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Identifying and Ranking the Affecting Factors of the Green Banking on Banks Competitive Market (State-Owned Banks and Private Population of Tehran)

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ABSTRACT — Today improving and protecting the environment is going to be the policy of all activities and behaviors in many organizations and companies. The propose of writing this research is recognizing and rating the obstacles to conduct green banking in order to reduce wasting resources and destroying environment. This research is practical in purpose, the method is scientific and the inputs are descriptive. In conclusion it is an exploratory-descriptive method. The type of research is quality data. The questionnaire was designed in Likert scale and distributed among 230 experts. Cronbach alpha is calculated as %84, which is well above the minimum desirable limit of 0.70. The study investigates 23 factors and extracts five important ones, which Green Banking Models 'Green Investments 'Green Banking Processes 'Green Competitive Strategies and Advantage Bank. In the present study, through descriptive approach with qualitative method and case study, we investigate important key factors influencing on Green Banking Procedures on Competitive Market. In this paper for analyze the data use from SPSS and Amos software's.

KEY WORDS: *Green Banking Strategies, Green policies, Sustainable Development, E-Banking, Innovation, Competitive Advantage and Green Marketing*

Introduction

Hasanzadeh, Zahedi, [1] the universalization of financial activities and banking is highly improving with protecting environment. Many financial institutes in the world have started to focus on their resources to control and limit abusing the environment. The most important facts to improve relationship between bank activities and environment activities are borrower commitments that moneylenders request from their ability to accept these commitments and good commercial opportunity in this section.

1-1-Green Banking

Anand, Sinha, K.ramakrishnan, G.padmanabhan, B.sambamurthy, [2] Green Banking is an umbrella term referring to practices and guidelines that make banks sustainable in economic, environment, and social dimensions. It aims to make banking processes and the use of IT and physical infrastructure as efficient and effective as possible, with zero or minimal impact on the environment. Considering the nature of banking processes and infrastructures, in this report, we offer guidelines for greening banking in two levels:

1- Greening Processes, Products, Services, and Strategies: Making day-to-day business operations, banking products and services greener by following simple practices and making. Greening Infrastructure: Making IT infrastructure (including data center) and physical infrastructure (including buildings) greener and taking initiatives so that a bank could itself generate electricity for its own consumption. Schultz, Clark, [3] Banking research and development institute in technology, green banking is promotion of modern banking method and reduce effect of carbon in the environment by bank activities. The term green banking is economic society directions and acts that banks use them in order to protect the environment. The target of using these effective and useful processes using physical bases and information technology are minimizing theirs effect on the environment. Therefore, the consequence of green banking method is included using some procedures match with the environment in every part of organization. Nishikant Jha, Shraddha Mayuresh Bhome, [4] so we can conclude that green banking method involves the use of environmentally friendly practices at every level of the organization. As well as investment in projects of commercial banks to consider environmental aspects. Broto Rauth Bhardwaj and Aarushi Malhotra, (2013) [5] 'Green banking' refers to the banking business conducted in such areas and in such a manner that helps the overall reduction of external carbon emission and internal carbon footprint. To aid the reduction of external carbon emission, banks should finance green technology and pollution reducing projects. Although, banking is never considered a polluting industry, the present scale of banking operations have considerably increased the carbon footprint of banks due to their massive use of energy (e.g., lightning, air conditioning, electronic/electrical

equipment's, IT, etc.), high paper wastage, lack of green buildings, etc. Therefore, banks should adopt technology, process and products which result in substantial reduction of their carbon footprint as well as develop a sustainable business.

1-1-1-Green Banking Strategies

Various banks in Iran are undertaking the corporate entrepreneurship approach to innovate and adopt green banking strategies for sustainable development of the banks. This pillar of green banking Green banking with design strategies, awareness about the individual effects on the environment and their role in minimizing the damaging effects of increases. Including appropriate strategies in this area include:

- Development and improvement of green policies with the operation of systems such as mobile banking, internet banking, etc. It need not have continuous use of energy, secondly, to eliminate paper receipts and store them electronically.
- Encouraging and stimulating the work force by providing the necessary facilities and the assignment of remuneration in order to pursue green banking and using their ideas in this direction.
- Encourage internal and external customers and suppliers to use green processes.
- Continuous and precise tracking industry trends towards environmental protection and the updating of all processes and green banking products and services.

For example Agri Bank in Iran to encourage domestic and foreign customers and suppliers to the use of green processes. Opening an account for their customers to use green that customers can open an account in the method of green facilities in the agricultural industry focus. The facility does not have any tax from customers.

1-2-Competetive market

Farjadi, (2013) [6], market and market competition is a phenomenon that needs infrastructure and institutionalization. this complicated set don't result by accident however for infrastructure and institutionalization, extricating afire is necessary as an important part of the work many development countries have created the market with some measures during the time, Also, they should not be abandoned but should provide conditions and then lost it. Therefore, to achieve a particular social and economic system to platforms, frameworks and limited leverage and lead to the creation and development of intellectual, scientific, legal, political, social, and establish rules and regulations and good dynamic institution-building to move the market.

2. Literature Review

This section gives a snapshot of various studies conducted in this field in abroad.

Jeucken, 2001, [7]; Bhattacharya et al. 2004 [8], they have revealed that escalation of information technology has caused great demand for implementation of CSR activities in all sectors including banking. The various stakeholders like customers, NGOs, State regulatory bodies, media, all have considerably addressed social responsibility issues in banking sector from time to time. Nishi Sharma (2009) [9], has studied the CSR in Indian Banking and found that due to absence of stringent compliance and rules banks operating in Indian banking sector have yet not adopted the green banking in full spirit. Although some of the banks have adopted CSR as tool to enhance customers' loyalty yet they are not able to achieve the true essence of green banking. However the review of literature reveals that there some studies whose findings were just opposite like the study conducted by Hamilton (1995) [10], discovered that the firms that chose pollution control and disclosure of the carbon footprints were reported to be less profitable. Similar were the findings of Blum (1995) [11], and Worrell et al. (1995) [12], concluding the negative relation between financial performance and environmental performance. Chen and Metcalf 1980, [13], Fredman and Jaggi 1982, [14], and Cordeiro and Sarkis, 1997, [15], moreover, apart from the above findings, some researchers reported no significant relationship between the green banking initiatives and the firm's profitability. Namita Rajput, Simple Arora , Akanksha Khanna,2013, [16].The objective of this paper is to empirically find the association of environmental performance and financial performance by using data panel regression method, taking financial variables like net income, expenses with profitability and variables of green banking exhibiting environmental performance. The results show that relationship between the net income and profitability is significant but no significant relationship exists between the implementation of green banking and bank's profitability as is revealed in the study. This exhibits clearly that green banking and environmental initiatives are still in their infancy stage in Indian banking sector and to reap the fruits, a big push is required in this paradigm.

3. Definition of the Problem and Objectives of the Study:

Nowadays banks as one of the most important chains of financial matter in every country, have special place in economy. The competition's atmosphere in economic world, makes the banks to use different ways and tools to develop their quality and quantity market. Banks must find ways to have different strategy among their competitors to give the better service to their customers. One of the key ways to be separated, different and having competitive place is using green banking vision to stable competitive market (proving benefit of continuously competitive situation) According to the difficulties of environmental existence and more destruction of available resources, lack of resources and incomplete awareness, knowledge and study with executive ways of green banking in public and private banks in the country that lead to maximum risk or probably cause to defatting of banking projects, for every bank in every job the successful key is not only leaning to a specific resource for absorbing it's benefit, but also the best and the most success banks are the one which know that must always look at green banking with a new point of view or (attitude), and for creating green banking must benefit from different kinds of resources. Nowadays the most important matter for each bank is that how to be seen in a specific past of market, and what the value or credit of them and what is the whole imagine of those units among costumers? But the most important matter is to introduce a way that all banks must investigate the key elements that cause the green banking, and also green banking specially in achieving business or offering monetary service has an important effect on these easy the way of identifying and ranking of the effective

factors in green banking on banks competitive marketing, is the main object (goal) of this research so the details goal of the research is classified and supposed as below:

1. Identifying the effect of green banking (recognition).
2. Identifying the effective components of green banking.
3. To determine the measure of each green banking effective components on banks competitive marketing.
4. Extract the influence of the structure model of green banking effective component on banks competitive marketing.
5. Ranking the effective components of green banking on banks competitive marketing.

4. Research Methodology:

4.1 Data collection and sample

This study attempts to find the impact of re-engineering customs procedures. The proposed study uses factor analysis to extract most influence factors and sample size has been chosen from experts in Customs in Iran. The questionnaire was designed in Likert scale and distribute among 270 peoples. To analyze the data, descriptive statistics were used to sort the data in the second part of the data analysis is performed based on statistical inference in this paper for analyze the data use from SPSS and Amos software's. Factor analysis and structural equation analysis of the presumptive test was used.

4.2. Assessing reliability:

The reliability of the measurements in the survey was tested using Cronbach's α . Hair *et al.* stated that a value of 0.70 and higher is often "considered the criterion for internally consistent established factors". Cronbach alpha is calculated as 0/90, which is well above the minimum desirable limit of 0/70. The Cronbach's α coefficients in parentheses indicating the internal consistency reliability of the measures ($\alpha = 0.901$). There are 23 variables and using factor analysis, we extract five factors where Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0/84(Approx. Chi-Square= 3684.312 df =253 Sig. = 0 / 0 00), which also confirms the results of our survey.

5. Analysis and results:

The proposed study designs a questionnaire and distributes it among 270 experts. Cronbach alpha is calculated as 0/90, which is well above the minimum desirable limit of 0/70. Cronbach alpha has been calculated as 0/901 and table 1 demonstrates the results.

Table 1: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.901	.901	23

We extract factors where Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0/84(Approx. Chi-Square= 3684.312 df=253 Sig. = 0 / 0 00), which also confirms the results of our survey. Table2 demonstrates the results.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.849
Bartlett's Test of Sphericity	Approx. Chi-Square	3684.312
	df	253
	Sig.	.000

In this section, research data using scientific methods are investigated and they are analyzed in two parts. First, descriptive statistics are used to sort the data and then part of the data analysis is performed based on statistical inference. Factor analysis and structural equation analysis of the presumptive test was used and the primary question is to find out about important factors influencing green banking on competitive markets. To answer the first question the exploratory factor analysis has been used. Table 3 present the results of analyzing the data.

Table 3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.497	36.942	36.942	8.497	36.942	36.942	3.088	13.428	13.428
2	2.052	8.923	45.865	2.052	8.923	45.865	3.083	13.406	26.833
3	1.643	7.145	53.011	1.643	7.145	53.011	3.004	13.062	39.896
4	1.416	6.156	59.166	1.416	6.156	59.166	2.874	12.497	52.392
5	1.312	5.702	64.869	1.312	5.702	64.869	2.171	9.439	61.831
6	1.091	4.745	69.613	1.091	4.745	69.613	1.790	7.782	69.613

Fig. 1 demonstrates Eigenvalues for each factor and a special agent with the highest value indicates that after six factors, the curve becomes smooth and we choose six factors for the proposed study.

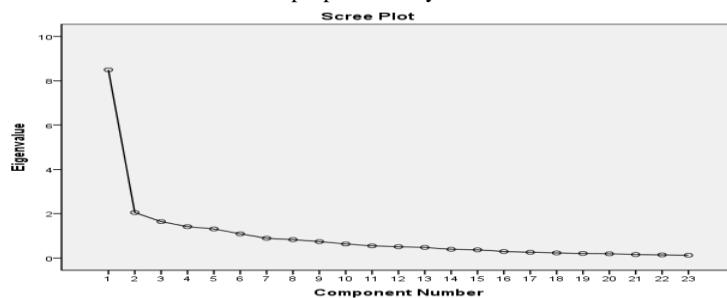


Fig. 1: Scree plot. 4.1. Interpretation of the results of the factor analysis: The following table has been prepared based on the standard model. (See Table 5).

Table 5: Interpretation of the results of the factor analysis

Factor	Variable	Factor weight
.780	Sustainable Banking	Green Banking Processes
.778	Sustainable Development	
.553	Green Factory	
.543	Globalization	
.446	Personal Accounts Green	
.797	Alternative Materials	
.706	Online Banking	Green Banking Models
.694	Green Products	
.675	Electronic Banking	
.464	Green Travel Plan	
.780	Institutional Environment	Green Investment
.683	Green loans to buy cars	
.648	Green Investment Projects	
.594	Efficiency	
.754	Green Marketing	
.730	Innovation	Advantage Bank
.636	Commercial Excellence	
.534	Competitive Advantage	
.708	Green Banking Strategies	
.624	Differentiation strategy	Competitive strategies Green
.609	Market Segmentation	
.848	Creating The Position Of Banks In The Market	

Regarding the results, we can offer 5 hypotheses that identified by exploratory factor analysis and by the Confirmatory factor analysis they reject and accept of and ranking of each of the components of performance of Consumer Services. (See tables 6 and 7).

Table 6: The summary of factorassocaited with the main hypothesis.

Result	Important coefficient	Estimate	P	The main hypothesis
Confirmed	0.99	1.000	P ≤ 0 / 05	Competitive strategies Green
Confirmed	0.98	1.004	P ≤ 0 / 05	Green Investment
Confirmed	0.48	1.036	P ≤ 0 / 05	Green Banking Processes
Confirmed	0.46	0.970	P ≤ 0 / 05	Green Banking Models
Confirmed	0.44	0.900	P ≤ 0 / 05	Advantage Bank

Table 7: The summary of factorassocaited with Sub Hypothesis.

Result	Important coefficient	Estimate	P	The main hypothesis
Rejected	0.67	0.086	P ≤ 0 / 05	Sustainable Banking
Confirmed	1.03	0.546	P ≤ 0 / 05	Sustainable Development
Confirmed	0.66	1.283	P ≤ 0 / 05	Green Factory
Confirmed	0.32	0.926	P ≤ 0 / 05	Globalization
Confirmed	0.46	1.102	P ≤ 0 / 05	Personal Accounts Green
Confirmed	0.58	0.756	P ≤ 0 / 05	Alternative Materials
Confirmed	0.41	1.368	P ≤ 0 / 05	Online Banking
Confirmed	0.36	1.132	P ≤ 0 / 05	Green Products
Confirmed	0.14	1.161	P ≤ 0 / 05	Electronic Banking
Confirmed	0.08	1.240	P ≤ 0 / 05	Green Travel Plan
Confirmed	0.39	0.867	P ≤ 0 / 05	Institutional Environment
Confirmed	0.04	0.986	P ≤ 0 / 05	Green loans to buy cars
Confirmed	0.02	1.150	P ≤ 0 / 05	Green Investment Projects
Confirmed	1.01	0.974	P ≤ 0 / 05	Efficiency
Confirmed	0.37	1.279	P ≤ 0 / 05	Green Marketing
Confirmed	0.63	0.872	P ≤ 0 / 05	Innovation
Confirmed	0.79	0.472	P ≤ 0 / 05	Commercial Excellence
Confirmed	0.75	0.492	P ≤ 0 / 05	Competitive Advantage
Confirmed	0.40	0.996	P ≤ 0 / 05	Green Banking Strategies
Confirmed	0.13	0.691	P ≤ 0 / 05	Differentiation strategy
Confirmed	0.42	0.609	P ≤ 0 / 05	Market Segmentation
Confirmed	1.00	1.005	P ≤ 0 / 05	Creating The Position Of Banks In The Market

6. Conclusions

This paper has presented an investigation to detect important factors influencing Green Banking. The proposed study of this paper has extracted five important factors including Competitive Strategies Green ·Green Investment ·Green Banking Processes ·Green Banking Models, Advantage Bank. In terms of important coefficient, Competitive Strategies Green is number one priority; Green Investment is the second important on Green Banking. The next factor Power of Green Banking Processes is number three priority. It can be concluded that to achieve green bank competitive strategies the first must find its place in the market to create a market place for banks, four strategies can be used:

1. Institutional positioning strategy
2. Strategy of positioning products or services
3. Positioning strategy based on staff and system services
4. Positioning strategy of localization

The combination of institutional positioning, positioning and positioning products or services based on service delivery system and puts banks of four strategies available:

1. According approach to all customers' needs at all levels
2. According approach to all the needs of customers at all levels
3. Approach according to the specific needs of all clients at all levels
4. Approach according to the specific needs of a group of clients and in some surfaces.

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