

The Development of Social Measurement for Cultural and Integrity Behaviour Of Gross National Integrity Index

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Abstract

This study synthesises the conceptual framework for measuring the GNII index and develops the indicators of society in terms of the integrity of people. The research explores the components and analyses the measurement model of honesty behaviour component and the Gross National Integrity Index (GNII) of people in Thai society of all ages. The sample used is Thai population, who is over 18, which is 202,331 samples collected to analyse honest behaviour components by Exploratory factor analysis (EFA) and Confirmatory Factor Analysis (CFA). The findings suggests that there are 4 latent factor models including integrity person culture, society code of conduct, folkways and democratic citizenship, and honest behaviour and attitudes, which contribute to GNII. It was found that the people had the highest level of honesty. When, calculated as a percentage score based on the weight factor at 100%, it was found that the score was 81.224 points out of 100 at the mean (\bar{x}) of 4.780 and the standard deviation (sd) of 0.858. This paper addresses the need for a centralised data storage center and improved questionnaire design in order to ensure that data is collected in an efficient and accurate manner.

Keywords: integrity, honesty, Gross National Integrity Index, Thailand.

Introduction

Thailand presently suffers corruption issues in all social areas, which harms Thailand's image in the eyes of the international community. This is determined by Thailand's Corruption Perceptions Index (CPI), which was announced by the Transparency International Organization (TIO) in 1995, which was the first time Thailand was assessed. The best score was 38 points in 2006, 2014, and 2015, and the lowest was 28 points in 1995. The average score comes to 34 points. (NACC, 2020).

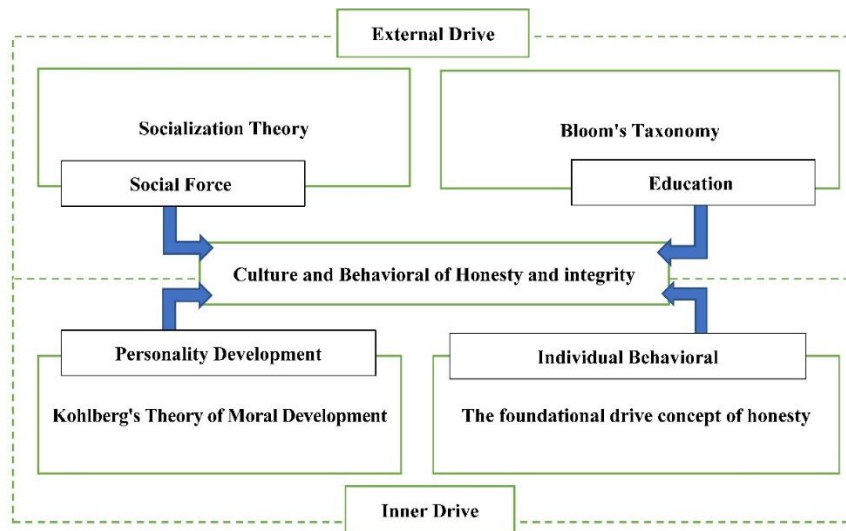
In Thailand, moral and ethical considerations of honesty are encouraged. The Royal Thai Government and all parties in the country have set the agenda for inclusion in the Master Plan under National Strategy Issue 21, Anti-Corruption and Misconduct, as an essential tool in driving the country's correction and development in the same direction according to the framework of the 20-year strategic plan. The main goal is to establish indicators and target values for the percentage of people who have a culture of moral values, attitudes, and behaviors against corruption and misconduct, which reflects the country's development policy and strategy efforts to establish morality, ethics, and good governance standards to government officials, all sectors of society, and the development of transparency in the functioning of government agencies so that the public can trust them, including the prevention and suppression of corruption and misconduct and supporting the creation of social values to adhere to honesty and integrity, and righteousness. Honesty and integrity are crucial and should be cultivated at all ages, from infancy to old life. Raising awareness raises public awareness. It understands the distinction between personal and public interests. By the way, this will bring about the characteristics of good citizenship.

Being decent citizens is that they are well-equipped with morality, ethics, and happiness in society. They need to have a knowledgeable understanding of morality and ethics that can be applied behaviorally to circumstances when the norms, regulations, and morality of that society are at risk of infringing on morals and ethics properly and effectively. Furthermore, the moral and ethical issues of honesty and integrity must be addressed in order to raise awareness of the problem of fraud and diminish its prevalence. To develop a culture that will not tolerate corruption, all sections of society must work together, the public administration must have a clear and consistent intention to address corruption issues. The government sector must forcefully enforce the law. The private sector must not participate in any sort of bribery and must have proper internal controls. Civil society must be vigilant, relentless, and intolerant of all sorts of corruption. Establish moral ideals that are all aimed towards the same goal: "Zero Tolerance & Clean Thailand." The research aims to look into the components and analyse the measurement model of the honesty behaviour component in order to identify the key components impacting the Gross National Integrity Index (GNII) of people of all ages in Thai society. It also summarises and delivers situational information policy recommendations, measurement recommendations, and guidance for establishing and implementing the GNII index measurement to assess Thai society's public honesty, integrity, and transparency to relevant Thai government entities.

Literature review

For the synthesis of definitions and indicators of integrity behaviour, this paper uses concepts and theories involved in the development of human behaviour in 4 parts:

Figure 1 Concepts and theories used in the study



Source: Developed by the author

(1) Part 1: The development of human behaviour through social force

The important sociological theory discussed here is the Socialization Theory, which is regarded as the primary theory of sociological theory. This is regarded as a fundamental process of social interaction in which people exhibit the behaviours required for social coexistence (Gaitan, 2014). Humans are termed social animals because they adapt and learn to coexist with others in society in a peaceful and productive manner. Every society has a society that accepts things differently. Individuals of a given society are imbued with the behaviours, rules, norms, and customs of that society. To shape that person's behaviour in the manner that society expects. Everything that society has produced to be accepted in that culture and have accepted and conformed with each other, on the other hand. Yet, changes in what a culture accepts and accepts might influence human behavior in that society. It is a socialization process in which individuals acquire and absorb values and behaviors, and it evolves in the direction of society.

(2) Part 2: The Learning to create of wisdom, attitudes and Integrity Behaviour

In addition to the evolution of human behavior through social force, education is an important component of integrity behavior. Individual human beings are shaped into behaviors by family and other

socializations that impact their behavior and personality. Yet, in addition to the social force mentioned above, education is also an essential factor. Humans spend more than 16 years of their lives at school. As a result, education plays a significant role in cultivating and developing various behaviors. The main educational theory used here is Bloom's Taxonomy or Bloom's Taxonomy to explain the process of creating and measuring Knowledge, Attitude and Practice in the learning process. This theory is widely used in understanding how learning experiences are designed and measured based on learning objectives, Bloom et al. describe learning not only as cognitive but also as cognitive. But, it is also necessary to study attitudes, emotions, feelings, and physical abilities in order to explain the design level for learning objectives in three domains using Bloom's Taxonomy Theory of Learning. Cognitive Domain, Affective Domain, and Psychomotor Domain are all included. Higher skill levels lead to deeper learning in all three categories. (Adams, 2015)

(3) The development of Integrity Behaviour on the theoretical orientation of psychology.

In the development of individual ethics, the theory described here is Kohlberg's Moral Development Theory in order to understand the hierarchy and moral development of human beings. Kohlberg (Kohlberg, 1958, 1969, 1971, 1976, 1984) proposed this theory based on Piaget's Theory of Moral Development (Ray, 2007). maturity level. Because human ethics arise from intellectual processes. When people learn more Intellectual structure is enhanced. Ethics develop according to maturity. Therefore, there is a relationship with age, time, place, culture and situation (Ray, 2007, Surang Kowtrakul, 2009). By presenting the development of ethical reasoning at 3 Level and 6 Stage, including the first level, the level before social rules (Preconvention level), level 2, ethical level according to social rules (Conventional level) and level 3, ethical level above social rules (Post conventional level).

(4) Foundational Drives of Integrity

In addition to understanding the theoretical factors related to social forces affecting behavioural development, Including gaining an understanding of theories related to education This is another part that has a great effect on the development of human behaviour. And had previously understood Kohlberg's theory of moral development, which is a theory related to human moral development. This section provides an understanding of the theories involved in personal ethical development by clarifying the concept of The Foundational Drives of Integrity, the dynamics of "Integrity" will be better understood.

After reviewing the research related to the conceptual framework of integrity, the study found that only Barnard's research and research members (2008) has explained the internal motivation of Integrity in

depth. According to a study by Barnard, Schurink and De Beer (2008), the fundamental drive of honesty can be grouped into two main fundamental drives. The first essential is what Barnard and his colleagues refer to as Moral Compass, which may be translated into Thai as moral compass or ethical compass and refers to a value-based impetus norms and principles that are socially or globally recognized. The second fundamental uncovered through their research is the individual's Inner Drive, which results in a basic driving force of integrity.

Methodology

AMOS (Analysis of Moment Structure) statistical analysis program is used to analyse quantitative data. Additionally, the level data values must be changed with the Recode command of the SPSS (Statistical Package for the Social Science for Windows) statistical analysis program using positive behaviour. Analytical statistics is used to analyse the quantitative data of research in surveying components and analysing measurement models. Integrity behaviour components of the Gross National Integrity Index are analysed by Exploratory factor analysis (EFA) and Statistical analysis of factor analysis were used to confirm by Confirmatory Factor Analysis (CFA) EFA and CFA are two important methods used in this quantitative research. EFA is used to explore the relationships between variables, while CFA is used to confirm the factor structure of a given dataset. This paper investigates the use of these two methods in order to gain insights into the data. The results obtained from this analysis will be discussed in detail, including any implications for future research.

From the existing literature, there are 11 behavioural indicators of honesty and integrity, namely, (1) shame and fear of sin; (2) good citizenship; (3) intolerance of corruption; (4) social sanction; (5) social responsibility and duty; (6) respect for the rights and liberties of others according to democratic principles; (7) adhering to public interests; (8) sufficiency; (9) participation and volunteerism; (10) discipline; and (11) obey the community's rules, society, and the nation.

Data collection is done through online surveys (Google Forms) to help with the sample of respondents and to supply information as requested by the questionnaire. Additionally, to limit the creation of questionnaire documents, which are subsequently coded and analyzed, the operator of field data collecting coordinates with the Ministry of Interior and the Bangkok Metropolitan Administration in assigning village committees or community committees.

The Gross National Integrity Index measures and the data is translate by using a 7-level Likert grading scale. The Gross National Integrity Index raises both good and negative concerns. Positive behaviour is good or pleasant behaviour while, Negative behaviour is bad or unpleasant

behavior. Therefore, it can be summarized the criteria for interpreting the mean scores of the Gross National Integrity Index to be divided by level as follows:

Group	Scale Value	Meaning
1	0.00-1.19	Have the Lowest average score on the Gross National Integrity Index.
2	1.20-2.39	Have the Low average score on the Gross National Integrity Index.
3	2.40-3.59	Have the Medium average score on the Gross National Integrity Index.
4	3.60-4.79	Have the Most average score on the Gross National Integrity Index.
5	4.80-6.00	Have the Highest average score on the Gross National Integrity Index.

The sample population (n) is estimated to be at least 51,333 people with a 60 percent response rate, 667 people in each province using determining the sample size by knowing the exact population. The number comes from the formula according to the Yamane method (Taro Yamane) that accepts the sampling error at 0.05 (Thanin Sincharu 2014:45). Analysis of integrity behaviour components by means of Exploratory Factor Analysis by bringing important data obtained to inquire quantitative research. The survey was conducted with the Thai population aged 18 years and over across the country, the total of 202,331 people to analyse the elements of honesty behaviour with Exploratory Factor Analysis. By using factor extraction with Principal Components (PC) Method and factor rotation by Varimax method to obtain clear common factor components and have values and Eigenvalues greater than 1. The variables in the factor must have a community value not less than 0.5 (Hair et al., 2010). This result implies that all variables are suitable for component analysis. In addition, the observed variable included in the factor had a factor loading greater than or equal to 0.6, which was considered to be of practical significance (Hair et al., 2010).

Results

The research uses preliminary data from qualitative research in quantitative research. This research uses the Thai population who is 18 and over which are 202,331 people to analyse honest behaviour components by using exploratory factor analysis. Factor Extraction by the Principal Components method and Factor Rotation by the Varimax method are used to obtain the relevant common variables which possess Eigenvalues more than 1 while the variable in the factor needs to have a Community value not less than 0.5 (Hair et al., 2010). It

means that all variables are appropriate to be analysed together. Moreover, the observed variables in the factors have Factor loading more than or equal to 0.6 which is practically significant (Hair et al.,2010).

The conditions for the results are as follows.

(1) The variables must be normally distributed. The results show that every question has Abs Skewness of Zskewness more than 3 and Abs Kurtosis of Zkurtosis more than 10 which is not the normal distribution because in the sample, the representativeness of sampling is more than 200 samples which is the exception in normal distribution test. (Hair et al.,2010)

(2) Variables must be correlated. By considering Barlett's value, p-value must be lower than 0.05. The result of the study has p-value of 0.000 which is lower than 0.05. Therefore, the hypothesis that variables are correlated is accepted.

Variables used in the study must be appropriate by considering KMO (Kaiser-Meyer-Olkin) value which is used to measure how suited the data is for Factor Analysis. Correlation coefficient (r) is $0 < KMO < 1$. The value needs to be more than 0.5. The result is 0.969 which is more than 0.05. Therefore, the hypothesis that variables are suitable for Factor Analysis is accepted. This can be categorized into 5 components with Variance of Rotation Sums of Squared Loadings for each component at 21.032, 13.864, 12.975, 9.138 and 2.669 respectively.

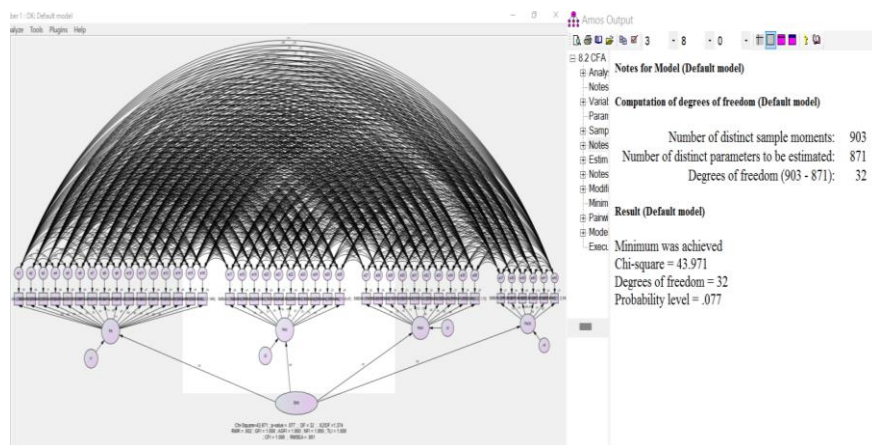
Nevertheless, 3 observed variables are eliminated because those variables have Factor loading less than 0.6., 42 variables remain and are categorized into 4 groups. Then the research tests the quality of the tools with the Thai population who is over 18 years old, for a total of 202,331 people. Index of Item Objective Congruence (IOC) of the questionnaire is at the significant level between 0.714-1.000 with the average of 0.932, Coefficient Alpha of Cronbach of the questionnaire is at 0.932 and Discrimination from Corrected Item- Total Correlation is at the significant level between 0.297-0.669 with the average of 0.515.

The GNII questions in this research pass the test for the good quality tool and measurement check. 42 questions in 4 components have passed by evaluating Index of Item Objective Congruence (IOC) of the questionnaire, Coefficient Alpha of Cronbach of the questionnaire, and Discrimination. Exploratory Factor Analysis with Factor Extraction by Principal Components method and Factor Rotation by Varimax method are used to obtain the relevant common variables which possess Eigenvalues more than 1 while the variable in the factor needs to have Communality value not less than 0.5 (Hair et al., 2010). It means that all variables are appropriate to be analysed together. Moreover, the observed variables in the factors have Factor loading more than or equal to 0.6 which is practically significant (Hair et al.,2010). Thus, these

questions can be used to collect quantitative data from the sample group to assess GNII and then they will be analysed for both First Order Confirmatory Factor Analysis and Second Order Confirmatory Factor Analysis.

Through First Order Confirmatory Factor Analysis with 4 models to assess Latent Factors of GNII, this is done by modifying Modification Index (MI) to test Chi-Square in 19 models. It finds that there are 903 Variance and Covariance (Number of distinct sample moments) since there are 42 Observed Variables ($p=42$). So, Variance and Covariance can be calculated from $p(p+1)/2 = 42(42+1)/2 = 903$, although there are 868 distinct parameters to be estimated.

Figure 2 Figure summarizing results of Second Order Confirmatory Factor Analysis of GROSS NATIONAL INTEGRITY INDEX: GNII Measurement model



Considering standardised factor loading, GNII latent factor measurement model is contemplated with standardised regression weights. It found that standardised regression weights of latent factors and observed factors are shown in each dimension from low to high. It then can be concluded that GNII is composed of GNII models which reflect integrity person who has honest behaviour and culture, categorised into 4 models.

Model 1 (M1) Integrity Person Culture latent factors measurement model means accepting Values of Integrity which is an assessment in values and beliefs about integrity that go along with social expectations of integrity person and adherence to morals and ethics which are the framework and norm or social standard of a personal honesty and honest behaviour and can be the ability to apply the moral principles to goals, values, and person's action that are parts of Moral Intelligence and Attitude of Integrity which are thoughts and feelings of a person to integrity as an integrity person in society. Standardized Factor loading of

Latent Factor is at 0.869 and Standardized Factor loading of 10 Observed variables are 0.788-0.505 respectively.

Model 2 (M2) Society Code of Conduct latent factors measurement model means accepting a set of standard behaviours based on appropriate behaviour principle which shows desirable morals and ethics to conserve and promote fame and membership in society which members must follow strictly, more strict than folkways. If one disobeys, one will be severely condemned by society. They are moral rules which are often regulatory and there are many matters of morality, responsibility, and evil involved, including compliance with the norms of integrity and showing commitment according to social ethics. Standardised factor loading of latent factor is at 0.851 and standardised factor loading of 10 observed variables are 0.789-0.592 respectively.

Model 3 (M3) Folkways and Democratic Citizenship latent factors measurement model means actions based on integrity and showing responsibility by following society code of conduct and compliance with the principles of rights, liberties, and civic duties in a democratic system under the constitutional framework of the kingdom of thailand. Furthermore, universal democratic principles are laws, rules, or regulations that the state enacted in writing by political organizations, governing and accredited by government organizations to control individuals in society. Standardised factor loading of latent factor is at 0.617 and standardised factor loading of 6 observed variables are 1.071-0.566 respectively.

Model 4 (M4) Honest Behaviour and Attitudes latent factors measurement model means attitudes of integrity which are thoughts and beliefs of a person about integrity as a reasonable person in society, including behaviours that show desirable honest action and behaviour in doing good and refraining from wrongdoing. As a reasonable person, one will know and think in a right with right logics, know what is right or wrong, appropriate or not, knowing the situation and clarity. Standardised factor loading of latent factor is at 0.392 and standardised factor loading of 16 observed variables are 0.885-0.490 respectively.

After analysing the data, the researcher uses central tendency which is the mean and measure of variation which is standard deviation to compare in per cent as GNII weight by using rule of three in arithmetic. It found that from the total population of Thai people over 18 years old of 202,331 people in assessing GNII, people have the integrity in the highest level, and when calculating in percentage terms, the value is 81.224%, the mean (X) is 4.780 and standard deviation (SD) is 0.858. The details of latent factors are as follows.

1. Integrity Person Culture latent factors are at the highest in the highest level. When calculated as percentage with Factor loading, the result is 27.359 from the maximum of 31.843 which is 85.919% at mean (x) at

5.155 and standard deviation (SD) at 0.933. There are 5 out of 10 indicators from the upper group; M1.1/F3.1 a person who has discipline to keep one's words (+) (B11.10.29) M1.2/F3.2 should accept when commit wrongdoing and sincerely apologize (+) (B12.5.20) M1.3/F3.3 be in queue reflect social discipline (+) (B12.10.30) M1.4/F3.5 feel ashamed when do not follow social code of conduct such as throwing away trash at the place that is not for the trash or parking a car where it should be parked, etc. (+) (B12.11.31) M1.5/F3.6 volunteering in social work for common interest (+) (B21.9.26) and there are 5 out of 10 indicators from the lower group; M1.6/F3.4 community and society play an important role in corruption prevention and correction (+) (B21.4.18) M1.7/F3.7 feeling proud when participating in an anti-corruption network (+) (B22.9.28) M1.8/F3.9 should report related organizations when witnessed wrongdoings or inappropriate actions such as corruption by civil servants or vote buying, etc. (+) (B21.3.16) M1.9/F3.8 both family members and community members have equal importance (+) (B11.6.21) M1.10/F3.10 feeling ashamed when broke a promise (+) (B22.1.13)

2. Society Code of Conduct latent factors are at the second highest in the highest level. When calculated as percentage with Factor loading, the result is 26.176 from the maximum of 31.184 which is 83.942% at mean (x) at 5.037 and standard deviation (SD) at 1.036. There are 5 out of 10 indicators from the upper group; M2.1/F2.4 following governmental measures strictly in case of crisis such as wearing masks or not burning trash, etc. (+) (D11.11.59) M2.2/F2.1 when find somebody else's belonging, you find a way to return it (+) (D12.8.54) M2.3/F2.8 listening to other peoples' opinions even they are different from your opinions (+) (D21.6.49) M2.4/F2.9 respect others by not gossiping or blaming (+) (D21.6.48) M2.5/F2.3 take care and be responsible for personal and common property such as turning off lights or electronic devices, cleaning dishes or glasses when finished eating, or not drawing on walls or doors, etc. (+) (D12.7.51) and there are 5 out of 10 indicators from the lower group; M2.6/F2.6 following traffic rules such as crossing -on crosswalks, using overpass, parking at the parking spots, not driving on the wrong of a road, wearing helmets and safety belts, etc. (+) (D22.11.61) M2.7/F2.10 when your friends or acquaintances are arguing, you will listen from both sides (+) (D11.6.47) M2.8/F2.2 savings for buying necessary things (+) (D11.8.53) M2.9/F2.7 be on time (+) (D12.10.58) M2.10/F2.5 segregate trashes (+) (D12.7.52)

3. Folkways and Democratic Citizenship latent factors are in the high level. When calculated as percentage with Factor loading, the result is 17.303 from the maximum of 22.609 which is 76.533% at mean (x) at 4.592 and standard deviation (SD) at 1.275. There are 3 out of 6 indicators from the upper group; M3.1/F4.4 expressing own opinions to governmental organisation when receiving good services (+) (D21.2.35) M3.2/F4.3 signing for checking or inhibiting the projects that may be

corrupted (+)(D22.2.37) M3.3/F4.6 supporting and helping an anti-corruption networks (+) (D21.2.34) and there are 3 out of 6 indicators from the lower group; M3.4/F4.1 whistleblowing to officers when witnessing a magnate committed an offence (+) (C11.3.38)M3.5/F4.2 demanding justice for those who are called upon by officials to receive benefits (+) (C11.3.39) M3.6/F4.5 complaint when witnessing illegal acts (+) (D22.5.46)

4. Honest Behaviour and Attitudes latent factors are at the lowest in the high level. When calculated as percentage with Factor loading, the result is 10.385 from the maximum of 14.364 which is 72.299% at mean (x) at 4.338 and standard deviation (SD) at 1.535. There are 8 out of 16 indicators from the upper group; M4.1/F1.1 giving gratuities to the staff in exchange for the convenience and speed of service (-) (D22.5.45N) M4.2/F1.3 it is common practice to bribe officials in exchange for the convenience of obtaining services (-)(C12.3.40N) M4.3/F1.5 overtake other people's queue when in a rush situation (-)(D11.10.57N) M4.4/F1.7 earning money/things/benefits for vote-buying (-) (D11.7.50N) M4.5/F1.4 throwing rubbish on public places such as roads, rivers, canals, stadiums, parks, etc. (-) (D12.5.44N) M4.6/F1.2 pretending not to witness corruption (-) (C12.4.42N) M4.7/F1.6 accepting gratuities in exchange for services or facilitating to shorten the queue (-) (B11.8.24N) M4.8/F1.8 protecting friends even if they are wrong (-) (B21.9.27N) and there are 8 out of 16 indicators from the lower group; M4.9/F1.10 not warning or protesting when witnessed wrong or inappropriate actions (-) (C12.4.43N) M4.10/F1.14 complying with orders or requests for assistance even if it's wrong or inappropriate (-) (C12.9.56N) M4.11/F1.9 it is common to use public property for personal use (-) (B11.7.22N) M4.12/F1.11 giving/receiving bribes is normal, such as buying rights to sell votes. purchase of positions convenience, etc. (-) (B22.3.17N) M4.13/F1.12 we live in society so we may have to cheat like other cheat (-) (B11.2.15N) M4.14/F1.13 it is acceptable if a politician corrupts but able to manage the country well (-) (B12.8.25N) M4.15/F1.15 lying to others to make them feel comfortable (-) (C12.1.33N) M4.16/F1.16 it's acceptable if others lie to you for your comfort (-) (B22.1.14N)

Discussion

GNII includes GNII models that reflect being integrity person who has honest culture and behaviours. There are 4 models: (M1) Integrity Person Culture latent factors measurement model, (M2) Society Code of Conduct latent factors measurement model, Model 3 (M3) Folkways and Democratic Citizenship latent factors measurement model, and Model 4 (M4) Honest Behaviour and Attitudes latent factors measurement model. These four models relate to Rest's The Four Component Model of Moral Behaviour (1986 cited in Fowler, Zeidler, & Sadler, 2009) which

is the idea to understand and predict moral and ethical behaviours and moral judgment. This idea was developed from Kohlberg's moral development theory which has 3 levels: (1) pre-conventional, (2) conventional and (3) post-conventional. (Chambers, 2011) The Four Component Model of Moral Behaviour includes psychological indicators that lead to moral behaviours: (1) moral sensitivity, (2) moral reasoning, (3) moral commitment, and (4) moral courage.

The result of GNII shows that people have the integrity in the highest level, the value is 81.224%, the mean (X) is 4.780 and standard deviation (SD) is 0.858. However, to know the level of integrity cannot answer the research objectives, i.e., knowing that a person has a certain level of moral does not tell that the person has the ability to think, reason, and act appropriately to a situation, but tells the behaviour in term of moral expansiveness, meaning the diversity of a person to see the worthiness about the worry and action in the moral and ethical issues. It relates to personal moral and ethical structure, telling the moral stance and other structures related to other people such as caring, engagement with nature, social responsibility. Singer (1981 cited in Crimston, Bain, Hornsey, & Bastian, 2016) and Pinker (2011 cited in Crimston, Bain, Hornsey, & Bastian, 2016) state moral expansiveness behaviour can predict a moral behaviour, especially towards the caring of other people and other living things such as plants and animals. Besides, moral expansiveness behaviour is an important factor in understanding the moral decision and the consequences of the decision (Crimston et al., 2016), while it usually gives in-depth data about important, new, and challenging morals and ethics.

Anyhow, moral expansiveness behaviour related to honesty must be monitored and promoted from integrity assessment in accordance with GNII. The factors can be concluded as follows.

1. Integrity Person Culture latent factors are at the highest in the highest level. When calculated as percentage with Factor loading, the result is 27.359 from the maximum of 31.843 which is 85.919% at mean (x) at 5.155 and standard deviation (SD) at 0.933. The research finds that culture instructs people in a society not to go against corruption. Participating to go against corruption comes from "indifferent Thai" culture, to avoid consequences that may come after going against corruption and seeing that corruption is not their responsibility, therefore letting others corrupt and cause damages to society considering from the 5 out of 10 indicators from the lower group; M1.6/F3.4 community and society play an important role in corruption prevention and correction (+) (B21.4.18) M1.7/F3.7 feeling proud when participating in an anti-corruption network (+) (B22.9.28) M1.8/F3.9 should report related organizations when witnessed wrongdoings or inappropriate actions such as corruption by civil servants or vote buying, etc. (+) (B21.3.16) M1.9/F3.8 both family members and community

members have equal importance (+) (B11.6.21) M1.10/F3.10 feeling ashamed when broke a promise (+) (B22.1.13)

2. Society Code of Conduct latent factors are at the second highest in the highest level. When calculated as percentage with Factor loading, the result is 26.176 from the maximum of 31.184 which is 83.942% at mean (x) at 5.037 and standard deviation (SD) at 1.036. The research finds that people are still not good citizens, lack public consciousness, not following laws or social norms, lacks the support to build the appropriate environment for punishment from corruption to create ashamedness and the culture of anti-corruption in a sustainable manner considering from the 5 out of 10 indicators from the lower group; M2.6/F2.6 following traffic rules such as crossing on crosswalks, using overpass, parking at the parking spots, not driving on the wrong of a road, wearing helmets and safety belts, etc. (+) (D22.11.61) M2.7/F2.10 when your friends or acquaintances are arguing, you will listen from both sides (+) (D11.6.47) M2.8/F2.2 savings for buying necessary things (+) (D11.8.53) M2.9/F2.7 be on time (+) (D12.10.58) M2.10/F2.5 segregate trashes (+) (D12.7.52)

3. Folkways and Democratic Citizenship latent factors are in the high level. When calculated as percentage with Factor loading, the result is 17.303 from the maximum of 22.609 which is 76.533% at mean (x) at 4.592 and standard deviation (SD) at 1.275. The research finds that people lack the political participation in a democratic regime, this makes the people lack the interest and not knowing the rights and responsibility of oneself as a citizen of the country and as a member of the society and not seeing corruption as their own responsibility considering from the 3 out of 6 indicators from the lower group; M3.4/F4.1 whistleblowing to officers when witnessing a magnate committed an offence (+) (C11.3.38) M3.5/F4.2 demanding justice for those who are called upon by officials to receive benefits (+) (C11.3.39) M3.6/F4.5 complaint when witnessing illegal acts (+) (D22.5.46)

4. Honest Behaviour and Attitudes latent factors are at the lowest in the high level. When calculated as percentage with Factor loading, the result is 10.385 from the maximum of 14.364 which is 72.299% at mean (x) at 4.338 and standard deviation (SD) at 1.535. The social context is not suitable for reforms, developments and changes in the paradigm of working to prevent and eradicate corruption since Thai society has the culture and patronage system. People still lack the value of anti-corruption, seeing the personal interest over the common interest or the country's interest, cannot separate between personal interest and common interest considering from the 8 out of 16 indicators from the lower group; M4.9/F1.10 not warning or protesting when witnessed wrong or inappropriate actions (-) (C12.4.43N) M4.10/F1.14 complying with orders or requests for assistance even if it's wrong or inappropriate (-) (C12.9.56N) M4.11/F1.9 it is common to use public property for

personal use (-) (B11.7.22N) M4.12/F1.11 giving/receiving bribes is normal, such as buying rights to sell votes. purchase of positions convenience, etc. (-) (B22.3.17N) M4.13/F1.12 we live in society so we may have to cheat like other cheat (-) (B11.2.15N) M4.14/F1.13 it is acceptable if a politician corrupts but able to manage the country well (-) (B12.8.25N) M4.15/F1.15 lying to others to make them feel comfortable (-) (C12.1.33N) M4.16/F1.16 it's acceptable if others lie to you for your comfort (-) (B22.1.14N)

The results and literature review concluded that to promote and elevate the honest behaviour and attitude is the important factor and basis of building honest society and also has the positive relation with other factors. Honest behaviour and attitude and Folkways and Democratic Citizenship helps the integrity of people in society even though Thai society has the culture and patronage system. People still lack the value of anti-corruption, seeing the personal interest over the common interest or the country's interest, cannot separate between personal interest and common interest.

Therefore, to develop and build integrity in children and teenagers who are younger than 24 years old should focus on promoting the responsibility of oneself and of society as a member of the society. For those who are older than 25 years old, it should focus on building, promoting, and stimulating the anti-corruption and misconduct behaviour. the most important thing is to make the trust in people on witness and whistle-blower protection and also on securing the privacy of the data to secure the normalcy of the life of witness and whistle-blower so it can stimulate the score and spread the understanding by using the tools of anti-corruption curriculum.

Moreover, to move the scenario in the future of Thai society following the Master Plan under National Strategy issue 21 Anti-corruption and misconduct which aims for people and society to raise awareness of anti-corruption, follow the news and realize the impacts of corruption to the society, and express anti-corruption in everyday life through medias, people in each age socialize and interact to know that corruption is not only illegal and causes damages but also unacceptable. People will be able to segregate between personal and common interest, the culture will make people not corrupt because of ashamedness and gather to pressure punishment to those who corrupted. People will show the will to oppose corruption intensely by election locally and nationally. People will keep eyes on the government and politicians for them to follow the political will of people, this creates pressure to the government to administrate with honesty and transparency as the policies would not be the channels or tools for corruption because of better check and balance system.

The results conform with Corruption Perceptions Index (CPI) which proposes that integrity should be prioritized by driving and elevating the

honest behaviour and attitude which are the important factors and foundations in raising awareness of the people and investors. So, public relations and people participation are crucial to elevate CPI since CPI is about “perception”, public relations in anti-corruption and corruption suppression, and also letting people from different sectors participate in spreading the news. This is to be done by both the government and people cooperating.

In terms of people participation, there should be a promotion in public opinions which is a mechanism for people participation where people are being citizens. Governmental agencies, private sectors, universities, and academic institutes should organize platforms of academic or expert opinion for people. For the bureaucracy, to promote people’s participation in check and balance, there should be seminars or forums relating to monitoring the government and raising the awareness of people. Every governmental agency should reveal the data and information of procurement process: details, financial amounts, cost appraisals, buying methods, bidders, bided amounts, selected bidders, reasons, number and date of transactions for people to check the process. There should also be data centres for each specific matter to collect the cost appraisals of each agency regulated by specialized agency to ensure transparency, and the comparison with international price for people to monitor. The government should issue laws to promote freedom of press so that the media can report news and participate in policy execution.

Conclusion and Recommendations

The results of the quantitative research in this study made by using analytical methods to study in the exploratory factor analysis and, factor extraction studying the analytical method of the principal components: pc. And, through analysis and research by confirmatory factor analysis found that gross national integrity index: GNII, when analysis by statistic methodology of likelihood ratio chi-square and $\chi^2_{min} = 43.91$ contains the degree of freedom of test 32, and its value is greater than 1, and the p value χ^2 comes from the value of probability level 0.07, which is greater than 0.05. Check various harmonies, including $\chi^2_{min}/df = 1.374$ statistical value, less than 3, $r^2 = 0.002$ statistical value and $RMSEA =$ statistical value. 0.001, less than 0.05, including $GFI = 1.000$, $AGFI = 1.000$, $NFI = 1.000$, $TLI (NFI) = 1.000$, CFI statistical value = 1.000, greater than 0.95. Therefore, it can be accepted that measurement model of the gross national integrity index: gnii, coordinated with empirical data. It is composed of 4 models including 1) Integrity Person Culture latent factors 2) Society Code of Conduct latent factors 3) Folkways and Democratic Citizenship latent factors 4) Honest Behaviour and Attitudes latent factors. According to the survey, the results of the assessment of the culture and honest behaviour of the thai people according to the

gross national integrity index: GNII. It was found that the people had the highest level of honesty. When calculated as a percentage score based on the weight factor at 100%, it was found that the score was 81.224 points out of 100 at the mean (\bar{x}) of 4.780 and the standard deviation (SD) of 0.858.

From this study of integrity behaviour of the people, the policy to raise the level of integrity behaviour of the people and the transparency of Thai society should be a link in the human resource development of the country by using information and the findings as well as suggestions from the study to set guidelines and drive cultivation strategies "Thai people do not cheat" to reform "people" to have awareness and create collective power to solve the problem of corruption. Solving the problem of corruption focuses on the idea that "people" are at the center of such reforms. This strategy is both a method and a goal of change because if most people in society are conscious of anti-corruption and see that the matter is important. This will make corruption difficult to occur in society because society considers corruption to be serious and unacceptable, so "people" are the key to solving corruption problems.

At present, there are more behavioural science research and many agencies, such as the Moral Center (Public Organization), etc. began to pay attention to measure the level of people's behaviour as well as set important indicators for national development. Therefore, the guidelines for the development and application of the GNII to further develop the moral and ethical questionnaire are developed into a moral questionnaire bank. This must be accelerated in order for action to take place by utilizing information technology to create a system of moral questioning and online assessment used in assessing integrity behavior for convenience, speed, and accuracy, as well as a method for developing standardized questions and storing them in the form of a database, categorized each behavioral issue and each purpose.

In order to develop a moral and ethical question bank, academic principles and appropriate statistical methods are required to create a pool of questions. Multi-stage Test (MST) which is a series of tests organized into modules may be used. Multi-steps Tests are commonly used in Computer Adaptive Tests because multi-step tests have multiple questions for each module and allow examinees review or revise before taking the next module (Armstrong & Little, 2003; Guille et al., 2011; Luecht & Sireci, 2011; Zenisky, 2004 cited in Brossman & Guille, 2014). The MST exam is designed in modules. The modules of the MST are organized into blocks. Typically, each module is constructed at a level of content paired with a list of contents in the entire exam. It will differ between modules, for example, depending on the level of difficulty of the exam and Multi-steps Tests can be done in many forms depending on the design of the test bank that can be made in any form. Therefore,

the computer-assisted adaptive test is a test that selects the test to suit the level of each test taker, to be computerized by a computer-assisted adaptive test. Traditional approaches have been limited in that estimations of abilities may be underestimated or overestimated. For this reason, a multistage adaptive testing system has been developed to mitigate the testing limitations of the traditional computers.

Conflict of Interest statement

The author declares that there is no conflict of interest.

Bibliography

- Adams, N. E. (2015). Bloom's taxonomy of cognitive learning objectives. *Journal of the Medical Library Association*, 103(3), 152–153. <https://doi.org/10.3163/1536-5050.103.3.010>
- Dougherty, J., & Ray, D. (2007). Differential impact of play therapy on developmental levels of children. *International Journal of Play Therapy*, 16, 2–19.
- Gaitan L. (2014). Socialization and Childhood in Sociological Theorizing. In, Ben-Arieh A., Casas F., Fronès I., Korbin J. (eds) *Handbook of Child Well-Being*. Springer, Dordrecht. Retrieved October 29, 2020, from, https://doi.org/10.1007/978-90-481-9063-8_180.
- Kohlberg, L & Gilligan, C. (1971). *The Adolescent as a Philosopher: The Discovery of the Self in a Postconventional World*. Daedalus.
- Kohlberg, L. (1958). *The Development of Modes of Thinking and Choices in Years 10 to 16* (Ph.D. dissertation). University of Chicago.
- Kohlberg, L. (1969). Stage and sequence: The cognitive-developmental approach to socialization. In D. Goslin (Ed.), *Handbook of socialization theory and research* (pp. 347–480). Chicago, IL: Rand McNally.
- Kohlberg, L. (1971). "From 'is' to 'ought': How to commit the naturalistic fallacy and get away with it in the study of moral development". In Theodore Mischel (ed.). *Cognitive development and epistemology*. New York: Academic.
- Kohlberg, L. (1971). *From Is to Ought: How to Commit the Naturalistic Fallacy and Get Away with It in the Study of Moral Development*. New York: Academic Press.
- Kohlberg, L. (1976). "Moral stages and moralization: The cognitive-developmental approach". In Lickona, T. (ed.). *Moral Development and Behavior: Theory, Research and Social Issues*. Holt, NY: Rinehart and Winston.
- Kohlberg, L. (1984). *The Psychology of Moral Development: The Nature and Validity of Moral Stages*. Vol. 2. Harpercollins College Div.
- Kowtrakul, S. (2009). *Educational Psychology*, 9th ed. Bangkok: Chulalongkorn University Press (CUPRINT).
- The Office of the National Anti-Corruption Commission (NACC). (2020). *Anti-Corruption Education curriculum*.