Factors Effecting Loyalty Intention and Digital Consumer Behaviour: Examining Moderating Role of Brand Attachment

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The primary objective of the current research is to investigate the impact of Digital Customer Relationship Management (CRM), Electronic Service Quality (E-SQ), online trendiness, online interaction, and brand attachment on digitized consumer behaviour, with a focus on the mediating role of loyalty intention. Additionally, the research explores the moderating influence of brand attachment in this context. Data for the study were collected through a questionnaire developed based on an extensive review of relevant literature. This questionnaire was administered to online shopping customers utilizing convenience sampling. The effective response rate for the study was 59.42%. The collected data were analysed using statistical tools such as SPSS and Smart PLS 4. The findings of the study substantiate the significant impact of Digital CRM, E-SQ, online trendiness, and online interaction on loyalty intention. Furthermore, the study concludes that loyalty intention and brand attachment positively influence digitized consumer behaviour. Additionally, the results affirm the moderating role of brand attachment. This research makes a valuable contribution to the limited literature on digital consumer behaviour by incorporating factors such as online trendiness, online interaction, Digital CRM, and E-SQ. Moreover, it offers practical insights for practitioners and serves as a foundation for the development of strategies and future research endeavours in this domain.

Keywords: Digital Consumer Behaviour, Digital CRM, E-Service Quality, Online Trendiness, Online Interaction.

Introduction

Over the past decade, there has been a rapid evolution in internet strategies aimed at engaging customers. Consequently, users of the internet have adapted their behaviors in response to these evolving strategies. This shift in behavioural patterns has, in turn,

led to a transformation in customer habits within the digital environment. A distinctive characteristic of the digital environment is its endeavour to continually attract an expanding user base (Reyes-Menendez, Saura, & Filipe, 2019). Within the digital environment, organizations must comprehend the conduct of online users as the foundational element for devising online business strategies. A comprehensive understanding of these behaviours facilitates the seamless enhancement of customer experiences (Saura et al., 2020).

Customer behavior is influenced by their intentions, particularly in the realm of online shopping. It is imperative for online retail enterprises to prioritize the examination of customer loyalty intentions. Those engaged in online commerce can attain success by directing attention towards customer satisfaction, thereby fostering subsequent impacts on loyalty intentions (Mofokeng, 2021). Customer turnover bears substantial costs for organizations, underscoring the critical importance of cultivating loyalty intentions. The expenses associated with acquiring new customers significantly surpass those incurred in retaining existing ones. The ongoing evolution of global technology precipitates concurrent shifts in customer behaviour. This evolution introduces heightened uncertainty among online sellers concerning the discernment of customer needs (Cepal, 2021). Hence, it is imperative for organizations to comprehend the influence of internet technology on user loyalty intentions and to ascertain how it can be strategically leveraged by entities to augment their overall profitability (Du & Mao, 2018).

The primary emphasis of relationship marketing is the cultivation and establishment of connections with customers. Effectively managing organizational relationships and interactions is significantly facilitated through the implementation of CRM, recognized as one of the most robust strategies in this regard (Chatterjee et al., 2021). Through the implementation of these strategies, organizations convey a sense of significance and relevance to customers. As technology has progressed, the evolution of CRM has given rise to the concept of E-CRM, representing a requisite in the contemporary digital era (Farmania, Elsyah, & Tuori, 2021). Conversely, facilitated by new media, social interaction has been streamlined. The advent of social media has garnered a substantial global clientele to online platforms, presenting one of the most interactive mediums. Users can establish profiles across various social media platforms and engage in mutual interaction. Developing a marketing mix grounded in social media is paramount for the efficacy of a marketing strategy, thereby facilitating the acquisition of new customers (Abrar et al., 2017).

Modern technology has spurred changes in marketing trends, prompting businesses to shift online in line with digital marketing trends. Trendiness significantly influences brand sales, leading strategists to leverage social media to shape consumer trends. The swift customer response on social media is attributed to current trends and timely interactions (Che Nawi et al., 2020). The attribute of trendiness pertains to the capability to acquire novel or pre-existing information concerning any brand (Ibrahim & Ganeshbabu, 2018).

Over the past two decades, practitioners and scholars have progressively embraced the concept of e-services. The literature elucidates e-services as services accessible through electronic applications and products, encompassing web-based platforms through which services are extended to customers (Saleemi, Anjum, & Rehman, 2017). E-Services represent a paradigm wherein either the entirety or a portion of services is delivered through the internet. The underpinning of E-Services involves an information

system at the backend and a web-based system at the frontend, with an interface facilitating their integration. These services play a pivotal role in fostering relationships and instilling trust among students (Askari et al., 2016).

The cultivation of brand attachment assumes paramount significance in establishing a connection among customers, influencing their behaviour. Consequently, the positive impact on organizational profitability and performance is discernible. Brand attachment serves as an indicator of the individual's mindset, reflecting the commitment exhibited by customers (Ghorbanzadeh & Rahehagh, 2021; Shimul, 2022). Given the pivotal role of loyal customers in enhancing the profitability of online enterprises, this study is structured to scrutinize the impact of factors conducive to augmenting loyalty intentions and digital consumer behaviour among customers who engage in online shopping.

Literature Review
Loyalty Intention and Digital Consumer Behaviour
Digital marketing has revolutionized business operations, transforming communication in the new digital era. The internet provides customers with enhanced access to information and products (Cachero-Martínez & Vázquez-Casielles, 2021). The ease of access to products and information has been facilitated by advancements in digital technology. Consumer behaviour encompasses the decisions and actions that influence customers to utilize and procure products (Punyatoya, Satpathy, & Agrawal, 2018). The survival of the business is dependent upon the factor of loyalty.

The scholarly literature has characterized loyalty intention as the consumer's intent to repurchase products/services from a specific e-service vendor (Berbegal-Mirabent, Mas-Machuca, & Marimon, 2016), and Punyatoya (2019) has denoted it as the subjective probability of a customer continuing future purchases from an online store. Additionally, it is described as favourable behaviour towards a specific brand. Recent years have witnessed a shift in loyalty focus due to emerging technology and the advent of the online environment. The intention to repurchase positively influences customers' e-loyalty (Yuniarti et al., 2022). Websites of brands alter mental attachment and preferences, potentially leading to customer satisfaction through online content availability, thereby fostering repurchase intentions from the same vendor. Loyalty intention assumes a pivotal role in shaping customer behaviour (Mofokeng, 2021).

The progression of purchase intentions is contingent upon the organization's efficacy in influencing purchase decisions, along with factors such as persuasiveness, inclination, personal interests, and the existing knowledge and expertise of customers (Chen et al., 2022). The utilization of online means for information retrieval facilitates ease in accessing services and procuring goods, enhancing the searching experience in terms of enjoyment and satisfaction. Moreover, such positive experiences encourage customers to consider future utilization of the services (Mukhtar, Mohan, & Chandra, 2023).

The consistent intention to utilize services signifies customer loyalty and concurrently indicates a reluctance to switch brands (Manyanga, Makanyeza, & Muranda, 2022). User loyalty, an intentional construct, reflects customer behaviour and is predicated on loyalty intention, which directly influences customer behaviour. Research suggests that repeated product usage can lead to unforeseen outcomes. The study of Sirdeshmukh et al. (2018) shows that loyalty intention has significant effect on digital consumer behaviour of the customers.

Based on the discourse, we posit that
H1: *Loyalty intention has positive effect on digital consumer behaviour.*

Digital CRM and Loyalty Intention

Customer relationship marketing is vital for cultivating and sustaining positive customer relations. Referred to as ECRM in contemporary contexts, it utilizes email, websites, and other online tools to establish connections with customers (Lam & Li, 2017). E-CRM applications encompass social media, customer databases, profiles, web phones, virtual customer representations, bots, and voice portals, with computer-based and web-based technologies being particularly relevant (Larsson & Viitaoja, 2017).

Leveraging social media is integral to customer relationship management, enhancing services through various social media technologies (Foltean, Trif, & Tuleu, 2019). Utilizing tools such as Facebook Live is a significant aspect of CRM, enabling businesses to update customers on upcoming products and services through live app services, fostering a positive relationship (Gibson, 2018). Customer-centric activities in relationship marketing aim for positive customer relations, and digital marketing via social media apps emerges as a key predictor for developing repurchase intentions among customers (Sansern, Siripipatthanakul, & Phayaphrom, 2022).

E-CRM assumes a significant role in enhancing service quality for customers, concurrently augmenting access to customer data and elevating analytical capabilities within companies (Khanh, Phong, & Cao, 2022). Numerous studies have indicated that organizations employing E-CRM consistently exhibit elevated levels of customer satisfaction and loyalty. The application of ECRM facilitates the seamless enhancement of information and data flow within organizations, allowing for the development of real-time reports (Kakeesh, Al-Weshah, & Al-Ma'aitah, 2021).

Organizations can regularly inform customers about services and products using digital marketing apps, effectively strengthening brand value by fostering transparent exchanges of experiences, opinions, and ideas. Digital marketing, a widely utilized tool for promotion and communication, offers cost, location, and time flexibility. Previous research indicates a significant positive impact of digital marketing on customers' intentions to repurchase products (Dastane, 2020). Previous studies have investigated the influence of E-CRM on customer loyalty intention, revealing a substantial and positive impact of E-CRM on loyalty intention (Magatef et al., 2023).
H2: *DCRM have positive effect on LOYI.*

Online Interaction and Loyalty Intention

Social media marketing serves as a pivotal tool for fostering interaction with customers, providing organizations with a valuable means to conduct targeted marketing campaigns and deliver relevant content to their intended audience. Furthermore, it facilitates easy accessibility for organizations to engage with customers, enabling seamless interaction between social media entities and individuals (Appel et al., 2020). Marketers have various social media channels for interaction, but it's crucial to assess and select the target audience for effective product selling. Social media facilitates two-way communication, enabling customers to share information, exchange ideas with like-minded individuals, and engage in discussions, making it more effective than traditional one-way communication. This interactive ability is motivating for customers, allowing them to generate content and express their intent to

repurchase. Organizations post information tailored to social media users, encouraging participation and fostering an exchange of ideas (Cheung, Pires, & Rosenberger, 2020). The study by He, Tian, and Wang (2019) suggest that social networks provide a platform for magicians to engage, assist, mobilize, converse, interact, segment, and listen to customers, ultimately contributing to the cultivation of loyalty intentions (He et al., 2019).

The modification of customer behaviour is significantly influenced by interaction, wherein purchasing decisions are contingent upon the extent of engagement facilitated through diverse social media applications. A less interactive website utilized for customer interaction may adversely impact customer confidence, particularly concerning online payment transactions, leading to feelings of insecurity (Dávila Espuela, Reina Paz, & Sevilla Sevilla, 2023). The extent of interaction directly influences the information that contributes to the development of purchase intentions among customers (Dávila Espuela et al., 2023). Internet users can readily disseminate information and express their opinions on various services or products through social media platforms. This sharing of information and opinions occurs efficiently among diverse peers, proving to be a cost-effective means. Consequently, this practice enhances customer retention and fosters brand loyalty (Abbas et al., 2019). Social media interaction holds a crucial role in cultivating customer loyalty intentions. The cost-effective and impactful nature of social media interaction serves as an effective tool for raising awareness about products. The study by Huang et al. (2018) positive affect of social media interaction on loyalty intention.

H3: *INT have significant positive effect on LOYI.*

Online Trendiness and Loyalty Intention
In the realm of online marketing, trendiness signifies acquiring up-to-date information concerning products or services. This process is integral for organizations to engage with customers and foster a sense of advocacy and participation. The familiarity of trending information encourages people to engage with the services or products offered by the organization. Often, organizations integrate trends as a component of lifestyle, and the introduction of new technologies by organizations further promotes social recognition (Babapour & Aghazadeh, 2023).

Trendiness is the extent to which communities offer the latest updates and information about brands. Consumers often seek new information on digital and social media platforms, contributing to a positive brand perception when the latest information is available about a product or service (Wijayaa et al., 2021). Various users can avail support by accessing information on digital and social media platforms, requiring minimal effort to obtain such information.

Trendy information encompasses the latest details on brands, new ideas, and product reviews, significantly contributing to building trust and long-term customer retention. This trendiness also fortifies brand perception, attracting a broader customer base (Gu, Zhao, & Zhao, 2018). Marketers should align content with market trends on various social media platforms, often incorporating details about brand updates and new product developments.

Prior research underscores the significance of leveraging trending information to mitigate perceived risks among customers and enhance their responsiveness (Seo & Park, 2018). Scholars contend that various attributes of product information play a pivotal role in fostering customer loyalty, with trendiness being identified as a crucial attribute for cultivating customer loyalty (Ebrahim, 2019). The sentiment composition

and current news topics can be readily accessed through diverse social media applications, prompting customers to seek information aligned with their interests. The information acquired from social media platforms is perceived as trustworthy by customers, subsequently shaping their attitudes.

Academic inquiry has scrutinized the impact of trending activities on social media platforms on loyalty intention. The research conducted by Ebrahim (2020) uncovered a positive correlation between activities in social media marketing, including trendiness, and the intention to reuse services. Moreover, it demonstrated enduring effects on customer behaviour. The scholarly discourse also underscores the significance of consistent content updating. Yadav and Rahman (2018) elucidated that regular content updates yield long-term effects on customer loyalty, enhancing brand credibility and fostering customer intentions of loyalty (Arbabi et al., 2022).

H4: *TR has positive association with LOYI.*

E-Service Quality and Loyalty Intention

Within the domain of E-commerce, service quality is delineated as the comprehensive assessment and evaluation by customers of the e-services provided by an organization in the virtual marketplace (Firdous & Farooqi, 2019). Previous research has delineated various attributes contributing to e-service quality, encompassing dimensions such as advertisement, social influence, past experience, customization, privacy, security, aesthetic design, usability, and informational usefulness (Shankar & Datta, 2020).

In the realm of online business, e-service quality emerges as a pivotal factor influencing organizational performance (Yaghoubi & Rigi, 2017). The ease of product or service comparison facilitated by online tools is acknowledged (Muharam et al., 2021). Muharam et al. (2021) define e-service quality as the comprehensive evaluation of the electronic service experience within the online marketplace, encompassing elements such as customer security, customer service, product delivery, ownership conditions, product attribute descriptions, and webstore functionality. Additional parameters identified by customers include delivery fulfilment, responsiveness, community, customization, availability, ease of use, and security and information quality. Çelik (2021) further explicates e-service quality in terms of online store availability, fulfilment, privacy, and efficiency .

E-Service quality has a direct impact on the organization's image. Poor services adversely affect customer loyalty and satisfaction. The perceived value positively influences customer loyalty by reducing the inclination to seek alternatives. Numerous studies highlight the positive impact of e-service quality on various factors, including customer loyalty, organizational image, satisfaction, and customer trust. The research conducted by Zehir and Narcıkara (2016) reveals a positive impact of e-service quality on loyalty intention. Elevated evaluations of services prompt customers to revisit online stores, emphasizing the importance for organizations to prioritize high-quality service in virtual environments. Well-designed websites are noted to attract more customers, foster brand awareness, and leverage the influence of the latest technologies to engage customers with products or services. Customer feedback plays a pivotal role in cultivating positive relationships with online services, ultimately contributing to sustained customer engagement. Consistent with Zehir and Narcıkara's findings, Khan, Zubair, and Malik (2019) also reported a positive influence of e-service quality on customer repurchase intention and loyalty intention.

H5: *E-SQ has positive effect on LOYI.*

Brand Attachment as Moderator
Prior research asserts the paramount significance of brands in our daily lives, attributing emotional meanings and symbols to them. Brands also possess self-expressive meaning, enabling customers to articulate and delineate their identities. Effective association with brands is intertwined with past experiences, influencing the customer's perception of a particular brand. Brand attachment, as indicated in previous studies, significantly impacts brand relationships. A proclivity exists for customers who favour a specific brand to seamlessly integrate it into their lifestyles, making it a routine choice and advocating its use to friends and family. Consequently, an emotional bond is cultivated between the brand and the customer (Vredeveld, 2018).

   Within the realm of brand literature, the concept of brand attachment stands as a central construct, garnering substantial attention through numerous studies over the past decade. Both industry experts and academics accord significant importance to brand attachment as a means to influence customer behaviour. As per the literature, brand attachment denotes an emotional connection between the customer and the brand, where an individual perceives a linkage between the brand and their personality. In the course of daily life, consumers engage with numerous brands and products, but a select few elicit intense emotional attachment due to the perceived fulfilment of specific needs. Various factors may contribute to the development of emotional attachment between a customer and a brand (Özer et al., 2022). One potential explanation is the alignment of brand personality with the individual's personality, fostering a specific connection between the person and the brand. This connection, characterized by an emotional bond, influences customer behaviour, particularly in terms of brand purchase or repurchase. Given the emotional nature of brand attachment, it is anticipated to moderate consumer behaviour, specifically in the relationship between intention and behaviour. Furthermore, the strength of attachment may exhibit variations, ranging from strong to weak (Shimul & Phau, 2022). Additionally, Ghorbanzadeh and Rahehagh (2021) observed a positive impact of brand attachment on consumer behaviour, particularly within the context of luxury brands.

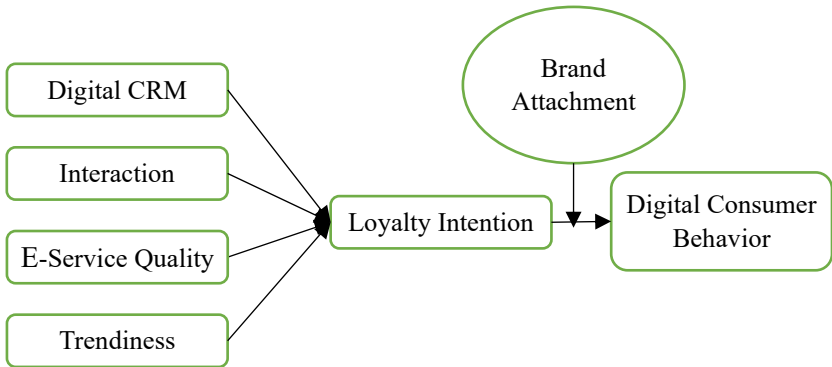**H6**: *Brand attachment has positive effect on DCB.*

Figure 1: *Framework.*

Research Methodology

The outlined framework reveals that this research comprises four independent variables, one mediating variable, one moderating variable, and one dependent variable, leading to the development of 11 hypotheses based on these variables. The sampling technique employed is convenience sampling, a form of nonprobability sampling chosen for its ease of data collection within a limited timeframe and its alignment with the study objectives. Data was gathered through a self-administered survey employing a questionnaire designed with a seven-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). The questionnaire items were adapted from a comprehensive review of pertinent literature. The items of brand attachment were adapted from Saavedra Torres, Rawal, and Bagherzadeh (2020) the items of loyalty intention were adapted from Khan et al. (2023), the items of digital consumer behaviour were adapted from Al-Ayed and Al-Tit (2024), the items of e-service quality were adapted from Wilis and Nurwulandari (2020), the items of trendiness were adapted from Cheung et al. (2021), the scale of e-CRM were adapted from Al-Ayed and Al-Tit (2024), and the items interaction were adapted from Cheung et al. (2021).

The questionnaire developed for this study comprised two sections. The first section focused on gathering demographic information from the respondents, while the second section addressed the study variables. These questions were administered to 350 respondents, resulting in a return of 208 usable responses, with a response rate of 59.42%. Subsequent data analysis was conducted using SPSS for initial data screening and Smart PLS for further in-depth analysis.

Results

The study's analysis commenced with an initial screening process, focusing on the examination of the demographic information provided by the respondents. The preliminary screening indicated the absence of any missing data in the gathered information. Subsequently, an in-depth exploration of the demographic details was conducted. The results revealed that 79.12% of the respondents identified as male, while the remaining respondents were female. Additionally, 62.98% of the study participants reported being married, with the remainder being unmarried.

Subsequently, we advanced to the Smart PLS analysis, encompassing two distinct phases: the measurement model and the structural model. The initial phase, the measurement model, involved an examination of reliability and validity through analyses of discriminant validity, factor loading, and Average Variance Extracted (AVE). The first aspect, factor loading, required a minimum value of 0.60 to meet the established criteria (Afthanorhan, 2013). According to the findings presented in Table 1, it is apparent that the benchmark value has been attained. Subsequently, an assessment of the data's validity and reliability was conducted, involving an examination of Cronbach's Alpha and Composite Reliability. According to Hair, Ringle, and Sarstedt (2013), The stipulated criteria for validity and reliability necessitate values of CR and Cronbach's Alpha exceeding 0.70. Upon consulting the statistical data in Table 2, it is evident that both Cronbach's Alpha and composite reliability surpass the 0.70 threshold. Therefore, the study's criteria for reliability and validity are met.

Table 1: *Factor Loading.*

	BAT	DCB	DCRM	ESQ	INT	LOYI	TR
BAT1	0.743						
BAT2	0.620						
BAT3	0.719						
BAT4	0.844						
BAT5	0.818						
BAT6	0.835						
BAT7	0.709						
DCB1		0.873					
DCB2		0.831					
DCB3		0.848					
DCB4		0.858					
DCB5		0.695					
DCRM1			0.841				
DCRM2			0.840				
DCRM3			0.856				
DCRM4			0.869				
ESQ1				0.802			
ESQ2				0.863			
ESQ3				0.846			
ESQ4				0.856			
ESQ5				0.862			
INT1					0.809		
INT2					0.740		
INT3					0.828		
LOYI1						0.893	
LOYI2						0.856	
LOYI3						0.878	
TR1							0.853
TR2							0.807
TR3							0.794

Note: INT= interaction; TR= trendiness; ESQ= E service quality, DCB= digital Consumer behaviour, DCR= digital CRM, LOYI= loyalty intention, BAT= brand attachment

Table 2: *Reliability and Validity.*

	Cronbach's alpha	CR	AVE
BAT	0.875	0.904	0.576
DCB	0.880	0.913	0.678
DCRM	0.874	0.914	0.726
ESQ	0.901	0.926	0.716
INT	0.707	0.836	0.630
LOYI	0.848	0.908	0.767
TR	0.754	0.859	0.670

Note: INT= interaction; TR= trendiness; ESQ= E service quality, DCB= digital Consumer behaviour, DCR= digital CRM, LOYI= loyalty intention, BAT= brand attachment

It is imperative to assess the Average Variance Extracted (AVE) of the data. Following the guideline established by Fornell and Larcker (1981), the AVE value is expected to exceed 0.50. The results indicate that this criterion is also met in the study.

Table 3*: HTMT.*

	BAT	DCB	DCRM	ESQ	INT	LOYI	TR
BAT							
DCB	0.858						
DCRM	0.737	0.778					
ESQ	0.807	0.766	0.709				
INT	0.545	0.634	0.565	0.588			
LOYI	0.858	0.895	0.752	0.751	0.685		
TR	0.459	0.476	0.308	0.335	0.315	0.445	

Note: INT= interaction; TR= trendiness; ESQ= E service quality, DCB= digital Consumer behaviour, DCR= digital CRM, LOYI= loyalty intention, BAT= brand attachment

Table 4*: Fornell and Larker.*

	BAT	DCB	DCRM	ESQ	INT	LOYI	TR
BAT	0.759						
DCB	0.756	0.823					
DCRM	0.649	0.684	0.852				
ESQ	0.720	0.687	0.631	0.846			
INT	0.434	0.506	0.447	0.470	0.793		
LOYI	0.745	0.785	0.650	0.658	0.536	0.876	
TR	0.373	0.390	0.251	0.279	0.236	0.358	0.819

Note: INT= interaction; TR= trendiness; ESQ= E service quality, DCB= digital Consumer behaviour, DCR= digital CRM, LOYI= loyalty intention, BAT= brand attachment

Concluding the assessment of the measurement model, it is essential to scrutinize the discriminant validity of the data. This examination assesses the correlations between the variables within the study. Two distinct tests, namely HTMT (Heterotrait-Monotrait) and the Fornell & Larcker approach, were employed for this purpose. According to Henseler, Ringle, and Sarstedt (2015), the values within the HTMT matrix should be below 0.90. The results presented in Table 3 demonstrate that all HTMT values are indeed below 0.90, aligning with the stipulated criterion. The subsequent analysis, the Fornell and Larcker approach, requires the values along the diagonal of the matrix to exceed the remaining values (Fornell & Larcker, 1981). As illustrated in Table 4, the figures on the diagonal surpass the remaining values, fulfilling the prescribed criteria.

Subsequently, we proceeded with the evaluation of the structural model, a crucial step for the examination of proposed hypotheses and the assessment of R-squared. The bootstrapping procedure was employed to test the proposed hypotheses, from which Beta values and T-values were derived. The Beta values indicated the direction of the relationship, while the T-values reflected the significance of the relationships among the variables.

Table 5*: Results.*

	Beta	SD	T value	P values	Decision
BAT -> DCB	0.429	0.071	6.065	0.000	Accepted
DCRM -> LOYI	0.319	0.064	5.011	0.000	Accepted
ESQ -> LOYI	0.319	0.068	4.663	0.000	Accepted
INT -> LOYI	0.211	0.051	4.164	0.000	Accepted
LOYI -> DCB	0.526	0.064	8.272	0.000	Accepted
TR -> LOYI	0.140	0.047	2.975	0.003	Accepted
BAT x LOYI -> DCB	0.091	0.036	2.540	0.011	Accepted

Note: INT= interaction; TR= trendiness; ESQ= E service quality, DCB= digital Consumer behaviour, DCR= digital CRM, LOYI= loyalty intention, BAT= brand attachment

The statistical figures of table 5 show the direct results of the study. According to the results, BAT and DCP have positive significant relation with each other as Beta=0.429, t= 6.065. Moreover, DCRM have positive effect of LOYI as well because Beta= 0.319, t=5.011. Furthermore, the results show that ESQ have positive effect on LOYI having Beta= 0.319, t= 4.663. As per the results, INT have significant positive effect on LOYI Beta=0.211, t= 4.164. Moreover, LOYI have positive effect on DCB showing Beta= 0.526, t= 8.272. Also, TR have significant positive relationship with LOYI as Beta=0.140, t=2.975. Hence, all the proposed direct hypotheses are affirmed in this study. Additionally, the table illustrates the moderating outcomes of the study, revealing that BAT significantly moderates the relationship between LOYI & DCB.

Table 6: *Mediating Results.*

	Beta	SD	T value	P values
DCRM -> LOYI -> DCB	0.168	0.040	4.207	0.000
ESQ -> LOYI -> DCB	0.168	0.041	4.113	0.000
INT -> LOYI -> DCB	0.111	0.030	3.673	0.000
TR -> LOYI -> DCB	0.074	0.027	2.703	0.007

Note: INT= interaction; TR= trendiness; ESQ= E service quality, DCB= digital Consumer behaviour, DCR= digital CRM, LOYI= loyalty intention, BAT= brand attachment

Moreover, the study conducted an assessment of the indirect hypotheses. The outcomes of the indirect hypotheses are delineated in Table 6. The findings indicate the acceptance of all proposed mediating hypotheses, substantiating the mediating role of Loyalty Intention. Concluding the analysis, the coefficient of determination, also known as R-square, was scrutinized. This test assesses the impact of independent variables on the outcome variables.

Table 7*: R square.*

	R-square
DCB	0.689
LOYI	0.580

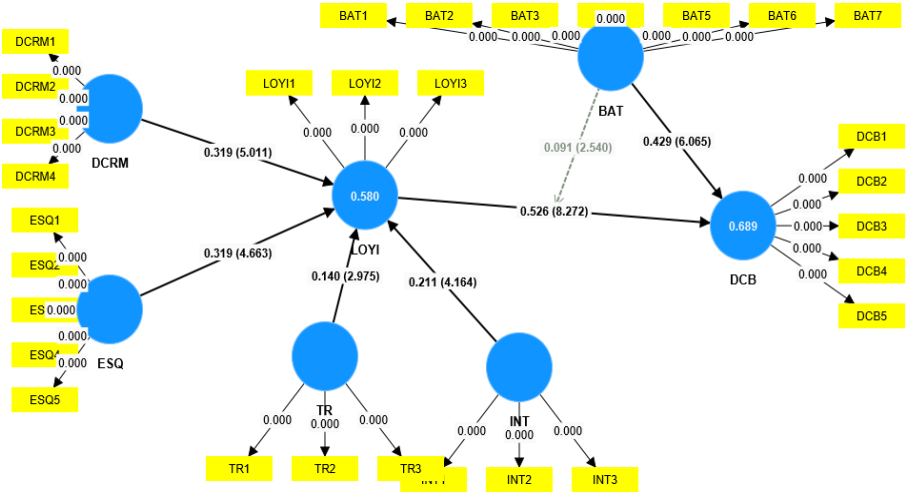**Note**: DCB= digital Consumer behaviour, LOYI= loyalty intention

Figure 2: *Structural Model.*

Note: INT= interaction; TR= trendiness; ESQ= E service quality, DCB= digital Consumer behaviour, DCR= digital CRM, LOYI= loyalty intention, BAT= brand attachment

Discussion

In the contemporary era dominated by digital and social media, organizations face the imperative to strategically address factors influencing consumer behaviour through various digital marketing strategies. These factors, notably interaction, trendiness, e-service quality, and digital CRM, play pivotal roles in shaping both loyalty intention and digital consumer behaviour. This research, situated in the context of online shopping in Saudi Arabia, seeks to scrutinize the impact of these digital marketing elements on loyalty intention. The study's findings underscore a significant positive effect of e-service quality on loyalty intention, aligning with the conclusions drawn by Khan et al. (2019), who similarly emphasized the positive influence of e-service quality on loyalty intention. Possible rationales for these outcomes may include respondents perceiving online shopping platforms as swift, user-friendly, and efficient. Furthermore, respondents may acknowledge the reliability of these platforms in consistently delivering items on time, offering effective returns and troubleshooting mechanisms, ensuring service accuracy, and maintaining an accessible and responsive online presence. The ease of website navigation and the provision of online representatives and telephonic support contribute collectively to the perceived success of e-service quality, thereby positively impacting customer loyalty intention.

The study's outcomes indicate a positive impact of digital CRM on customer loyalty intention. These findings align with the research of Magatef et al. (2023). Several factors may contribute to these results. Respondents in the study may perceive online service providers as prioritizing the establishment of robust and enduring relationships with customers, a feature that resonates positively with them. Additionally, respondents may believe that online service providers focus on evaluating customers' digital experiences and are dedicated to delivering valuable interactions. These providers

engage in both regular and real-time interactions through various digital media channels, ultimately ensuring customers receive their preferred services and products through diverse digital means.

Moreover, the study findings substantiate the assertion that the trendiness of information across various digital platforms significantly influences loyalty intention. Customers invariably follow the latest trends, and the accessibility of diverse online channels facilitates the exploration and adoption of contemporary shopping trends in their lifestyles. Additional rationales for these results could include the perceived timeliness and relevance of content accessed through different digital and social media applications, contributing to a perception of trendiness. Customers also express the belief that obtaining information about their preferred brands through social media is not only trendy but also ensures access to the latest and most relevant brand-related information. This aligns with similar findings reported by Arbabi et al. (2022) in their research. Furthermore, the study underscores the positive impact of interaction on loyalty intention. Human interaction is inherently significant, and customers, too, value the ability to interact with others. With the advent of various digital applications, customer interaction has become notably streamlined. Customers can easily engage with friends and family through different social media and digital marketing tools, sharing information about products and services. Respondents in the study highlight the ease of accessing information about their preferred brands and expressing their opinions to loved ones through various online media. Notably, the real-time interaction enabled by digital marketing applications is emphasized. Similar findings were corroborated by Huang et al. (2018), who reported a positive association between interaction and loyalty intention.

The findings of the current study also revealed that loyalty intention has a positive impact on DCB. Intention serves as the foundation for behaviour. In essence, customers' intention to utilize online applications for shopping cultivates loyalty toward using digital applications among them. A plausible explanation for these results is that respondents express the intention to use browsers for future shopping endeavours. Moreover, they harbour intentions to finalize their shopping transactions through various applications and desktop browsers. Additionally, they may show a preference for mobile applications available on their devices for shopping purposes. All these factors contribute to the cultivation of digital loyalty among customers, as they not only reuse the same applications in the future but also recommend this approach to others. In past, Sirdeshmukh et al. (2018) also presented same findings in their study as well.

Moreover, the results indicate that brand attachment positively influences digital consumer behaviour. This finding may be attributed to the respondents' potential enthusiasm for utilizing online applications for shopping. They likely experience a strong emotional connection with their online applications and services, prompting a preference for using them in the context of shopping. These customers not only reuse these services but also advocate for them, effectively serving as promoters of online services. This role of advocacy aligns with the results proposed by Ghorbanzadeh and Rahehagh (2021) in their study, which investigated similar trends within the realm of luxury brands. Ultimately, this study also affirms the moderating effect of brand attachment on the relationship between loyalty intention and digital consumer behaviour, while supporting the mediating effect of loyalty intention in its findings.

Limitations, Future Studies, and Implications

This study is subject to certain limitations that warrant consideration in future research endeavours. Firstly, the current research is situated within the context of Saudi Arabia. Subsequent studies may find value in applying the same model to an African country, especially where the utilization of online applications may not be as prevalent as in Asian regions. Additionally, the framework of this study incorporates a single mediating variable. Future investigations could enhance the model by introducing a sequential mediating framework, possibly involving cognitive factors. Moreover, this study adopts a cross-sectional research design, and it would be beneficial for subsequent studies to employ a longitudinal research design for a more comprehensive understanding of respondents' perspectives. The R-square values in this study are 58% and 68.9%, respectively, suggesting that other variables could potentially contribute to increasing the explained variance.

This study holds both theoretical and managerial implications. Theoretical insights from the study emphasize the significance of E-service quality and Digital CRM in enhancing digital consumer behaviour. The study underscores the pivotal role of online trendiness and interaction, highlighting the importance of social media in the contemporary landscape for fostering loyalty intention among customers. A notable contribution is made by this research in investigating the mediating role of loyalty intention—a departure from the prevalent focus on loyalty intention as the dependent variable in previous studies. In terms of managerial implications, the research offers practical guidance to organizational managers and decision-makers in the online product-selling domain. These findings can be instrumental for policy-makers in the online communication sector of Saudi Arabia and serve as valuable input for future academic inquiries.

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Appendix

Sr. No	Variable	Item	Refence
1	Online Interaction	• It is easy to convey my opinion through brand X's social media. • It is easy to convey my opinions or conversation with other users through brand X's social media. • It is possible to have two-way interaction through brand X's social media	Cheung et al. (2021)
2	Online Trendiness	• Content found on brand X's social media are up to date. • Using brand X's social media is very trendy. • The content on brand X's social media is the newest information	Cheung et al. (2021)
3	E- Service Quality	• The ease and speed of accessing and using the site. • The extent to which the site's promises about order availability and item availability are fulfilled. • That is, effective troubleshooting and site returns. • The site functions properly and promises accuracy of service. • Ease of exploring online sites. • The appearance of the site. • The availability of assistance via telephone or online representatives.	Wilis and Nurwulandari (2020)
4	Loyalty Intention	• I intend to use this mobile application/desktop browser in the future. • I will buy goods/services using this mobile application/desktop browser in the future. • I prefer this mobile application/desktop browser to others (with the same goods/products).	Khan et al. (2023)
5	Digital Consumer Behavior	• Our customers are likely to buy our products using digital means. • Our customers recommend our products to online customers • Our customers "Like" our commercial posts with others. • Our customers "Share" our digital content with others. • Our customers provide their experiences to other digital customers.	Al-Ayed and Al-Tit (2024)
6	Digital CRM	• Our focus is to build long relationships with our key customers. • We are interested in analyzing our customers' digital experiences. • Our aim is to provide our customers a value using digital means. • We have real-time interactions with our customers. • Our customers receive products/services using digital means	Al-Ayed and Al-Tit (2024)
7	Brand Attachment	• Passionate • Captivated • Delighted • Loved • Bonded • Attached • Connected • Peaceful • Affectionate	Saavedra Torres et al. (2020)