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Green Channel usage by Bank Customers – Influence on Warm Glow and Self-enhancement

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ABSTRACT

This study focuses on the impact of brand symbolism by banks in India on green channel use by retail customers. Consequently, the study examines its influence on social value and conspicuous virtue signaling. Finally, the study assesses the influence of conspicuous virtue signaling on warm glow and self-enhancement. The study has adopted a cross-sectional survey design approach and the data analysis has been undertaken using structural equation modeling. The findings offer contribution to the literature on green channels in the context of banking. Managers in banks can utilize the findings for taking forward the green channel usage by customers.

Key Words: green channel, retail banking, social value, warm glow, self-enhancement, conspicuous virtue signaling, brand symbolism, India

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Introduction

Customer green behaviours have become very important in the current context and banks are encouraging their customers to use green channels for banking. Accordingly, banking brands have adopted appropriate symbolism for persuading customers to use green channels. Today, society has also accepted the importance of green behaviours in order to combat threats like climate change. Therefore, when customers adopt green channels for banking it is possible that they may be engendering social value since society approves of green behaviours. Further, it is observed that social media has a major influence on customer behaviours and when customers undertake green behaviours they have been known to showcase such behaviours through conspicuous virtue signaling (CVS) on social media. On the other hand, customers are human beings and they are motivated to self-enhance and achieve wellbeing through warm glow. Therefore, the objectives of this study are:

- To assess the influence of brand symbolism on customer green channel usage
- To assess the influence of customer green channel usage on social value
- To assess the influence of social value on CVS behavior
- To assess the influence of CVS on warm glow and self-enhancement

The current study makes several new contributions to the banking literature. First, the study shows that brand symbolism can influence customer green channel usage. Second, the impact of social value is evident in promotion of green channels since it influences CVS behaviours. Third, the influence of CVS on warm glow and self-enhancement shows that marketers can induce customers to adopt green channels in order to self-enhance and achieve wellbeing through warm glow. Previous studies have shown that brand symbolism can enhance the authenticity of brand messages (Kapoor et al., 2023). On the other hand, green choices by customers have been linked to social value and prior research has shown that CVS can help customers highlight green behaviours for social visibility (Steffl et al., 2024; Wallace et al., 2020). By adopting green channel usage customers are contributing to the symbolic reputation of a bank while previous studies have shown that warm glow is an outcome of prosocial behaviours (Giebelhausen et al., 2016). Finally, customers are undertaking consumption and also striving for power, achievement, and self-enhancement (Hohenberger et al., 2017). The findings of the current study have enhanced previous findings in the context of the banking industry. This paper is organized as follows: the introduction is followed by the theoretical background and hypotheses development. This is followed by the research design, data analysis and findings. Finally, the discussion section explains the contributions of the current study towards the theory and also provides the managerial implications.

Theoretical background and hypotheses development

The literature on green channel usage in banking with respect to India has shown that there is high growth in adoption of green channels by the youth owing to easy access to internet based banking transactions (Kaur, 2025; Singh et al., 2025). Studies have shown that there is high degree of engagement among retail bank customers in India particularly with regard to technology usage and its consequences (Mukerjee, 2024). The banking industry in India has been promoting green channel usage by customers and the Reserve Bank of India (which is the central bank responsible for regulating banking operations) has been exhorting bank customers to undertake more green channel usage (see https://rbi.org.in/financialeducation/goodpractices2.aspx). In this context, the banks in India have been offering green channel usage by customers through a variety of choices (e.g. Automated Teller Machines, mobile banking, website banking etc.). Banks in India have been adopting appropriate branding strategies for persuading customers to use green channels.

Prior research on green channel usage has shown that when brands adopt a symbolic approach the brand's meaning communicates something about the users to other people and it is important to understand how customers self-enhance through green behaviours (Aagerup and Nilsson, 2016). The current study aims to bridge this gap in the banking literature.

Brand symbolism and green channel usage

Customer participation in green channel usage has been attributed to the persuasiveness of prosocial symbolism by brands. The symbolism adopted by brands promoting sustainable choices (e.g. green channel usage) is being done to help customers connect through a prosocial identity perspective (Li and Kang, 2024). When brands adopt green symbolism, they can engender self-green brand connections with customers and help them fulfil their environmental goals (Lin et al., 2017). In the context of banking, green channel usage has been found to hold symbolic value for customers and contributes to enhancing the reputation of the bank's brand (Lien et al., 2018). Therefore, it is logical that when brand symbolism promotes the choice of green channel usage, customers will find it meaningful and persuasive. Hence, this study hypothesizes that:

H1: Brand symbolism will positively influence green channel usage

Green channel usage and social value

When customers adopt green behaviours, it can help co-create value in terms of functional and symbolic value (Lien et al., 2018). In the context of banking, the green channel usage by customers helps banks deliver services more efficiently while also creating emotional benefits through prosocial actions (Giebelhausen et al., 2016). The attitude of customers towards green channels is being influenced by social interactions and influence of other customers (Aagerup and Nilsson, 2016). The prosocial behaviours have been found to result in social value owing to the positive benefits that accrue as a result of green channel usage (Alhashem et al., 2020). Hence, this study hypothesizes that:

H2: Green channel usage will positively influence social value

Social value and CVS

In the current context, customers are expressing themselves through socially visible consumption behaviours and are keen to gain social recognition (Steffl et al., 2024). This kind of behavior is more manifest in collectivistic cultures prevailing in countries like India and China (Sun and Wang, 2020). Customers are taking efforts to showcase their virtuous acts by mentioning them on public platforms like social media. Research has shown that customers wish to gain intrinsic benefits through CVS (Wallace et al., 2020). Therefore, when bank customers avail of green channels and create social value it is logical that they would be keen on CVS by showcasing their prosocial actions privately and through social media. Hence, this study hypothesizes that:

H3: Social value will positively influence CVS

CVS, warm glow and self-enhancement

In the current context, warm glow feelings have become important for customers when it comes to service usage in the interest of green consumption (Bezencon et al., 2020). The opportunity to utilize green consumption trends (e.g. green banking channels) can be leveraged by customers for self-enhancement in the eyes of their social circles (Hohenberger et al., 2017). CVS provides opportunities for signaling to society at large and customers using green banking channels may use the social media and other platforms. Therefore, when customers leverage CVS they may get to enjoy warm glow as well as self-enhancement through making the right impression on their own selves as well as on society. Therefore, this study hypothesizes that:

H4: CVS will positively influence warm glow

H5: CVS will positively influence self-enhancement

Research design

Setting and sample

A cross-sectional survey research design was used to test the hypotheses proposed for this study. Figure 1 shows the conceptual model for testing the proposed hypotheses.

[Figure 1]

[Table 1]

Measures

The measures for the constructs were adapted from the literature to the context of e-banking. The adapted items were shown to a group of marketing experts from the digital banking / lending industry to assess the face and content validity. The items for brand symbolism (BS) were adapted from Gurlek et al. (2017); the items for green channel usage (GCU) were adapted from Sun and Wang (2020); items for social value (SV) were adapted from Xiao and Kim (2009); the items for conspicuous virtue signalling (CVS) were adapted from Wallace et al. (2020); items for warm glow (WG) were adapted

from Bezencon et al. (2020); items for self-enhancement (SE) were adapted from Hohenberger et al. (2017). Respondents had to rate each item using a Likert type 7 point scale (1= strongly disagree; 7= strongly agree).

The self-administered questionnaire was pre-tested with a group of 50 MBA students pursuing a course in banking and financial services. The pre-test showed that there were no problems with the clarity of the questions and very minor alterations were made to some scales to ensure appropriate fit with the study's context. A screening question required participants to confirm that they had been using green channel for undertaking banking transactions since at least one year. A soft copy of the final questionnaire was prepared using Google form and a group of MBA students volunteered to share the link through their social media networks. The majority of participants belonged to the younger age group in line with the demographic profile of India. Further, the youth are more adept at using digital technology based channels and hence more amenable to using green channels for undertaking banking transactions.

The online questionnaire was sent to potential respondents and though 461 responses were received, after discarding incomplete responses, 414 completed responses were taken up for analysis. The usable responses were 90 percent which is in line with recommendations of other researchers (Chang *et al*., 2013). The sampling method can be termed as convenience sampling which is acceptable in the case of online survey based studies (Cheah and Phau, 2011).

Data analysis and results

Measurement validity and reliability

Figure 1 represents the research model proposed for testing the proposed hypotheses. The measurement model was developed and the data were analysed using structural equation modelling (SEM) in IBM AMOS 23® software (Hair *et al.*, 2017). Confirmatory factor analysis (CFA) using IBM AMOS 23.0 with maximum likelihood estimation method (MLE) was performed on the measurement model.

The fit indices of the measurement model were: $\chi 2 = 293.332$, $p < 0.001$; CMIN /DF = 2.821; GFI = .915; TLI = .925; IFI = .969; CFI = .967, NFI = .936, RMSEA = .086. The cut-off value for GFI, TLI, IFI, CFI, and NFI is .9 while RMSEA should be in the range .05 to .1 (Hooper *et al*., 2008). The fit indices meet the cut-off criteria and therefore, it can be said that the data fits the measurement model reasonably well (Byrne, 2016). The CFA results are summarised in Table I.

The data analysis with respect to the descriptive statistics show that the minimum and maximum statistic were 1 and 7 respectively while the mean ranged between 4.14 and 4.84 for all the constructs. Construct validity was assessed by examining the measurement model for internal reliability consistency, convergent validity and discriminant validity. Reliability item analysis refers to the internal consistency of the factors which is measured using Cronbach's coefficient α (Fornell and Larcker, 1981). The Cronbach α values ranged between .83 and .944 which shows that the values are higher than the cut-off .7 (Nunally, 1978). The factor loadings, scale composite reliability and average variance extracted (AVE) for the constructs CP, SC, STE, RTE, FE, and WB exceeded the threshold level of 0.5. Experts have opined that while Cronbach α is a

conservative measure, the scale composite reliability may be too liberal and therefore, in the case of variations between these two measures, the construct's true reliability can be viewed to lie between these two extreme values (Hair *et al*., 2021).

Convergent validity requires that all t-values for the items are above the threshold standard 1.96 (Anderson and Gerbing, 1988). The analysis of the data shows that all factor loadings are strong and their corresponding t-values (all above 1.96) were statistically significant ($p < 0.001$). Further, the AVE for each of the constructs was greater than 0.50 (see Table II). Thus, the constructs fulfil the convergent validity criteria (Byrne, 2016).

The discriminant validity is established if a latent variable accounts for more variance in its associated indicator variables than it shares with other constructs in the same model. To satisfy this requirement, each construct's average variance extracted (AVE) must be compared with its squared correlations with other constructs in the model (Fornell and Larcker, 1981; Henseler *et al*., 2015). The square root of the AVE was greater than the correlation between the constructs as given in Table II.

Common method variance (CMV), which refers to variance that can be attributed to the measurement model (Podsakoff *et al.*, 2003), may exist since both the independent and the dependent variables have been measured through the same survey method. Following the guidelines offered by Podsakoff *et al.* (2003), the design of the survey questionnaire was reviewed by experts in marketing with experience in the digital banking / lending domain. The questionnaire was designed in such a way that the independent and dependent variables were separated in order to deal with CMV (Fuller *et al.*, 2015). The respondents were assured of anonymity and it was made explicitly clear that there were no right or wrong answers for the questions.

[Table 2]

[Table 3]

Hypotheses testing

Table III presents the estimated path coefficients of the structural model and the results of the hypothesis tests. All the paths are significant whereby it is established that the hypotheses H1, H2, H3, H4 and H5 are supported. Therefore, brand symbolism was found to positively influence green channel usage ($\beta = .387$; $p < .001$). Green channel usage was found to positively influence social value ($\beta = .578$; $p < .001$). Social value influenced CVS ($\beta = .591$; $p < .001$). CVS positively influenced warm glow ($\beta = .379$; $p < .001$), as well as self-enhancement ($\beta = .496$; $p < .001$).

Discussion

Prior research on e-banking has established that customers are willing to adopt green channels for undertaking banking transactions (Tyagi et al., 2024). In the context of the Indian banking industry, research has established that there is high usage of green channels by customers and it has resulted in enhancing the cross-buying of banking products (Mukerjee, 2023). The importance of social value and CVS have been established in the context of green behaviours (Giebelhausen et al., 2016; Steffl et al., 2024). The

findings of the current study show that green channel usage is influenced by brand symbolism and the consequence is social value. Further, CVS results in warm glow and self-enhancement for bank customers when they use green channels for undertaking banking. Therefore, the current study has extended previous research on e-banking by showcasing the symbolic benefits that can be derived through green channel usage.

In terms of the managerial implications, it is evident from the findings of the current study that marketing managers in banks can rely on suitable brand symbolism for promoting green channel usage by customers. This will help the banks to save on costs while projecting an environmentally friendly image. Further, customers may be encouraged to use green channels in order to co-create social value. Suitable social media pages can be created by banks wherein customers can showcase their usage of green channels and enjoy warm glow as well as achieve self-enhancement.

Limitations and ideas for future research

The current study has been undertaken with customers belonging to the Indian banking industry and using a cross-sectional survey design approach. Future researchers may undertake similar studies in other markets and using other research designs (e.g. longitudinal) approaches. Further, the variables in the study have been chosen based on the literature related to green behaviours. Future studies may consider the inclusion of other variables in the research model that can influence green behaviours.

Declaration*: Participants in this survey provided written informed consent prior to answering the survey questionnaire*

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Table 1
Psychometric properties of the scales

Scale Items	Factor loadings
Brand symbolism (SCR = .772, AVE = .534, α = .864)	
The green banking channel symbolizes welfare for the communities	.737
The green banking channel symbolizes the active fight against environmental problems	.829
The green banking channel is seen in a positive manner at social events	.710
Green channel usage (SCR = .689, AVE = .640, α = .851)	
I use the green banking channel regularly	.631
I am willing to continue to use the green banking channel	.874
I make it a point to use the green banking channel over other channels	.617
Social value (SCR = .834, AVE = .716, α = .924)	
The green banking channel is prestigious	.891
The green banking channel use gives me social status	.799
Conspicuous virtue signalling (SCR = .739, AVE = .503, α = .83)	
I like to mention green banking channel on social media because I get to show my support	.727
I like to promote green banking channel on social media so that people know I am a good person	.681
I like to promote the green banking channel on social media because it makes me look good	.695
Warm glow (SCR = .835, AVE = .631, α = .882)	
I derive pleasure by contributing to societal wellbeing through green channel use	.768
I feel good using the green channel since I am contributing to a good cause	.852
I derive satisfaction by contributing to societal wellbeing through green channel use	.851
Self-enhancement (SCR = .765, AVE = .522, α = .944)	
Showing support for the green channel use gives me social status and prestige	.801
I can influence others by showing support for the green channel	.681
By showing support for the green channel use on social media I am able to establish my image over others	.701

Table 2
Descriptive Statistics and Person Correlation Matrix

Construct	Mean	Standard deviation	BS	GCU	SV	CVS	WG	SE
BS	4.24	1.43	*.731*					
GCU	4.33	1.51	.485	*.801*				
SV	4.45	1.53	.511	.538	*.846*			
CVS	4.57	1.39	.421	.459	.476	*.698*		
WG	4.51	1.42	.434	.512	.587	.519	*.794*	
SE	4.82	1.41	.429	.521	.438	.376	.511	*.722*

Note: Correlation is significant at the 0.01 level; the diagonal values (in italics) are the square root of the AVE; the lower half values indicate correlation coefficients between the constructs

Table 3
Summary of hypothesized relationships

Hypothesis	*Path*	*β value*	*p-value*	*Result*
H1	Brand symbolism (BS) → Green channel usage (GCU)	.387	***	Supported
H2	Green channel usage (GCU) → Social value (SV)	.578	***	Supported
H3	Social value (SV) → Conspicuous virtue signaling (CVS)	.591	***	Supported
H4	Conspicuous virtue signaling (CVS) → Warm glow (WG)	.379	***	Supported
H5	Conspicuous virtue signaling (CVS) → Self-enhancement (SE)	.496	***	Supported

β = standardized path co-efficient; *** represents significant paths with p-value < .001

Figure 1
Conceptual Model