

The BarOn Emotional Quotient Inventory (EQ-i): Development and Psychometric Adaptation in Bahasa Indonesia*

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The BarOn Emotional Quotient Inventory (EQ-i; BarOn, 2004) was created to assess emotional intelligence (EI). In our research project we produced the Indonesian version. The EQ-i was translated from English into Bahasa Indonesia and back-translated into English. Test-retest reliabilities and internal consistencies amongst 2801 Indonesians were calculated and found quite satisfactory. The exploratory factor analyses ($N = 500$) and the confirmatory factor analysis ($N = 750$) were identified and largely consistent with the original version's composite scales and sub scales. Our findings support the use of the Indonesian version of the EQ-i.

Keywords: Emotional intelligence, development, psychometric adaptation, Bahasa Indonesia

Introduction

Literature on emotional intelligence (EI) has generally distinguished between two models of EI: the ability model and the mixed model (Schulze & Robert, 2005; Wood, Parker, & Keefer, 2009). The Salovey-Mayer's ability model (Mayer, Salovey, & Caruso, 2000) defines EI as ability to perceive, understand, manage, and use emotions for facilitating thoughts. This model views EI as a set of cognitive and emotional abilities that are best measured by an ability-based measurement. The mixed model describes EI more as an interrelated constellation of emotional and social abilities, skills, and facilitators that impact on intelligent behavior. This model represents broader personality traits under the umbrella of EI. Petrides and Furnham (Schulze & Robert, 2005) emphasize a conceptualization of trait and mixed models of EI. They suggest the formal concept of trait EI as a guiding framework for the integration and systematization of EI encompassed by existing mixed model.

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Accordingly, proponents of trait or mixed models allow for EI as a new umbrella term for various personality traits. Either trait or mixed model employs a self-report or an observer rating to assess EI level (BarOn & Parker, 2000; BarOn, 2004b).

Different to Mayer and Salovey's ability model, BarOn's mixed model of EI interprets the meaning of EI by explicitly incorporating a wide range of personality characteristic (BarOn & Parker, 2000; BarOn, 2004b). More specifically, BarOn's mixed model of EI was being constructed by the concept of emotional-social intelligence (ESI). The ESI can be explained as a cross-section of interrelated emotional and social competences that determine how effectively individuals understand and express their selves, understand others and relate with them, and then cope with daily demands. Some earlier theories influenced the development of EI models as a complementary to cognitive intelligence kind of intelligence. For example, Darwin's (Schulze & Robert, 2005) early work on emotional expression and adaptation, Thorndike's (BarOn & Parker, 2000) description of social intelligence, and Wechsler's theory (Schulze & Robert, 2005) about non-cognitive and conative factors. All of them pointed to the importance of a non-cognitive kind of intelligence that supports individual's cognitive intelligence.

Accordingly, the present descriptions, definitions, and conceptualizations of the mixed model of EI have included the following key components: (1) the ability to recognize, understand, and express emotions and feelings; (2) the ability to understand how others feel and relate with them; (3) the ability to manage and control emotions; (4) the ability to manage change, adapt, and solve problems of a personal and interpersonal nature; and (5) the ability to generate positive affect and be self-motivated (BarOn & Parker, 2000; BarOn, 2004b). These definitions of components are still vague and need further development. When we look more closely at the concept of ESI we can distinguish two levels of ability in the concept, i.e., intrapersonal and interpersonal level. On the intrapersonal level, we can recognize one's ability to be aware of one self, to understand one's strengths and weaknesses, and to express one's feelings and thoughts non-destructively. On the interpersonal level, we can distinguish one's ability to be aware of others' emotions, feelings and needs, and the potential to establish and maintain cooperative, constructive, and mutually satisfying relationships. In view of that, being emotionally and socially intelligent means having the capacity to effectively manage personal, social, and environmental change by realistically and flexibly coping with the immediate situation, solving problems, and making decisions. This combination of traits, skills and attitudes corresponds to being successful and efficient.

The purpose of this study is to develop the Indonesian version of BarOn emotional quotient inventory (EQ-i), one of the most widely used measures of EI. The EQ-i is a self-report which estimates the level of EI through assessing emotionally and socially intelligent behavior. It is also the first self-report of EI that was published by a psychological test publisher, the first measure that has been peer-reviewed in the *Buros Mental Measurement Yearbook*, and a widely used measure of ESI to date (BarOn, 2004b). The BarOn EQ-i has been translated and adapted in Spanish (South American), French (Canadian), Dutch, Danish, Swedish, Norwegian, Finnish, and Hebrew. Research versions are available in Arabic, Chinese, Czech, German, Korean, and Russian. Afrikaans, Estonians, Latvian, Lithuanian, Iranian, Portuguese (Euro), and English (South African) versions are in development (BarOn, 2004b). A comprehensive explanation of how this measure was developed and its psychometric properties can be found in the *BarOn EQ-i Technical Manual* (BarOn, 2004b) and in some other literature, such as in Glenn Geher's book entitled *Measuring Emotional Intelligence: Common Ground and Controversy* (2004a).

Briefly, the EQ-i contains 133 items in the form of short statements. It employs a 5-point response scale ranging from “very seldom or not true of me” (1) to “very often true of me or true of me” (5). The list of its items can be found in the technical manual (BarOn, 2004b). The EQ-i is suitable for people who are 16 years of age and older. There is no time limit to complete the EQ-i, but generally people need 25 minutes to complete all items. The individual’s responses assess a total EQ score and five composite scales that comprise 15 sub-scale scores: intrapersonal (comprising self-regard, emotional self-awareness, assertiveness, independence, and self-actualization); interpersonal (comprising empathy, social responsibility, and interpersonal relationship); stress management (comprising stress tolerance and impulse control); adaptability (comprising reality-testing, flexibility, and problem-solving); and general mood (comprising optimism and happiness) (BarOn, 2004b).

Data collection has been conducted in various settings around the world. In America, for example, the EQ-i has been used to explore the differences of EI among various age, economic and social status, educational level, and also occupation groups. Psychometric study, which measured the validity and reliability of the EQ-i, has been done over the past two decades in many countries. For example, Dawda and Hart (2000) made the correlations of the EQ-i scores with the NEO Five Factor Inventory (NEO FFI) and the Beck Depression Inventory (BDI). They found a quite good of overall item discrimination. Their research also found the item validity that was relatively similar between male and female subjects.

The study of the North American normative sample was conducted to examine the effect of age, sex, and ethnicity on EQ-i scores (BarOn, 2004b). The results indicated a few significant differences between the age groups in which the older groups scored significantly higher than the younger on most of the EQ-i scales (BarOn & Parker, 2000). This result indicated that the ESI develops and changes over time in which people become more emotionally and socially intelligent when they get older.

With respect to sex difference, no differences have been revealed between males and females for overall ESI. However, with small effects, there was statistically significant on sex differences for some scales measured by the EQ-i. Based on the North American normative sample (BarOn, 2004b) females appear to have stronger interpersonal skills than males. In contrast, males have a higher intrapersonal capacity, are better at managing emotions, and are more adaptable than the females. More specifically, the BarOn’s model reveals that women are more aware of emotions, demonstrate more empathy, relate better interpersonally, and are more socially responsible than men. On the other hand, men appear to have better self-regard, are more self-reliant, cope better with stress, are more flexible, solve problems better, and are more optimistic than women (BarOn, 2004a; 2004b).

The previous studies of the EQ-i inspired us to develop the Indonesian version of the EQ-i through a psychometric study in Indonesian setting. Indonesia is the largest archipelago and the fourth most populous nation in the world with 300 ethnic groups inside (Badan Pusat Statistik, 2009a; Badan Pusat Statistik, 2009b; “Indonesia - Ethnic groups”, 2012). There are about 700 different local languages that were actively used as a daily language among the member of particular ethnic group. However, Indonesia has Bahasa Indonesia as a united language for all Indonesian which is mostly used in formal and official setting. Since their first grade, all Indonesian children should learn and use the Bahasa Indonesia at least along class sessions at school. The basic skill in Bahasa Indonesia will be developed further in higher educational levels and other formal setting along years that make educational and work experiences could be highly significant on the development of the

Bahasa Indonesia skill.

This study develops the Indonesian version of the EQ-i by using the International Test Commission's guideline for translating and adapting tests (International Test Commission, 2010). Prompted by the previous findings of the original and Dutch versions of the EQ-i, the aims of this study were to (1) evaluate the internal consistency and test-retest reliability of the EQ-i Indonesian version; (2) assess the factorial structure of the Indonesian version of the EQ-i; and (3) test whether the five-scales and the 15-sub-scales resulting from factor analysis could differentiate men participants from women as well as the younger from the older participants.

We hypothesized that the five-factor and the fifteen-factor structures of the EQ-i would fit to the Indonesian normative data. This study expected the high reliability of the five composite scales and the 15-sub scales of the Indonesian version of the EQ-i consistent with the original EQ-i.

Method

Translation Procedure

Equivalence to the original version in terms of the meaning of the items was the guiding principle in the translation process. The cross-cultural adaptation of the EQ-i required a process of translation, back-translation, expert revision, and testing of the preliminary version to assure that the meanings of the original items were adequately captured in Bahasa Indonesia. Accordingly, first, the English version of the EQ-i was translated into Bahasa Indonesia by three psychologists including the first author of the current study. One draft of Indonesian version was created by the first author based on the three translation results. Back-translation into English was performed by three other bilingual university graduates in Psychology. Then, the first author compared the original English and the back-translated versions, and created a preliminary Indonesian version after some discussions and corrections for words and meanings of each item in cooperation with other authors of this study.

To translate the items in a culturally appropriate manner during the translation process, several items in the original version were reworded within the Indonesian context to enhance the accurate cultural-meanings of the items for Indonesians. For example, item 71 in the negative-impression scale, *I feel cut off from my body*. The Indonesian version proposes using quotes to the word “*cut off*” into “*terpisah*” to make it not be taken literally. For most Indonesians, especially those who do not get a higher-education experience, the word *cut off* reflect just the literal meaning in the sense that there are physically parts of the body separated due to cutting, connotes something bad and horrible, which is predicted to be provoke the same answer to this item. The original and back-translated English versions did not differ appreciably as judged by the translators.

The problems encountered during the adaptation were related to items 22, 82, 111, and 126, but these were overcome by means of careful wording. Based on the experience gained during the data collection, the items in assertiveness sub-scale is often confusion and bring up questions from the participants. The terms and words “express my ideas” (*mengekspresikan ide-ide*) in item 22, “to say ‘no’” (*berkata tidak*) in item 82, “assertiveness” (*berkata asertif*) in item 111, and “stand up for my rights” (*mempertahankan hak-hak saya*) in item 126 are too abstract and not commonly used by some Indonesians, especially those who are still actively using local languages and those who have a low-education level.

This study also notices the influences of collectivistic tendency of Indonesian as the eastern society on the response to the assertiveness stimulus. In point of fact, expressing the thoughts and feelings that were different from others and highly possible to provoke the interpersonal conflict are sometimes being considered as aggressive, culturally undesirable, and weird behavior for Indonesians. However, a moderate factor loading of this sub-scale showed its considerable contribution in assessing the intrapersonal scale of Indonesian sample.

To make the questionnaire highly acceptable, easily understood, and capable of being administered to all Indonesians, it is necessary to reword some unfamiliar words with more familiar one. The main problem here is that there is no equivalent of “impulsive” and “assertive” in Indonesian vocabulary. If the word is replaced with its definition, then the item is going to be very long. Therefore, this study decided to keep using the word “impulsive” (*impulsif*) and “assertive” (*asertif*), accompanied by a verbal explanation about the meaning of these two words.

The ABBA counterbalance design was employed to measure the test-retest reliability by asking the participants to fill out the English and the Indonesian versions after an interval of 2-weeks. The Pearson’s product-moment coefficient correlation was applied to test an agreement between the baseline and the retest scores of the EQ total and scales. Pearson’s correlations were classified as fair ($r < 0.30$), moderate ($0.30 < r \leq 0.60$), or good ($r > 0.60$). Based on the English language proficiency as a student of English study, there were 92 participants for the AB group and 88 participants for the BA group included in this step. The result showed a satisfactory coefficient (r) between the two time intervals for the EQ total and all scales. For the AB group ($N = 92$), Pearson’s coefficients (r) were 0.98; 0.98; 0.98; 0.98; 0.96; 0.97 ($p < 0.001$) for EQ total, intrapersonal, interpersonal, adaptability, stress management, and general mood; respectively. For the BA group ($N = 88$), Pearson’s coefficients (r) were 0.98; 0.98; 0.98; 0.97; 0.96; 0.96 ($p < 0.001$) for EQ total, intrapersonal, interpersonal, adaptability, stress management, and general mood; respectively. The results indicated that the preliminary version of the Indonesian version of the EQ-i has been translated accurately and ready to be tested in terms of its psychometric properties followed recommended procedure.

Participants

The total participants of this current study were 2801 Indonesian students and workers (Mean age = 27.94; $SD = 9$; 52.3% men). They were selected from several big cities of Indonesia, namely Jakarta, Bandung, Yogyakarta, Surakarta, Medan, and Padang. This study got approval from the board of business, school, university, and social services organizations to recruit the participants whereas the informal permission and approach were also done in the non-organization community. Those who agreed to participate received a package of questionnaires consist of personal data questionnaire and the preliminary EQ-i. This study was conducted individually and in groups (maximum 25 persons) by giving them a standardized explanation and instruction by the research team. Only those who filled out the questionnaires completely will be included as participant.

For the factor analyses, we did not include the entire participant to avoid statistical bias. For the exploratory factor analysis (EFA), we only chose 500 samples derived from the capital of Jakarta. Furthermore, for the confirmatory factor analysis (CFA), we chose another 750 samples from areas that represent relatively

large provinces, explicitly 250 samples from Middle Java (Yogyakarta and Surakarta), 250 samples from North Sumatera (Medan), and 250 samples from West Sumatera (Padang).

Measures

The Indonesian version of the BarOn Emotional Quotient-Inventory (EQ-i) consists of 133 items that are divided into 117 items for the five composites scales and 15 sub-scales: (1) intrapersonal scale, consists of self-regard, emotional self-awareness, assertiveness, independence, and self-actualization sub scales; (2) interpersonal scale, consists of empathy, social responsibility, and interpersonal relationship sub scales; (3) adaptability scale, consists of reality testing, flexibility, and problem solving sub scales; (4) stress management scale, consists of stress tolerance and impulse control sub scales; and (5) general mood scale, consists of happiness and optimism sub scales. There are also 15 items of the EQ-i that measure positive and negative impression scales. The last one item (item 133) is the item to assess a continuation of the instruction. In response to each item, respondents will be faced with 5-point response scale, ranging from “*not true of me*” to “*true of me*”. This study focuses on the total EQ, five-scales and 15 sub-scales regarding their applicability to future research.

Statistical Analysis

By using the Cronbach’s alpha, we calculated the reliability of the five-scales and 15-sub-scales of the EQ-i as internal consistency. To assess the relationship among scales and subscales of the EQ-i, we carried out the Pearson’s correlation analysis.

We carried out a principal component analysis by using the exploratory factor analysis (EFA). We used varimax rotation with extraction of those factors (eigenvalues > 1.0) to assess the factor structure of the Indonesian version of the EQ-i. We performed CFA to assess the goodness of fit of the EI model originally proposed by BarOn (2006) and estimated the 15 sub-scales of the EQ-i as the factors of the five scales. We also performed the cross group comparisons using the *t*-test and the ANOVA to see the application of the Indonesian version of the EQ-i in Indonesia. All the following analyses were performed by using the IBM Statistical Package for the Social Sciences 19.0 (SPSS, Inc.) for Windows (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975) and also the IBM SPSS AMOS 20 (Arbuckle, 2011).

The standard score by means of the *T*-score was calculated by using the 100 ± 15 (*z*-score) formula followed what was used in the original version (BarOn, 2004b). This study was using the Dutch norm as a reference point for the *T*-score in the light of the fact that the Netherlands is one of major Western countries where the EQ-i has been developed earlier. By using the *T*-score, this study aims to see the profile of the Indonesian EQ-i both in the scale and sub-scale levels.

Results

Internal Consistency and Descriptive Statistics

Internal consistency of the Indonesian version of EQ total, five scales, and 15 sub-scales of the EQ-i in Table 1 showed adequate values that were ranging from 0.40-0.94. General mood scale and assertiveness sub scales provided the lowest values while EQ total was the highest. Validity items of the five scales were ranging from 0.70 to 0.88. Most of the 15 sub-scales also had adequate values ($\alpha > 0.5$) except assertiveness ($\alpha = 0.40$)

as the most difficult scale for the Indonesian participants. Validity items of the 15 sub-scales were ranging from 0.30 to 0.79.

Descriptive statistics of the EQ levels in Indonesian participants are also presented in Table 1 separately for raw scores and *T*-scores. The *T*-score was calculated by using the Netherlands normative sample as a reference point. As shown in Table 1, the Indonesians obtained lower scores than the Dutch (mean *T*-scores < 100) on EQ total, scales, and sub-scales. However, interpersonal scale of Indonesian was higher than the Dutch.

Table 1

Internal Consistency Coefficients, Means, and Standard Deviations of Raw Scores and T-scores.

| EQ-i | Raw score | | Cronbach- α | T-score | |
|----------------------|-----------|-------|--------------------|---------|-------|
| | Mean | SD | | Mean | SD |
| Total EQ | 407.57 | 44.90 | 0.94 | 86.90 | 16.85 |
| Intrapersonal EQ | 134.47 | 17.44 | 0.87 | 86.98 | 14.42 |
| Interpersonal EQ | 96.70 | 12.09 | 0.77 | 104.88 | 19.20 |
| Adaptability EQ | 85.60 | 10.88 | 0.79 | 84.51 | 16.85 |
| Stress Management EQ | 57.47 | 9.23 | 0.77 | 85.97 | 16.83 |
| General Mood EQ | 62.07 | 8.33 | 0.74 | 89.67 | 16.23 |
| SR | 32.74 | 4.96 | 0.65 | 93.21 | 13.33 |
| ES | 26.97 | 4.16 | 0.57 | 96.79 | 12.94 |
| AS | 22.09 | 3.53 | 0.40 | 89.53 | 12.73 |
| IN | 21.45 | 5.16 | 0.77 | 83.97 | 17.40 |
| SA | 31.22 | 4.63 | 0.59 | 84.24 | 16.01 |
| EM | 28.76 | 3.96 | 0.57 | 90.45 | 14.53 |
| RE | 36.51 | 4.60 | 0.55 | 88.67 | 15.52 |
| IR | 40.20 | 5.77 | 0.67 | 94.94 | 15.96 |
| RT | 32.01 | 5.37 | 0.64 | 79.43 | 17.39 |
| FL | 24.96 | 4.54 | 0.65 | 90.61 | 15.90 |
| PS | 28.62 | 3.79 | 0.57 | 96.45 | 14.47 |
| ST | 29.84 | 4.50 | 0.60 | 92.56 | 13.43 |
| IC | 27.63 | 6.63 | 0.78 | 85.30 | 18.40 |
| OP | 30.33 | 4.03 | 0.62 | 99.57 | 15.53 |
| HA | 31.74 | 5.97 | 0.69 | 84.00 | 18.48 |

EQ-i Abbreviations: SR = Self-Regard; ES = Emotional Self-Awareness; AS = Assertiveness; IN = Independence;

SA = Self-Actualization; EM = Empathy; RE = Social Responsibility; IR = Interpersonal Relationship; RT = Reality Testing;

FL = Flexibility; PS = Problem Solving; ST = Stress Tolerance; IC = Impulse Control; OP = Optimism;

HA = Happiness (BarOn, 2004).

Intercorrelations between EQ-i Scales and Sub-Scales

As shown in Table 2 and Table 3, several intercorrelations were observed among scales and sub-scales. The highest intercorrelations among scales were for intrapersonal with adaptability (0.80) and general mood

(Table 3 continued)

| | PS | RT | FL | ST | IC | HA | OP |
|----|--------|--------|--------|--------|--------|--------|--------|
| ES | 0.40** | 0.59** | 0.50** | 0.43** | 0.36** | 0.50** | 0.36** |
| AS | 0.34** | 0.49** | 0.50** | 0.42** | 0.35** | 0.45** | 0.35** |
| SR | 0.44** | 0.51** | 0.46** | 0.51** | 0.38** | 0.64** | 0.56** |
| SA | 0.39** | 0.61** | 0.54** | 0.41** | 0.52** | 0.71** | 0.43** |
| IN | 0.27** | 0.58** | 0.56** | 0.38** | 0.51** | 0.54** | 0.20** |
| EM | 0.47** | 0.25** | 0.22** | 0.30** | 0.13** | 0.32** | 0.49** |
| RE | 0.44** | 0.44** | 0.35** | 0.33** | 0.32** | 0.48** | 0.47** |
| IR | 0.40** | 0.50** | 0.50** | 0.37** | 0.39** | 0.71** | 0.47** |
| PS | - | 0.37** | 0.32** | 0.47** | 0.21** | 0.32** | 0.55** |
| RT | | - | 0.58** | 0.46** | 0.65** | 0.59** | 0.28** |
| FL | | | - | 0.49** | 0.53** | 0.53** | 0.27** |
| ST | | | | - | 0.35** | 0.39** | 0.56** |
| IC | | | | | - | 0.55** | 0.13** |
| HA | | | | | | - | 0.36** |
| OP | | | | | | | - |

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

EQ-i Abbreviations: SR = Self-Regard; ES = Emotional Self-Awareness; AS = Assertiveness; IN = Independence; SA = Self-Actualization; EM = Empathy; RE = Social Responsibility; IR = Interpersonal Relationship; RT = Reality Testing; FL = Flexibility; PS = Problem Solving; ST = Stress Tolerance; IC = Impulse Control; OP = Optimism; HA = Happiness (BarOn, 2004)

Table 4

Scale Level Factor Analysis of EFA for the Rotated Factors Using the EQ-i Sub-scales

| Sub-scales | Factor | | | | |
|------------|--------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 |
| SR | 0.447 | | 0.468 | | |
| ES | 0.613 | | | | 0.422 |
| AS | 0.573 | | | | |
| IN | 0.793 | | | | |
| SA | 0.691 | | 0.327 | | |
| EM | | 0.807 | | | |
| RE | | 0.812 | | | |
| IR | 0.464 | 0.351 | | 0.508 | |
| RT | 0.840 | | | | |
| FL | 0.721 | | | | |
| PS | | 0.397 | 0.381 | | |
| ST | 0.457 | | 0.545 | | |
| IC | 0.841 | | | | |

(Table 4 continued)

| Sub-scales | Factor | | | | |
|------------|--------|-------|-------|-------|---|
| | 1 | 2 | 3 | 4 | 5 |
| OP | | 0.388 | 0.821 | | |
| HA | 0.761 | | | 0.416 | |

EQ-i Abbreviations: SR = Self-Regard; ES = Emotional Self-Awareness; AS = Assertiveness; IN = Independence; SA = Self-Actualization; EM = Empathy; RE = Social Responsibility; IR = Interpersonal Relationship; RT = Reality Testing; FL = Flexibility; PS = Problem Solving; ST = Stress Tolerance; IC = Impulse Control; OP = Optimism; HA = Happiness (BarOn, 2004)

Note. Factor: 1 = Intrapersonal EQ, 2: Interpersonal EQ, 3 = Adaptability EQ, 4 = Stress Management EQ, 5 = General Mood EQ.

The five-factor solution confirmatory factor analysis ($N = 750$), where all the 15 factors were intercorrelated, was tested. Fit indexes with $\chi^2(80) = 1089.21$, $p < 0.001$; CFI = 0.82; TLI = 0.76; and RMSEA = 0.13 were less adequate to estimate the 15 sub-scales of the Indonesian version of the EQ-i as the factors of the five-factor model (see Table 5). We did not conduct the second order of CFA concerning the less significant of the first order CFA result. We however do not exclude any items of the Indonesian version of the EQ-i considering the acceptable factor loadings.

Table 5

Confirmatory Factor Analysis of the Indonesian Version of the EQ-i on Indonesian Normative Sample (N = 2801)

| Scales | 15-factors | Loadings |
|----------------------|------------|----------|
| Intrapersonal EQ | SR | 0.76 |
| | ES | 0.69 |
| | AS | 0.62 |
| | IN | 0.65 |
| | SA | 0.81 |
| Interpersonal EQ | EM | 0.63 |
| | RE | 0.72 |
| | IR | 0.86 |
| Adaptability EQ | RT | 0.78 |
| | FL | 0.71 |
| | PS | 0.51 |
| Stress Management EQ | ST | 0.57 |
| | IC | 0.62 |
| General Mood EQ | OP | 0.52 |
| | HA | 0.70 |

EQ-i Abbreviations: SR = Self-Regard; ES = Emotional Self-Awareness; AS = Assertiveness;

IN = Independence; SA = Self-Actualization; EM = Empathy; RE = Social Responsibility;

IR = Interpersonal Relationship; RT = Reality Testing; FL = Flexibility; PS = Problem Solving;

ST = Stress Tolerance; IC = Impulse Control; OP = Optimism; HA = Happiness (BarOn, 2004).

Sex and Age differences

Comparative analyses between sex and age groups are shown in Table 6. With small effect size, Indonesian women are significantly higher than that for men on EQ total as well as on adaptability, stress management, and general mood. In sub-scale level, women are also higher than that for men on almost all sub-scales. The EQ total is not significantly different across age group. Also with very small size effect, age differences have an effect to the difference of all EQ scales, except adaptability.

Table 6

Sex and age groups comparisons for the Indonesian Normative Sample (N = 2801)

| EQ-i | Mean (SD) by Sex Groups | | <i>p</i> Values (<i>t</i> -Test) | <i>d</i> |
|----------------------|-------------------------|--------------------------|-----------------------------------|----------|
| | Men (<i>N</i> = 1465) | Women (<i>N</i> = 1336) | | |
| Total EQ | 405.08 (45) | 410.31 (44) | 0.00 | 0.12 |
| Intrapersonal EQ | 132.97 (17) | 136.13 (17) | 0.62 | 0.18 |
| Interpersonal EQ | 97.12 (12) | 96.24 (12) | 0.06 | 0.07 |
| Adaptability EQ | 85.09 (11) | 86.15 (11) | 0.01 | 0.10 |
| Stress Management EQ | 57.14 (9) | 57.83 (9) | 0.05 | 0.08 |
| General Mood EQ | 61.43 (8) | 62.77 (8) | 0.00 | 0.16 |
| SR | 32.52 (5) | 32.98 (5) | 0.01 | 0.09 |
| ES | 26.68 (4) | 27.28 (4) | 0.00 | 0.15 |
| AS | 22.03 (3) | 22.16 (4) | 0.35 | 0.01 |
| IN | 20.96 (5) | 21.98 (5) | 0.00 | 0.20 |
| SA | 30.77 (5) | 31.72 (5) | 0.00 | 0.21 |
| EM | 28.52 (4) | 29.01 (4) | 0.00 | 0.12 |
| RE | 36.14 (5) | 36.92 (5) | 0.00 | 0.17 |
| IR | 39.60 (6) | 40.85 (6) | 0.00 | 0.22 |
| RT | 31.59 (5) | 32.48 (5) | 0.00 | 0.17 |
| FL | 24.80 (5) | 25.15 (4) | 0.04 | 0.08 |
| PS | 28.71 (4) | 28.52 (4) | 0.19 | 0.05 |
| ST | 30.03 (4) | 29.63 (5) | 0.02 | 0.09 |
| IC | 27.11 (7) | 28.20 (6) | 0.00 | 0.17 |
| OP | 30.33 (4) | 30.33 (4) | 1.00 | 0.00 |
| HA | 31.10 (6) | 32.44 (6) | 0.00 | 0.23 |

| EQ-i | Mean (SD) by Age Groups | | | | <i>p</i> Values (ANOVA test) | η^2 |
|----------------------|--------------------------------|----------------------------|----------------------------|----------------------------------|---------------------------------|----------|
| | Under 30 (<i>N</i> = 1732) | 30-39 (<i>N</i> = 754) | 40-49 (<i>N</i> = 201) | 50 or Above (<i>N</i> = 114) | | |
| Total EQ | 406.76 (42) | 407.94 (48) | 414.72 (52) | 404.96 (55) | 0.11 | 0.00 |
| Intrapersonal EQ | 134.98 (17) | 134.03 (18) | 134.25 (19) | 130.08 (20) | 0.03 | 0.00 |
| Interpersonal EQ | 95.05 (11) | 97.82 (13) | 102.73 (13) | 103.68 (11) | 0.00 | 0.10 |
| Adaptability EQ | 85.47 (10) | 85.46 (12) | 87.37 (12) | 85.18 (13) | 0.12 | 0.00 |
| Stress Management EQ | 57.55 (9) | 57.54 (10) | 57.94 (10) | 55.00 (11) | 0.03 | 0.00 |

(Table 6 continued)

| | | | | | | |
|-----------------|-----------|-----------|-----------|-----------|------|------|
| General Mood EQ | 62.30 (8) | 61.91 (8) | 61.78 (8) | 60.20 (8) | 0.06 | 0.00 |
| SR | 32.75 (5) | 32.86 (5) | 32.68 (5) | 31.85 (4) | 0.24 | 0.00 |
| ES | 26.97 (4) | 26.86 (4) | 27.40 (4) | 26.78 (4) | 0.41 | 0.00 |
| AS | 22.02 (3) | 22,13 (4) | 22.30 (4) | 22.54 (4) | 0.36 | 0.00 |
| IN | 21.74 (5) | 21.13 (6) | 21.55 (6) | 18.96 (7) | 0.00 | 0.01 |
| SA | 31.49 (4) | 31.04 (5) | 30.32 (5) | 29.96 (5) | 0.00 | 0.01 |
| EM | 28.70 (4) | 28.86 (4) | 28.84 (4) | 28.74 (4) | 0.82 | 0.00 |
| RE | 36.48 (5) | 36.48 (5) | 36.86 (5) | 36.54 (4) | 0.75 | 0.00 |
| IR | 40.49 (6) | 39.90 (6) | 39.80 (6) | 38.39 (5) | 0.00 | 0.01 |
| RT | 32.11 (5) | 31.78 (6) | 32.63 (6) | 31.02 (7) | 0.04 | 0.00 |
| FL | 24.93 (4) | 24.91 (5) | 25.52 (5) | 24.90 (5) | 0.35 | 0.00 |
| PS | 28.44 (4) | 28.77 (4) | 29.21 (4) | 29.26 (3) | 0.00 | 0.01 |
| ST | 29.56 (5) | 30.15 (4) | 30.82 (4) | 30.40 (4) | 0.00 | 0.01 |
| IC | 27.98 (6) | 27.39 (7) | 27.12 (8) | 24.60 (8) | 0.00 | 0.01 |
| OP | 30.14 (6) | 30.53 (6) | 30.86 (6) | 30.97 (6) | 0.01 | 0.00 |
| HA | 32.16 (4) | 31.38 (4) | 30.93 (4) | 29.23 (3) | 0.00 | 0.01 |

EQ-i Abbreviations: SR = Self-Regard; ES = Emotional Self-Awareness; AS = Assertiveness; IN = Independence; SA = Self-Actualization; EM = Empathy; RE = Social Responsibility; IR = Interpersonal Relationship; RT = Reality Testing; FL = Flexibility; PS = Problem Solving; ST = Stress Tolerance; IC = Impulse Control; OP = Optimism; HA = Happiness (BarOn, 2004).

Discussion

In this paper, we investigated the reliability and factor structure of the Indonesian version of the EQ-i on Indonesian normative sample. Here, through the scientific procedure, we provide an adequate reliability of the Indonesian version of the EQ-i to make it applicable in Indonesia.

Rewording some items was needed concerning some unfamiliar terminology for some Indonesians; especially for those who live in outskirts of town and more actively using their local language. These phenomena cannot be denied because Indonesia consists of many ethnic and social groups with various level of formal language proficiency. By rewording the items and giving a verbal explanation during the data gathering process, we are assured that all participants are able to understand each item well and then fill out the questionnaire completely. The result in Table 1 approves the consistency and applicability of the Indonesian version of the EQ-i in some difference cities of Indonesian that consists of different ethnicity (including different local language), level of education, age group, and sex. The standard score of EI competence portrayed the characteristic of Indonesian samples wherein some variables, such as ethnic diversity and socioeconomic characteristic, should be placed as an imperative factor for Indonesian society. Eastern society characteristic may contribute to the Indonesian's level of ESI. The future study that compare Indonesia as an Eastern country to a Western country, like the Netherlands for example, expectantly give a positive contribution to explain more about societies.

Regarding the theory, these results are in line with BarOn's conception of ESI. Indeed, we identify some

similarities of the ESI and attachment theories that make them can be interrelated by each other. First, they enlighten the intrapersonal aspect of individuals that leads them to be well-adapted with their emotional and social circumstances. Second, they also concern about the interpersonal functions of individuals that leads them to build an adequate social relationship. Some previous studies found that there was a positive relationship between secure attachment orientation and EI competences (Hazan & Shaver, 1987; Simpson, 1990; Cooper, Shaver, & Collins, 1998; Mikulincer, Orbach, & Iavnieli, 1998; Mikulincer, et al., 2001; Kafetsios, 2004; Kim, 2005). Future research about the relationship between attachment style and EI level should be interesting.

Results obtained with EFA have supported a five-factor and 15-factor models of the Indonesian version of the EQ-i. The rotated factors of the EFA shows that the 15-factor models of the Indonesian version of the EQ-i are not completely in line with the original version (see Table 4). For example, reality testing and flexibility should be a sub-scale for factor 3 (adaptability) in the original version instead of factor 1 (intrapersonal). Optimism and happiness should be a sub-scale for factor 5 (general mood) instead of factor 3 and factor 1. These results in some extent are consistent with the CFA result (see Table 5). It is proven here that the 15 factor loadings are the representation of the five scales of the EQ-i despite the deployment of its 15 sub-scales are not exactly the same as the original version. In addition, an overview on the Indonesian EI competences will further illustrate each competency scale as a single competence and cannot be assessed as a total competence (EQ total). We notice that further research to see more about how the Indonesian people assess their competence through EQ-i will be very useful to support these results. The Eastern society of Indonesia is a multi-ethnic society that could have a special characteristic in terms of self assessment regarding the ethnic values variability among Indonesians.

Limitations and Implications

Despite the accumulated evidence for the reliability of the EQ-i, a limitation of our study regarding analyzing of the demographic data, such as ethnic variability, age group, sex difference, and socioeconomic level has to be mentioned here. Even though the 15-sub-scales are observable and measurable and are therefore defined as indicators of EI competences, this study assessed these variables by using self-report. It is possible that people with different demographic characteristic will perform different self-evaluations of their behaviors in the meaning of emotion and social abilities. Indonesian people with different ethnic identity, for instance, would respond according to what is considered good and bad by their ethnic group. Therefore, even though they are defined as objective indicators, they could be biased by the variability of demographic factors. Accordingly, the further study and analysis that take into account the demography data as a main variable of the study would be important and interesting.

Conclusion

The contribution of this study is that for the first time the concept of EI can be researched in Indonesia. Although there are major questions related to cultural perspective in using this western culture-based concept, we think that the connection of the Indonesians' concept of EI to the people's from the west may get closer. Indonesian society is confronted by the growth of globalized economy that forms, to some extent, the connection of the psychological profile with the modern economy. We think that the traditional EI concept well-developed in the western, which represents extraverted, narcissistic, and fitting-perfect characteristics of individuals in a neo-capitalist modern society, to the Indonesian society is now a possible outcome.

We confirm that the EQ-i is a reliable and an adequate instrument to assess EI competences in the Indonesian context and provided further support for the cross-cultural generalization of EI construct. The EQ-i is applicable both in research and practice. With regard to research, this self-report questionnaire can be used to further examine the EI construct and its relations to other constructs and criteria, e.g. in research on ethnic and culture differences in EI competence. With regard to practice, the EQ-i can be used to measure the EI level in clinical assessment, human resource development, or training program. We hope that the introduction of this questionnaire stimulates not only further research on EI in Indonesia but also wider cooperation with other countries.

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