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Article

The impact of digital transformation and ESG on customer behaviour towards brands at commercial banks in Ho Chi Minh city

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Abstract: ESG (environmental, social and governance, a framework used to assess an organisation's business practices and performance on various sustainability and ethical issues) and Digital Transformation (the process of using digital technologies to change a business's operations, products and services by integrating digital solutions into all areas of the business, which can lead to cultural and technological changes) are emerging issues across different industries, including the banking field. There has been limited research focusing on exploring the linkages between ESG, Digital Transformation and Customer Behaviour in the banking area, especially within developing countries such as Vietnam. Based on this gap, this study analyses and assesses the role of Digital Transformation and ESG on customer behaviour towards brands in the banking sector in Ho Chi Minh City. The research employed the quantitative research methods with the combination of fundamental analytical methods such as statistics, Cronbach's alpha reliability, Exploratory Factor Analysis (EFA), measurement models and Partial Least Squares Structural Equation Modelling (PLS-SEM). The analysis was based on survey data from 550 customers who are the commercial banks' current customers and live in Ho Chi Minh City, yielding 514 valid responses. Using SPSS and SMART PLS software, the study provided notable results. Specifically: (1) The component factors of ESG, including Environmental Issues (EN), Social Issues (SO), Government Issues (GO) and Digital Transformation (DT), positively influence Customer Behaviour (CB); (2) The component factors of ESG, including Environmental Issues (EN), Social Issues (SO) and Government Issues (GO), play a mediating role in the relationship between Digital Transformation (DT) and Customer Behaviour (CB).

Keywords: ESG; environment; social; government; behaviour; digital transformation
JEL Classification: C51; C81

1. Introduction

In the context of the ongoing digital transformation, the relationship between environmental, social and governance (ESG) issues and customer behaviour is becoming increasingly significant. Modern customers are concerned with the quality of products and services as well as with the social and environmental responsibilities of organisations (Koh et al., 2022; Lee and Rhee, 2023).

According to numerous studies, consumers tend to favour brands that demonstrate strong ESG commitments, reflecting a growing awareness of sustainability and social responsibility. Digital transformation has created a new platform for organisations to communicate ESG messages effectively, whilst also collecting and analysing customer data to gain a deeper understanding of their needs and preferences (Koh et al., 2022; Nugroho et al., 2024). The application of digital

technology both enables organisations to engage with customers swiftly and also creates opportunities to develop environmentally friendly products and services. This means that organisations can adjust their business strategies to find a better way of aligning with the values for which the customers are seeking (Bhandari et al., 2022; Hasan et al., 2024).

Furthermore, digital platforms allow customers to access information about an organisation's ESG activities easily, thereby enhancing transparency and building consumer trust. Brands that excel in ESG performance typically enjoy higher levels of customer loyalty, as consumers are both seeking products and also wanting to align themselves with the values that the brand represents (Koh et al., 2022). In addition, organisations can leverage digital communication tools to promote ESG initiatives, attracting attention and motivating customers to participate in environmental protection and community development activities (Bae et al., 2023).

However, integrating ESG into business strategy also presents several challenges, including ensuring that, instead of merely being superficial, ESG commitments are genuinely creating sustainable value for the organisation and society (Hasan et al., 2024; Koh et al., 2022). Therefore, a clear strategy and a detailed implementation plan are necessary to execute the ESG initiatives effectively. This requires organisations to invest in technology and train employees, whilst establishing an effective evaluation and reporting system, thereby helping organisations both to carry out ESG activities and also to optimise the benefits from these commitments (Andersson, 2003; Hasan et al., 2024; Koh et al., 2022; Wang and Esperança, 2023).

It can therefore be understood that, rather than being a trend, the relationship between ESG and customer behaviour in the context of digital transformation is a strategic decision for the sustainable development of the organisation. Organisations must proactively embrace this trend, both to enhance their competitive position and also to meet the increasing expectations of customers for a sustainable and responsible future. Therefore, the author examines the impact of digital transformation and ESG on customer behaviour towards brands in the banking sector in Ho Chi Minh City. The research aims to solve the following three research questions:

1) What are the relationships between the three dimensions of ESG (environmental, social and governance) and customer behaviour?
2) How can digital transformation create an impact on the three dimensions of ESG (environmental, social and governance)?
3) What is the relationship between digital transformation and customer behaviour?

Theoretically, this study advances the ESG research field from two key perspectives. First, it introduces a comprehensive research model that integrates the relationships between environmental, social and governance (ESG) factors and customer behaviour, along with the influence of digital transformation on these ESG dimensions. Whilst previous research has explored these elements individually, limited work has attempted to connect them to provide a more holistic understanding of how ESG affects customer behaviour within the digital landscape and the role of digital transformation. This study is amongst one of the first attempts to bridge this

gap by incorporating stakeholder capitalism theory and information asymmetry theory.

The second theoretical contribution is the empirical testing conducted in the Vietnamese context, specifically focusing on commercial banks. Although ESG research has been expanding, the Vietnamese banking sector remains underexplored, with ESG being a relatively new topic and there only being limited research available. Testing the research hypotheses and model in this context provides valuable insights for future studies and the external validity of the findings may offer broader generalisability to similar settings.

The research objective is to explore the impact of digital transformation and ESG factors on customer behaviour in the banking sector in Ho Chi Minh City. To achieve this, a quantitative research approach was adopted, incorporating fundamental analytical techniques such as statistical analysis, Cronbach's alpha reliability testing, Exploratory Factor Analysis (EFA), measurement models and Partial Least Squares Structural Equation Modelling (PLS-SEM). The analysis was conducted using SPSS and SMART PLS software, yielding significant findings: (1) ESG components, including Environmental Issues (EN), Social Issues (SO), Government Issues (GO) and Digital Transformation (DT) positively influence Customer Behaviour (CB); and (2) ESG components—specifically Environmental Issues (EN), Social Issues (SO) and Government Issues (GO)—mediate the relationship between Digital Transformation (DT) and Customer Behaviour (CB).

The paper structure includes the following sections: introduction, literature review, research methodology, results, discussion and conclusion.

2. Literature review

2.1. Overview of ESG, customer behaviour, brands and digital transformation

2.1.1. ESG (environment, social, governance)

ESG represents non-financial factors from the perspective of sustainability regarding social or environmental considerations that a company should take into account alongside financial factors when making investment decisions; it includes three aspects: Environment, Social and Governance (Koh et al., 2022). ESG is also directed as the recent pillar of corporate social responsibility. Concerns regarding ESG are pertinent to all businesses, even if the concept is still developing and lacks a specific definition. According to Moon et al. (2022), by integrating ESG principles into their operations, banks could experience simpler regulatory adherence, reduced operational costs, improved talent recruitment, enhanced returns for shareholders, and either customer retention or stronger customer loyalty.

- Environment (E) describes how an organisation handles its environmental responsibilities. Energy consumption, pollution, climate change, waste generation, deterioration of natural resources and the need to protect wildlife are examples of environmental challenges (Koller et al., 2019). Organisations are becoming increasingly expected to take responsibility for reducing their negative environmental impact, both to comply with legal regulations and also

to meet the expectations of stakeholders and the community. Moreover, environmental protection activities enable organisations to build a positive and responsible image, which in turn attracts the support of consumers and partners.

- Social (S) pertains to an organisation's dedication to the communities in which it operates, as well as those beyond its immediate reach. This includes issues such as personal rights, juvenile labour, forced labour, involvement with local communities, wellness and safety standards, connections with stakeholders and labour relations (Koller et al., 2019). Demonstrating social responsibility helps an organisation to build its reputation as well as fostering a strong connection with the community. Organisations that show a particular concern for social issues often receive support and loyalty from consumers, thereby contributing to the organisation's sustainable development.
- Governance (G) assesses how much the policies and procedures guarantee that banks make long-term plans with the interests of shareholders in mind. According to Koller et al. (2019), governance concerns encompass various elements, including the effectiveness of leadership, diversity and composition of the board, potential conflicts of interest, practices related to transparency and disclosure, executive remuneration and the rights of the shareholder. A well-functioning governance system ensures that an organisation operates transparently, avoids potential risks from conflicts of interest and maintains the trust of both the shareholders and the community. This also enables the organisation to sustain long-term stability and enhance its brand value in the market.

As well as being a tool for evaluating non-financial performance, ESG is also a crucial element in the sustainable development strategy of organisations. By incorporating ESG criteria into business operations, organisations both improve management effectiveness and also enhance brand value, attract and retain talent, mitigate operational and financial risks, and build trust and support from the community and stakeholders. In a world that is increasingly focused on social and environmental responsibility, ESG is becoming an indispensable criterion for organisations to affirm their position and ensure sustainable growth in the future (Hasan et al., 2024).

2.1.2. Customer behaviour

Customer behaviour is the field of study that examines the processes consumers go through when making decisions about purchasing, using and disposing of products and services. Research into customer behaviour helps organisations to gain a deeper understanding of consumer needs, desires and motivations, allowing them to improve products and services to meet customer expectations better (Hoyer and MacInnis, 2010).

Customer behaviour is a process that involves the selection, purchase and use of products and services to satisfy consumer needs. Engel et al. (1995) defines customer behaviour as "the actions of individuals directly related to the acquisition, consumption and disposal of goods and services, including the decision-making processes before and after these actions". According to Schiffman and Kanuk (2000), consumer behaviour is also regarded as the process through which

consumers decide to allocate their resources (e.g. time, money and effort) to purchase and use products or services to meet personal needs.

2.1.3. Brands

A brand is more than just a name or a logo; it represents a collection of values, perceptions and experiences that a product or service delivers to the consumer. Brand theory explores how brands influence consumer behaviour and how they are developed and managed. According to Kotler and Keller (2016), a brand is defined as "a name, term, symbol, design, or a combination of these elements, that distinguishes the goods or services of one seller or a group of sellers from those of competitors." A brand is both an identifier and also a commitment to quality and value.

The process of brand building involves creating a strong, consistent and recognisable brand image. Kapferer (2012) stresses that branding is both about creating a name or logo, and also about forming a "brand image" in the minds of consumers through their experiences and perceptions.

2.1.4. Digital transformation

According to Westerman et al. (2014), Digital Transformation is "the reconfiguration of an organisation through the use of digital technologies, with the aim of optimising workflows and enhancing the customer experience"; this means that organisations use technology to improve performance as well as changing the way in which they interact with customers and create new value. It is the process of integrating digital technologies into all aspects of an organisation, transforming how the organisation operates and delivers value to its customers. This both involves the adoption of new technologies and also requires changes in organisational culture, workflows and business models.

Digital transformation typically encompasses three key components: (1) Technology, the adoption of new technologies such as artificial intelligence, big data, cloud computing and the Internet of Things (IoT) to improve processes and products; (2) Processes, changing the way the organisation operates by optimising workflows, reducing bureaucracy and enhancing flexibility; and (3) People, altering organisational culture and developing employees' skills so they can work effectively in a digital environment.

Digital transformation can be understood as the changes that digital technology brings to, or influences, all aspects of human life (Desai and Vidyapeeth, 2019). The study by Istrefi-Jahja and Zeqiri (2021) highlights that digital transformation is "the use of technology to radically improve the performance or scope of business operations"; at this level, digital technologies enable innovation and creativity, whilst driving significant changes in professional and knowledge domains. Digital transformation is the process of applying digital technology to transform services or businesses by replacing non-digital or manual processes with digital processes, or by replacing older digital technologies with more advanced technologies. Digital solutions may deliver efficiency through automation as well as opening up new forms of innovation and creativity, rather than simply enhancing or supporting traditional methods (Li, 2021).

2.1.5. The theory of stakeholder capitalism

Stakeholder capitalism promotes the idea that businesses should prioritize the interests of all stakeholders, rather than just shareholders (Park and Lee, 2023). These stakeholders include investors, owners, employees, suppliers, customers and the broader community. The focus of this approach is on creating long-term value rather than solely increasing shareholder profits.

The COVID-19 pandemic has exposed the limitations of shareholder capitalism, leading to a growing shift towards stakeholder capitalism. ESG management aims to allocate resources efficiently to balance financial and social values, benefiting stakeholders. Considering the legal, theoretical and empirical difficulties linked to pluralistic stakeholder capitalism, the emphasis should move towards instrumental stakeholder capitalism (Park and Lee, 2023). Advocacies for business reform arise from many political, economic and cultural viewpoints; however, many converge on a shared argument: businesses must take a greater responsibility for the impact of their actions, including their role in broader societal issues (Freeman and By, 2022).

Stakeholder capitalism has garnered increasing attention from business professionals and academics, often discussed in the context of corporate social responsibility, ethical practices and values-based leadership. Various societal institutions, including businesses and higher education organisations, play a pivotal role in advancing the transition to stakeholder capitalism (Gring-Pemble et al., 2024). Proposed as a fresh perspective on business purpose and value creation, stakeholder capitalism requires managers to recognise and prioritise the interests of all stakeholders for it to serve as a viable alternative model (Van Buren and Schrempf-Stirling, 2023).

This theory explains how ESG disclosure can bring both tangible and intangible benefits to organisations, such as improved customer satisfaction and enhanced positive customer behaviour. By demonstrating a commitment to balancing financial and social values, ESG helps to generate better outcomes for stakeholders. This focus on long-term value creation, rather than solely maximising shareholder profits, can positively influence customer behaviour and strengthen the company's reputation.

2.1.6. Information asymmetry theory

From the viewpoint of information asymmetry theory, digital transformation allows enterprises to reduce information asymmetry significantly, ease financing constraints and resolve agency issues, ultimately enhancing their ESG performance (Zhang et al., 2024). Asymmetric information theory posits that different stakeholders have varying levels of information and these "digital divides" can greatly impede the effectiveness of corporate governance. Asymmetric information is a critical factor influencing variations in the governance levels of economic organisations. Eliminating these "digital islands" helps to reduce biases in delegation, agency relationships and other stakeholder information gaps, strengthening mutual oversight amongst stakeholders (Zhang et al., 2024).

In practice, during digital transformation, the application of digital technology in various aspects of enterprise management impacts both internal governance structures and external information disclosure. First, digitalisation gives managers a

more objective understanding of internal company information, thus improving corporate governance. Second, digital transformation attracts external media attention, encouraging external stakeholders to monitor a company's operations and financial status for supervision purposes closely (Zhang et al., 2024). Consequently, digital transformation can create a positive impact on ESG and ESG disclosure.

2.2. Research hypotheses

2.2.1. Impact of ESG on customer behaviour

According to Min-Kyu and Seong-Soo (2022), customer assessments of organisations addressing ESG-related issues reveal that tackling environmental concerns is becoming increasingly important, both for ethical reasons and also for the strategic advantages it brings, such as enhancing customer loyalty and profitability (Billio et al., 2021; Hasan et al., 2024). This trend may be linked to growing environmental awareness amongst individuals who are more conscious of the significant biological and environmental changes occurring globally (Nugroho et al., 2024). As a result, environmental issues have become a valuable competitive factor. Many organisations have recognised the benefits of adopting environmentally friendly measures within their corporate social responsibility initiatives and developing sustainable products to meet the increasing demand from environmentally conscious consumers (Dedunu and Sedara, 2023; Hasan et al., 2024).

Therefore, the author proposes the following hypothesis: H1: Environmental ESG issues have a positive impact on customer behaviour towards the brand.

On the other hand, establishing a strong presence on social media platforms can offer a distinct advantage for an organisation by highlighting its sustainability efforts in business (Nugroho et al., 2024). Corporate social responsibility initiatives can also enhance an organisation's reputation and brand image. According to a consumer survey conducted by Smartest Energy (2015), sustainability is important for the majority of customers, with 4 out of 5 consumers preferring to purchase products or services from organisations that actively support and promote sustainability in their operations and social-related issues, such as contributing to social good. The importance of ethical business practices and corporate responsibility in attracting customers and enhancing brand value has been demonstrated in previous research (Kang and Namkung, 2018; Tan et al., 2022; Vuong and Bui, 2023; Hasan et al., 2024). A positive consumer perception of an organisation's social responsibility actions can significantly contribute to building and improving brand value. From a strategic perspective, actively engaging in socially responsible activities can help to build and maintain a brand's reputation. Therefore, such activities can be seen as long-term investments with specific objectives. In a study by Sharma and Jain (2019), the implementation of corporate social responsibility programmes had a positive impact on both brand value and the organisation's reputation. According to research by Smith et al. (2001), women tend to be more concerned with ethical business practices than men. Similarly, research by Haski-Leventhal et al. (2017) indicates that individuals' perceptions of social responsibility behaviours vary by age.

Therefore, the author proposes the following hypothesis: H2: Social ESG issues have a positive impact on customer behaviour towards the brand.

Moreover, current studies explore the impact of government-related practices on customers. Specifically, Talesh (2015) argues that government issues influence customer behaviour. Indeed, a company's government-related practices significantly affect customers' purchasing decisions. Therefore, it can be observed that customers' purchasing decisions and behaviour towards a brand are influenced by government regulatory mechanisms. When these mechanisms are transparent, open and responsible, customers tend to develop a stronger relationship with the organisation compared to previously (Dedunu and Sedara, 2023; Hasan et al., 2024).

Therefore, the author proposes the following hypothesis: H3: Government ESG issues have a positive impact on customer behaviour towards the brand.

2.2.2. The mediating role of ESG in the relationship between digital transformation and customer behaviour

Organisations are shifting their focus away from merely generating profits for shareholders and are instead aiming to broaden the benefits for various stakeholders, including employees, customers, suppliers, communities and governments (Fang et al., 2023); this aligns with the objectives of ESG (Hasan et al., 2024). Meanwhile, digital transformation (DT) enables organisations to enhance their ESG practices through more efficient resource management and the reduction of environmental impact, leading to increased consumer trust and loyalty (Lu et al., 2024). By leveraging digital technologies, organisations can monitor and mitigate environmental impacts more effectively as well as engaging with stakeholders in more meaningful ways, allowing for transparent and ethical actions that appeal to socially-conscious consumers (Hasan et al., 2024; Nambisan et al., 2019). Commitment to responsible practices is being increasingly recognised and valued by consumers, often influencing their purchasing decisions and loyalty towards brands that prioritise sustainability and ethical operations (Hasan et al., 2024). Furthermore, digital tools can facilitate better interaction and communication with stakeholders, helping customers to make informed choices that align with their values, thereby promoting positive changes in customer behaviour (Hasan et al., 2024).

Therefore, the author proposes the following hypothesis:

H4: Digital transformation has a positive impact on customer behaviour towards the brand.

Previous studies such as Yin (2024) and Zhao et al. (2023) also propose the positive impact of digital transformation on ESG performance. The relationship between digital transformation strategy and environmental, social and governance (ESG) performance is analysed based on the digitalisation and sustainable development goals of enterprises, and also on the basis of positioning the enterprise digital transformation level through the strategic alignment model (Zhao et al., 2023). Empirical evidence from those previous studies indicates that digital transformation strategy exerts a direct, positive and significant influence on an enterprise's ESG performance.

The above hypotheses regarding the positive impact of the three dimensions of ESG on customer behaviour and the positive impact of digital transformation on

ESG performance can provide a foundation to propose the following hypotheses about the mediating role of the three dimensions of ESG in the relationship between digital transformation and customer behaviour.

H5: Environmental ESG issues mediate the positive relationship between digital transformation and customer behaviour towards the brand.

H6: Social ESG issues mediate the positive relationship between digital transformation and customer behaviour towards the brand.

H7: Government ESG issues mediate the positive relationship between digital transformation and customer behaviour towards the brand.

Based on the above hypotheses and the incorporation of the theory of stakeholder capitalism and information asymmetry theory, the research model is proposed as follows in the **Figure 1**:

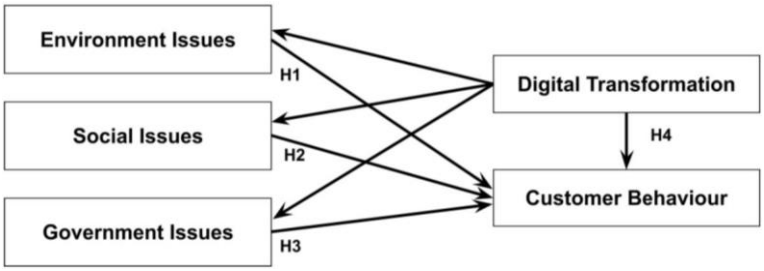

Figure 1. Proposed research model.

Source: authors.

3. Research methodology

This study applies the following specific methods:

Qualitative research involved synthesising theories and concluding findings of prior research relevant to the subject or topic to formulate hypotheses and then develop a model for research. The author subsequently consulted with 10 experts to refine and enhance the scales and research model, ensuring that they were better aligned with the research context. The wording was adjusted based on the suggestions from the 10 experts for better clarity and understandability of the questionnaire (refer to the **Table 1** for the measurement scales). For instance, "The bank you engage with demonstrates a strong commitment to sustainability by actively incorporating eco-friendly materials into its operations" was revised to "The bank you are dealing with actively uses environmentally-friendly work materials".

Quantitative research using fundamental analyses, including descriptive statistics, Cronbach's Alpha, Exploratory Factor Analysis (EFA) and Partial Least Squares Structural Equation Modelling (PLS-SEM). This analysis was based on survey data from 550 customers who are the commercial banks' current customers and live in Ho Chi Minh City, yielding 514 valid responses. The quantitative findings specifically reflect the roles of Digital Transformation and ESG in enhancing Customer Behaviour towards the brand in the banking sector.

Table 1. Measurement scales for factors in the research model.

STT	Factors	Code	Scales	Source
1	Environment—ESG	EN1	The bank you are dealing with makes every effort to minimise or eliminate harmful environmental impacts.	Moisescu (2015), Maignan (2001), Puriwat and Tripopsakul (2022)
2		EN2	The bank you are dealing with minimises the consumption of resources (work materials) as much as possible without causing harm to the environment.	
3		EN3	The bank you are dealing with actively uses environmentally-friendly work materials.	
4		EN4	The bank you are dealing with focuses on managing recycling and waste disposal activities effectively.	
5	Social—ESG	SO1	The bank you are dealing with respects social, traditional and cultural norms.	
6		SO2	The bank you are dealing with brings benefits to society and improves the quality of life for people in society.	
7		SO3	The bank you are dealing with contributes to social and economic development.	
8	Government—ESG	GO1	The bank you are dealing with fully complies with the law in all its activities.	
9		GO2	The bank you are dealing with takes care to fulfil its obligations to partners and shareholders.	
10		GO3	The bank you are dealing with prioritises ethical principles over business interests.	
11	Digital transformation	DT1	You prefer to interact with the bank via its website or mobile app rather than by telephone or in person.	Hossain et al. (2020), Istrefi-Jahja và Zeqiri (2021)
12		DT2	The increasing use of digital platforms by banks has raised your expectations for faster customer service.	
13		DT3	Being able to access product information and reviews on online platforms is something which you find important in today's context.	
14		DT4	You prefer online transactions to in-branch transactions at the bank.	
15	Customer behaviour	CB1	You are passionate about using the products and services of the bank with which you are dealing.	Rich et al. (2010), Kosiba et al. (2020)
16		CB2	You feel happy when interacting with the bank whose products and services you are using.	
17		CB3	You have a very positive attitude towards the bank with which you are dealing.	

Source: compiled by author.

Based on the number of variables in the research model and following the sample size guidelines for studies employing Exploratory Factor Analysis (EFA), the minimum sample size is determined to be 4 to 5 times the number of variables (Hoang and Chu, 2008). Accordingly, for this study, the minimum sample size is calculated as 5 × 17 = 85 observations. However, to ensure robustness and increase reliability, the author conducted a survey with 550 observations, from which 514 valid responses were collected. This sample size also meets the criteria discussed by Hair et al. (2016), which states that the well-known 10-times rule proposes that the minimum sample size should be at least 10 times the highest number of arrowheads directed towards any latent variable in the partial least squares path model.

Table 2. Descriptive statistics results.

Variables	Classification	*n*	%
Gender	Male	289	56.2
	Female	225	43.8

Table 2. (*Continued*).

Variables	Classification	*n*	%
Education Level	Intermediate, College	35	6.8
	University	311	60.5
	Postgraduate	168	32.7
Age	Under 30 years old	81	15.8
	30 to 40 years old	216	42.0
	41 to 50 years old	156	30.4
	Over 50 years old	61	11.9
Income	Under 8 million VND/month	34	6.6
	From 8 to 15 million VND/month	275	53.5
	Over 15 million VND/month	205	39.9

Source: SPSS analysis results.

Amongst the 514 individuals surveyed, 225 were female, representing 43.8%, whilst 289 were male, accounting for 56.2%. The education level had university accounting for 60.5%. The highest proportion of age was from 30 to 40 years old, representing 42.0%. The highest proportion of income was from 8 to 15 million VND per month, with a rate of 53.5%. Refer to the **Table 2** for the Descriptive statistics results.

4. Results

The assessment of Cronbach's alpha reliability is the first step when conducting the PLS-SEM structural model. With 17 variables across 5 groups of factors included in the analysis (namely: Environmental Issues (EN), Social Issues (SO), Government Issues (GO), Digital Transformation (DT) and Customer Behaviour (CB)), all variables met the required threshold with the total item correlation coefficients exceeding 0.3. Additionally, all Cronbach's alpha coefficients were above 0.8, ranging from a minimum of 0.844 (for the Environmental Issues factor) to a maximum of 0.929 (for the Customer Behaviour factor) (**Table 3**).

Table 3. Cronbach's alpha results.

Factors	The initial number of variables	Cronbach's alpha	The number of valid variables
Environment Issues (EN)	4	0.844	4
Social Issues (SO)	3	0.888	3
Government Issues (GO)	3	0.860	3
Digital Transformation (DT)	4	0.875	4
Customer Behaviour (CB)	3	0.929	3

Source: SPSS analysis results.

Thus, after evaluating Cronbach's alpha reliability, the research identified 17 suitable variables across 5 factors to be included in the EFA analysis, aimed at exploring the measurement model structure for the 5 groups of factors: Environmental Issues (EN), Social Issues (SO), Government Issues (GO), Digital Transformation (DT) and Customer Behaviour (CB).

Table 4. Results of exploratory factor analysis (EFA).

KMO value		**0.901**
Bartlett's test	Chi-square value	5380.828
	df	136
	Sig.	0.000

Source: SPSS analysis results.

The EFA analysis yielded a KMO coefficient of 0.901, which is greater than 0.5, confirming that the EFA results are entirely appropriate for exploring the factor structure of the measurement scales (**Table 4**). Additionally, the Bartlett's test returned a Chi-Square value of 5380.828 with a Sig. value below 5%, indicating that the EFA factor analysis results are statistically significant.

Table 5. Results of total variance extracted and rotated factor loadings from EFA.

Factors	**Factor Loading**				
	1	**2**	**3**	**4**	**5**
DT4	0.870				
DT3	0.868				
DT2	0.842				
DT1	0.786				
EN3		0.837			
EN1		0.826			
EN2		0.824			
EN4		0.808			
CB1			0.940		
CB2			0.930		
CB3			0.903		
GO1				0.901	
GO3				0.877	
GO2				0.870	
SO1					0.916
SO2					0.891
SO3					0.846
Eigenvalue	6.975	2.102	1.852	1.147	1.033
Extracted Variance (%)	41.032	12.362	10.893	6.748	6.075
Cumulative Extracted Variance (%)	41.032	53.395	64.288	71.035	77.110

Source: SPSS analysis results.

Furthermore, the results of the EFA factor analysis indicate a stopping point at the fifth row, with an eigenvalue of 1.033, which is greater than 1. This confirms that the variables included in the analysis are organised into five factor groups. The total extracted variance at the fifth row is 77.110%, which exceeds 50%, indicating that the level of data variation explained is 77.110%.

Moreover, the factor rotation results show that the 17 variables included in the analysis are specifically grouped into five factors: Environmental Issues (EN), Social

Issues (SO), Government Issues (GO), Digital Transformation (DT) and Customer Behaviour (CB), as detailed in **Table 5**.

Next, the author employs the SMARTPLS software to conduct the measurement model. The evaluation criteria for the measurement model include: Quality of observed variables, Reliability of the scale, Convergent validity, Discriminant validity and Multicollinearity assessment.

Table 6. Results of outer loading.

Variables	CB	DT	EN	GO	SO
CB1	0.932				
CB2	0.938				
CB3	0.938				
DT1		0.863			
DT2		0.863			
DT3		0.851			
DT4		0.836			
EN1			0.832		
EN2			0.804		
EN3			0.835		
EN4			0.829		
GO1				0.860	
GO2				0.865	
GO3				0.922	
SO1					0.891
SO2					0.914
SO3					0.906

Source: SMARTPLS analysis results.

Hair et al. (2016) suggest that the outer loading coefficient should be greater than or equal to 0.7 for a variable to be considered as high quality. According to the results in **Table 6**, all observed variables meet this requirement as their outer loading coefficients are all greater than 0.7. Therefore, all variables within the five groups—Environmental Issues (EN), Social Issues (SO), Government Issues (GO), Digital Transformation (DT) and Customer Behaviour (CB)—satisfy the criteria for structural equation modelling (PLS-SEM) analysis.

Table 7. Results of reliability and convergence.

Factors	Cronbach's alpha	rho_A	Composite reliability	Average variance extracted (AVE)
CB	0.929	0.930	0.955	0.876
DT	0.875	0.878	0.914	0.728
EN	0.844	0.845	0.895	0.681
GO	0.860	0.896	0.914	0.779
SO	0.888	0.890	0.931	0.817

Source: SMARTPLS analysis results.

Based on the results from **Table 7**, it can be seen that the reliability values for the measurement scales (Cronbach's alpha) and composite reliability (Composite Reliability) for all constructs are above 0.8 and the average variance extracted (AVE) values are above 0.6. This indicates that the constructs meet the criteria for reliability and convergent validity, making them suitable for inclusion in the PLS-SEM structural model analysis.

Next, discriminant validity assesses the distinctiveness of a construct when compared with other constructs in the model. The traditional approach to evaluate discriminant validity is using the square root of the AVE, as proposed by Fornell and Larcker (1981). According to this approach, the square root of the AVE for each construct must be greater than the correlations between that construct and the other latent variables.

Table 8. Results of discriminant.

Factors	CB	DT	EN	GO	SO
CB	0.936				
DT	0.568	0.853			
EN	0.424	0.376	0.825		
GO	0.321	0.189	0.236	0.883	
SO	0.593	0.589	0.382	0.284	0.904

Source: SMARTPLS analysis results.

Based on the results in **Table 8**, the correlation coefficients between the constructs are all smaller than the square root of the average variance extracted (AVE) values. This indicates that the constructs exhibit discriminant validity, confirming their distinctiveness for inclusion in the PLS-SEM structural model analysis.

Table 9. Results of PLS-SEM model.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	*T* statistics (|O/STDEV|)	*P* values
Direct relationships					
EN → CB	0.159	0.159	0.042	3.756	0.000
GO → CB	0.137	0.136	0.038	3.644	0.000
SO → CB	0.320	0.326	0.044	7.203	0.000
DT → CB	0.294	0.291	0.042	6.988	0.000
Mediating relationships					
DT → EN → CB	0.060	0.060	0.017	3.435	0.001
DT → GO → CB	0.026	0.026	0.010	2.713	0.007
DT → SO → CB	0.188	0.192	0.029	6.530	0.000

Source: SMARTPLS analysis results.

The results of the PLS-SEM model demonstrate that the significance levels (P values) for all relationships between constructs are below 5%, indicating that the relationships are statistically significant (**Table 9**). Additionally, all the regression coefficients are greater than 0, reflecting a positive relationship (or a positive impact)

between the factors.

The results of the model indicate that the factors of Environmental Issues (EN), Social Issues (SO), Government Issues (GO) and Digital Transformation (DT) positively impact Customer Behaviour (CB), with the regression coefficients being 0.159, 0.137, 0.320 and 0.294, respectively. This means that when the factors of Environmental Issues (EN), Social Issues (SO), Government Issues (GO) and Digital Transformation (DT) increase by one unit, the Customer Behaviour (CB) factor increases by 0.159, 0.137, 0.320 and 0.294 units, respectively, whilst all other factors remain unchanged. These relationships are statistically significant, as the *P*-values (Sig.) for all these relationships are 0.000, which is less than 0.05 (i.e., less than 5%).

Environmental Issues (EN) serve as a mediator in the relationship between Digital Transformation (DT) and Customer Behaviour (CB). This hypothesis is accepted because the *P*-value (Sig.) for this relationship is 0.001, which is less than 0.05 (i.e. less than 5%), with a regression coefficient of 0.060. This means that when the factor of Environmental Issues (EN) improves (increases by one unit), it positively drives the relationship between Digital Transformation (DT) and Customer Behaviour (CB) by an additional 0.060 units.

Social Issues (SO) also act as a mediator in the relationship between Digital Transformation (DT) and Customer Behaviour (CB). This hypothesis is accepted because the *P*-value (Sig.) for this relationship is 0.007, which is less than 0.05 (i.e. less than 5%), with a regression coefficient of 0.026. This means that when the factor of Social Issues (SO) improves (increases by one unit), it positively enhances the relationship between Digital Transformation (DT) and Customer Behaviour (CB) by an additional 0.026 units.

Furthermore, Government Issues (GO) serve as a mediator in the relationship between Digital Transformation (DT) and Customer Behaviour (CB). This hypothesis is accepted because the *P*-value (Sig.) for this relationship is 0.000, which is less than 0.05 (i.e., less than 5%), with a regression coefficient of 0.188. This means that when the factor of Government Issues (GO) improves (i.e. increases by one unit), it positively drives the relationship between Digital Transformation (DT) and Customer Behaviour (CB) by an additional 0.188 units.

Table 10. The results of the multicollinearity test.

Factors	**CB**	**DT**	**EN**	**GO**	**SO**
CB					
DT	1.595		1.000	1.000	1.000
EN	1.245				
GO	1.111				
SO	1.662				

Source: SMARTPLS analysis results.

Moreover, according to Hair et al. (2019), a Variance Inflation Factor (VIF) value less than 3 indicates that there is no multicollinearity present in the PLS-SEM structural model. Based on the results obtained, it can be observed that the VIF values for all the factors in **Table 10** are below 3. Therefore, no multicollinearity issues are present in the model.

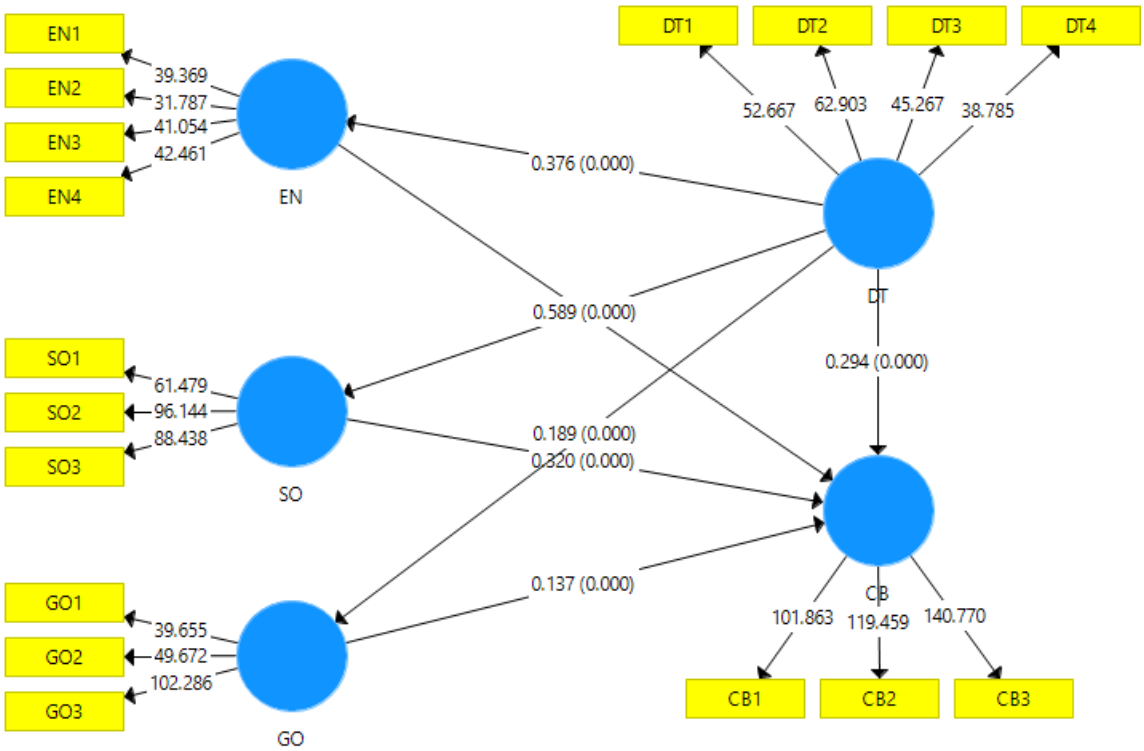

Figure 2. Results of the PLS-SEM model.
Source: SMARTPLS analysis results.

Thus, after conducting the PLS-SEM structural model analysis, the study demonstrates the role of Digital Transformation and ESG (including Environmental Issues, Social Issues and Government Issues) in enhancing customer behaviour towards brands in commercial banks in Ho Chi Minh City (**Figure 2**). Specifically, (1) The component factors of ESG, including Environmental Issues (EN), Social Issues (SO), Government Issues (GO) and Digital Transformation (DT), positively influence Customer Behaviour (CB); (2) The component factors of ESG, including Environmental Issues (EN), Social Issues (SO) and Government Issues (GO), play a mediating role in the relationship between Digital Transformation (DT) and Customer Behaviour (CB).

5. Discussion

The findings that the factors of Environmental Issues (EN), Social Issues (SO), Government Issues (GO) and Digital Transformation (DT) positively impact Customer Behaviour (CB) are consistent with previous studies by Talesh (2015), Kang and Namkung (2018), Sharma and Jain (2019), Nambisan et al. (2019), Billio et al. (2021), Tan et al. (2022), Min-Kyu and Seong-Soo (2022), Vuong and Bui (2023), Dedunu and Sedara (2023), Fang et al. (2023), Lu et al. (2024), Hasan et al. (2024) and Nugroho et al. (2024).

The result that Environmental Issues (EN) serve as a mediator in the relationship between Digital Transformation (DT) and Customer Behaviour (CB) aligns with previous studies by Nambisan et al. (2019), Fang et al. (2023), Lu et al. (2024) and Hasan et al. (2024).

The finding that Social Issues (SO) also act as a mediator in the relationship

between Digital Transformation (DT) and Customer Behaviour (CB) is consistent with previous research by Nambisan et al. (2019), Fang et al. (2023), Lu et al. (2024) and Hasan et al. (2024).

Furthermore, the mediating role of Government Issues (GO) in the relationship between Digital Transformation (DT) and Customer Behaviour (CB) is in accordance with the results of previous studies by Nambisan et al. (2019), Fang et al. (2023), Lu et al. (2024) and Hasan et al. (2024).

The findings align with the principles of stakeholder capitalism and information asymmetry theories. Stakeholder capitalism theory highlights how ESG disclosure can provide organisations with both tangible and intangible benefits, such as increased customer satisfaction and improved customer behaviour. By showcasing a commitment to balancing financial performance with social values, ESG initiatives foster better outcomes for stakeholders. This emphasis on creating long-term value, rather than prioritising short-term shareholder gains, can positively impact customer behaviour and bolster a company's reputation. Meanwhile, from the perspective of information asymmetry theory, digital transformation plays a crucial role in reducing information gaps, alleviating financing constraints and addressing agency issues. These improvements, in turn, enhance an enterprise's ESG performance.

6. Conclusion

6.1. Conclusion

This study focuses on examining the role of Digital Transformation and ESG (comprising Environmental, Social and Governmental issues) in enhancing customer behaviour towards brands in commercial banks in Ho Chi Minh City.

A mixed-methods approach, combining qualitative and quantitative research methods, was employed to address the research problem. The qualitative approach involved discussions with experts to refine and supplement the measurement scales and research model to ensure a better alignment with the research context. The quantitative approach utilised data collected from commercial bank customers, followed by statistical analyses, including Cronbach's alpha reliability test, Exploratory Factor Analysis (EFA), measurement model assessment and Structural Equation Modelling (PLS-SEM). The research findings reveal the role of Digital Transformation and ESG (encompassing Environmental, Social and Governmental issues) in increasing customer behaviour towards brands in commercial banks in Ho Chi Minh City. Specifically, (1) The component factors of ESG, including Environmental Issues (EN), Social Issues (SO), Government Issues (GO) and Digital Transformation (DT), positively influence Customer Behaviour (CB); (2) The component factors of ESG, including Environmental Issues (EN), Social Issues (SO) and Government Issues (GO), play a mediating role in the relationship between Digital Transformation (DT) and Customer Behaviour (CB).

This study contributes to the ESG research field in two main ways. First, it develops a comprehensive research model that links environmental, social and governance (ESG) factors with customer behaviour and explores the impact of digital transformation on these ESG dimensions. It addresses a gap in the existing research by integrating stakeholder capitalism and information asymmetry theories.

Second, the study provides empirical testing in the underexplored Vietnamese banking sector, offering valuable insights into ESG's role in this context and potentially generalising its findings to similar environments.

6.2. Managerial implications

Based on the research findings, the author proposes the following policy implications to enhance customer behaviour towards brands in commercial banks in Ho Chi Minh City through effective implementation of Digital Transformation and ESG issues:

6.2.1. Promoting the implementation of digital transformation through the following measures

Encouraging customers to prefer interaction via websites and mobile applications rather than through telephone calls or face-to-face communication. This requires banks to enhance the convenience and accessibility of digital platforms. This can be achieved by optimising user interfaces, ensuring that necessary information is presented clearly and understandably. Additionally, developing user-friendly mobile applications will help to increase customer engagement, providing a seamless experience when conducting transactions or seeking information.

Encouraging the increased use of digital platforms has raised customers' expectations for faster customer service to meet this expectation: banks should integrate automation technologies and artificial intelligence into their customer service processes. Chatbots, for example, can provide 24/7 support, delivering quick and accurate information without the need for staff intervention. Furthermore, the use of big data analytics will enable organisations to identify customer needs quickly, allowing for timely and appropriate responses.

Promoting customer access to product information and reviews on online platforms: Banks must provide detailed product information, including images, descriptions and clear specifications. Additionally, allowing customers to submit reviews and feedback about products will both foster transparency and also enhance trustworthiness.

Finally, to encourage more customers to use online transactions, banks must improve payment processes and online security to attract and retain customers, and banks should offer a variety of flexible and secure payment methods, whilst also investing in advanced security solutions to ensure the protection of customers' personal and financial information.

6.2.2. Promoting the implementation of environmental ESG issues through the following actions

Banks should adopt measures to raise awareness and promote green projects: A feasible solution is to develop environmentally friendly financial products, such as green loans to finance renewable energy projects or improve energy efficiency within organisations. By offering financial incentives for sustainable projects, banks both reduce their negative environmental impact and also encourage customers to invest in eco-friendly solutions.

Banks can leverage digital technology to optimise their operational processes: Transitioning to online banking services will save resources, as well as reducing the

amount of paper required. Banks should invest in online platforms and mobile applications, enabling customers to complete transactions without visiting a branch, thereby minimising paper and other material consumption. Additionally, adopting modern information technologies will help to optimise energy use within the bank's operations.

Banks should commit to using energy-efficient office products and technology, such as printers, photocopiers and other high-performance electronic devices. Furthermore, banks can establish green procurement policies, prioritising suppliers with environmentally friendly products and services. Creating a green working environment will both help banks to reduce their environmental footprint and also enhance employee experiences.

Finally, banks need to focus on effective management of recycling and waste disposal activities. Setting up recycling programmes at branches will help to reduce waste and promote environmental awareness amongst employees. Banks should implement waste management and recycling education campaigns, encouraging both staff and customers to participate. Additionally, banks can collaborate with specialised organisations to develop sustainable waste management solutions, ensuring that waste disposal meets environmental standards.

6.2.3. Promoting the implementation of social ESG issues through the following actions

Banks should respect and thoroughly understand local social, traditional and cultural standards. Banks need to conduct in-depth research on the cultural context of the areas where they operate, and thus develop policies and processes that are culturally appropriate. Providing cultural awareness training for employees will help them to appreciate and respect the values, customs and traditions of the local community. Furthermore, banks can collaborate with local communities in cultural activities, thereby creating a friendly environment and fostering trust between the bank and the community.

Banks should initiate initiatives that benefit society and enhance the quality of human life. Banks can engage in community development projects such as education, healthcare and environmental protection. Providing funding, resources and expertise for social initiatives both improves the lives of people and also strengthens the connection between the bank and the community.

Banks must focus on creating jobs and developing skills for workers. Investing in training and capacity-building for employees both improves performance and also contributes to the sustainable development of the local economy. Furthermore, banks should encourage entrepreneurship and innovation within the community, leading to the creation of new products and services that meet market needs.

6.2.4. Promoting the implementation of ESG Government matters through the following actions

Banks need to establish a comprehensive legal compliance management system, which includes clearly identifying the applicable legal regulations governing their activities, ranging from labour laws and tax laws to environmental regulations. To ensure compliance, banks should establish a dedicated unit responsible for monitoring and updating legal changes, thereby guiding other departments in the

correct implementation of such regulations.

Banks must also ensure that they fulfil their obligations towards their partners and shareholders. To achieve this, the banks should establish effective and transparent communication channels with stakeholders. Periodic publication of financial reports and business performance outcomes will enable shareholders to stay informed in a timely manner and assess the bank's operational effectiveness. Furthermore, banks should hold regular annual meetings with shareholders to listen to their opinions and expectations. In relation to the partners, building long-term and sustainable collaborative relationships through clear partnership agreements will help to foster trust and loyalty towards the bank.

Finally, prioritising the adherence to ethical principles over business goals will both enhance the bank's reputation and also foster a positive working environment. Banks need to develop a clear code of conduct and ethics, outlining the core values to which the bank is committed. The adoption of policies that encourage employees to act responsibly and ethically in their work will cultivate a strong banking culture.

Although every effort has been made to conduct the research to the best of its ability, there are still certain limitations due to time constraints and knowledge limitations. For instance, the sample size remains relatively small as the research was only conducted within commercial banks located in Ho Chi Minh City. Future research could benefit from increasing the sample size and expanding the study's geographical scope to include other provinces and cities, thereby enhancing the generalisability of the findings. Additionally, exploring the relationship between ESG and digital transformation in other sectors, such as service industries and commercial markets, or in other regions like Da Nang or Hanoi, is recommended. Comparative studies could also be conducted to examine the impact of ESG and digital transformation on customer behaviour across different countries, such as Vietnam versus other nations, or between Asian and Western countries. Furthermore, adopting a mixed-methods approach that combines both quantitative and qualitative research could provide deeper insights into the role of ESG and digitalisation in shaping consumer behaviour.

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References

Andersson, M. (2003). Creating and sharing subsidiary knowledge within multinational corporations (Doctoral dissertation). Acta Universitatis Upsaliensis.

Bae, G. K., Lee, S. M., & Luan, B. K. (2023). The impact of esg on brand trust and word of mouth in food and beverage companies: Focusing on Jeju island tourists. Sustainability, 15(3), 2348. https://doi.org/10.3390/su15032348

Bhandari, K. R., Ranta, M., & Salo, J. (2022). The resource-based view, stakeholder capitalism, ESG, and sustainable competitive advantage: the firm's embeddedness into ecology, society, and governance. Business Strategy and the Environment, 31(4), 1525–1537. https://doi.org/10.1002/bse.2967

Billio, M., Costola, M., Hristova, I., Latino, C., & Pelizzon, L. (2021). Inside the esg ratings:(Dis) agreement and performance. Corporate Social Responsibility and Environmental Management, 28(5), 1426–1445. https://doi.org/10.1002/csr.2177

Dedunu, H. H., & Sedara, D. (2023). Impact of environmental, social, and governance practices on the consumer buying decision. in Intellectual capital as a precursor to sustainable corporate social responsibility, 129–147. https://doi.org/10.4018/978-1-6684-6815-9.ch008

Desai, V., & Vidyapeeth, B. (2019). Digital marketing: A review. International Journal of Trend in Scientific Research and Development, 5(5), 196-200. DOI:10.31142/ijtsrd23100

Engel, J. F., Blackwell, R. D., & Miniard, P. W. (1995). Consumer Behavior, 6th Edition. Dryden Press, Chicago, New York.

Fang, M., Nie, H., & Shen, X. (2023). Can enterprise digitization improve esg performance? Economic Modelling, 118, 106101. https://doi.org/10.1016/j.econmod.2022.106101

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of marketing research, 18(1), 39-50. https://doi.org/10.2307/3151312

Freeman, E., & By, R. T. (2022). Stakeholder Capitalism and Implications for How We Think About Leadership. Journal of Change Management, 22(1), 1–7. https://doi.org/10.1080/14697017.2022.2037184

Gring-Pemble, L., Unruh, G. and Shaked, E. (2024), "Implementing a stakeholder capitalism approach through values-based leadership: case studies in the private, nonprofit and educational sectors", Corporate Governance, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/CG-03-2023-0110

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to Use and How to Report the Results of PLS-SEM. European Business Review, 31, 2-24. https://doi.org/10.1108/EBR-11-2018-0203

Hair, Jr., J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Thousand Oaks, CA: Sage Publications.

Hasan, M. B., Verma, R., Sharma, D., Moghalles, S. A. M., & Hasan, S. A. S. (2024). The impact of environmental, social, and governance (ESG) practices on customer behavior towards the brand in light of digital transformation: Perceptions of university students. Cogent Business & Management, 11(1), 2371063. https://doi.org/10.1080/23311975.2024.2371063

Haski-Leventhal, D., Pournader, M., & Mckinnon, A. (2017). The role of gender and age in business students' values, CSR attitudes, and responsible management education: learnings from the PrMe international survey. Journal of Business Ethics, 146(1), 219–239. https://doi.org/10.1007/s10551-015-2936-2

Hoang, T., & Chu, N. M. N. (2008). Textbook of Data Analysis with SPSS Episodes 1 & 2. Hong Duc Publishing, HCM City.

Hossain, T. M. T., Akter, S., Kattiyapornpong, U., & Dwivedi, Y. (2020). Reconceptualizing integration quality dynamics for omnichannel marketing. Industrial Marketing Management, 87, 225–241. https://doi.org/10.1016/j.indmarman.2019.12.006

Hoyer, W. D., & MacInnis, D. J. (2010). Consumer Behavior. Cengage Learning.

Istrefi-Jahja, A., & Zeqiri, J. (2021). The Impact of Digital Marketing and Digital Transformation on Brand Promotion and Brand Positioning in Kosovo's Enterprises. Entrenova-Enterprise research innovation, 7(1), 244-255. DOI:10.54820/UPQN1850

Kang, J. W., & Namkung, Y. (2018). The effect of corporate social responsibility on brand equity and the moderating role of ethical consumerism: the case of starbucks. Journal of Hospitality & Tourism Research, 42(7), 1130–1151. https://doi.org/10.1177/1096348017727057

Kapferer, J. N. (2012). The New Strategic Brand Management: Advanced Insights and Strategic Thinking. Kogan Page Publishers.

Koh, H. K., Burnasheva, R., & Suh, Y. G. (2022). Perceived esg (environmental, social, governance) and consumers' responses: the mediating role of brand credibility, Brand image, and perceived quality. Sustainability, 14(8), 4515. https://doi.org/10.3390/su14084515

Koller, T., Nuttall, R., & Henisz, W. (2019). Five ways that ESG creates value. The McKinsey Quarterly, New York.

Kosiba, J. P., Boateng, H., Okoe, A. F., & Hinson, R. (2020). Trust and customer engagement in the banking sector in ghana. The Service Industries Journal, 40(13–14), 960–973. https://doi.org/10.1080/02642069.2018.1520219

Kotler, P., & Keller, K. L. (2016). Marketing Management (14th edition). Shanghai: Shanghai People's Publishing House.

Lee, H. J., & Rhee, T. H. (2023). How does corporate ESG management affect consumers' brand choice? Sustainability, 15(8), 6795. https://doi.org/10.3390/su15086795

Li, S. (2021). How does COVID-19 speed the digital transformation of business processes and customer experiences?. Review of Business, 41(1), 1-14.

Lu, Y., Xu, C., Zhu, B., & Sun, Y. (2024). Digitalization transformation and ESG performance: evidence from china. Business Strategy and the Environment, 33(2), 352–368. https://doi.org/10.1002/bse.3494

Min-Kyu, K. W. A. K., & Seong-Soo, C. H. A. (2022). Can coffee shops that have become the red ocean win with ESG? Retail Science Research (Jds), 20(3), 83–93. http://dx.doi.org/10.15722/jds.20.03.202203.83

Moisescu, O. I. (2015). The impact of customers' perception of CSR on corporate brand loyalty: the case of the romanian mobile telecom industry. Central European Business Review, 4(2), 21–30. https://doi.org/10.18267/j.cebr.123

Moon, J., Tang, R., & Lee, W. S. (2022). Antecedents and consequences of Starbucks' environmental, social and governance (ESG) implementation. Journal of Quality Assurance in Hospitality & Tourism, 1–23. http://dx.doi.org/10.1080/1528008X.2022.2070818

Nambisan, S., Wright, M., & Feldman, M. (2019). The digital transformation of innovation and entrepreneurship: Progress, challenges and key themes. Research Policy, 48(8), 103773. https://doi.org/10.1016/j.respol.2019.03.018

Nugroho, D. P., Hsu, Y., Hartauer, C., & Hartauer, A. (2024). Investigating the interconnection between environmental, social, and governance (ESG), and corporate social responsibility (csr) strategies: an examination of the influence on consumer behavior. Sustainability, 16(2), 614. https://doi.org/10.3390/su16020614

Park, Y. S., & Lee, H. S. (2023). The Roles of Finance in ESG Management. Asia-Pacific Journal of Financial Studies, 52(3), 354–373. https://doi.org/10.1111/ajfs.12436

Puriwat, W., & Tripopsakul, S. (2022). From ESG to DESG: The impact of DESG (Digital Environmental, Social, and Governance) on customer attitudes and brand equity. Sustainability, 14(17), 10480. https://doi.org/10.3390/su141710480

Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: antecedents and effects on job performance. Academy of Management Journal, 53(3), 617–635. https://doi.org/10.5465/amj.2010.51468988

Schiffman, G., & Kanuk, L. (2000). Consumer Behavior. Prentice Hall, Inc., Englewood Cliff.

Sharma, R., & Jain, V. (2019). CSR, trust, brand loyalty and brand equity: empirical evidences from sportswear industry in the ncr region of india. Metamorphosis: A Journal of Management Research, 18(1), 57–67. https://doi.org/10.1177/0972622519853158

Smartest Energy. (2015). Sustainability matters consumer research report. retrieved august 23, 2023, from https://www.smartestenergy.com/en_gb/info-hub/sustainability-matters-report.

Smith, W. J., Wokutch, R. E., Harrington, K. V., & Dennis, B. S. (2001). An examination of the influence of diversity and stakeholder role on corporate social orientation. Business & Society, 40(3), 266–294. https://doi.org/10.1177/000765030104000303

Talesh, S. (2015). Rule-intermediaries in action: how state and business stakeholders influence the meaning of consumer rights in regulatory governance arrangements. Law & Policy, 37(1-2), 1–31. https://doi.org/10.1111/lapo.12031

Tan, P. L., Rasoolimanesh, S. M., & Manickam, G. (2022). How corporate social responsibility affects brand equity and loyalty? a comparison between private and public universities. Heliyon, 8(4), e09266. https://doi.org/10.1016/j.heliyon.2022.e09266

Van Buren, H.J. and Schrempf-Stirling, J. (2023), "Making the invisible visible: stakeholder capitalism and powerless stakeholders", Corporate Governance, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/CG-03-2023-0114

Vuong, T. K., & Bui, H. M. (2023). The role of corporate social responsibility activities in employees' perception of brand reputation and brand equity. Case Studies in Chemical and Environmental Engineering, 7, 100313. https://doi.org/10.1016/j.cscee.2023.100313

Wang, S., & Esperança, J. P. (2023). Can digital transformation improve market and esg performance? evidence from chinese sMes. Journal of Cleaner Production, 419, 137980. https://doi.org/10.1016/j.jclepro.2023.137980

Westerman, G., Bonnet, D., & McAfee, A. (2014). Leading Digital: Turning Technology into Business Transformation. Harvard Business Review Press.

Yin, N. (2024). Will digital transformation empower corporate ESG performance: Moderated mediation analysis through the prism of executives' foreign experience. Polish Journal of Environmental Studies, 33(6), 6181–6194.

Zhang, L., Ye, Y., Meng, Z., Ma, N., & Wu, C. (2024). Enterprise Digital Transformation, Dynamic Capabilities, and ESG Performance: Based on Data From Listed Chinese Companies. Journal of Global Information Management (JGIM), 32(1), 1-20. http://doi.org/10.4018/JGIM.335905

Zhao, Q., Li, X. & Li, S. (2023). Analyzing the relationship between digital transformation strategy and ESG performance in large

manufacturing enterprises: The mediating role of green innovation. Sustainability, 15(13), 9998. https://doi.org/10.3390/su15139998