

Impacts of green marketing on the green brand image and equity in banking sector

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Abstract: The objective of this study is to examine the influence of the green marketing elements to the green bank equity through the intermediary term of green brand image, well fitting the key characteristics of commercial banks in Vietnam. Results of exploratory factor analysis shows that the green marketing scale consists of three components, which are green corporate social responsibility, green product development and green internal processes. All three components have a positive impact on the green bank image which accordingly influences the green bank equity. This result implies for bank managers in making strategies to enhance brand image by increasing green components of green marketing to make positive difference in establishing their brand equity and gaining their customers' trust.

Key-Words: green brand, green marketing, commercial bank, Vietnam

1 Introduction

Green marketing is a necessary developmental trend in modern society. According to Shamsudoddha [1], green marketing involves all of the activities designed to generate and facilitate any exchanges intended to satisfy human needs, with minimal detrimental impact on the natural environment. Green marketing in banking industry is understood as all marketing activities which are related to the development of green financial services such as bank loans or investment in: clean technology projects, effective energy usage projects and waste management projects in order to improve the environmental status [2]. Karn et al. [3] believe that economic identities have to carry out their green social responsibility in decision making process, by ensuring moral values, abiding by legal matters, and showing respect to people, communities and environment. These are fundamental and important foundation for sustainable development. There are researches on green or sustainable development, mainly about individual green consumption.

With the such importance of green development in the modern world, a number of studies have been carried out to propose management implications towards policies in the process of sustainable development. Among the existing green development studies, the green consumption of individuals has been widely exploited. In recent years, several studies have considered a broader level at the enterprise level, and ad-

ressed the corporate social responsibility in community development. Specifically, banking sector prefers direct investment in green businesses, and provides financial services to other businesses; this is considered as an important contribution to the sustainable development of a country.

In Vietnam, there have been a few researches conducted in green development, especially in the banking sector. Recognizing the importance of improving the image, creating differentiation and competitive advantage to increase the brand value of commercial banks, this research will explore the relationship between green marketing factors and the green brand image of the banks in terms of environmental concerns in the context of a transition economy like Vietnam.

To achieve the above objectives, the remains of this paper is organized as the following. Section 2 presents literature reviews regarding to green marketing, green brand image, green brand equity and critical relationships among them. Our proposed research model and hypotheses are also discussed in Section 2 while research method is presented in Section 3. The empirical results are shown in Section 4. Conclusions make up the last section.

2 Literature Review

2.1 Definition of green marketing

Although green marketing is a new concept in marketing, it has been widely accepted and applied in reality [4]. According to Jain & Kaur [5], green marketing is a wide concept, which involves all activities related to the development and stimulation, maintenance of consumers behaviours and attitudes towards nature environment. Kotler & Armstrong [6] consider green marketing as the production of green products that meet all environmental criteria with recyclable and re-useable package and effective pollution management method and energy usage. In addition, green marketing aims at minimizing the environmental impact on the entire product life cycle, including the material collection, manufacturing, marketing, consumption and disposal [7]. Furthermore, green marketing can help businesses in finding more about customers attitudes and behaviours towards green products, which, in turn, enables them in market segmentation and figure out their mixed marketing strategies.

2.2 Components of green marketing

Among those theories of banking marketing, Singh [8] defines green marketing that so as to green the marketing process, its component needs to develop in green direction. In his research about green marketing, Evangelinos et al. [2] deal with the development of new green financial services such as loan, clean energy funding, environmental strategies to optimize energy usage and waste management programs to improve environmental efficiency. Findings from Lymperopoulos et al. research [9] have shown that green marketing in banking sector consists of three elements: green corporate social responsibility, green internal processing, and green product development.

Green corporate social responsibility (GCSR) is that companies, in their decision-making process, need to take into consideration the issues of moral values, obedience of legal matters, respect towards citizens, communities and natural environment [3]. Social responsibility is the concern about social happiness in order to limit individual and organizational behaviours in environmental devastation [10]. GCSR places special emphasis on banking sector [11] for example: offering saving accounts to the public, promising to use their saving to fund environmentally friendly projects. Criteria of GCSR in banking sector consist of: (1) code of ethics, sustainability reporting, (2) environmental management, (3) responsible financial products, and (4) social behaviour. According to Donaldson & Dunfee [12], GCSR involves matters of

life quality, ethic concerns towards minorities and environment.

Green Internal Processing (GIP) Singh [8] considers green internal processing as a part of green marketing. This is the process of selling services on the basis of environmentally friendly benefits and impact in order to create green brand image. Green brand image, from viewpoints of Chang & Fong [13], is promote awareness of environmental assurance among departments, staff, customers and communities. In addition, green brand image is built up from product reliability and desire to satisfy customers green demand so that companies can gain goodwill of environment management. Chen [4] compares green brand image with customer awareness towards businesses, or brands in environmental matters. Green brand image implies: environmental professionalism and reputation, success of environmental acts and trust in environmental assurance. In banking marketing research, bank images are often linked with the banks goodwill and preeminence in comparison with competitors [14].

Green Product Development (GDP) means manufacturing environmentally friendly products. The current trend encourages the economy to pursue the development of green products. Sharmila [10] thinks that banks should be aware of their responsibility in preventing or controlling social and environmental detriments that can result from banks funding or lending activities. GCSR is an intangible asset or the hidden value of a particular well-known brand [15]. Green brand value is a collection of values and responsibilities whose brand promises to go green and care about nature environment when launching products or services under its brandname or labels.

2.3 Green brand image and green brand equity

Green Brand Image deals with customers awareness of businesses or brands in environmentally related matters [4]. In research on banking marketing, the bank image is often associated with the banks reputation and superiority to its competitors [14]. Green Brand Equity is a set of values and responsibilities of a brand that commits, with its brand name or label, to maintain sustainability and environmental concerns in providing a particular product or service to customers. Green brand equity is an intangible asset and functions as the hidden value of a famous brand [15].

2.4 Relationship between green marketing and green brand image

Lymperopoulos et al. [9] have conducted researches on the relationship between green marketing and green brand image. Their findings show that there is a positive influence between components of green marketing and green brand image. Lymperopoulos model involves Green corporate social responsibility, Green Internal Processing, Green Product Development in Green Bank Marketing. All these elements have greatly impacted on Green Bank Image. This model of Lymperopoulos et al. [9] is illustrated in Figure 1 below.

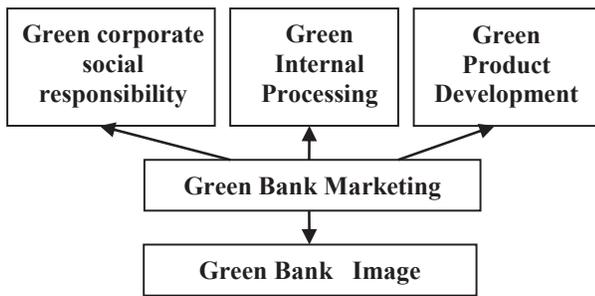


Figure 1: Model of Lymperopoulos et al [9]

2.5 Relationship between green brand image and green brand equity

Previous researches have indicated that the strengthened brand image can hugely influence the intensity of the brand equity [16]. Researches by Biel [17] and Chen [4] provide the similar result that brand equity is directed by brand image. Figure 2 is the research model proposed by Chen [4].

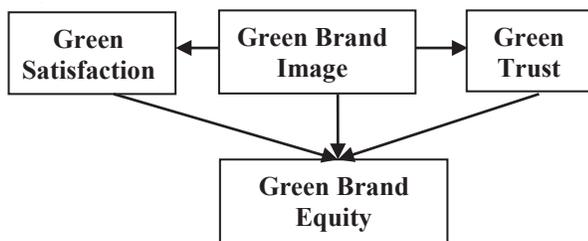


Figure 2: Model of Chen [4]

2.6 Suggested research model

Findings from research by Lymperopoulos et al. [9] preview that green social corporate responsibility, green product development, green internal process all have positive influence on bank's green brand image.

In reference to green marketing, all researches emphasize environmental elements. Therefore, it is essential to consider the effect of green marketing elements on green brand image. Based on this argument, the researchers suggest the research model shown in Figure 3 and the following hypothesis: Hypothesis H1: Green social corporate responsibility (GSCR) has positive impact on banks green brand image (GBI). Hypothesis H2: Green product development (GPD) has positive influence on banks' green brand image. Hypothesis H3: Green internal process (GIP) has positive effect on banks' green brand image. Hypothesis H4: Green brand image has positive influence on green brand Equity (GBE).

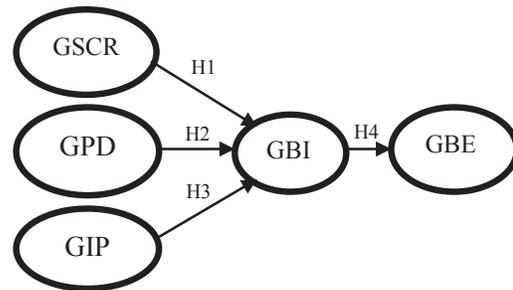


Figure 3: Suggested research model

3 Research methodology

This research was conducted in two stages. The first stage relates to a qualitative research in which we developed a primary questionnaire from the model proposed by Lymperopoulos et al. [9] and conducted a group discussion with 05 specialists (an officer of Natural Resources Department, a lecturer of Environmental Economics, a lecturer of Banking Marketing, a bank officer and a chief accountant in a manufacturing company). In the group discussion, we investigated the measurement scales discovered in previous researches to correct and add observed variables in order to improve our questionnaire before conducting our pilot survey and finalizing our official questionnaire. In the second stage, we used quantitative analyses. This study used convenient sampling method to select participants including bank officers and bank customers for our official survey via email or hard copies. After the data were collected and screened, we used descriptive statistics, analyzed scale reliability with Cronbach's Alpha coefficient, (EFA) exploratory factor analysis, confirmatory factor analysis (CFA) and testing the proposed hypotheses with structural equation modelling (SEM) by SPSS 20.0 and AMOS.

4 Research Findings

4.1 Results of qualitative research

Different processes in qualitative research bring out scales as shown in Table 1.

There are 365 respondents to the survey questionnaire with 2/3 of them being current bank customers who have transactions. The majority of participants age from 25 to 35 years old with university diploma; the ratio between female and male is 224 (about 61.4%) and 144 (about 38.6%). This research classifies commercial banks into three groups: state commercial bank, stock commercial bank and others (joint-venture commercial bank and foreign commercial bank). In particular, the number of participants who work for these banks is as follows: those who are from state commercial banks take about 60%, 34% from stock commercial banks and about 6% from other banks.

4.2 Results from measurement scale reliability testing

Nguyen [18] suggests that when Cronbach's Alpha 0.6, the measurement scale can be acceptable in reliability index. The reliability of a measurement scale should usually range from 0.6 to 0.9. Therefore, the results shown in Table 2 clearly indicate that the scales are reliable.

4.3 Result from exploratory factor analysis (EFA)

The result of EFA consists of 5 elements which is extracted at eigenvalue of 1.29 and variance extracted is 62.61%. Therefore, the variance meets the requirement. The testing result shows that factor analysis is accurate, KMO coefficient in Bartlett accreditation is 0.82 with sig=0.000.

4.4 Result from confirmatory factor analysis (CFA)

EFA shows that all measurement scales meet the requirements to test the CFA. Measurement model involves 5 hidden variants with 21 observed variants. CFA has confirmed that the measurement model in Figure 4 illustrates that the model is accepted with high relevance to market data. CMIN = 409.85; df = 179; CMIN/df = 2.29; GFI = 0.903; CFI = 0.921; IFI = 0.921; RMSEA = 0.06. All standardized regression weights are greater than 0.513 with p = 0.000.

4.5 Testing SEM structural model

On completion of the auditing of measurement scale reliability by Cronbach's Alpha and EFA, CFA, the model with 5 hidden variants and 21 observed variants is used to be analysed in structural model SEM. In other words, structural model SEM is used to verify research hypothesis. The analysis of the structural model SEM in Figure 5 shows that hypothetical model matches the data: CMIN = 427.04; df = 182; CMIN/df = 2.34; GFI = 0.899; CFI = 0.916; IFI = 0.916; RMSEA = 0.061. Estimated coefficients in structural model have statistical meaning at the level of significance of 5%, except for the coefficient of GSCR variant at 10%. The results show that the GPD variant has positive influence on GBI variant with $\beta_1 = 0.44$ and $p = 0.00$; therefore, H2 hypothesis is accurate. The GIP variant has positive impact on GBI variant with $\beta_2 = 0.198$ and $p = 0.007$. Then H3 hypothesis is proved to be correct. Similarly, the GSCR variant has positive influence on GBI variant with $\beta_3 = 0.091$ and $p = 0.07$; thus, H3 hypothesis is accepted. Finally, H4 hypothesis is correct because the GBI variant positively influence GBE with $\beta_5 = 0.555$ and $p = 0.0$. Among GPD, GIP, and GSCR, GPD variant (standardized beta coefficient = 0.389) strongly influence variant GBI, followed by GIP (standardized beta coefficient = 0.169) and GSCR (standardized beta coefficient = 0.099).

Research findings in Figure 5 show that the green brand image is strongly influenced by all 3 component factors with GPD being the strongest with level of impact ranked from highest to lowest as follows: Green product development (standardized = 0.389) Green internal process (standardized = 0.169) Green social corporate responsibility (standardized = 0.099).

Unlike researches done by Lymperopoulos et al. [9], this research emphasizes the prominent role of green product development and ascertains that this should be further invested if banks want to promote their brands as green. Meanwhile green internal process ranks second in its level of impact; this reveals that what happens within this green internal process is important to customers because a strong brand needs to prove themselves from their internal organization. Additionally, this is the fundamental issue in building their green brand image on customers mind. Beside green product development and implementation of green internal process, customers can possibly be affected by what the banks show the general public about their social responsibility. As a result, the brand image is the customer awareness of an environmentally friendly brand which is greatly influenced by the green product development, green internal process and green social corporate responsibility.

In short, components in green marketing have

Table 1: Observed variables

Code	Observed variables
Green social corporate responsibility (GSCR)	
GSCR1	Banks should fund projects or organizations which make positive contribution to natural environment protection.
GSCR2	Banks should hold special training sessions on natural environment protection to customers.
GSCR3	Banks should take part in different events to publicize their concerns about natural environment protection.
GSCR4	Banks should publish their advertising documents and notices about natural environment protection in their branches.
GSCR5	Banks should find a special department to fully offer services to business people who seek to invest in green economy.
Green internal process (GIP)	
GIP1	Banks should find out how to optimize the resources usage and save energy.
GIP2	Banks should organize special training session on natural environment protection for their staff.
GIP3	Banks should improve their system and process in natural environment protection.
Green product development (GPD)	
GPD1	Banks should provide special capital funding programs to companies in green development sectors.
GPD2	Banks should provide special capital funding programs to companies that manufacture environmentally friendly products.
GPD3	Banks should provide special loans programs to individuals to purchase green products.
GPD4	Banks should develop a program to promote investment savings in environmentally friendly businesses.
Green brand image (GBI)	
GBI1	Banks are committed to natural environment protection.
GBI2	Banks show their professionalism manner in natural environment protection.
GBI3	Banks have success in the efficiency of natural environment protection.
GBI4	Banks have great concern about natural environment.
GBI5	Banks are reliable with their promise to natural environment protection.
Green brand equity (GBE)	
GBE1	If services are similar among banks, I am more aware of my bank selection.
GBE2	When other banks have similar characteristics about environmental matters, I still want to choose this bank.
GBE3	If other banks achieve a similar result in environment protection activities, I will stay with this bank.
GBE4	If all banks are equal in their environmental concerns, choosing this bank means a more lucid decision.

strong and positive effect on green brand image. It in turns place impacts on green bank equity (standardized = 0,647). In other words, if banks can improve their green brand image, they have high possibility to promote their green bank value.

5 Conclusion

These are first official research results that uses and widen the structural model developed by Lymperopoulos et al. [9] and Chen [4] in the case of Vietnam. The level of impact of these findings can be ranked as follows: green product development, green internal process, and green social corporate responsibility. Consequently, researchers suggest some administra-

Table 2: Cronbachs Alpha analysis result

Variables	Corrected Item–Total Correlation	Cronbach’s Alpha if Item Deleted
Green social corporate responsibility (GSCR), Cronbach Alpha = 0.85		
GSCR1	0.643	0.829
GSCR2	0.572	0.846
GSCR3	0.678	0.82
GSCR4	0.65	0.828
GSCR5	0.793	0.789
Green internal process (GIP), Cronbach Alpha = 0.75		
GIP1	0.531	0.738
GIP2	0.684	0.555
GIP3	0.55	0.713
Green product development (GPD), Cronbach Alpha = 0.79		
GPD1	0.57	0.752
GPD2	0.595	0.742
GPD3	0.687	0.696
GPD4	0.552	0.761
Green brand image (GBI), Cronbach Alpha = 0.83		
GBI1	0.745	0.771
GBI2	0.639	0.802
GBI3	0.617	0.807
GBI4	0.63	0.803
GBI5	0.557	0.822
Green brand equity (GBE), Cronbach Alpha = 0.74		
GBE1	0.494	0.703
GBE2	0.547	0.673
GBE3	0.516	0.69
GBE4	0.574	0.657

tive implications to help a business in improving their green brand equity.

Green product development: Research shows that customers and bank staff have chosen the “green product development” item with high mean value of the level of agreement. However, the responsibility to promote the bank image is taken only by the item of “preference” for individual consumption of green products and special loans for companies in green and environmentally friendly development sector to protect the natural environment. In relevance to the special programs for individual and corporate customers who seek for capital funding to finance their green activities, banks need to: set priority to products and companies with green label certificates, international nature conservation fund in offering their funding package. In addition, banks should add the item of environmentally friendly level ranking in their document screening process.

Green internal process: This component ranks

second in their impact on the changes of green brand image. Thus, banks should improve their working procedure to protect environment. To do this, banks should simplify their procedures of credit allocation, transactions and payments so that they can control their energy consumption. However, banks should be careful in considering the procedure streamlining because this can lead to further various business risks. Accordingly, banks should first improve any of their procedures with fewer risks. Banks should exchange more communication with customers via mobile communication, email to control postal exchange in tasks like product consultation, interest update, loan reminders, and so on. Additionally, customers should be encouraged to use personal bags or handbags instead of plastic bags when making deposits or withdrawals at the bank. Bank staff should be regularly trained and updated their knowledge about environmental matters. This leads to great success of banks’ effort in public relationship. Bank staff with knowl-

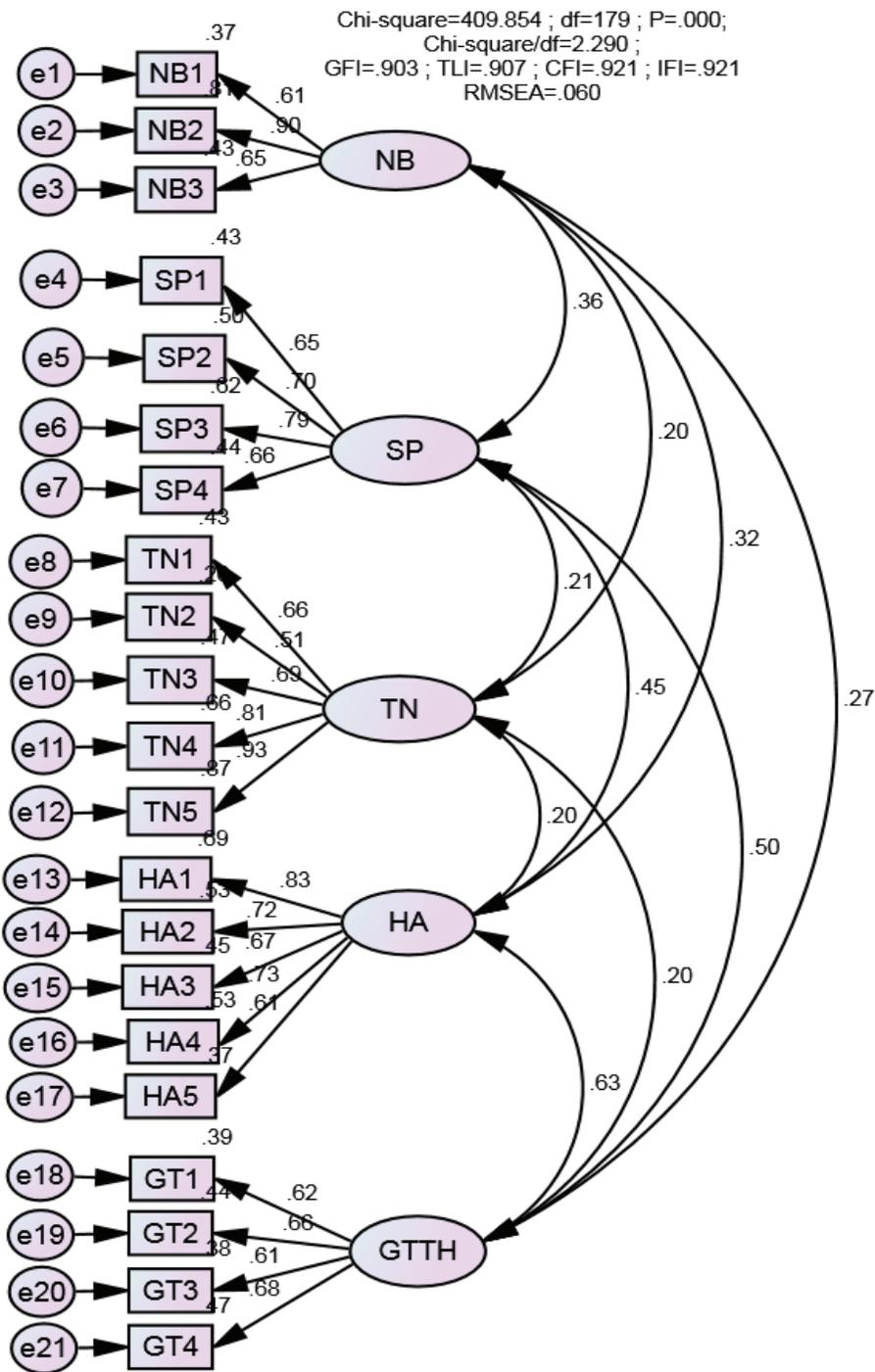


Figure 4: Result from confirmatory factor analysis (CFA)

edgeable awareness of environment conservation is the core factor in improve the green internal process. Consequently, banks should design a scientific and professional training process to satisfy this demand. Besides, performing saving policies in electricity, water and paper use should be prioritized, for example, using recycled paper for product advertisement, using energy-saving equipment. Banks should gradu-

ally replace traditional storage method of documents to electronic storage method. Information exchange among different departments within the system should be done through electronic means, for instance: documents signing, meetings to decide credit allocation level, incoming documents and job requirement slip.

Green social corporate responsibility: So as to improve this factor, banks should openly organize or

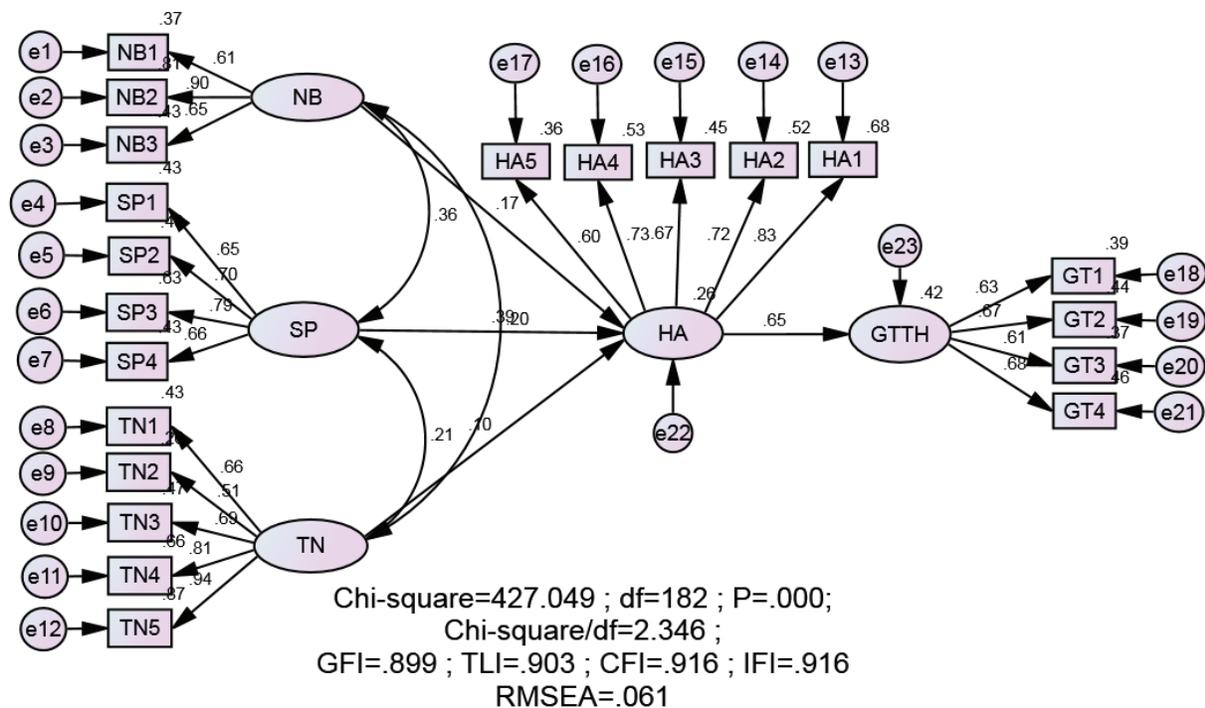


Figure 5: SEM result (standardized regression weights)

take part in green activities in the local neighbourhood such as green summer campaigns, fundraising to build schools or fun run for green environment. These events should bring more opportunities to customers and bank staff to participate in tree-planting events or do charity. This is to place an emphasis on the customers' roles in sharing with banks the responsibilities in environment conservation. In addition, banks should differentiate themselves and familiarize customers with environment conservation by using green products awarded to them in banks special programs. Banks should perform these two tasks at the same time as follows: putting advertisement documents and notice of environment conservation at their branches or transaction offices and bringing more trees to their banks to create the feeling of being surrounded by nature.

Banks' green brand image: The green brand image places strong positive impact on the green brand equity. Therefore, in order to promote the green brand equity, banks should improve the green brand image. It means that the promotion of green brand image should be completed through the promise to protect natural environment and the manifestation of a trusted bank with its engagement with nature environment. This is because customers highly evaluate these two factors. Moreover, banks should express their concerns to natural environment, their professionalism in environment conservation and publicize their achieve-

ments in their efforts to protect the natural environment.

It cannot be deniable that there are certain limitations in this research such as the narrowness of survey scale only in Ho Chi Minh City. As a result, future researches have more possible chances to carry out surveys in other cities and provinces. Secondly, there are other factors that have influence on green brand equity, for instance, customer satisfaction or trust which has not been questioned. For this reason, future researches can add other factors, e.g. customer satisfaction and trust along with green brand image to test their influence on green brand equity. Thirdly, this research only takes green brand equity as the main object; prospective researches can widen their survey objects to other factors like customer behaviours such as their word-of-mouth habits or repetitive consumption of a particular product or item, precedents of green brand equity and impact of green brand equity.

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