriculture and environment, and social and technology.

This study focuses on State Enterprises that operate in the financial sector. This is because total asset values of state enterprises operating in the financial sector are worth approximately 7,841,424 million baht; or having total asset values around 60% of total assets for all Thai state enterprises, 13,178,871 million baht.

Due to the classification of SEPO, there are eight financial organizations that are categorized as Specific Financial Institutions (SFIs), not including Krung Thai Bank and Office of the Government Pawnshop. [ws4] Therefore, this study collects data from the three largest financial organizations in SFIs which are Government Saving Bank (GSB), Bank of Agriculture and Agricultural Co-operatives (BAAC), and Government Housing Bank (GHB). These three organizations have total assets of more than half of the financial sector, approximately 60% or around 30% of total asset values compared with total asset values of all state enterprises. This can be concluded that samples selected for this study are large enough and can represent Thai state enterprise.

3.3.2 Data Selection

This study collects data from leaders who are in middle and top management levels of banking sector's state enterprises in Thailand. Three of the largest banks of state enterprise are selected. Total observations of 219 leaders who are middle and top management levels in selected organizations are exhibited in Table 1

Table 1 Data Selection and Response Rate

Organizations	GSB	BAAC	GHB	Total
Numbers of Employees	21,556	22,553	4,534	48,643
Middle and Top Management Levels	124	46	49	219
Questionnaire Return	85	46	30	161
Response Rate (%)	69	100	61	74

Number of observations from GSB is 124 leaders out of 21,556 employees. Forty-six middle and top managers are drawn from BAAC out of 22,553 employees. There are 49 samples out of 4,534 employees from GHB.

One hundred and sixty one out of two hundreds and nineteen questionnaires were returned.

Proportions of return questionnaire from three state enterprises banks are reported. Seventy four percent of questionnaires handed to target samples were returned. Forty-six questionnaires or all samples from BAAC had responded to the emotional intelligence questionnaire and all samples were returned for this study. Eighty five out of one hundred twenty four, or 69%, of handed questionnaires to GSB were returned. Thirty out of forty nine, or 61%, of handed questionnaires to GHB were returned.

4. Research Results

This study divides emotional intelligence into two levels as low and high levels. One hundred and sixty one out of two hundred and nineteen emotional intelligence questionnaires were completed and returned. The level of emotional intelligence of 161 observations is divided into two groups, high and low of emotional intelligence.

Table 2 exhibits descriptive statistics of emotional intelligence of 161 samples. Emotional intelligence score or EQ score is the average total score from five categories, which are self-awareness, self-regulation, self-motivation, empathy, and social skills.

Table 2 Descriptive Statistics of Emotional Intelligence

	N	Minimum	Maximum	Mean	Std. Deviation
Emotional Intelligence	161	3.42	5	4.5469	0.37103
Valid N	161				

The minimum emotional intelligence score is 3.42 and maximum emotional intelligence score is 5.0. Dispersion of the EQ score is indicated by a standard deviation of 0.37 points; out of that distance of deviation from the representative data or average value is small. The expected value or data representative of the group has an average value of 4.55 by which the average value is used as a reference point determining the high and low emotional intelligence

group. For an EQ score equal to or lower than the expected value of 4.55, a middle or top management manager is categorized as a low emotional intelligence leader. For a leader with an EQ score higher than 4.55, the leader is labeled as a high emotional intelligence leader.

Fifty middle and top management managers are classified in the low level of emotional intelligence as EQ scores are lower than 4.55. For the high level of emotional intelligence, EQ scores being higher than 4.55, there are 111 observations. In other words, the proportion of middle and top level managers classified as having high emotional intelligence is 69% (rounded from 68.94%) and as having low emotional intelligence is 31% (rounded from 31.06%).

Table 3 reports results of the two-way ANOVA testing, between the dependent variable or SEPA Scores and the two independent variables, which are the high and low emotional intelligence scores. Both equal and unequal variances are observed and showed that there are significant differences in leadership scores between two emotional intelligence levels. As a result, based on leadership scores, the high emotional intelligence level performs better than the low level of emotional intelligence.

Table 3 Two Way ANOVA Result of Emotional Intelligence (EI) and Leadership Scores (SEPA Scores)

				Equal variances assumed		Equal variances not assumed		Levene's test of Equality of variance	
EI	**N**	**Mean**	**SD**	**t-stat**	**Sig. (2-tailed)**	**t-stat**	**Sig. (2-tailed)**	**F**	**Sig**
Low	50	4.712	0.089	-7.566	0.000	-6.615	0.000	3.392	0.1091
High	111	4.804	0.062						

Note: two-way ANOVA test at 0.05 significant level

Results from Table 3 can be interpreted that leaders with high emotional intelligence scores outperform those with low emotional Intelligence scores. The hypotheses testing the relationship between emotional intelligence and leadership performance can be stated as follows:

H_0: $LS_H - LS_L \geq 0$
H_1: $LS_H - LS_L < 0$

LS_H and LS_L are leadership scores measuring leadership performance for an organization led by managers with high emotional intelligence and with low emotional intelligence, respectively. If the null hypothesis cannot be rejected, it can be interpreted that leaders with high emotional intelligence outperform those with low emotional intelligence.

On the other hand, if the alternative hypothesis is accepted, it can be interpreted that leaders with low emotional intelligence outperform those with high emotional intelligence.

To explain in detail, a positive and significant t-statistic signifies that $LS_H < LS_L$, and the interpretation above holds. On the contrary, a negative and significant t-statistic signifies that the alternative hypothesis is accepted; it implies that leadership with high emotional intelligence outperforms those with low emotional intelligence. For simplicity, if the alternative hypothesis is accepted with a positive t-statistic then the low emotional intelligence leader outperforms high emotional intelligence leader, and vice versa.

T-statistics scores equal to -7.566 and -6.615 reveal that leadership performance of the lower emotional intelligence score is significantly less than that of the higher emotional intelligence score. In summary, leaders with a high level of emotional intelligence perform better than leaders with lower emotional intelligence.

4.1 The Relationship between Emotional Intelligence (EI) and Human Value Added Metrics (HVAM)

This section aims at exploring the relationship between organizational performance and emotional intelligence. There are three measurements linked to emotional intelligence, which are human economic value added (HEVA), human capital value added (HCVA), and human capital ROI (HCROI). Statistical results are discussed and shown in the tables below.

Table 4 reveals the ANOVA result of emotional intelligence and human economic value added (HEVA). Organizational performance as measured by HEVA is significantly different between the two levels of emotional intelligence. Hypotheses for the tests are as follows:

H_0: $HEVA_H - HEVA_L \geq 0$
H_1: $HEVA_H - HEVA_L < 0$

Table 4 Two way ANOVA Result of EI and HEVA

				Equal variances assumed		Equal variances not assumed		Levene's test of Equality of variance	
EI	**N**	**Mean**	**SD**	**t-stat**	**Sig. (2-tailed)**	**t-stat**	**Sig. (2-tailed)**	**F**	**Sig**
Low	50	1.838	1.106	6.110	0.000	4.883	0.000	4.341	0.1404
High	111	1.029	0.572						

Note: two-way ANOVA test at 0.05 significance level

$HEVA_H$ and $HEVA_L$ are human economic value added for an organization led by managers with high emotional intelligence and with low emotional intelligence. If the null hypothesis cannot be rejected then, it can be interpreted that an organization led by high emotional intelligence managers outperforms that of low emotional intelligence managers.

On the other hand, if the alternative hypothesis is accepted, it can be interpreted that an organization led by low emotional intelligence managers outperforms that led by high emotional intelligence managers.

To explain in detail, positive and significant t-statistic signifies that $HEVA_H < HEVA_{L,}$ and the interpretation above holds.

On the contrary, a negative and significant t-statistic signifies that the alternative hypothesis is accepted, it implies that an organization led by leaders with high emotional intelligence outperforms that led by leaders with low emotional intelligence. For simplicity, if the alternative hypothesis is accepted with positive t-statistic, then the organization led by low emotional intelligence leaders outperforms that led by a high emotional intelligence leaders, and vice versa.

T-statistics are reported in Table 4; are 6.11 and 4.883, which are positive and signify a significant relationship where the alternative hypothesis is accepted and reveals that an organization led by low emotional intelligence outperforms that led by high emotional intelligence. In a layman terms, an organization led by low emotional intelligence leaders performs better than an organization led by high emotional intelligence leaders.

Table 5 reveals ANOVA results of emotional intelligence and human capital value added (HCVA). Organizational performance as measured by HCVA is significantly different between two levels of emotional intelligence. Hypotheses for the tests are as follows:

H_0: $HCVA_H - HCVA_L \geq 0$
H_1: $HCVA_H - HCVA_L < 0$

Table 5 Two-way ANOVA Result of EI and HCVA

Descriptive Statistics				Equal variances assumed		Equal variances not assumed		Levene's test of Equality of variance	
EI	**N**	**Mean**	**SD**	**t-stat**	**Sig. (2-tailed)**	**t-stat**	**Sig. (2-tailed)**	**F**	**Sig**
Low	50	4.340	1.502	7.260	0.000	6.125	0.000	3.836	0.1318
High	111	2.930	0.935						

Note: two-way ANOVA test at 0.05 significance level

$HCVA_H$ and $HCVA_L$ are human capital value added for an organization led by managers with high emotional intelligence and with low emotional intelligence. If the null hypothesis cannot be rejected then it can be interpreted that an organization led by high emotional intelligence managers outperforms that of low emotional intelligence managers. On the other hand, if the alternative hypothesis is accepted then it can be interpreted that an organization led by low emotional intelligence managers outperforms that led by high emotional intelligence managers.

To explain in detail, a positive and significant t-statistic signifies that $HCVA_H < HCVA_L$, the interpretation above holds. On the contrary, a negative and significant t-statistic signifies that the alternative hypothesis is accepted, it implies that an organization led by leaders with high emotional intelligence outperforms that which is led by leaders with low emotional intelligence. For simplicity, if the alternative hypothesis is accepted with a positive t-statistic, an organization led by low emotional intelligence leaders outperforms those led by high emotional intelligence leaders, and vice versa.

T-statistics reported in Table 5 are 7.26 and 6.125, which are positive and signify a significant relationship; the alternative hypothesis is accepted and reveals that an organization led by low emotional intelligence outperforms that led by high emotional intelligence. In a layman term, an organization led by low emotional intelligence leaders performs better than an organization led by high emotional intelligence leaders.

Table 6 reveals ANOVA results of emotional intelligence and human capital return on investment (HCROI). Organizational performance as measured by HCROI is significantly different between two levels of emotional intelligence. Hypotheses for the tests are as follows:

H_0: $HCROI_H - HCROI_L \geq 0$
H_1: $HCROI_H - HCROI_L < 0$

Table 6 Two way ANOVA Result of EI and HCROI

Descriptive Statistics				Equal variances assumed		Equal variances not assumed		Levene's test of Equality of variance	
EI	**N**	**Mean**	**SD**	**t-stat**	**Sig. (2-tailed)**	**t-stat**	**Sig. (2-tailed)**	**F**	**Sig**
Low	50	3.890	1.609	5.727	0.000	4.552	0.000	1.416	0.0823
High	111	2.796	0.816						

Note: Two-way ANOVA test at 0.05 significance level

$HCROI_H$ and $HCROI_L$ are human capital return on investment for an organization led by managers with high emotional intelligence and with low emotional intelligence. If the null hypothesis cannot be rejected then it can be interpreted that an organization led by high emotional intelligence managers outperforms that of low emotional intelligence managers. On the other hand, if the alternative hypothesis is accepted then it can be interpreted that an organization led by low emotional intelligence managers outperforms that led by high emotional intelligence managers.

To explain in detail, a positive and significant t-statistic signifies that $HCROI_H < HCROI_L$; the interpretation above holds. On the contrary, a negative and significant t-statistic signifies that the alternative hypothesis is accepted and implies that an organization led by leadership with high emotional intelligence outperforms that led by leadership with low emotional intelligence. For simplicity, if the alternative hypothesis is accepted with a positive t-statistic then an organization led by low emotional Intelligence leadership outperforms that led by high emotional intelligence leadership and vice versa.

T-statistics reported in Table 6 are 5.727 and 4.552; which are positive and signify a significant relationship, and the alternative hypothesis is accepted, revealing that an organization led by low emotional intelligence outperforms that led by high emotional intelligence. In a layman term, an organization led by low emotional intelligence leadership performs better than organization led by high emotional intelligence leadership.

4.2 The Relationship between Leadership Score (LS) and Human Value Added Metrics (HVAM)

This section aims at exploring the relationship between organizational performance (or human value added metrics (HVAM)) and leadership score(or SEPA score). Human value added metrics consists of three measurements which are human economic value added (HEVA), human capital value added (HCVA), and human capital ROI (HCROI).

Chi-square independent tests are performed. Three assumptions are required for the Chi-square independent test. The first assumption is observations are drawn randomly. Each middle or top management manager is selected randomly by not specifying any name to be a sample for this study. Each sample must complete an emotional intelligence questionnaire and be returned to be a sample point. There are 161 observations.

The second assumption is the value for each variable must be mutually exclusive, i.e. each sample is categorized either as middle or top management leader to meet the second assumption.

The third assumption requires at least 5 samples per each category. With 161 samples and 3 categories for HVAM, assumption 3 is also met. Thus, independent Chi-square can be performed and the statistical results are discussed and shown in the tables below.

Table 7 demonstrates the independent test result between leadership score and human value added metrics (HVAM). Chi-square of each pair tested is significant. The largest significant Chi-square is the relationship between the HCVA and SEPA Score at 347. The second largest significant Chi-square is the relationship between the HEVA and SEPA Score at 335.

The smallest significant Chi-square is the relationship between the HCROI and SEPA Score at 322.

The Chi-square independent test at 1% significance level indicates that leadership performance and organizational performance are not independent. This implies that leadership and organizational performance are related.

Hypotheses for independent test are stated below:

H_0: SEPA Score and HVAM are independent

H_a: otherwise

Direction of relationship between leadership and organizational performance is also explored by performing the Pearson correlation test at 1% significance level. Results from Pearson correlation is discussed below.

Table 7 Independence Test Result of Leadership Scores and HVAM

LS – HVAM	Pearson Correlation	Pearson Chi-Sqare	Sig. (2-tailed)
HEVA	-0.941	335.000	0.000
HCVA	-0.996	347.000	0.000
HCROI	-0.916	322.000	0.000

Note: Independent test at 0.01 significance level

According to results from the Pearson correlation test, leadership score and HVAM are negatively significantly correlated. Human Capital Value Added (HCVA) and SEPA Scores are the highest significantly negatively correlated relationship at -0.996. The second largest significantly negatively correlated relationship is between Human Economic Value Added (HEVA) and SEPA Scores at -0.941. Human Capital Return on Investment (HCROI) and SEPA Score are also significantly negatively correlated at -0.916.

Most studies in the past documented that leaders with high emotional intelligence outperform leaders who have lower emotional intelligence. Shabzad, Mohammad, and Arshad (2014) demonstrated that transformational leadership style or leaders who have high emotional intelligence tend to have more impact on employee job satisfaction and firm

financial performance as compared to transactional leaders.

Results from this study contradict previous studies with some explanation. Firstly, subjects for this study are all in financial sectors in which leaders focus on excellent financial performance. Bass (1985), Al-Dmour and Awamleh (2002), and Jaroslav (2013) explained that leadership styles of leaders in the banking sector are demanding, mandatory, and directive styles in order to have distinctive performance. Secondly, all functional operations of works in banking are highly specialized and standardized at the processing level. Thus, the environment and tasks assigned are highly controlled and structured.

Evidence from previous studies by Awamleh, Evans, and Mahate (2005) stated that transactional leadership style is not positively related to employee satisfaction. Transactional leadership style seems to respond more positively to a clear work structure and work process. This means that most leaders in the banking industry utilize transactional leadership which focus on job performance under a clearly defined work structure and work process. Given the two explanations, we should not be astonished with results found.

5. Conclusion

Three conclusions can be made from this study. Firstly, emotional intelligence and leadership performance have a significantly positive relationship. It can then be implied that a leader with a higher emotional intelligence level tends to outperform a leader with lower emotional intelligence. Secondly, emotional intelligence and organizational performance have a significant negative correlation. An organization led by a higher emotional Intelligence leader underperforms an organization led by lower emotional intelligence. Thirdly, leadership and organization performance are significantly negatively correlated.

Evidence from this study contradict previous studies as the samples of this study are bankers who possess a transactional leadership style. Transactional leader styles of bankers emphasize job performance rather than transformational leadership, as documented in previous studies. While the emotional Intelligence questionnaire is designed to measure emotional intelligence of transformational leaders, contradictory results should be expected.

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