

Model of EQ and MQ Integrated with Environmental Education Affecting Environmental Behavior

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Abstract

The objective was to propose the structural model Emotional Quotient (EQ), Moral Quotient (MQ) and Environmental Education (EE) affecting environmental behavior for global warming alleviation through inspiration of public consciousness. The populations were 37,101 undergraduate student of Mahasarakham University in second semester of academic year of 2013. The Multi-stage simple random sampling technique was employed to collect the sample for 400 undergraduate students. The research instrument was the questionnaire and it was used for data collecting. LISREL was used for model verification. Results illustrated that the structural model confirmatory factors of Emotional Quotient (EQ), Moral Quotient (MQ) and Environmental Education (EE) were able to explain the variation of endogenous factors of Inspiration of Public Consciousness for Environmental Conservation (IPC) to cause Environmental Behaviors for Global Warming Alleviation (BEH) with 96.00 percent. IPC was the most effect to BEH with 0.69. Consequently, confirmatory factors of Environmental Education (EE), Emotional Quotient (EQ), and Moral Quotient (MQ), were able to explain the variation of confirmatory factors of Inspiration of

Public Consciousness for Environmental Conservation (IPC) with 88.00 percent. EE was the effect to IPC with 0.49.

Keywords: model EQ; MQ; Environmental education affecting; Environmental behavior

Introduction

The rapid growth of global population is a critically environmental problem because they need the natural resources for daily living. Moreover, numerous scientists have indicated the human activity is a foremost factor of environmental deprivation and natural resources devastation. It results into degradation of environmental quality and waste accumulation. However, human activities, primarily clearing of forests and the burning of fossil fuels that have intensified the natural greenhouse effect to causing global warming (IPCC, 2011; United States National Academy of Sciences, 2008; National Research Council of USA, 2010; Thiengkamol, 2011e).

Emotional quotient (EQ) or emotional intelligence quotient is a measurement of a person's ability to observe his or her emotions, to cope with pressures and difficulty. EQ is the capability to assess the concern conditions and connections with other peoples. There various style of EQ test varies according to different interest but it is hypothesized as questionnaire or self-reported data. However, EQ test highlights intensely on problem solving design to determine the ability of responder to comprehend, and control emotions within themselves and others. High scores indicate high awareness of general social norms. Measurements of people's EQs are used in many situations. Generally, this idea is very established in the business world, where many businesses use EQ tests to help their employees determine and measure their emotional responses to different situations. Therefore, EQ tests are often used in business to identify strengths and weaknesses in employees so that these employees can learn skills to improve certain aspects of their EQ. EQ is also inherent ability and learned behavior (Goleman, 1995; Mayer, Salovey, & Caruso, 2000; Bar-On, 2007; Bar-On, 2010).

Moral Quotient (MQ) is comparable to environmental ethics. Morality distinguishes from intentions, decisions, and performances between those that are good or right and those that are bad or wrong. A system of morality is relative with a particular philosophy, religion, and culture. Therefore, morality may also be entirely the same with "goodness" or "rightness." (Dictionary.com, 2010; Johnstone, 2008; Superson, 2009;

Wiktionary, 2010). A moral code is the Golden Rule which insists that, "One should treat others as one would like others to treat oneself." MQ is an ability to effectively react to difficulties by noticing from his or her response with a wide range of difficult events. In contrast, groups in the most firm occupations frequently score below the comprehensive mean. However, it is revealed that people is likely to choose occupations based on their MQ (Stoltz, 1997).

Environmental Education (EE) is essential concept for supporting sustainable development via developing the people competence to concentrate to environment and development issues. It should particularly be conducted by means of all education system whether formal, informal, non-formal and lifelong education in order to raise awareness, to change attitude, to cultivate the consciousness, to take responsibility and to practice skill for achieving better environmental behavior based on inspiration of public mind or public consciousness. The principles of EE is congruent to Sustainable Development (SD) in terms of increasing environmental knowledge and understanding, changing people's attitudes and awareness, to have appropriate value and skill to take responsible for environmental conservation behavior through inspiration of public mind and for effective public participation. Additionally, to reach the success of EE and SD, it should manage with attention on the dynamics of both the physical/biological and socio-economic environment and human development, should be integrated in all disciplines with effective means of communication (WCED, 1987; Thiengkamol, 2011e; Thiengkamol, 2011f; Thiengkamol, 2011g; Thiengkamol, 2011h; Thiengkamol, 2011i; Thiengkamol, 2011j; Thiengkamol, 2012a; Thiengkamol, 2012b, Thiengkamol, 2012c; Thiengkamol, 2012d).

Thiengkamol discovered from various researches on inspiration of public consciousness or public mind, she concludes that it might occur from one's insight with or without any action or it might occur from one's impression on role model, event, environment and media perception. It is different from motivation because inspiration needs no rewards. Inspiration of public consciousness or public mind, especially, for natural resources

and environment conservation, one doesn't receive any incentive, respect or gratefulness for one's act for natural resources and environment conservation (Thiengkamol, 2009a; Thiengkamol, 2009b; Thiengkamol, 2011e; Thiengkamol, 2011f; Thiengkamol, 2011h; Thiengkamol, 2011i; Thiengkamol, 2011; Thiengkamol, 2012cd; Thiengkamol, 2012e; Thiengkamol, 2012f; Thiengkamol, 2012g; Thiengkamol, 2012h).

It is not obviously seen the research about EQ, MQ, EE affecting environmental behavior for global warming alleviation through inspiration of public consciousness including person as role model, impressive event, impressive environment, and media perception (Thiengkamol, 2011i; Thiengkamol, 2011j; Thiengkamol, 2013a; Ruboon et al., 2012a; Pimdee et al, 2012a; Gonggool et al, 2012b) when it compared with other aspects of relating factors affecting environmental behavior for global warming alleviation.

Therefore, this research was designed to study by covering all factors relating as mentioned above, it would be able to develop a model of environmental behaviors for global warming alleviation that are affected by EQ, MQ and EE through inspiration of public consciousness.

Objective

The objective was to propose the structural model of EQ, MQ and EE affecting environmental behavior for global warming alleviation through inspiration of public consciousness.

Methodology

The research design was implemented in steps by step as follows:

1) The populations were 37,101 undergraduate students of the second semester in academic year 2013 of Mahasarakham University. The Multi-stage random sampling was employed to collect 400 students from different faculties of Mahasarakham University.

2) The research instrument was the questionnaire and it was used for data collecting. The content and structural validity were determined by Item Objective Congruent (IOC) with 5 experts in the aspects of

environmental education, psychology, social science and social research methodology. The reliability was done by collecting the sample group from 50 undergraduate students of Rajabhat Mahasarakham University which is nearby Mahasarakham University. The reliability was determined by Cronbach's Alpha. The reliability of Moral Quotient (MQ), Emotional Quotient (EQ), Moral Quotient (MQ), Environmental Education (EE) Inspiration of Public Consciousness (IPC), Behaviors for Global Warming Alleviation (BEH), and the whole questionnaire were 0.919, 0.877, 0.972, 0.977, 0.964 and 0.967 respectively.

3) The descriptive statistics used were frequency, percentage, mean and standard deviation. The inferential statistics used was LISREL by considering on Chi-Square value differs from zero with no statistical significant at 0.05 level or Chi-Square/df value with lesser or equal to 5, P-value with no statistical significant at 0.05 level and RMSEA (Root Mean Square Error Approximation) value with lesser than 0.05 including index level of model congruent value, GFI (Goodness of Fit Index) and index level of model congruent value, AGFI (Adjust Goodness of Fit Index) between 0.90-1.00.

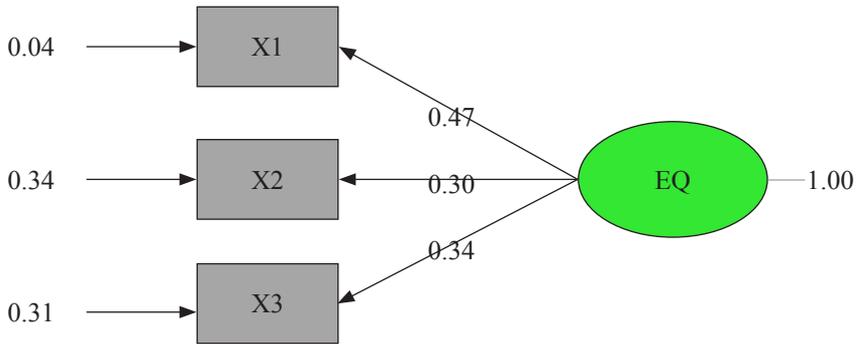
Results

Results of Confirmatory factors of Exogenous Variables

Confirmatory Factors Analysis of Exogenous Variables of Emotional Quotient (EQ)

Confirmatory Factor Analysis of Exogenous Variables of Emotional Quotient (EQ) affecting Environmental Behaviors for Global Warming Alleviation (BEH) was revealed as the followings.

Confirmatory factors of EQ had Bartlett's test of Sphericity of 185.539 statistically significant level of 0.01, and Kaiser–Mayer–Olkin Measure of Sampling Adequacy/MSA of 0.593. This indicated that components of EQ aspect had proper relationship at good level and it can be used for analysis of confirmatory factors as shown in figure1 and table 1.



Chi-Square = 0.00, df = 0, P-value = 1.00000, RMSEA = 0.000

Figure 1 Results of Analysis of Confirmatory factors of Emotional Quotient

Table 1 Results of Analysis of Confirmatory factors of Emotional Quotient

Components of Emotional Quotient	Weight	SE	t	R ²
X1 Emotional Realization	0.47	0.04	10.61**	0.86
X2 Emotional Control	0.30	0.04	7.39**	0.20
X3 Performance and Decision Making	0.34	0.04	8.12**	0.27
Chi-square = 0.00	df = 0	P = 1.00000		
GFI = 1.00	AGFI = 1.00	RMSEA = 0.000	RMR = 0.000	

** Statistically significant level of .01

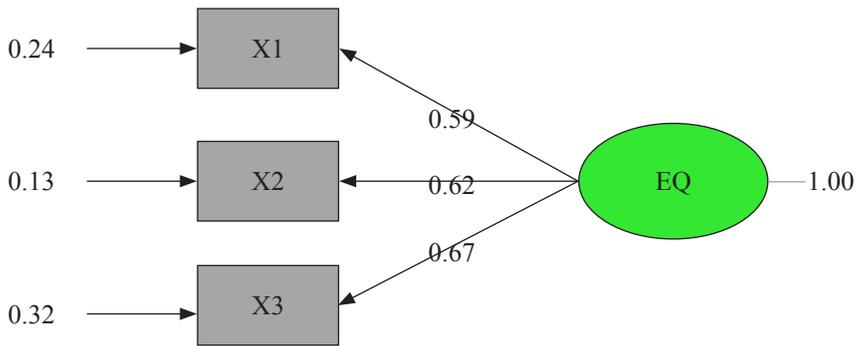
From figure1 and table 1, results of analysis of confirmatory factors of Emotional Quotient (EQ) from 3 observed variables was revealed that the model was congruent to empirical data by considering from 1) Goodness of Fit Index (GFI) equaled to 1.00 and Adjust Goodness of Fit Index (AGFI) equaled to 1.00, 2) Root Mean Square Error of Approximation (RMSEA) equaled to 0.000 (RMSEA < 0.05) and 3) Chi- Square value had no statistically significant at level of 0.01 and divided by degree of freedom was lesser than or equaled to 5.00 ($\chi^2/df \leq 5.00$).

Considering on loading weight of observed variables in model, it was revealed that observed variables had loading weight with 0.30 to 0.47 and had covariate to model of Emotional Quotient (EQ) with 20.00 to 86.00 percent.

Confirmatory Factors Analysis of Exogenous Variables of Moral Quotient (MQ)

Confirmatory Factor Analysis of Exogenous Variables of Moral Quotient (MQ) affecting Environmental Behaviors for Global Warming Alleviation (BEH) was revealed as the followings.

Confirmatory factors of MQ had Bartlett’s test of Sphericity of 500.372 statistically significant level of 0.01, and Kaiser–Mayer–Olkin Measure of Sampling Adequacy/MSA of 0.722. This indicated that components of MQ aspect had proper relationship at good level and it can be used for analysis of confirmatory factors as shown in figure 2 and table 2.



Chi-Square = 0.00, df = 0, P-value = 1.00000, RMSEA = 0.000

Figure 2 Results of Analysis of Confirmatory factors of Moral Quotient

Table 2 Results of analysis of Confirmatory factors of Moral Quotient

Components of Emotional Quotient	Weight	SE	t	R²
X4 General Ethics	0.59	0.04	16.84**	0.60
X5 Personal Ethics	0.62	0.03	19.29**	0.75
X6 Social Norm	0.67	0.04	16.17**	0.59
Chi-square = 0.00 df = 0 P = 1.00000				
GFI = 1.00 AGFI = 1.00 RMSEA = 0.000 RMR = 0.000				

** Statistically significant level of .01

From figure 2 and table 2, results of analysis of confirmatory factors of Moral Quotient (MQ) from 3 observed variables was revealed that the model was congruent to empirical data by considering from 1) Goodness of Fit Index (GFI) equaled to 1.00 and Adjust Goodness of Fit Index (AGFI) equaled to 1.00, 2) Root Mean Square Error of Approximation (RMSEA) equaled to 0.000 (RMSEA < 0.05) and 3) Chi-Square value had no statistically significant at level of 0.01 and divided by degree of freedom was lesser than or equaled to 5.00 ($\chi^2 / df \leq 5.00$).

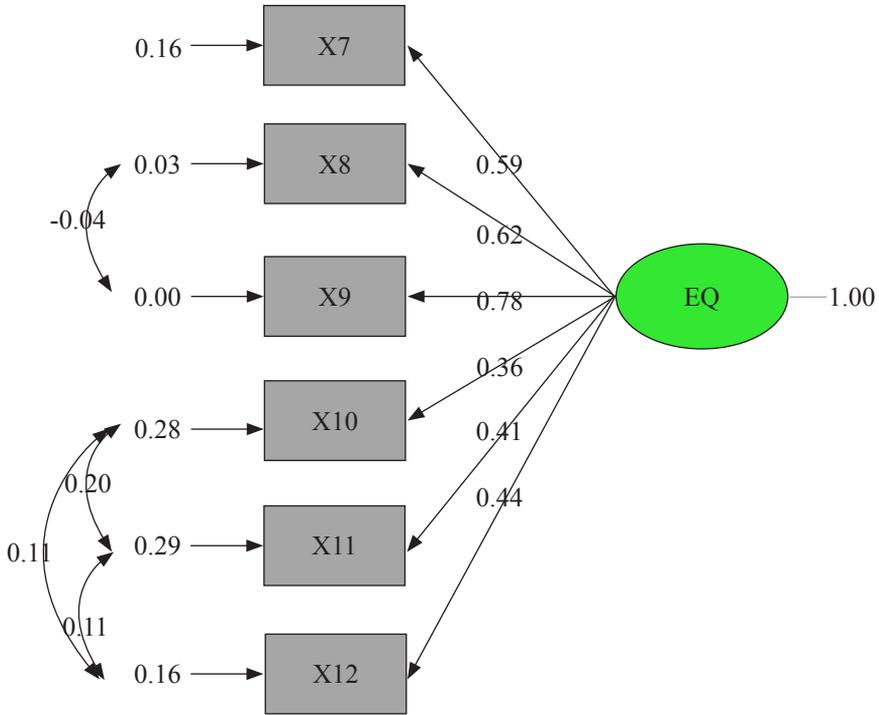
Considering on loading weight of observed variables in model, it was revealed that observed variables had loading weight with 0.59 to 0.67 and had covariate to model of Moral Quotient (MQ) with 59.00 to 75.00 percent.

Confirmatory factors Analysis of Exogenous Variables of Environmental Education (EE)

Confirmatory Factor Analysis of Exogenous Variables of Environmental Education (EE) affecting Environmental Behaviors for Global Warming Alleviation (BEH) was revealed as the followings.

Confirmatory factors of EE had Bartlett's test of Sphericity of 2115.466 statistically significant level ($p < .01$) and Kaiser–Mayer–Olkin Measure of Sampling Adequacy/MSA) of 0.860. This indicated that

components of EE aspect had proper relationship at good level and it can be used for analysis of confirmatory factors as shown in figure 3 and table 3.



Chi-Square = 7.83, df = 5, P-value = 0.16603, RMSEA = 0.038

Figure 3 Model of Confirmatory factors of Environmental Education (EE)

Table 3 Results of Analysis of Confirmatory factors of Environmental Education

Components of Emotional Quotient	Weight	SE	t	R ²
X7 Knowledge and Understanding	0.59	0.030	19.38**	0.68
X8 Environmental Awareness	0.62	0.026	24.14**	0.93
X9 Environmental Attitude	0.78	0.030	25.70**	0.99
X10 Environmental Skill	0.36	0.030	12.11**	0.31
X11 Environmental Participation	0.41	0.031	13.13**	0.36
X12 Environmental Evaluation	0.44	0.026	16.76**	0.54
Chi-square = 7.83 df = 5 P = 0.16603				
GFI = 0.99 AGFI = 0.97 RMSEA = 0.038 RMR = 0.0032				

** Statistically significant level of .01

From figure 3 and table 3, results of analysis of confirmatory factors of EE from 5 observed variables was revealed that the model was congruent to empirical data by considering from 1) Goodness of Fit Index (GFI) equaled to 0.99 and Adjust Goodness of Fit Index (AGFI) equaled to 0.97, 2) Root Mean Square Error of Approximation (RMSEA) equaled to 0.041 (RMSEA < 0.05) and 3) Chi-Square value had no statistically significant at level of 0.01 and divided by degree of freedom was lesser than or equaled to 5 ($\chi^2 / df \leq 5.00$).

Considering on loading weight of 6 observed variables in model, it was revealed that observed variables had loading weight with 0.36 to 0.78 and had covariate to model of Environmental Education with 31.00 to 99.00 percent.

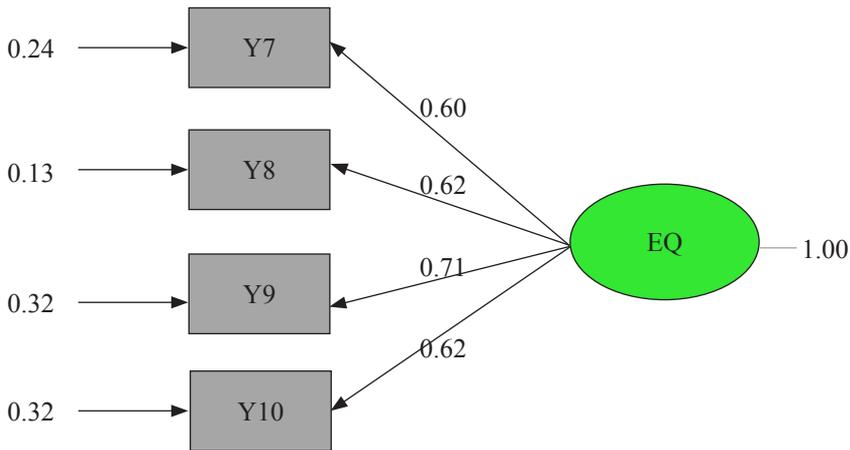
Results of Confirmatory factors of Endogenous Variables

Results of Confirmatory Factors Analysis of Endogenous Variables of Inspiration of Public Consciousness influencing to Environmental Conservation Behaviors was revealed as followings.

Confirmatory Factors Analysis of Endogenous Variables of Inspiration of Public Consciousness for Environmental Conservation (IPC)

Confirmatory Factors Analysis of Endogenous Variables of Inspiration of Inspiration of Public Consciousness for Environmental Conservation (IPC) to Environmental Behaviors for Global Warming Alleviation (BEH) was revealed as the followings.

Confirmatory Factors of Inspiration of Inspiration of Public Consciousness for Environmental Conservation (IPC) had Bartlett’s test of Sphericity of 1280.480 statistically significant level ($p < 0.01$) and Kaiser–Mayer–Olkin Measure of Sampling Adequacy/MSA) of 0.846. This indicated that components Inspiration of Inspiration of Public Consciousness for Environmental Conservation (IPC) aspect had proper relationship at good level and it can be used for analysis of confirmatory factors as shown in figure 4 and table 4.



Chi-Square = 1.84, df = 1, P-value = 0.17496, RMSEA = 0.046

Figure 4 Model of Confirmatory factor of Inspiration of Public Consciousness for Environmental Conservation

Table 4 Results of Analysis of Confirmatory factors of Public Consciousness for Environmental Conservation

Components of Emotional Quotient	Weight	SE	t	R ²
Y7 Person as Role Model	0.60	0.029	20.39**	0.70
Y8 Impressive Event	0.62	0.030	21.04**	0.76
Y9 Impressive Environment	0.71	0.029	24.80**	0.92
Y10 Media Receiving	0.62	0.028	21.69**	0.76
Chi-square = 1.84	df = 1	P = 0.17496		
GFI = 1.00	AGFI = 0.98	RMSEA = 0.046	RMR = .0030	

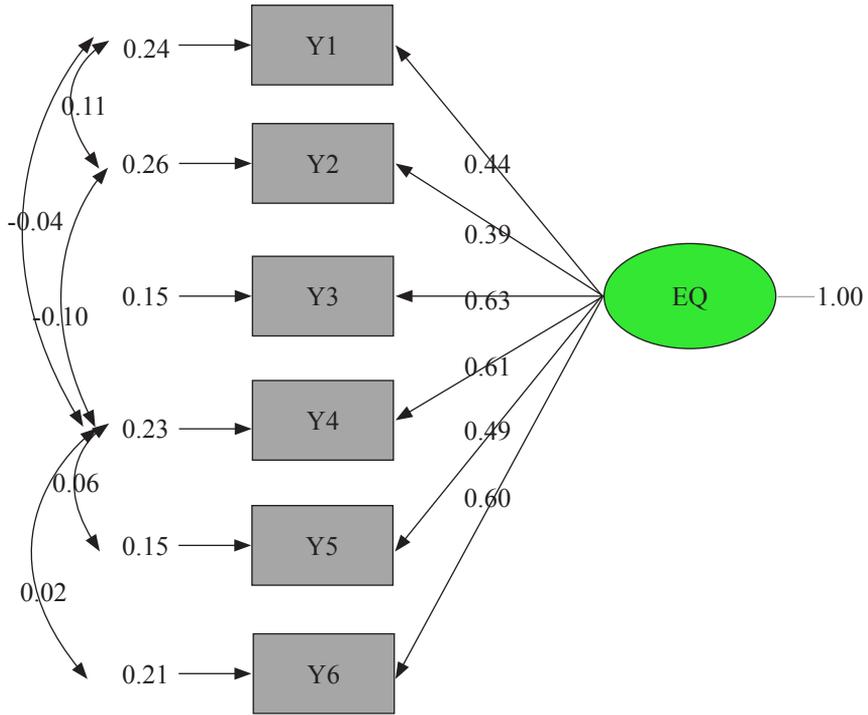
** Statistically significant level of .01

From figure 4 and table 4, results of analysis of confirmatory factors of IPC from 4 observed variables was revealed that the model was congruent to empirical data by considering from 1) Goodness of Fit Index (GFI) equaled to 1.00 and Adjust Goodness of Fit Index (AGFI) equaled to 0.98, 2) Root Mean Square Error of Approximation (RMSEA) equaled to 0.046 (RMSEA < 0.05), and 3) Chi-Square value had no statistically significant at level of .01 and divided by degree of freedom was lesser than or equaled to 5.00 ($\chi^2/df \leq 5.00$).

Considering on loading weight of 4 observed variables in model, it was revealed that observed variables had loading weight with 0.60 to 0.71 and had covariate to model of Inspiration of Public Consciousness for Environmental Conservation (IPC) with 70.00 to 92.00 percent.

Confirmatory Factors Analysis of Endogenous Variables of Environmental Behaviors for Global Warming Alleviation (BEH)

Confirmatory Factors of Environmental Behaviors for Global Warming Alleviation had Bartlett's test of Sphericity of 1409.304 statistically significant level ($p < 0.01$) and Kaiser–Mayer–Olkin Measure of Sampling Adequacy/MSA) of 0.833. This indicated that components of BEH aspect had proper relationship at good level and it can be used for analysis of confirmatory factors as shown in figure 5 and table 5.



Chi-Square = 4.94, df = 4, P-value = 0.29356, RMSEA = 0.024

Figure 5 Model of Confirmatory factors of Environmental Behaviors for Global Warming Alleviation

Components of Emotional Quotient	Weight	SE	t	R ²
Y1 Consumption Behavior	0.44	0.031	14.21**	0.45
Y2 Energy Conservation Behavior	0.39	0.031	12.70**	0.37
Y3 Recycling Behavior	0.63	0.031	19.89**	0.73
Y4 Waste Management Behavior	0.61	0.036	16.78**	0.62
Y5 Travelling Behavior	0.49	0.028	17.52**	0.61
Y6 Knowledge Transferring for Environmental Conservation	0.60	0.0.8	18.00**	0.63
Chi-square = 4.94	df = 4	P = 0.29356		
GFI = 1.00	AGFI = 0.98	RMSEA = 0.024	RMR = 0.0055	

** Statistically significant level of .01

From figure 5 and table 5, results of analysis of confirmatory factors of Environmental Behaviors for Global Warming Alleviation from 6 observed variables was revealed that the model was congruent to empirical data by considering from 1) Goodness of Fit Index (GFI) equaled to 1.00 and Adjust Goodness of Fit Index (AGFI) equaled to 98, 2) Root Mean Square Error of Approximation (RMSEA) equaled to 0.000 (RMSEA < 0.05) and 3) Chi-Square value had no statistically significant at level of 0.01 and divided by degree of freedom was lesser than or equaled to 5.00 ($\chi^2/df \leq 5.00$).

Considering on loading weight of 6 observed variables in model, it was revealed that observed variables had loading weight with 0.39 to 0.63 and had covariate to model of Environmental Behaviors for Global Warming Alleviation (BEH) with 37.00 to 73.00 percent.

Results of Effect among Variables in Model in Terms of Direct Effect

1) Confirmatory factors of Emotional Quotient (EQ), had direct effect to Inspiration of Public Consciousness for Environmental Conservation (IPC) and Environmental Behaviors for Global Warm 0.32 and 0.28. Moreover, model Emotional Quotient (EQ), had indirect effect to Environmental Behaviors for Global Warming Alleviation (BEH) with statistically significant at level of 0.01 with effect of 0.22.

2) Confirmatory factors of Moral Quotient (MQ) had direct effect to Inspiration of Public Consciousness for Environmental Conservation (IPC) and Environmental Behaviors for Global Warming Alleviation (BEH) with statistically significant at level of 0.01 with effect of 0.33 and 0.29. Moreover, confirmatory factors in aspect of Moral Quotient (MQ) had indirect effect to Environmental Behaviors for Global Warming Alleviation (BEH) with statistically significant at level of 0.01 with effect of 0.23.

3) Confirmatory factors of Environmental Education (EE) had direct effect to Inspiration of Public Consciousness for Environmental Conservation (IPC) and Environmental Behaviors for Global Warming Alleviation (BEH) with statistically significant at level of 0.01 with effect of 0.49 and 0.42. Moreover, confirmatory factors in aspect of Environmental Education (EE) had indirect effect to Behaviors for Global Warming Alleviation (BEH) with no statistically significant at level of 0.01 with effect of 0.34.

4) Confirmatory factors of Inspiration of Public Consciousness for Environmental Conservation (IPC) had direct effect Environmental Behaviors for Global Warming Alleviation (BEH) with statistically significant at level of 0.01 with effect of 0.69.

5) Considering on structural model confirmatory factors of Moral Quotient (MQ) Emotional Quotient (EQ), and Environmental Education (EE) were able to explain the variation of endogenous factors of Inspiration of Public Consciousness for Environmental Conservation (IPC) to caused Environmental Behaviors for Global Warming Alleviation (BEH) with 96.00 percent as following in Equation (1).

$$\text{BEH} = 0.29 * \text{MQ} + 0.28 * \text{EQ} + 0.42 * \text{EE} + 0.69 * \text{IPC} \dots \dots \dots (1)$$

$$(R^2 = 0.96)$$

Equation (1) factors that had the most effect to Environmental Behaviors for Global Warming Alleviation (BEH) was Inspiration of Public Consciousness (IPC) with effect of 0.69 and subsequences were Environmental Education (EE), Moral Quotient (MQ) and Emotional Quotient (EQ) with effect of 0.42, 0.29, and 0.28 respectively. These were able to explain the variation of Environmental Behaviors for Global Warming Alleviation (BEH) with 96.00 percent.

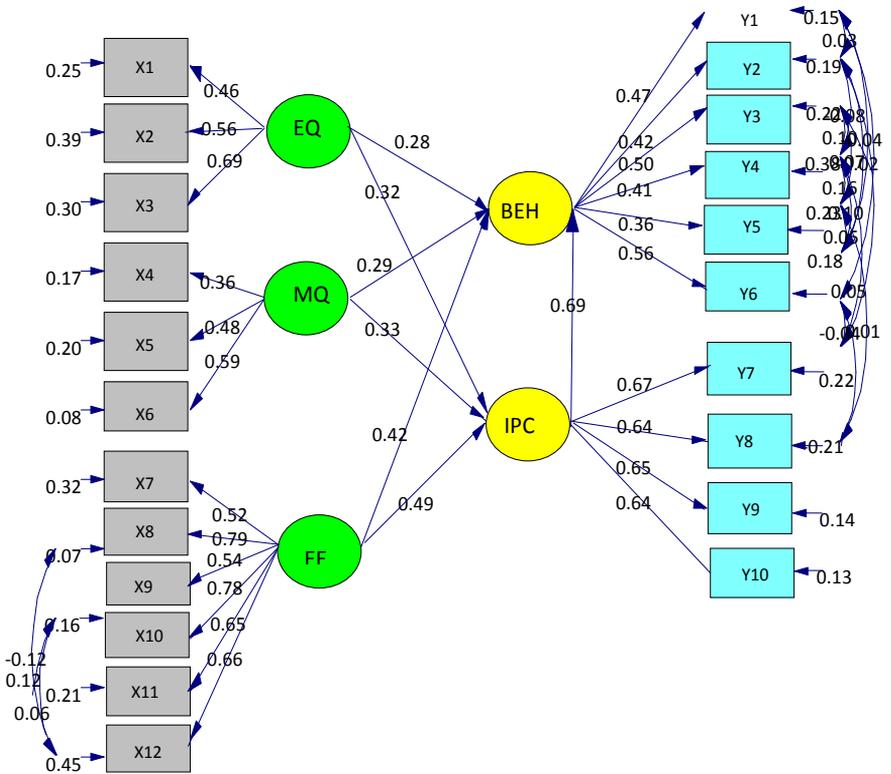
Consequently, confirmatory factors of Environmental Education (EE), Emotional Quotient (EQ), and Moral Quotient (MQ), were able to explain the variation of confirmatory factors of Inspiration of Public Consciousness

for Environmental Conservation (IPC) with 88.00 percent. Therefore, the equation can be written as following Equation (2).

$$IPC = 0.49*EE + 0.33*MQ + 0.32*EQ \dots\dots\dots (2)$$

$$(R^2 = 0.88)$$

Equation (2) factors that had the most effect to Inspiration of Public Consciousness for Environmental Conservation (IPC) was Environmental Education (EE) with effect of 0.49, subsequences were Moral Quotient (MQ) and Emotional Quotient (EQ), with effect of 0.33 and 0.32. These were able to explain the variation of Inspiration of Public Consciousness for Environmental Conservation (IPC) with 88.00 percent.



Chi-Square=285.76, df=181, P-value=0.20001, RMSEA=0.003

Figure 6 Model of direct and indirect effect of EQ, MQ and EE through IPC affecting BEH

Discussion

The results was revealed that confirmatory factors of Emotional Quotient (EQ) had direct effect to Environmental Behaviors for Global Warming Alleviation (BEH) with statistically significant at level of 0.01 with effect of 0.28, and had indirect effect to Environmental Behaviors for Global Warming Alleviation (BEH) with statistically significant at level of 0.01 with effect of 0.22. Furthermore, Emotional Quotient (EQ) had direct effect to Inspiration of Public Consciousness (IPC) with statistically significant at level of 0.01 with effect of 0.32.

Therefore, it is evidently that Emotional Quotient (EQ) composing of Emotional Realization (X1), Emotional Control (X2) and Performance and Decision Making (X3) affecting Environmental Behavior for Global Warming Alleviation (BEH) through Inspiration of Public Consciousness (IPC) composing of Person as Role Model (Y7), Impressive Event (Y8), Impressive Environment (Y9), and Media Receiving (Y10), therefore the results of this study are harmonious to various studies of Thiengkamol and her colleagues (Thiengkamol, 2011i; Thiengkamol, 2011j; Thiengkamol, 2012c; Thiengkamol, 2012d; Thiengkamol, 2012e; Donkonchum et al., 2012a; Gonggool et al., 2012b; Morrasri et al, 2012b; Ruboon et al., 2012a; Udonboon et al, 2012b; Waewthaisong et al., 2012a).

Simultaneously, the results was revealed that confirmatory factors of Moral Quotient (MQ) had direct effect to Environmental Behaviors for Global Warming Alleviation (BEH) with statistically significant at level of 0.01 with effect of 0.29, and had indirect effect to Environmental Behaviors for Global Warming Alleviation (BEH) with statistically significant at level of 0.01 with effect of 0.23. In addition, Moral Quotient (MQ) had direct effect to Inspiration of Public Consciousness (IPC) with statistically significant at level of 0.01 with effect of 0.33.

Therefore, it is clearly seen that Moral Quotient (MQ) composing of Personal X4General Ethics (X4), Personal Ethics (X5) and Social Norm (X6) affecting Environmental Behavior for Global Warming Alleviation (BEH) through Inspiration of Public Consciousness (IPC) composing of Person as Role Model (Y7), Impressive Event (Y8),

Impressive Environment (Y9), and Media Receiving (Y10), therefore the results of this study are harmonious to various studies of Thiengkamol and her colleagues (Thiengkamol, 2011i; Thiengkamol, 2011j; Thiengkamol, 2012c; Thiengkamol, 2012d; Thiengkamol, 2012e; Thiengkamol, 2013a; Donkonchum et al., 2012a; Gonggool et al., 2012b; Morrasri et al., 2012b; Ruboon et al., 2012a; Udonboon et al., 2012b).

The exogenous factors of Emotional Quotient (EQ), Moral Quotient (MQ) and Environmental Education (EE) were able to explain the variation of endogenous factors of Inspiration of Public Consciousness (IPC) to caused Environmental Behaviors for Global Warming Alleviation (BEH) with 96.00 percent.

Moreover, Environmental Education (EE) had direct effect to Environmental Behaviors for Global Warming Alleviation (BEH) with statistically significant at level of 0.01 with effect of 0.42, and had indirect effect to Environmental Behaviors for Global Warming Alleviation (BEH) with statistically significant at level of 0.01 with effect of 0.34. Furthermore, Environmental Education (EE) had direct effect to Inspiration of Public Consciousness (IPC) with statistically significant at level of 0.01 with effect of 0.49.

Therefore, it is clearly seen that Environmental Education (EE) composing of Knowledge and Understanding (X7), Environmental Awareness (X8), Environmental Attitude (X9), Environmental Skill (X10), Environmental Participation (X11), and Environmental Evaluation (X12) affecting Environmental Behavior for Global Warming Alleviation (BEH) through Inspiration of Public Consciousness (IPC) composing of Person as Role Model (Y7), Impressive Event (Y8), Impressive Environment (Y9), and Media Receiving (Y10), therefore the results of this study are harmonious to various studies of Thiengkamol and her colleagues (Thiengkamol, 2011i; Thiengkamol, 2011j; Thiengkamol, 2012c; Thiengkamol, 2012d; Thiengkamol, 2012e; Donkonchum et al., 2012a; Gonggool et al., 2012b; Morrasri et al., 2012b; Ruboon et al., 2012a; Udonboon et al., 2012b).

The model of EQ, MQ and EE affecting BEH through IPC was verified the proposed model was fitted with all observe variables according to criteria of Chi-Square value differs from zero with no statistical significant at 0.05 level or Chi-Square/df value with lesser or equal to 5, P-value with no statistical significant at 0.05 level and RMSEA (Root Mean Square Error Approximation) value with lesser than 0.05 including index level of model congruent value, GFI (Goodness of Fit Index) and index level of model congruent value, AGFI (Adjust Goodness of Fit Index) between 0.90-1.00.

Therefore, it might be concluded that EQ, MQ and EE play very important roles to create the environmental behavior of consumption behavior, energy conservation, waste management, travelling behavior, recycling behavior, and knowledge transferring and supporting for environmental conservation, therefore Four Nobel Truths should be reintroduced again in the school. However, EQ and MQ are significant factors for undergraduate students to have environmental conservation behavior for global warming alleviation through public consciousness to meet sustainable development. These results were congruent to concepts proposed by Thiengkamol (2009a, 2009b, 2011e, 2011f).

References

- Bar-On, R. (2010). Emotional intelligence: An integral part of positive psychology. *South African Journal of Psychology, 40*(1), 54-62.
- Bar-On, R. (2007). The Bar-On model of emotional intelligence: A valid, robust and applicable EI model. *Organisations and People, 14*, 27-34.
- Dictionary.com. (2010). *Amorality*. Retrieved on June 18, 2016, from <http://www.dictionary.com/browse/amorality>
- Donkonchum, S., Thiengkamol, N., & Thiengkamol, C. (2012a). Causal Relationship Model of Environmental Conservation Behavior Integrated with LCA Knowledge. *European Journal of Social Sciences, 33*(1), 5-13.
- Goleman, D. (1995). *Emotional Intelligence*. New York: Bantam Books.
- Gonggool, D., Thiengkamol, N., & Thiengkamol, C. (2012b). Development of Environmental Education Volunteer Model through Inspiration of Public Consciousness for Sustainable Development. *European Journal of Social Sciences, 32*(1), 150-160.
- IPCC. (2011). *IPCC Introduces New 'Climate Change' Definition*. Retrieved from: <http://www.thegwgf.org/ipcc-introduces-new-climate-change-definition/>
- Johnstone, M. J. (2008). Bioethics: A Nursing Perspective. *Elsevier Health Sciences*. pp. 102–103.
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2000). In Sternberg, R. J. (Ed.). *Handbook of Human Intelligence* (2nd ed). New York: Cambridge.
- Morrasri, P., Thiengkamol, N., & Thiengkamol, T. (2012b). Causal Relationship Model of Little Green Child with Environmental Behavior. *European Journal of Social Sciences, 34*(2), 177-189.
- National Research Council of USA. (2010). *Advancing the Science of Climate Change*. Washington, D. C.: The National Academies Press.
- Pimdee, P., Thiengkamol, N., & Thiengkamol, T. (2012a). Causal Relationship Model of Electrical Energy Conservation. *European Journal of Social Sciences, 32*(3), 306-315.

- Ruboon, O., Thiengkamol, N., Thiengkamol, T., & Kurokodi, J. (2012a). Model of Environmental Education Teacher with Inspiration of Environmental Conservation for Global Warming Alleviation. *European Journal of Social Sciences*, 31(1), 92-102.
- Stoltz, P. G. (1997). *Adversity Quotient: Turning Obstacles into Opportunities*. USA John Wiley & Son, Inc.
- Superson, A. (2009). *The Moral Skeptic*. London: Oxford University Press.
- Thiengkamol, N. (2009a). *The Great Philosopher: the Scientist only know but Intuitioner is Lord Buddha*. Bangkok: Prachya Publication.
- Thiengkamol, N. (2009b). *The Happiness and the Genius can be Created before Born*. Bangkok: Prachya Publication.
- Thiengkamol, N. (2010b). Urban Community Development with Food Security Management: A Case of Bang Sue District in Bangkok. *Journal of the Association of Researcher*, 15(2), 109-117.
- Thiengkamol, N. (2011e). *Environment and Development Book 1*. (4th ed.).
- Thiengkamol, N. (2011f). *Nurture Children to be Doctors*. Bangkok: INTELLUALS.
- Thiengkamol, N. (2011g). Development of Energy Security Management for Rural Community. *Canadian Social Science*, 7(5), October 31, 2011.
- Thiengkamol, N. (2011h). Development of a Food Security Management Model for Agricultural Community. *Canadian Social Science*, 7(5), October 31, 2011.
- Thiengkamol, N. (2011i). Development of Model of Environmental Education and Inspiration of Public Consciousness Influencing to Global Warming Alleviation. *European Journal of Social Sciences*, 25(4), 506-514.
- Thiengkamol, N. (2011j). Model of Psychological State Affecting Global Warming Alleviation. *Canadian Social Science*, 7(6), 89-95.
- Thiengkamol, N. (2012a). Development of A Prototype of Environmental Education Volunteer. *Journal of the Social Sciences*, 7(1), 77-81.

- Thiengkamol, N. (2012c). Model of Psychological Trait Affecting Global Warming Alleviation. *European Journal of Social Sciences*, 30(3), 484-492.
- Thiengkamol, N. (2012d). Model of Psychological Factors Affecting Global Warming Alleviation. *International Proceedings of Economic Development and Research*, 44, 6-12.
- Thiengkamol, N. (2012e). Causal Relationship Model of Environmental Education. *Mediterranean Journal of Social Sciences*, 3(11), 11-18.
- Thiengkamol, N. (2012f). Causal Relationship Model of Environmental Education and Psychological Trait. *Mediterranean Journal of Social Sciences*, 3(11), 263-272.
- Thiengkamol, N. (2012g). Causal Relationship Model of Four Noble Truths. *Mediterranean Journal of Social Sciences*, 3(11), 319-326.
- Thiengkamol, N. (2012h). Model of Environmental Education and Psychological Factors Affecting Global Warming Alleviation. *Mediterranean Journal of Social Sciences*, 3(11), 427-436.
- Udonboon, C. Thiengkamol, N., & Thiengkamol, C. (2012b). Causal Relationship Model of Water Conservation Behavior. *Mediterranean Journal of Social Sciences*, 3(11), 591-604.
- United States National Academy of Sciences. (2008). *Understanding and Responding to Climate Change*. Retrieved from http://americasclimatechoices.org/climate_change_2008_final.pdf
- Waewthaisong, S. Thiengkamol, N., & Thiengkamol, C. (2012a). Causal Relation Model of Environmental Traveling Behavior. *European Journal of Social Sciences*, 33(1), 184-195.
- Wiktionary. (2010). "Aamoral". Retrieved September 09, 2010. "(of people) not believing in or caring for morality and immorality".
- World Commission on Environment and Development (WCED). (1987). *Our Common Future*. Oxford: Oxford University Press. The Brundtland Report. *United Nations World Commission on Environment and Development*. Retrieve from http://en.wikisource.org/wiki/Brundtland_Report.

