The Impact of Digital Corporate Social Responsibility on Brand Awareness and Brand Image

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Abstract

Digitalization has transformed brands' corporate social responsibility (CSR) initiatives into a strategic communication tool by transitioning them to an online environment. This study examines the effects of digital corporate social responsibility (DCSR) dimensions on brand awareness and image. The study involved 822 participants, specifically students from Mersin and Ordu Universities, all of whom are social media users and customers in the banking sector. The data collected were analyzed using IBM SPSS and AMOS statistical software. The results indicate that aspects of DCSR, including digital ethical and legal responsibility, digital social responsibility, and digital philanthropy, influence brand awareness and image. Effective use of digital platforms enables brands to communicate their social responsibility initiatives to a wider audience, potentially increasing brand awareness and image by positively influencing consumer perception. Thus, brands' engagement in corporate social responsibility initiatives in the digital realm, along with their alignment to similar communication strategies, can influence their brand awareness and image.

Keywords: digital corporate social responsibility, corporate social responsibility, brand, brand image, brand awareness

1. Introduction

Digitalization has a profound impact on business processes, redefining the interactions between companies and society. With the advent of digitalization, corporate social responsibility (CSR) initiatives are no longer confined to local communities or targeted audiences; they can now reach a wider audience through social media, mobile applications, websites, and various digital platforms. This expansion enhances the visibility and effectiveness of CSR efforts, allowing brands to promote their contributions to sustainability, environmental stewardship, and social justice on a more substantial public stage. Companies increase brand awareness and strengthen their image by communicating their projects on sustainability, social justice, education, and the environment to large audiences through digital channels. This enables brands to gain a place in the minds of consumers not only with their product and service quality but also with their contributions to society.

CSR represents a self-regulating business framework that enables a company to uphold its social accountability to its stakeholders and the broader community (Fernando, 2024). CSR involves aligning a company's actions with the social expectations of its target groups, which are shaped by institutional frameworks and predicated on voluntary actions that align with the institution's objectives. This approach emphasizes the importance of addressing social and environmental issues without prioritizing profit generation (Güven, 2016). While various definitions of social responsibility exist, it can be broadly defined as activities aimed at generating social benefits. CSR encompasses initiatives designed to create social advantages that transcend a company's interests and legal obligations (McWilliams & Siegel, 2001). It underscores the essential priority of social good over corporate profit. Although CSR often stems from voluntary efforts, it remains a fundamental expectation that society places on organizations. Managers frequently encounter pressure from diverse stakeholders—including customers, employees, suppliers, community organizations, government entities, and institutional investors—to allocate resources toward CSR initiatives (McWilliams & Siegel, 2001). In this respect, corporate social responsibility is an important tool for balancing corporate interests and social benefits.

Multiple studies indicate that CSR serves as a legitimizing factor for organizations in society and is becoming increasingly significant (Al-Omoush et al., 2023; Capriotti & Moreno, 2007; Du & Vieira, 2012; Schultz et al., 2013). However, it is stated that academic studies on the impact of digitalization on corporate social responsibility activities are

limited (Ahmad et al., 2024; Zheng et al., 2023). Digitalization offers businesses various opportunities not only in areas such as finance, marketing, communication, and public relations but also in terms of corporate social responsibility.

Digitalized CSR activities can increase brand transparency and strengthen consumer trust through various digital platforms, especially social media platforms. Due to its constant updates, flexibility, and ability to share virtually, social media stands out as a leading platform for social interaction (Yegen, 2013). Platforms like social media and various digital channels enable brands to get immediate feedback and engage actively in social matters. This two-way communication allows brands to build and sustain a positive societal image. Consequently, in today's digital landscape, effectively implementing CSR initiatives online helps brands raise awareness quickly and maintain a positive brand image through digital platforms.

In this context, it is crucial to explore how digital corporate social responsibility (DCSR) influences brand awareness and image to help brands create more effective strategies in the future. This study seeks to delve into the effects of DCSR initiatives on brand awareness and brand image in detail. The inherent accessibility, transparency, and abundant opportunities for interaction that digital platforms offer underscore the evolution of CSR into an essential strategy for reputation management. Furthermore, the study will focus on the long-term advantages that DCSR practices can provide for brands and will analyze how consumers respond to these initiatives, highlighting the importance of meaningful engagement in the digital age.

Digital Corporate Social Responsibility

The potential of the internet and the World Wide Web to expedite the public relations process highlights the necessity for organizations to transition their CSR initiatives online (Esrock & Leichty, 1998; as cited in Deneçli, 2019, p. 100). DCSR is defined as the digital equivalent of traditional CSR activities (Frick, 2024). CSR initiatives offer significant advantages to companies, and these benefits are further enhanced by digital transformation. With the evolution of the internet, it has become increasingly clear that organizations engaging in online communication also implement their social responsibility efforts in these digital spaces (Deneçli, 2019). In addition to promoting two-way communication, digital platforms provide access to measurement tools that allow businesses to connect with and engage their target audiences, transcending the limitations of time and geography. This shift has effectively integrated CSR activities into the digital realm.

DCSR refers to the social initiatives implemented by companies through online channels, resulting in positive contributions to society. It is characterized as a voluntary commitment by organizations to align with societal interests and promote ethical digital practices, highlighting the importance of collaboration in addressing the social, economic, and ecological impacts of the digital environment (Elliott & Copilah-Ali, 2024). DCSR encompasses a broad range of practices and applications, particularly in its ability to communicate a company's role in meeting societal needs and expectations. This approach effectively promotes social, ethical, and environmental initiatives to a greater extent than traditional CSR methods (Al-Omoush et al., 2023). Moreover, DCSR practices include various online activities, such as launching social and environmental campaigns, supporting voluntary online efforts, and engaging in charitable initiatives through sponsorship or participation on social media platforms (Brooks et al., 2023; As cited in Al-Omoush et al., 2023, p. 2623). By leveraging digital technologies and social networks, companies can cultivate virtual brand communities that provide valuable insights and feedback. Platforms like Facebook enhance discussions that enable companies to innovate based on community input. Social media also facilitates customer participation in initiatives like online donations and complimentary digital services, a practice referred to as digital social responsibility (DSR) (Puriwat & Tripopsakul, 2021). Consequently, all corporate social responsibility efforts conducted on digital platforms are classified under the umbrella of digital corporate social responsibility.

Both CSR and DCSR concepts aim to maximize the positive outcomes of corporate practices while minimizing their negative impacts. However, these concepts differ in some ways. CSR has a social and environmental focus and addresses related consequences (Maignan & Ralston, 2002; As cited in Carl & Hinz, 2024, p. 27). In contrast, digital corporate social responsibility aims to maximize the positive impact and minimize the negative consequences of corporate activities in the context of digital products, services, and technologies (Lobschat et al., 2021; Mihale-Wilson et al., 2022; As cited in Carl & Hinz, 2024, p. 3).

CSR is often viewed as a public relations strategy to enhance public perception, bolster employee morale, and increase media coverage and publicity (Rodsevich, 2024). This concept translates similarly into the realm of digital CSR. Social media platforms facilitate the tracking of various metrics, including reach, impressions, audience growth rate, engagement rate, amplification rate, virality rate, click-through rate, and conversion rate (Sinelnikov, 2023). These metrics enable organizations to assess the effectiveness of their social responsibility efforts on digital platforms while concurrently fostering a positive brand image. In this context, DCSR initiatives also align with and support the public relations objectives of organizations.

Mandatory natural events, in addition to technological developments, are also effective in digitizing CSR activities. In this respect, the COVID-19 pandemic is one of the most serious, unexpected factors that forces and catalyzes businesses to undergo digital transformation (Puriwat & Tripopsakul, 2021). During the pandemic, many institutions and businesses tried to carry out their activities through digital platforms due to social distancing and lockdown policies. Since then, new business models and new ways of interacting with target audiences that were never common before have emerged through digital tools. In this respect, it is thought that digitalization is not a choice for businesses but actually a necessity.

DCSR represents a powerful method for companies to undertake social responsibility initiatives. In contrast to traditional channels, DCSR communications utilize Web 2.0 social networking platforms (such as Facebook, Twitter, Instagram, etc.) that enable consumers to engage in conversations with each other, brands, and the brands' CSR initiatives (Okazaki et al., 2015; Parent et al., 2011; As cited in Okazaki et al., 2020, p. 676). The new communication landscapes introduced by Web 2.0, including social media, feature enhanced dynamics and allow for interactive communication to reach broader audiences with unmatched speed and geographical dispersion (Schultz et al., 2013). As a result, businesses are increasingly integrating their CSR activities with digital technologies. With the advent of digital platforms and innovative communication tools, companies can more effectively pursue their sustainability objectives, diversify their donation options, and conduct volunteer activities without time or location constraints. Therefore, it is noted that CSR initiatives have become more accessible, informative, and interactive through digitalization (Macca et al., 2024). In this context, digital corporate social responsibility emerges as an avenue that presents new business opportunities.

This study employs three primary theoretical frameworks to elucidate the impact of DCSR practices on brand awareness and brand image: Stakeholder Theory, Signaling Theory, and Consumer-Company Identification (CCI) Theory. Stakeholder Theory (Freeman, 1984) posits that businesses bear responsibilities to all stakeholders, not just shareholders. Corporate social responsibility is vital for strategically addressing these expectations, enhancing corporate legitimacy and reputation (Öndoğan, 2021; Awa et al., 2024). In this context, digital corporate social responsibility initiatives can foster stakeholder trust and contribute to long-term value creation. Signaling theory suggests that observable behaviors can indicate unobservable attributes (Spence, 1973). For instance, a tangible diploma may signal an individual's level of diligence or intelligence. Numerous studies have applied signaling theory to highlight the potential advantages of businesses adopting socially responsible practices (Montiel et al., 2012; Ramchander et al., 2012; Turban & Greening, 1997; as cited in Su et al., 2016). Thus, businesses' DCSR activities can positively influence brand awareness and image. Consumer-Company Identification (CCI) Theory (Bhattacharya & Sen, 2003) indicates that consumers tend to align themselves with brands that resonate with their social values. DCSR enhances this emotional connection, positively affecting brand awareness and image.

Brand Image and Brand Awareness

The American Marketing Association (2024) defines a brand as any distinctive characteristic—be it a name, term, design, or symbol—that serves to differentiate goods or services ("Branding," n.d.). While branding has always been a crucial element in business, its importance appears to be greater today than ever before. With the proliferation of social media, consumers are exposed to new brands on a daily basis. This phenomenon benefits consumers by providing them with a wide array of choices and the ability to research to find the best option. However, it also presents challenges for businesses (Jones, 2022). Addressing these challenges requires businesses to enhance their brand image and awareness on digital platforms.

Brand image refers to the perceptions that consumers hold about a brand (Farquhar & Herr, 1993; as cited in Hsieh & Lindridge, 2005, p. 15). As global competition intensifies and technology advances, the significance of emotional and image-driven attributes has grown, while performance-based characteristics of a brand have become easier to replicate. In this environment, it is posited that social responsibility campaigns that cultivate an emotional bond with consumers can enhance a brand's image as being responsive to social issues (Özgen, 2017). A well-executed CSR campaign boosts a company's brand image, reputation, customer satisfaction, and loyalty (Hayat et al., 2023). Therefore, organizations must prioritize social responsibility initiatives on digital platforms to foster a positive image in the minds of their target audiences. DCSR projects can effectively enhance a company's brand image by highlighting its commitment to societal well-being. A clear position on social responsibility helps ensure that a company is viewed as trustworthy, ethically grounded, and socially contributive by consumers.

For businesses, customer brand awareness is just as crucial as the brand's overall image. Research indicates that consumers are more likely to pay attention to products with higher brand awareness, which enhances their ability to recognize and remember these brands. (Zhang, 2020). In today's highly competitive markets, building brand awareness is essential to avoid being overshadowed by numerous competitors. Studies suggest that CSR initiatives can have a

positive impact on brand awareness (Ismael, 2022). In this regard, CSR activities conducted through digital platforms can further increase brand visibility. By utilizing platforms such as social media, websites, and mobile applications, companies can reach a wider audience. These platforms enable interactive campaigns, viral content, and online announcements, effectively attracting the attention of tech-savvy and younger audiences, thereby boosting brand awareness.

2. Research Methodology

Research Method

The population of this study, which investigates the impact of digital corporate social responsibility on brand awareness and brand image, consists of Mersin University and Ordu University students who are social media users and customers of the banking sector. The study has 822 participants, 413 from Ordu University and 407 from Mersin University. A convenience sampling method was used to determine its 95% confidence interval(Kurtuluş, 1998). However, a total of 42 questionnaires, comprising 19 from Ordu University and 23 from Mersin University, were excluded from the analysis. The data obtained from the remaining 778 questionnaires were then analyzed using IBM SPSS Statistics and AMOS programs. The research commenced after obtaining permission from the Ethics Committee of Mersin University's Institute of Social and Human Sciences. Permission was granted with decision number 420, dated 5/1/2023. Since the study involves banking sector customers who are social media users, it is believed that the findings should not be generalized to other consumers or industries.

To examine the hypotheses developed within the research framework and test the proposed model, a face-to-face questionnaire technique, one of the quantitative research methods, was employed. The questionnaire consists of four sections. Within the study, two pre-screening questions were included in the questionnaire to assess the suitability of the participants for the research. The first of these questions is the question at the beginning of the questionnaire about whether the concept of digital corporate social responsibility is understood. Before this question, an explanation and examples defining digital corporate responsibility were given at the beginning of the questionnaire form. The second question asked whether they are a member of any social media platforms. Participants who answered "yes" to both questions were included in the study.

The first section of the questionnaire features a DCSR scale that includes four factors. The initial factor contains five statements derived from the DCSR scale (Puriwat & Tripopsakul, 2021). Additionally, the questionnaire includes a total of 11 statements (Salmones et al., 2005), which consist of three statements from the digital economic responsibility scale, four from the digital ethical-legal responsibility scale, and four from the digital philanthropic responsibility scale. Consequently, the first section comprises 16 statements rated on a five-point Likert scale. The second part of the questionnaire consists of five statements adapted from the brand awareness scale (Yoo & Donthu, 2001) and six statements adapted from the brand image scale (Ansary & Nik Hashim, 2018) in the third part.

The final section of the questionnaire includes demographic questions. In total, 27 statements across three scales were translated into Turkish without altering their intended meaning, with assistance from academic staff proficient in both English and Turkish. A pilot study involving 83 participants, comprising academic and administrative staff from Ordu-Mersin University, was conducted to assess the reliability of the questionnaire in terms of its meaning, structure, and format. Following data analysis from this pilot study, the statement (BA5) in the brand awareness scale that disrupted the factor structure was excluded from the questionnaire. Consequently, the questionnaire was restructured, and the research proceeded with the designated participants.

CONSTRUCTS	ITEMS	VARIABLES
Digital CSR		
Digital Social Responsibility		
	DSR1	Brand (X) is committed to using a portion of its profits to help society through
		digital platforms.
	DSR2 DSR3	Brand (X) can reach its target audience through digital platforms. Through digital platforms, the community can benefit from the brand's offerings.
	DSR3 DSR4	Brand (X) integrates digital philanthropy into its business activities.
		Brand X is interested in making corporate donations in its activities on digital
	DSR5	platforms.
Digital Economic Responsibility		
	DER1	Brand (X) tries to obtain maximum profit from its activities on digital platforms.
	DER2	Brand (X) strives to achieve maximum long-term success from its activities on
		digital platforms.
	DER3	Brand (X) always tries to improve its economic performance in its activities on digital platforms
Digital Ethical-Legal		digital platforms.
Responsibility		
1 2	DELR1	The (X) brand always complies with ethical and legal rules when carrying out its
		activities on digital platforms.
	DELR2	(X) brand is concerned with fulfilling its obligations to its shareholders, suppliers,
		distributors and other agents with whom it does business on digital platforms.
	DELR3	Brand (X) behaves ethically/honestly towards its customers on digital platforms.
	DEYS4	(X) prioritizes respect for ethical principles over achieving superior economic performance in its relationships on digital platforms.
Digital Philanthropic		performance in its relationships on digital platforms.
Responsibility		
1 2	DPR1	(X) brand respects the natural environment and is concerned with protecting it while
		conducting its activities on digital platforms.
	DPR2	(X) brand actively sponsors and supports social events (sports, music) on digital
	DDD1	platforms.
	DPR3	(X) brand allocates a portion of its budget to donations and social work for those in need.
	DPR4	Brand (X) is concerned with improving the general welfare of society.
Brand Awareness	DIRI	
	BA1	I am aware of the (X) brand.
	BA2	Some features of brand (X) immediately come to mind.
	BA3	I can recognize brand (X) among other competing brands.
	BA4	I can immediately recognize the symbol or logo of brand (X).
Brand Image	BI1	Brand (X) has high quality.
	BI1 BI2	Brand (X) has high quality. Brand (X) has better features than its competitors.
	BI3	Brand (X) has a personality that distinguishes it from its competitors
	BI4	Brand (X) is a brand that does not disappoint its customers
	BI5	Brand (X) is one of the best brands in the industry.
	BI6	Brand (X) is stable on the market.

Research Model and Hypotheses

The growing importance of digital media significantly influences many facets of daily life. As a result, businesses and brands must adapt and innovate their strategies within the digital landscape to succeed in a competitive environment. In today's digital age, online CSR activities are essential for companies, especially for developing, improving, and sustaining relationships with their customers. This study examines the link between DCSR and the elements of brand awareness and brand image. The research framework incorporates insights from existing literature. There is currently a lack of studies that explore the relationship between digital corporate social responsibility, brand awareness, and brand image, along with its effects on these dimensions.

The study's independent variable is digital corporate social responsibility, and the dependent variables are brand awareness and brand image. In this context, the research is expected to contribute to the literature with its field of application. The model proposed for the research framework and the hypotheses developed are shown below.



Figure 1. Research Model

H1: Digital social responsibility has an impact on brand awareness.

H2: Digital economic responsibility has an impact on brand awareness.

H3: Digital ethical-legal responsibility has an impact on brand awareness.

H4: Digital philanthropic responsibility has an impact on brand awareness.

H5: Digital social responsibility has an impact on brand image.

H6: Digital economic responsibility has an impact on brand image.

H7: Digital ethical-legal responsibility has an impact on brand image.

H8: Digital philanthropic responsibility has an impact on brand image.

H9: Brand awareness has an impact on brand image.

Findings

Following the research, data collected from participants underwent frequency analysis, reliability analysis, and validity analysis, including both exploratory and confirmatory factor analyses. Once these analyses were completed, the hypotheses were evaluated by developing a structural equation model (SEM).

Demographic Characteristics of Participants

Table 2. Demographic Characteristics of Participants

Demographic Variables	Frequency	Percentage(%)
Gender		
Woman	485	62,3
Man	293	37,7
Age		
18-19	459	59,0
20-21	195	25,1
22-23	68	8,7
24-25	44	5,7
26 and above	12	1,5
Income		
5000 TL and below	254	32,6
5001 TL - 15000 TL	235	30,2
15001 TL – 25000 TL	174	22,4
25001 TL - 30000 TL	83	10,7
30001 TL and above	32	4,1
Total	778	100,0

An analysis of Table 1 reveals that 62.3% of the university student bank customers surveyed are female, with 59% belonging to the 18-19 age group. Additionally, 32.6% earn 5,000 TL or less monthly, while 30.2% have incomes ranging from 5,001 TL to 15000 TL.

Most Preferred Social Media Platforms by Participants

Which social media platform do you prefer the most?	Frequency	Percentage(%)
Facebook	113	14,5
Instagram	264	33,9
Twitter	124	15,9
Youtube	200	25,7
Other	77	9,9
Total	778	100,0

Table 2 shows that Instagram is the most preferred social media platform among university student bank customers in the study, with a preference rate of 33.9%.

Duration of Participants' Daily Social Media Use

Table 4. Duration of Participants' Daily Social Media Use

How much time do you spend on social media daily?	Frequency	Percentage(%)
Less than 1 hour	68	8,7
1-3 hours	196	25,2
3-5 hours	184	23,7
5-7 hours	266	34,2
7 hours and above	64	8,2
Total	778	100,0

An examination of Table 4 reveals that 34.2% of university student bank customers involved in the study spend most of their time on social media, averaging between 5 and 7 hours each day. Conversely, 8.2% of this group spends the least amount of time on social media, totaling more than 7 hours daily.

Reliability and Validity Analysis

To evaluate the reliability of the data obtained from the research, a Cronbach's Alpha reliability analysis—an approach for assessing internal consistency-was performed on the research scales. The Cronbach's Alpha for the 16 statements of the DCSR scale in the questionnaire was measured at 0.855. For the brand awareness scale, which comprises 4 statements, the recorded Cronbach's Alpha was 0.684. Meanwhile, the brand image scale, containing 6 statements, demonstrated a Cronbach's Alpha of 0.858. As noted by Can, (2014), a Cronbach's Alpha coefficient ranging from 0.60 to 0.90 suggests that the scores derived from the analysis are highly reliable. After confirming the high reliability of the scales utilized in the study, exploratory factor analysis was conducted, followed by confirmatory factor analysis, to assess the validity of the research framework based on the data collected from participants. The analyses revealed that the fifth statement of the digital corporate social responsibility scale (DSR5), which concerns the digital social responsibility factor, and the first statement of the digital philanthropic responsibility scale (DPR1) exhibited negative variance. Additionally, the second statement of the brand image scale (BI2) was excluded from the analysis due to its low factor loading. A negative Cronbach's alpha indicates the presence of negative reliability, signifying a negative mean covariance between items. This negative value arises from data derivation from items representing different scales (Ursachi et al., 2015). As part of the confirmatory factor analysis, it is essential to eliminate any statements that exhibit negative variance, standard errors, or coefficients that exceed acceptable limits (Hair et al., 1998). Therefore, since the digital corporate social responsibility scale in the study was adapted by combining variables from two separate studies, the analysis continued by removing the statements that showed negative values. The outcomes of the exploratory factor analysis conducted for this research can be found in Tables 5, 6, and 7.

Table 5. Findings	from Exploratory	Factor Analysis	on Digital Corpor	ate Social Responsibility
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Component	Initial Eigenvalue		Extract	tion Sums of Squa	red Loadings	
Component	Total	%Variance	% Cumulative	Total	% Variance	% Cumulative
DSR1	4,585	32,752	32,752	4,585	32,752	32,752
DSR2	1,558	11,129	43,881	1,558	11,129	43,881
DSR3	1,386	9,899	53,780	1,386	9,899	53,780
DSR4	1,008	7,199	60,980	1,008	7,199	60,980
DER1	,844	6,028	67,007			
DER2	,652	4,661	71,668			
DER3	,645	4,606	76,274			
DELR1	,615	4,395	80,669			
DELR2	,559	3,993	84,662			
DELR3	,518	3,700	88,362			
DELR4	,482	3,445	91,807			
DPR2	,432	3,089	94,896			
DPR3	,382	2,732	97,627			
DPR4	,332	2,373	100,000			
KMO:0.851				Bartlett's Test	: 3156.058	p : 0,000

As illustrated in Table 4, the brand awareness scale comprises four factors, accounting for a cumulative variance of 60.980. Furthermore, the Kaiser-Meyer-Olkin (KMO) measure, which assesses sample adequacy, stands at 0.851. Additionally, Bartlett's Test indicates a significant relationship between the variables, with a p-value of 0.00 (p < 0.05).

Component		Initial Eigenvalue			Sum of Squares of Factor Loadings		
Component -	Total	%Variance	% Cumulative	Total	%Variance	% Cumulative	
BA1	2,071	51,776	51,776	2,071	51,776	51,776	
BA2	,845	21,126	72,902				
BA3	,583	14,585	87,487				
BA4	,501	12,513	100,000				
KMO:0.705				Bartlett's T	Cest: 520.151	p : 0.000	

Table 6. Findings from Exploratory Factor Analysis on Brand Awareness

As Table 5 shows, the brand awareness scale is comprised of a single factor that accounts for a cumulative variance of 51.776. Furthermore, the Kaiser-Meyer-Olkin (KMO) measure of sample adequacy stands at 0.705, and Bartlett's Test (p=0.00, which is less than 0.05) indicates a significant level of interrelationship among the variables.

Table 7. Findings from Exploratory Factor Analysis on Brand Image

Component		Initial Eigenvalue			Sum of Squares of Factor Loadings		
Component	Total	%Variance	%	Cumulative	Total	%Variance	% Cumulative
Bİ1	2,950	58,998		58,998	2,950	58,998	58,998
Bİ3	,623	12,455		71,453			
Bİ4	,549	10,977		82,430			
Bİ5	,474	9,473		91,902			
Bİ6	,405	8,098		100,000			
KMO:0,842					Bartlett's T	est: 1272,705	p : 0,000

As illustrated in Table 6, the brand image scale comprises a single factor that accounts for a cumulative variance of 58.998%. Furthermore, the KMO measure of sample adequacy is 0.842, and Bartlett's Test (p = 0.00, which is less than 0.05) indicates a sufficiently strong relationship among the variables.

Structural Equation Model Path Analysis and Testing Hypotheses

The structural equation model established to test the hypotheses regarding the impact of digital corporate social responsibility on brand awareness and brand image is presented in Figure 2.



CMIN=758,619; DF=210; p=,000; CMIN/DF=3,612, RMSEA=,058; GFI=,920; CFI=,904

Figure 2. Structural Model of the Study (Standardized)

Source: Produced by Authors

Compliance Value	Good Fit	Acceptable Compliance	Model Fit Value
CMIN(X ²)			758,619
DF(sd)			210
CMIN(X ²)//DF(sd)	≤ 3	≤ 5	3,612
RMSEA	≤.05	≤.08	.058
GFI	$\geq .97$	\geq .90	.920
CFI	≥.95	\geq .90	.904
IFI	≥.95	≥.90	.905
AGFI	≥.90	≥.85	.895
RMR	≤ 5	≤ 8	.033

Table 8. Goodness-of-Fit Values of the Research Model

The goodness-of-fit values for the research model in Table 6 are satisfactory and acceptable, as clarified by Gürbüz and Şahin, (2014).

Table 9. Hypothesis Test Results

Hypothesis	The Tested Road	Standardized Estimates	р
H1	Digital Social Responsibility -> Brand Awareness	,277	***
H2	Digital Economic Responsibility -> Brand Awareness	-,101	,295
Н3	Digital Ethical-Legal Responsibility -> Brand Awareness	,218	,002
H4	Digital Philanthropic Responsibility -> Brand Awareness	,160	,030
Н5	Digital Social Responsibility -> Brand Image	,289	***
H6	Digital Economic Responsibility -> Brand Image	-,010	,896
H7	Digital Ethical-Legal Responsibility -> Brand Image	,310	***
H8	Digital Philanthropic Responsibility -> Brand Image	,134	,018
Н9	Brand Awareness -> Brand Image	,280	***

***p<0.001

Standardized regression values and hypothesis testing results are summarized in Table 7. The data obtained from the SEM indicate that among the various factors of digital corporate social responsibility, digital social responsibility significantly influences brand awareness ($\beta = 0.277$; p < 0.001), as does digital ethical-legal responsibility ($\beta = 0.218$; p = 0.002) and digital philanthropic responsibility ($\beta = 0.160$; p = 0.030). Additionally, digital social responsibility has a strong effect on brand image ($\beta = 0.289$; p < 0.001), alongside digital ethical-legal responsibility ($\beta = 0.310$; p < 0.001) and digital philanthropic responsibility ($\beta = 0.134$; p = 0.018). Furthermore, brand awareness also significantly impacts brand image ($\beta = 0.280$; p < 0.001). As a result, hypotheses H1, H3, H4, H5, H7, H8, and H9 are validated. Conversely, the path coefficients for digital economic responsibility concerning brand awareness ($\beta = -0.101$; p = 0.295) and brand image ($\beta = -0.010$; p = 0.896), both categorized under digital corporate social responsibility, are not statistically significant. Therefore, hypotheses H2 and H6 remain unconfirmed.

Standardized regression values and hypothesis results are summarized in Table 7. The data obtained from the SEM indicate that digital social responsibility —a key factor of digital corporate social responsibility— significantly influences brand awareness ($\beta = 0.277$; p < 0.001). This finding underscores a substantial positive relationship between favorable consumer perceptions of digital social responsibility initiatives and brand awareness. In today's digital landscape, social responsibility efforts by companies have shifted online, introducing new dynamics into consumer perception. With digitalization, the notion of responsibility becomes increasingly visible through initiatives such as social media campaigns, digital donation platforms, and online social projects, ultimately enhancing brand awareness.

Furthermore, the research findings reveal that digital ethical-legal responsibility —another component of digital corporate social responsibility—also has a significant effect on brand awareness ($\beta = 0.218$; p = 0.002). This highlights the growing importance of ethical and legal responsibilities in the digital realm for shaping brand perception and building consumer trust. Adhering to ethical and legal standards is crucial for brands operating on digital platforms, as it has a significant impact on consumer awareness. In addition to traditional ethical and legal principles, brands now prioritize digital-specific ethical and legal considerations, such as digital necessity, data privacy, transparency, respect for copyright, and user rights. These factors greatly influence consumers' perceptions of the brand.

Additionally, research findings indicate that digital philanthropic responsibility—a component of digital corporate social responsibility—positively affects brand awareness ($\beta = 0.160$; p = 0.030). Digitalization is a transformative phenomenon that brings about changes across various domains, presenting both advantages and disadvantages. As digitalization advances, brands and businesses engage in voluntary activities—specifically their philanthropic responsibilities—through social media, websites, and other digital platforms. In this context, it can be asserted that brands not only generate social benefits through their digital philanthropic efforts but also enhance their visibility and

reputation among consumers. Research findings indicate that digital social responsibility, a key component of digital corporate social responsibility, has a significant impact on brand image ($\beta = 0.289$; p < 0.001). Brand image encompasses the collective impressions of a brand in consumers' minds. With the rise of digitalization, the connection between brands and their customers has become more apparent and measurable. This suggests that, in the digital age, a brand's social responsibility initiatives—when conducted with sensitivity to social, cultural, and environmental issues in digital spaces—directly contribute to building a strong and positive brand image.

According to the research findings, fifthly, digital ethical-legal responsibility—an essential aspect of digital corporate social responsibility—demonstrates a positive and significant impact on brand image ($\beta = 0.310$; p < 0.001). These findings indicate that the ethical and legal responsibilities of businesses and brands have evolved beyond mere legal obligations; they are now fundamental components of brand image, particularly in our current digital age. Furthermore, the research indicates that sixthly, digital philanthropic responsibility—another key factor in digital corporate social responsibility—also positively and significantly influences brand image ($\beta = 0.134$; p = 0.018). Philanthropic actions undertaken by brands in the digital realm play a vital role in shaping consumers' perceptions of their brand image. Notably, when brands engage in genuine philanthropic activities that resonate with consumer expectations in the digital landscape, they significantly enhance their brand image by fostering optimal interactions that align with consumer desires.

Finally, brand awareness has a significant positive impact on brand image ($\beta = 0.280$; p < 0.001). Correspondingly, the hypotheses H1, H3, H4, H5, H7, H8, and H9 formulated in the course of this research have been supported. Conversely, the path coefficients indicating the relationship between digital economic responsibility and brand awareness ($\beta = -0.101$; p = 0.295), as well as between digital economic responsibility and brand image ($\beta = -0.010$; p = 0.896), do not reach statistical significance. Consequently, hypotheses H3 and H6 are not validated. Based on these findings, it is evident that digital corporate social responsibility initiatives play a crucial role in enhancing brand awareness and image. This suggests that, in general, brands can solidify their presence in consumers' minds and reinforce their brand image through effective digital corporate social responsibility efforts.

3. Conclusion

Digitalization has a significant impact on various communication channels that businesses use to engage with their target audiences, including marketing, finance, advertising, and public relations. As digitalization shapes audience behavior, it has become essential for businesses to maintain a presence on these platforms and capture the attention of their target consumers. In this context, CSR remains vital in both digital media and traditional business practices. This shift has led to a notable evolution in CSR initiatives, transforming how brands interact with and convey messages to their audiences. Thus, the significance of brand awareness and image has surged on digital platforms, making CSR increasingly crucial in today's competitive landscape as a means to enhance brand visibility and perception. In our rapid digital era, consumers demand immediate access to information, prompting brands to adopt more prominent and effective CSR strategies across digital channels. These initiatives not only yield social advantages but also bolster brand recognition and foster a strong, favorable image among consumers.

This study offers a conceptual framework for digital corporate social responsibility, along with insights into brand image and awareness on digital platforms. Engaging in CSR through digital channels presents numerous advantages compared to traditional approaches. Today, a variety of digital platforms cater to diverse age groups, genders, and interests across multiple generations. Consequently, brands can effectively reach their specific target audiences through these platforms, aligning with their missions and visions. The inherent accessibility and interactivity of digital platforms enable brands to establish stronger and more direct connections with their audiences. Additionally, these platforms provide the opportunity for immediate feedback, which can be crucial in refining and enhancing CSR efforts. The ability to assess the impact of these initiatives in real time allows brands to formulate strategies that are not only effective but also closely aligned with their audience's expectations. In this context, it becomes increasingly essential for brands to cultivate robust DCSR strategies that generate social benefits while simultaneously reinforcing long-term brand equity in the eyes of consumers. This harmonious integration of social responsibility and brand strategy can result in lasting positive impacts for both society and the brands themselves.

The findings of this study demonstrate that CSR activities serve as a highly effective tool for enhancing brand awareness and brand image on digital platforms. Numerous studies in the academic literature have explored the impact of CSR on brand image and brand awareness (Araújo et al., 2023; Eren & Eker, 2012; Kurtulan & Begeç, 2023; Özdemir, 2009; Silsüpür & Tarhan, 2021). In this regard, our findings align with previous research on CSR. However, there is a noticeable gap in research specifically examining the effects of social responsibility activities conducted on digital platforms on brand image and awareness. Investigations into digital corporate social responsibility remain limited. Puriwat (2021, p. 9) noted in his study that digital social responsibility has a significant impact on brand

preference and consumer purchase intentions. Therefore, we can conclude that the findings of this research regarding brand image and awareness in the context of DCSR are consistent with earlier studies. Our study aims to enrich the academic literature on DCSR as an emerging concept and to enhance the understanding of how these activities influence brand perception for businesses. It is essential to recognize certain limitations of this study. The data were pre-collected, resulting in a sample that was restricted to university students, and factors such as market dynamics or brand innovation were not taken into account. The analysis relied solely on quantitative methods, and since the data were self-reported, there may be inherent biases. These limitations are acknowledged to inform future research, which would benefit from incorporating more diverse samples, additional variables, and a mixed-methods approach to enhance the depth of the findings. Moreover, it is advisable for future studies to perform a comparative analysis of different populations and sample groups regarding the relationship between DCSR and various brand dimensions, including brand image, brand awareness, brand loyalty, and brand attractiveness.

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Authors contributions

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