

Presentation and Validation of Brand-Customer Communication Model in Social Media Platform: A Case Study: Cosmetics Industry

Shahram Hashemnia



Assistant Professor, Department of Management,
Payame Noor University (PNU), Tehran Branch,
Tehran, Iran

Ozhan Karimi



Assistant Professor, Department of Management,
Payame Noor University (PNU), Tehran Branch,
Tehran, Iran

Nazanin Emamgholi



Ph.D. Candidate, Department of Humanities and
Management, Abhar Branch, Islamic Azad
University, Abhar, Iran

Abstract

Purpose: The purpose of this research was to provide a model for Validating and Presenting Brand-Customer Interaction Model in Digital Platform in the Cosmetics Industry.

Method: This research was applied in its purpose and utilized a mixed approach (qualitative and quantitative). In this regard, this study was conducted with the aim of presenting and validating the brand-customer interaction model in Instagram Platform. The present study is a descriptive survey in terms of its practical-developmental purpose and data collection method. The statistical population in the qualitative section includes marketing professors and cosmetics industry managers, 20 of whom were selected by purposive sampling. The statistical population in the quantitative section also includes customers of cosmetics and health products, 384 participants were selected using the convenience sampling. The data collection tools were a semi-structured interview and a researcher-made questionnaire. First, thematic analysis method was used to analyze the expert

– Corresponding Author: Hashemnia2877@pnu.ac.ir

How to Cite: Hashemnia, S., Karimi, O., Emamgholi, N. (2024). Presentation and Validation of Brand-Customer Communication Model in Social Media Platform: A Case Study: Cosmetics Industry, *International Journal of Digital Content Management (IJDCM)*, 5(9), 110-138. DOI: 10.22054/dcm.2023.72733.1194

interviews. Next, the identified pattern was validated using partial least squares method. Thematic analysis and partial least squares were done with MaxQDA software and Smart PLS software, respectively.

Findings: The criterion to achieve data saturation has been to achieve repetition in extracting codes. 235 codes were identified in the open coding stage. Finally, three overarching themes, eight organizing themes, and 49 basic themes were obtained through axial coding. Based on the structural equation model, the proposed model was fitted and confirmed.

Conclusion: Based on the results, effective marketing and digital content marketing are the basic elements of the model, which increase brand recognition and brand identity among customers by increasing interaction with customers. Brand recognition and identity contribute to positive word-of-mouth marketing, which in turn affects brand positioning on Instagram. Finally, in this way, it is possible to create a constructive and interactive brand-customer relationship.

Keywords: Brand-Customer Interaction, Cosmetics Industry, Social Media Marketing.



Introduction

Brand-customer relationship is a key concept in the digital marketing of the third millennium, which has a significant impact on the desired organizational performance, such as increasing sales, reducing costs, and contributing to the development of new products (Loureiro, 2023). In the meantime, it is very important for companies to make good use of the capabilities provided by social media to develop their relationships with customers (Mohammadi et al., 2022). Businesses actively strive to develop and improve their relationships with customers to succeed in the market and gain a competitive advantage. Establishing a good relationship with customers requires understanding customer demands and also using appropriate organizational capabilities to respond to them (Ashfaq et al., 2020).

Establishing a brand relationship with customers and fostering a sense of belonging to customers are a must for commercial brands in digital marketing. In recent years, extensive and continuous efforts have been made in the field of brand interaction with customers on the platform of social media. Being aware of the capabilities of these media in establishing a two-way and interactive communication, businesses have actively turned to present in social media (Khazri et al., 2022). Social media has created a unique opportunity for brands to develop their relationships with customers. These digital platforms have facilitated interaction with customers, so it is not surprising that interaction with the brand is done online and through social digital platforms (Rivanovic et al, 2023).

Digital Marketing and activity on the Internet are one of the most important fields of interest for businesses in the current era. This process has affected the practices, trends, and rules of interaction with customers. Promotional tools and establishing relationships with customers in the current environment are known as Internet advertising. Internet advertising includes cooperation and interaction between the buyer and the seller in such a way that the seller actively participates in the buying behavior of customers and tries to brand his products and services using technological capabilities (Keke, 2022).

Understanding and building relationships between customers and brands has become an essential function of today's business world due to the increasing competition in the modern business environment. As a result of today's society's increasing trend towards technology, social media have become the most widely used business digital platforms.

Marketers are accustomed to using social media brand interaction tools that are user- and company-created. Due to the continuous increase in the cost of social digital media marketing, there is a need to find the most efficient and profitable means of communication before investing (Chandra & Panditha, 2022). Considering the importance of social networks in changing the power structure of the market, what is evident is the occurrence of power transfer and the emergence of new, powerful, and knowledgeable customers who cannot be easily influenced, retained, and convinced. Therefore, businesses are trying to use appropriate models to communicate with customers on social networks (Phan et al., 2022).

One of the competitive markets in the Internet field is the cosmetics industry. The cosmetics market in Iran is a very big one that has turned it into an attractive space for business. Per capita consumption of cosmetics in Iran is 2.5 times the world average, and 1.6 billion dollars from the market of these consumer products in Iran are smuggled and counterfeit. In general, 4.5% of Iranian families spend on cosmetics, while the global average is 2.6% of household spending on cosmetics (Shaori, 2021). The total market value of cosmetics is 41 thousand billion tomans, of which 18 thousand billion tomans is the share of detergents and 23 thousand billion tomans is the share of cosmetics, and now 35% of this market is owned by domestic products (Shabani, 2022). Statistics show that 14 million Iranian women account for 1.2 billion dollars of the 2.7-billion-dollar market in the Middle East and the 160-billion-dollar market of cosmetic products in the world (Mirfardi & Safarpour, 2022).

Due to the possibilities that technology has provided to business owners, many activists, intermediaries, and business owners have turned to the supply and sale of cosmetics and health products on the Internet. Advertisements and marketing in social digital platforms influence customer experience, on the quality of relationship with customers, loyalty, and participation intention of customers of cosmetics and health products (Kristofferson & Dunn, 2023). Cosmetics sellers have properly realized that only focusing on price cannot be the factor of their superiority and they should also focus on other elements of the marketing mix. Among the elements of marketing mix, advertisements and promotions are the focus of attention of marketers in this industry (Hagtvedt, 2022).

In fact, Internet advertising is not only an important channel for

attracting new customers, but also an important source of income for site managers and social pages (Taiminen and Ranaweera, 2019). Internet advertising is an efficient way to sell cosmetics and health products because it provides the use of multimedia facilities to make these products more effective in the minds of customers. For this reason, perhaps, the use of Internet advertising in the marketing of cosmetic products enjoys a special place (Mozaffari et al., 2023).

Social digital media has provided a suitable digital platform for brand-customer interaction in the cosmetics industry. Companies and businesses in this industry are trying to gain a better position in the competitive arena by branding on the Internet. In general, the development of relationships with customers has a significant impact on the performance of individuals and companies active in the cosmetics industry. Businesses have rightly realized that the new tools provided by the Internet can help build a long-term relationship with customers. Establishing a long-term buyer-seller relationship is not a new issue in marketing, but based on digital developments, interaction with customers also needs to be redefined based on new principles governing the industry. On the other hand, a review of the research literature shows that many businesses use the same traditional methods to communicate with customers in the era of technological developments. Designing a model for connecting brands with customers in social networks is a key issue that has been neglected in research literature. To cover the existing research gap, the present study was conducted with the aim of modeling the brand-customer relationship in the cosmetics industry of the country. In order to model brand-customer relationships, its underlying factors must be identified. The present study answers the key questions of 'what are the main categories of brand-customer relationship modeling in social networks, and what the relationship pattern between these factors is?'

Literature Review

Social digital media have become pervasive communication tools that create connections and opportunities to interact with customers (Shawky et al., 2020). Social networks have given real meaning to customer relationship management and are not only a tool for obtaining information and deep knowledge from customers, but also have provided the possibility of increasing customer participation in organizational life and social networks. Therefore, new approaches to

branding have been provided in the context of social networks, which are known as virtual brand communities. These communities help business owners to develop their business by increasing customer participation (Kaur et al., 2020). A business that can build a strong and successful brand in cyberspace will be more successful in its market performance. Today, customer interactions with businesses are no longer one-way, and virtual space and social networks have become more important than ever. On the other hand, for brands to create value for customers, businesses must consider the needs and conditions of customers. One of these techniques is connecting customers with the brand. Customers who engage with the brand not only provide the required information but also help businesses to form brands that correspond to the needs of individual customers (Vlachvei et al., 2021).

Companies active in the field of e-commerce can improve their position with customers with the help of online branding. Companies use several online branding strategies, all of which aim to improve the company's brand position. The revolution in information and communication technology has changed the way people and organizations conduct their businesses. Accompanying the word digital with words such as trade, business and marketing indicates a new philosophy that managers and organizations must follow to gain and maintain a competitive advantage (Shafiiian et al., 2022). In fact, one of the most important trends in the last decade is the growth and development of Internet businesses. This development is due to the benefits that online business brings about. On the other hand, this issue has increased the number of competitors and intensified the competition between internet businesses. Customers have also gained more choice, and customer loyalty seems to have decreased in the field of digital commerce. Companies must have a written marketing plan to introduce their brand to be successful in the field of digital business (Olson et al., 2021).

Rapid changes and the speed of technology growth have created various challenges for companies, and among them, the companies that use the opportunities created for the benefit of their business with the help of marketing tools and new technologies are successful. Considering that digital tools enable direct and unmediated communication between organizations, the use of Internet advertising can support the company's brand through the creation and continuation of relationships with customers in the online business environment

(Safavi et al., 2021). Branding is the goal of digital marketing. From this point of view, many researchers have defined Internet advertising as advertising and promoting the brand among consumers using all digital media. Therefore, Internet advertisement seeks to put together digital tools to advertise and promote the brand to customers to create a long-term mental image in them (Khosravi et al., 2022). In fact, digital branding helps Internet businesses to provide their products and themselves to customers with more speed and less cost in the current digital world. With the help of digital branding, products or services can be introduced even in the most distant places to attract more customers (Ozcan & Gunasti, 2019).

Social digital media provides an opportunity to communicate, share, and exchange information with customers. Social media is increasingly used as a platform for marketing and advertising activities. Social media is increasingly finding its place in all aspects of our lives. Social media is a new place where people, organizations, and even governments can interact with each other in commercial, social, political, and educational interaction and exchange information, thoughts, products, and services (Heydarzadeh et al., 2022). The concept of social media was first proposed in 2010 by Kaplan and Hanlein. According to these two authors, the term mass media is a collection of programs that have a technological and ideological basis and are based on the Internet and enable the creation and exchange of content by users. Social networks are one of the most popular social media such as Instagram, Facebook, and Twitter. Various information brands can be shared in these networks (Karray, 2022). There are many reasons why people join these networks, sometimes to get information, sometimes people join these networks just for fun (Wang et al., 2021). Therefore, social networks suggest new ways to develop their networks, by which they have more new social connections and maintain or sometimes rebuild their old connections. And all these activities are possible on the Internet and virtual space (Bilro et al., 2022).

Instagram is the fastest growing form of social media where users post photos and videos. Although this type of communication is relatively new, this medium is growing rapidly and has attracted millions of people (Rezazadeh et al., 2022). People are increasingly considering social media such as Instagram as an important part of their daily lives, and it is highly possible that they will transfer their interactions with businesses entirely to virtual platforms. This, in turn,

has positively reflected on their orientation and behavior towards various types of social media technology. Therefore, social media programs have become one of the most effective concepts in most aspects of life and of course business (Zhang and Hou, 2022). In today's business, where organizations are facing intense competition, they can make the process of attracting customers easier by increasing the attractiveness of the brand. Organizational brand is a high-level factor for achieving a sustainable competitive advantage through which higher profits are earned by the organization. Companies can increase the reputation and image of their brand through digital technologies and embracing digital developments (Liu et al., 2020).

In the field of marketing of cosmetics and health products, various studies have been conducted in Iran, and some of the most recent and relevant ones have been discussed. Mohammad Ajirlo and Rahimkhani (2023) studied designing a B2B Digital Marketing Implementation Model with an Emphasis on Artificial Intelligence-based Customer Relationship Management. The purpose of that research was to design a business-to-business marketing implementation model with an emphasis on customer relationship management based on artificial intelligence. That study was a type of mixed research with a qualitative-quantitative approach, which is a survey study in terms of its purpose, application, and data collection. In the qualitative part of the data collection tool, a semi-structured interview with 18 specialists and experts in the field of business-to-business digital marketing and university professors who were selected by snowball method. The quantitative part includes a targeted sampling with 35 digital marketing experts and data gathered through a questionnaire. In the qualitative part of the data analysis method, the Grounded theory approach was used based on the Strauss and Corbin method, which is compiled using the MAXQDA software and the coding method. In the quantitative part, the validation method was based on the Kendall correlation test. The results showed that company managers should pay attention to factors such as customer relationship management based on artificial intelligence (analytical, collaborative, and operational) to implement digital marketing from business to business and try to weaken the inhibiting factors and strengthen the positive and influential factors Allahwardi and Landran (2022) investigated the role of social media marketing activity in the cosmetics industry and studied customer experience on loyalty intention and customer participation intention

with regard to the mediating role of relationship quality. Shabani (2022) identified and prioritized the elements of the marketing mix in the cosmetics industry from the point of view of the final consumer. Among the product factors, it was identified as the most influential factor on the marketing mix in the cosmetic industry. The factor of quality, price, balance, sales promotion, and multiple sales channels had the greatest impact. Mirfardi and Safarpour (2022) conducted a thematic analysis of female students' use of new makeup accessories and patterns. The results of their research showed that the most important reasons for the students' tendency towards makeup accessories and patterns fell in the categories such as "gender, attitude, and identity", "fashionable function of mass communication tools", "reference and social influence of the peer group", "internal concern" and "dual appearance and moral orientation of men". Loureiro (2023), in research entitled "overview of the brand journey and opportunities for future studies", showed that from the customers perspective, marketers can prepare surveys using scales already developed by academics that can measure the psychological characteristics of the brands, which are positioned on the right side of the framework.

Karray (2022) showed that the platform benefits from introducing a strong store brand to the detriment of manufacturers. Maffei (2021) investigated the marketing performance during maturity stage of products and effective marketing strategies in the cosmetics industry. The results of the research indicated that marketing strategies for increasing consumption, market development strategy, strategy for rising sales volume and strategy for increasing influence on the marketing mix are effective in the maturity stage of the product in the sales market of cosmetic products; And the marketing strategies of maintaining the current market share do not have a significant impact on the marketing mix of this maturity stage of the product life.

Ankita Sharma & Swati Sharma(2024) studied the adoption of digital marketing in tourism SMEs. This paper aims to present a review of small and medium-sized enterprise (SME) literature on the adoption of technology for marketing with the objective the knowledge trajectory from SMEs to tourism SMEs (TSMEs) and presents a research agenda for the adoption of digital marketing among TSMEs. The quantitative literature review method is adopted to analyze 50 articles published in high-ranking journals from 2011–2021. The selected papers were reviewed to quantitatively present the popular theoretical frameworks,

constructs and research methods used for the adoption of digital marketing among SMEs and to present a future research agenda in the context of TSMEs. The findings present a review of theoretical approaches, research design, methods, and models used by researchers, and identify new directions for future research in the context of the adoption of digital marketing among TSMEs.

Method

This research is applied-developmental research that aims to design a brand-customer interaction model in social media in the cosmetics industry. Based on the method of data collection, it is non-experimental (descriptive) research that is carried out with a cross-sectional survey method. In terms of the method of data analysis, it is mixed research (qualitative-quantitative).

The population of participants in the qualitative section includes theoretical (marketing professors) and experimental (cosmetics industry managers). The criterion for selecting managers was limited to fifteen years of management experience and a graduate degree. The experienced marketing professors in the field of brand management also included faculty members. The sampling was done with a purposeful method, and theoretical saturation was achieved with 20 interviews. The statistical population of a quantitative section included the customers of cosmetic-hygienic brands. According to Cochran's formula, the minimum sample size of 384 people was estimated for indeterminate communities. Sampling was done with the convenience method and continued until reaching the minimum required volume.

The main tool for research data collection included a semi-structured interview and researcher-made questionnaire. The interview included 6 primary questions and was conducted in a semi-structured manner. The research questionnaire includes 8 main constructs and 49 items in a five-point Likert scale.

Holstein's method (observed agreement percentage) was used to check the validity of the qualitative part (Holsti, 1969). In this method, the rate of agreement between two coders was 0.674, which is more than 0.6. So, the qualitative analysis has acceptable validity. To measure the validity of the questionnaire, content validity (opinion from experts) was used, and its validity was confirmed. Likewise, the total Cronbach's alpha of the questionnaire was 0.811 in a pilot study. After distributing the questionnaire in the selected sample, the validity of the

questionnaire was checked with three methods of construct validity (external model), convergent validity (AVE) and divergent validity. The AVE value for all variables should be greater than 0.5. In order to calculate the reliability, composite reliability (CR) and Cronbach's alpha coefficient of each factor were calculated. The combined reliability and Cronbach's alpha of all dimensions should be greater than 0.7 (Hair et al., 2021). The results related to each of these indicators were presented in the outer fitting of the model.

Theme analysis was used to identify brand-customer relationship categories. Partial least squares method was used to validate the model. Data analysis in qualitative phase and in quantitative phase was done with Maxqda software and Smart PLS software, respectively.

Findings

In the qualitative section, the viewpoint of 20 experts on brand-customer interaction was utilized. Of these experts, eight were marketing professors, and 12 were cosmetics industry managers. Educationally, seven possessed master's degrees, while 13 held Ph.D. qualifications. In terms of professional experience, five participants had worked between 15 and 20 years, while the remaining 15 had over 20 years of experience.

Regarding customer demographics, 315 (79%) of the participants were female, and 85 (21%) were male. Across different age groups, 136 (34%) were under 30, 161 (40%) were between 30 and 40, 76 (19%) were between 40 and 50, and 27 (6%) were over 50 years old. Academically, 98 (25%) had associate degrees or below, 148 (37%) held bachelor's degrees, 138 (35%) had master's degrees, and 16 (4%) were Ph.D. holders.

To portray the model of brand-customer interaction on social media, specialized and semi-structured interviews were conducted with cosmetics industry managers. Five open questions were posed prior to the interviews, with additional questions emerging during the discussions. In order to delve into the richness and extent of the data content, the researcher engaged in repeated readings and active interpretations to discern meanings and patterns.

The results of the interviews were analyzed by thematic analysis method. Thematic analysis was based on the six-step method of Etrid-Straling (2001). For this purpose, the interviews were recorded, and were transcribed along with descriptive details (including how the

interviewees expressed their feelings facing questions, environmental conditions, etc.). Next, the researcher studied them several times and wrote the initial ideas started (Tenenhaus et al., 2007). This step formed the backbone of the next steps. It is in this step that good ideas about encodings and patterns are formed. After this, the researcher started the coding process. Coding is done and defined throughout the analysis process. In the next interview, the coding and analysis were repeated as each interview was added. Interviews continued until data saturation was reached. The criterion to achieve data saturation has been to achieve repetition in extracting codes. 235 codes were identified in the open coding stage. Finally, three overarching themes, eight organizing themes, and 49 basic themes were obtained through axial coding. A summary of the results is presented in Table 1.

Table 1. Indicators of brand-customer interaction model in social media

Comprehensive	The organizer	Basic themes
Brand factors	Brand recognition	"Acquainting customers and Instagram users with the brand"; "Brand differentiation with competitors for Instagram customers"; "Seeing more and more brand products and services"; "Awareness of the latest services and brand products"; "Getting enough information about the brand"
	Brand Identity	"Creating product brand differentiation with competitors' brands among Instagram users"; "Subjective perception of brand quality among Instagram users"; "Redefining the position of the brand in the minds of customers"; "Special and unique brand mentality among Instagram users"
	Brand interaction with customers	"Increasing the ability to inform potential customers of Instagram"; "The possibility of direct interaction with users on Instagram"; "Strengthening interaction and interaction skills with users on Instagram"; "Knowing the needs of Instagram customers"; "Considering discounts for customers"; "The possibility of providing twenty-four-hour information to the customer"; "Possibility of holding contests and awarding rewards to Instagram users"; "Holding events and presenting various offers"

		to customers"; "Establishing electronic interaction with customers on the platform of Instagram"
	Positive word of mouth marketing	"Introduction of brand products and services to friends and acquaintances"; "admiration and praise of the brand by family and first-class relatives"; "Resending and sharing brand pages with others"; "encouraging and persuading others to use the brand"; "Providing constructive information about the brand to others"
Marketing factors	Effective marketing	"Accessing to influential Instagram influencers"; "Finding a specific brand audience using a celebrity"; "Communicating with customers through the right influencers"; "Using social network stars"
	Digital content marketing	"Producing new content about the brand on Instagram"; "Producing attractive content about the brand on Instagram"; "Producing targeted content on Instagram"; "Using multimedia facilities to produce content"; "Production of content compatible with previous content"; "Providing transparent information according to the needs of customers"; "Presenting specialized information in a simple and understandable way"
Interaction factors	Brand positioning on Instagram	"Maximum attraction of true followers"; "keeping followers and customers on the page"; "Increasing the number of views of customers and users in each post"; "The high ratio of the page's audience compared to the pages of competing brands"; "The trending of brand posts and published content on Instagram"; "Popularity of brand hashtags on Instagram"; "Republishing posts and brand content on other virtual pages"; "Increasing the number of messages and orders in Instagram Direct"
	Brand-customer relationship	"Establishing the emotional and emotional connection of customers with the brand"; "Customers' feeling of attachment and interest in the brand"; "Arousing the feeling of brand love in the customer"; "Being curious and obtaining information about the brand"; "Feeling the pleasure of being with the brand among customers"; "Providing feedback and reacting to the brand"; "Attending to the content related to the brand"

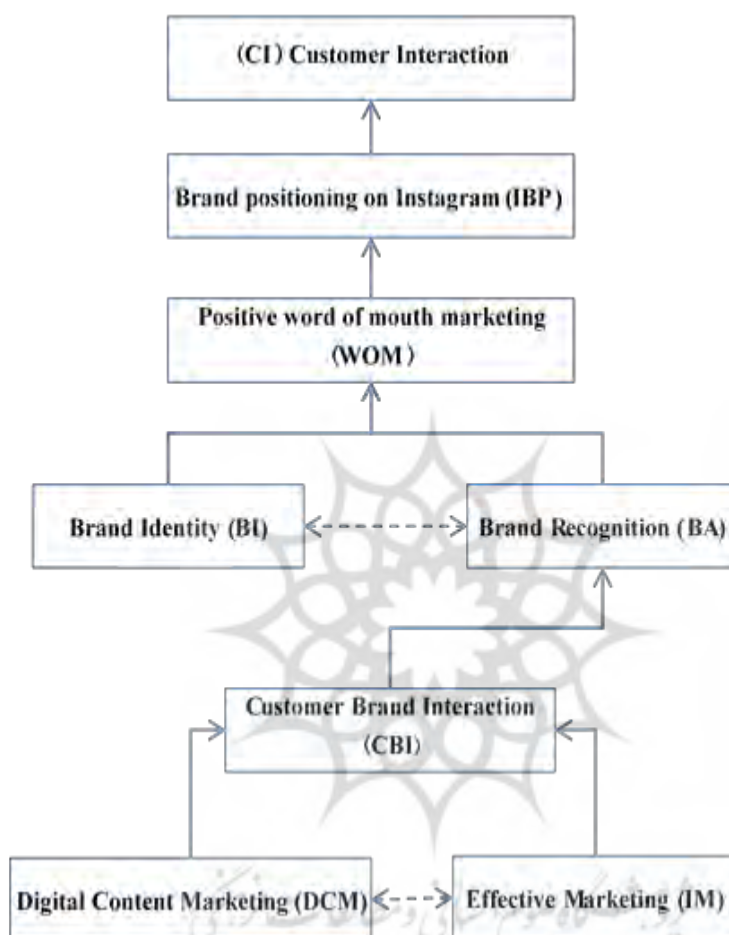


Figure 1. Brand-customer interaction model in social media

After presenting the brand-customer relationship model in social media, Partial Least Squares (PLS) method was used for validation. The final structural model of the research is shown in Figure 2. In this model, which is the output of Smart PLS software, a summary of the results of the brand-customer relationship model in social media is presented in standard estimation mode. The t-statistic and bootstrapping value to measure the significance of relationships are also shown in Figure 3.

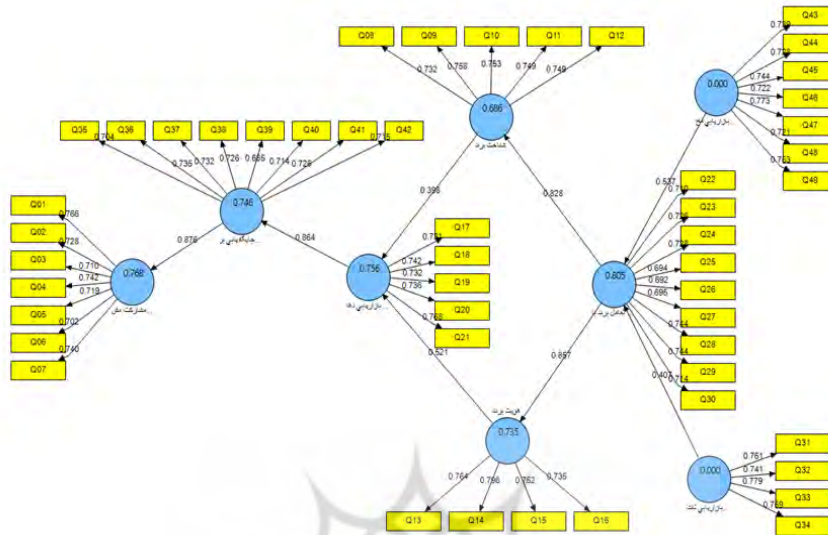


Figure 2. partial least squares technique of the overall research model (standard estimation)

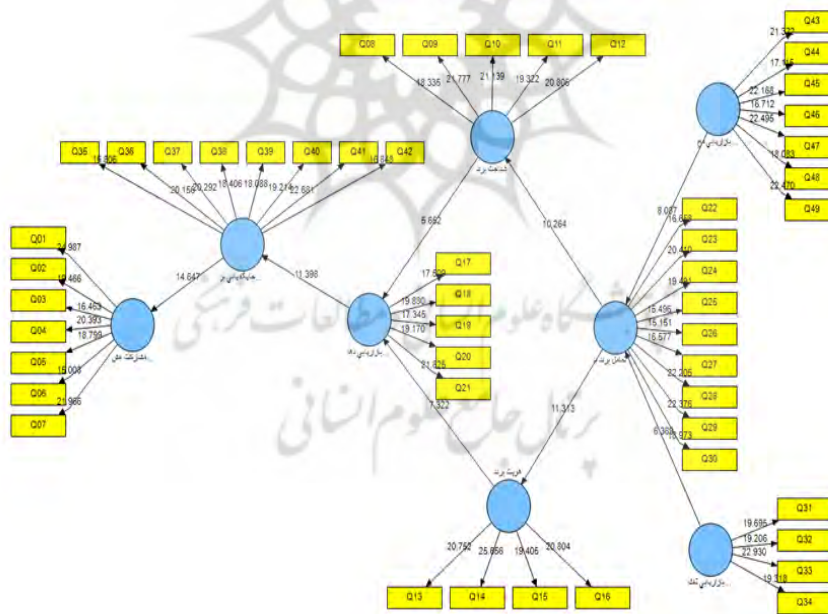


Figure 3. Partial least squares technique of the overall research model (meaning)

The results shown in Figures 2 and 3 reveal that the factor loading

is greater than 0.5 in all cases, and the t-statistic is greater than 1.96. Therefore, the structures have been correctly measured. The relationships between the main structures are known as the internal model (structural part). The external model (measurement) was evaluated based on three indices of convergent validity, composite reliability and Cronbach's alpha. The summary of the measurement model fit evaluation results is presented in Table 2.

Table 2. Assessment of the fit of the measuring part of the brand-customer relationship model

Main constructs	AVE	Composite reliability (CR)	Cronbach's alpha
Effective marketing	0.578	0.846	0.757
Positive word of mouth marketing	0.551	0.860	0.796
Digital content marketing	0.548	0.895	0.863
Brand interaction with customers	0.513	0.905	0.881
Brand positioning on Instagram	0.510	0.895	0.865
Brand recognition	0.560	0.864	0.804
Brand-customer relationship	0.533	0.889	0.854
Brand Identity	0.581	0.847	0.759

According to Table 2, the average variance extracted (AVE) is greater than 0.5. So, convergent validity is confirmed and because Cronbach's alpha and combined reliability of all variables are greater than 0.7, all variables are confirmed in terms of reliability. The relationships between the main structures (structural part) were investigated based on the path coefficient and t-statistics. The summary of the test results of the relationships between the main constructs is given in Table 3.

Table 3. Summary of the test results of the relationships between the main constructs

Relationships	Impact factor	t-statistics	Result
Effective marketing-Brand interaction with customers	0.407	6.389	Confirmed
Digital content marketing- Brand interaction with customers	0.537	8.087	Confirmed
Brand interaction with customers-Brand recognition	0.828	10.264	Confirmed
Brand interaction with customers-Brand Identity	0.858	11.313	Confirmed
Brand recognition-Positive word of mouth marketing	0.398	5.652	Confirmed
Brand Identity-Positive word of mouth marketing	0.521	7.322	Confirmed
Positive word of mouth marketing-Brand positioning on Instagram	0.864	11.369	Confirmed
Brand positioning on Instagram-Brand-customer relationship	0.876	14.647	Confirmed

The coefficient of determination index (R²) and predictive relevance index (Q²) were used to measure the predictive power of the model. These two indices are calculated for endogenous variables. The coefficient of determination shows the amount of change of dependent variables by independent variables. The higher the coefficient of determination of endogenous structures of the model, the better it indicates the fit of the model. Three values of 0.19, 0.33, and 0.67 are used as criteria values for weak, medium, and strong fit of the structural part of the model by means of the coefficient of determination criterion (Chin, 1998). Predictive correlation index was introduced by Stone and Geysler, sometimes called Stone-Geysler index. If the value of (Q²) is positive, it shows that the model has a suitable predictive power (Hair

et al., 2021). The indices of model prediction power (R²) and (Q²) are reported in Table 4.

Table 4. Predictive power of the model

Main constructs	Coefficient of determination	Q ²
Positive word of mouth marketing	0.756	0.409
Brand interaction with customers	0.8.5	0.407
Brand positioning on Instagram	0.747	0.368
Brand recognition	0.686	0.365
Brand-customer relationship	0.768	0.393
Brand Identity	0.735	0.414

Based on the results of Table 4, the coefficient of determination of the endogenous constructs of the research model is favorable. The value of brand-customer relationship determination coefficient is reported as 0.768. This shows that the variables of the model have been able to explain about 77% of the changes in the brand-customer relationship. The index (Q²) is also obtained in all positive cases. Thus, the model has a good predictive ability.

The effect size (F²) is the number of changes that the independent variables have on the dependent variables. In fact, this index shows how much changes will be made in the dependent variable if an independent variable is removed. This index was presented by Cohen. A value of 0.02 (weak), 0.15 (moderate) and 0.35 (large) is considered (33). The effect size values are presented in Table 5.

Table 5. Effect size of research constructs

Relationship	Effect size
Effective marketing -Brand interaction with customers	0.199
Digital content marketing- Brand interaction with customers	0.405
Brand interaction with customers- Brand recognition	0.553
Brand interaction with customers- Brand Identity	0.572

Brand recognition- Positive word of mouth marketing	0.188
Brand Identity- Positive word of mouth marketing	0.373
Positive word of mouth marketing- Brand positioning on Instagram	0.585
Brand positioning on Instagram- Brand-customer relationship	0.618

The effect size was not less than 0.02 in any of the cases, and in most cases, it was estimated to be moderate to strong. The GOF index is an index that was invented by Tenenhaus et al. (2005) to check the fit of the overall model (measurement part and structural part). Three values of 0.01, 0.25 and 0.36 have been introduced as weak, medium, and strong values for Gof (Tenenhaus et al., 2005). Of course, the use of this index has been associated with doubts in recent years. The GOF index is equal to 0.624, so the model has a good fit.

Discussion

The present research was conducted with the aim of presenting and validating the brand-customer interaction model in social media (case study: cosmetics industry). In this section, by using the results related to the software analysis of the research data, the results related to each of the hypotheses were compared with the existing literature in this case and the results presented in each case were analyzed. The general themes of the model included brand, digital marketing, and interaction factors. Factors related to self-branding included three organizing categories, which were brand awareness, brand identity, and brand interaction with customers. Marketing factors included positive word-of-mouth marketing, influencer marketing, and digital content marketing. Finally, interaction factors included brand positioning on Instagram and brand-customer interaction. Kennedy & Guzmány (2020), examined the implications of brand interaction but lacks the knowledge of communication quality of customers and the impact of brand on customer brand interaction.

The first hypothesis: the coefficient of effective marketing on brand interaction with customers has been obtained as 0.407. Effective marketing has a positive and significant effect on brand interaction with customers.

The research findings of Karray (2022) show that cultural value

affects the customer's interactive behavior. Individualism and power distance indirectly affect brand responsibility and self-centeredness between brand ownership and customer interaction behavior. The research findings of Anikta (2024) present a review of theoretical approaches, research design, methods, and models used by researchers, and identify new directions for future research in the context of the adoption of digital marketing among TSMEs. The paper presents a theoretical critique of the technology adoption theories and builds on diffusion of innovation theory, technology–organization–environment (TOE), and institutional theory to propose an expanded model to study digital marketing adoption among TSMEs.

The second hypothesis: the coefficient of digital content marketing on brand-customer interaction is 0.537. Digital content marketing has a positive and significant effect on brand-customer interaction. In a research called prioritization of factors affecting brand marketing in order to create brand equity, Masafari Bahri and Shahroudi (2013) tried to identify criteria that influence brand marketing strategies and prioritize them in order to create and improve brand equity. In this research, price strategy, people and distribution channel have been given the highest priority. Considering the commonality observed in the two variables "effective marketing" and "brand interaction with the customer", the innovation of the research compared to the previous researches is the examination of both variables in this research, and the effectiveness and significance of both variables are emphasized in this research.

The third hypothesis: the coefficient of influence of brand interaction with customers on brand recognition has been obtained as 0.828. Brand interaction with customers has a positive and significant effect on brand recognition. Rahim Nia and Lotfi (2014) conducted a research on the effect of brand interaction, service quality and brand experience with the mediation of brand trust on brand loyalty. The purpose of this study is to investigate the role of factors affecting the most important output with value, namely brand loyalty, which is more stable and strategic compared to other cases. One of the shortcomings of the conducted research is that it is a review that is why this research lacks hypothesis. Brand interaction with customers and brand interaction is possible through customer trust

The fourth hypothesis: the coefficient of influence of brand interaction with customers on brand identity has been obtained as 0.857.

Brand interaction with customers has a positive and significant effect on brand identity. In most studies, the role of knowledge on the quality of customer interaction and the effect of the brand on the interaction between customers are less mentioned. Rivanovic et al. (2023) research, which aimed to investigate the impact of the variety and use of smartphones on the quality of communication and customer interaction. The findings of this research show that the higher the level of satisfaction, trust and commitment towards the brand, the higher the level of interaction. Cheri (2016) conducted a research on the perceived benefits and the impact of individual personality and brand identity on behavioral interaction. In this research, an attempt was made to examine internal and external factors affecting interaction. With this research, marketers can identify customers with different tastes. As it is known, "brand quality" and "brand identity" are two important variables and these two factors have been introduced in the interviews conducted with experts, and after the qualitative and quantitative analysis, the impact and significance of these two variables have been emphasized.

The fifth hypothesis: the coefficient of brand recognition on positive word-of-mouth marketing has been obtained as 0.398: brand recognition has a positive and significant effect on positive word-of-mouth marketing. Soltani Nejad and Nowrozi (2016) conducted a research on the effect of brand recognition on store brand identity. The main goal of brand management was to create and maintain brand awareness. The necessity of this research was about the effect of brand recognition on determining brand identity. In the current research, from the point of view of experts and customers, brand recognition has a positive effect on word-of-mouth marketing and is considered as one of the important factors in brand-customer relationship management.

The sixth hypothesis: the coefficient of brand identity impact on positive word-of-mouth marketing has been obtained as 0.521. Brand identity has a positive and significant effect on positive word-of-mouth marketing. Maleki (2013) conducted a research entitled the effect of online social networks on brand equity and positive word-of-mouth marketing in the market, emphasizing the willingness to use online social networks. The main purpose of the research was to examine the impact of online social networks on brand equity and positive word-of-mouth marketing in the market, emphasizing the willingness to use online social networks in mobile phone brands. The research findings indicated that there was a positive relationship between the

characteristics of online social networks, with positive word-of-mouth marketing in the market, the willingness to use online networks and customer-based brand equity. The previous research and the current research have something in common on "Positive Word of Mouth Marketing". In the current research, two variables "brand personality" and "positive word-of-mouth marketing" have a positive and meaningful effect on brand-customer relationship management.

The seventh hypothesis: the coefficient of positive word-of-mouth marketing on brand positioning on Instagram has been obtained as 0.864: positive word-of-mouth marketing has a positive and significant effect on brand positioning on Instagram. Rostgar and Khabani (2018) conducted a research on Mitani's success on positive word-of-mouth marketing and market control. They investigated the moderating role of brand management capability. The results of this research show that the effect of two approaches is in achieving success, creating a valuable brand is a way to achieve success in brand-oriented organizations while market-oriented organizations use regulation of consumer behavior to achieve success.

The eighth hypothesis: the coefficient of influence of brand positioning on Instagram on brand-customer relationship has been obtained as 0.876. Brand placement on Instagram has a positive and significant effect on brand-customer relationship. Khodadad Hosni et al. (2017) carried out a study on the impact of social media marketing on consumer behavior. They investigated the role of brand equity, brand relationship quality and attitude towards the brand. This research aimed to investigate the impact of social media on consumer behavior through brand equity, brand relationship quality, and brand attitude.

Conclusion

Based on the results of the research, the following systematic suggestions are presented. Regarding the brand-customer relationship, it is suggested that business owners on Instagram take the necessary measures to establish emotional and emotional connection between customers and the brand and to create a feeling of attachment and interest of customers to the brand. In order to increase the customer's participation, it is necessary to arouse the feeling of love of the brand in the customer and curiosity and obtain information about the brand. Similarly, the feeling of pleasure associated with the brand among the customers will also lead to feedback and reaction to the brand and

attention and attention to the contents related to the brand among the customers.

Regarding brand recognition, it is suggested that the more familiarity of Instagram social platform customers and users with the brand increases, the clearer the brand's differentiation from competitors will be for Instagram customers. Seeing more and more brand products and services and being aware of the latest brand services and products lead to getting enough information about the brand and this has a direct impact on customer participation.

According to the brand identity, it is suggested that business owners on Instagram improve the mental perception of brand quality among Instagram users by differentiating the product brand from competitors' brands. Furthermore, redefining the position of the brand in the minds of customers has a great impact on the special and unique mentality of the brand among Instagram users. Regarding positive word-of-mouth marketing, it is suggested that if customers introduce the brand's products and services to friends and acquaintances and praise the brand to family and first-class relatives, business owners on Instagram have been able to achieve positive word-of-mouth marketing. Among the other important factors in this field, we can mention the marketing and sharing of brand pages with others, encouraging and persuading others to use the brand and providing constructive information about the brand to others. Since the trust and satisfaction of users has a significant impact on the brand, this variable is effective in reducing service degradation. The measurement of the positive word of mouth marketing with periodical tests is suggested. Moreover, if the level of trust and satisfaction among users decreases, look for a way to resolve the situation.

In the realm of brand interaction with customers on Instagram, it is recommended for business owners to broaden their communication and interaction scope with customers. This can be achieved by enhancing the capacity to inform potential Instagram customers and engaging in direct communication with users on the platform. Strengthening communication and interaction skills on Instagram, coupled with a profound understanding of customers' needs on the platform, is crucial. Moreover, offering discounts, providing 24-hour customer support, hosting contests, awarding prizes, organizing events, and presenting various enticing offers to customers can foster electronic engagement with customers on Instagram. Brand interaction with customers

emerged as a pivotal variable in this study, significantly influencing brand popularity from customers' perspectives. Companies and virtual networks are encouraged to uphold this variable within the production sector by conducting quality control tests and delivering top-notch after-sales services for their products.

Regarding effective marketing strategies on Instagram, business owners are advised to enhance access to influential Instagram influencers and tailor their marketing efforts to attract a specific audience through partnerships with well-known personalities. Leveraging social media stars and implementing innovative marketing methods are pivotal in introducing products and services effectively in the cyberspace.

In terms of brand positioning on the Instagram social platform, it is recommended that business owners increase customer engagement by attracting genuine followers and retaining their interest on the page. Maintaining a high engagement ratio compared to competitor pages, as well as ensuring posts and content trend on Instagram, are essential elements in brand positioning. Utilizing brand hashtags, reposting content on other virtual platforms, and bolstering interactions via Instagram Direct messaging can further enhance brand visibility and customer engagement. Given Instagram's popularity in the virtual realm, emphasizing the practical and business-oriented aspects of the platform to users can foster familiarity with virtual businesses and potentially boost independent entrepreneurship.

According to the digital content marketing, business owners are encouraged to attract a larger audience by generating fresh and compelling content about their brand on Instagram. Tailoring content to meet customer needs, crafting multimedia-rich content, and presenting information in a clear and engaging manner are key strategies for enhancing brand positioning on Instagram and driving customer participation.

CONFLICT OF INTEREST: The authors declare that they have no conflicts of interest regarding the publication of this manuscript.

References

- Allahvardi, Z., & Landran, S. (2022). Investigating the role of social media marketing activity and customer experience on loyalty intention and customer participation intention considering the mediating role of relationship quality. *Management Studies and Sustainable Development*, 2(1), 65-90. (In Persian)
- Ajirlo, M., Mohammadkhani, M.,(2023). Designing a B2B Digital Marketing Implementation Model with an Emphasis on Artificial Intelligence-based Customer Relationship Management. *New Marketing Research Journal*, 13(3), No.50, 133-158. (In Persian)
- Ashfaq, M., Yun, J., Yu, Sh., & Loureiro, S. M. C. (2020). I, Chatbot: Modeling the determinants of users' satisfaction and continuance intention of text-based conversational agents. *Telematics and Informatics*, 54, 101473. <https://doi.org/10.1016/j.tele.2020.101473>
- Attride-Stirling, J. (2001). Thematic networks: an analytic tool for qualitative research. *Qualitative research*, 1(3), 385-405.
- Bilro, R. G., Loureiro, S. M. C., & dos Santos, J. F. (2022). Masstige strategies on social media: The influence on sentiments and attitude toward the brand. *International Journal of Consumer Studies*, 46(4), 1113-1126.
- Chandra, I., & Panditha, D. (2022). The influence of brand communication tools on consumer based brand equity. *International journal of multidisciplinary education and research*, 5(4), 1-5.
- Cheri, B., (2016). *The antecedents of consumer brand engagement: The role of relationship quality*, (master of business, MBus). Auckland University of technology in partial fulfilment of the requirements for the degree of Faculty of business and law MARS department.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 29(2), 295-33.
- Cohen, J. E. (2013). *Statistical Power Analysis for the Behavioral Sciences*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Hagtvedt, H. (2022). A brand (new) experience: art, aesthetics, and sensory effects. *J. of the Acad. Mark. Sci.* **50**, 425–428. <https://doi.org/10.1007/s11747-021-00833-8>.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications.
- Heydarzadeh, K., Ahmadnejad, A. R., & Lotfizadeh, F. (2022). The effect of advertising features in social media on customers' purchase intention with a descriptive research approach, *Journal of Marketing Management*, 16(55), 1-16. (In Persian)
- Holsti, O. R. (1969). *Content analysis for the social sciences and humanities*, Reading, MA: Addison-Wesley.

- Karray, S. (2022). The Profitability of Store Brand Introductions by E-commerce Platforms Selling Competing National Brands. In: Martínez-López, F.J., Gázquez-Abad, J.C., Ieva, M. (eds) *Advances in National Brand and Private Label Marketing*. Springer Proceedings in Business and Economics. Springer, Cham. https://doi.org/10.1007/978-3-031-06581-1_8.
- Kaur, H., Paruthi, M., Islam, J., & Hollebeek, L. D. (2020). The role of brand community identification and reward on consumer brand engagement and brand loyalty in virtual brand communities. *Telematics and Informatics*, 46(1), 311-321.
- Keke, M. E. (2022). The use of digital marketing in information transport in social media: the example of Turkish companies. *Transportation Research Procedia*, 63, 2579-2588.
- Khazri, M., Najafi, M., Nasri, F. (2022). The effect of social media marketing and customer perceived value on customer satisfaction with the mediating role of brand image and advertising costs. *Marine Management Studies*, 3(7), 5-23. (In Persian)
- Khodadad Hosni, S. H., Samii, N., & Ahmadi, P (2017). The impact of social media marketing on consumer behavior: Investigating the role of brand equity, brand relationship quality and attitude towards the brand. *Bi-Quarterly magazine of consumer studies*, 5(1), 59-37. (In Persian)
- Khosravi, Z., Siavashi, R., & Basir, L. (2022). Examining the effect of digital marketing on consumer buying behavior. *Modern Marketing Research*, 12(2), 21-42. (In Persian)
- Kristofferson, K., Dunn, L. (2023). The brand that wasn't there: The impact of brand displacement on viewer engagement and brand attitude. *J. of the Acad. Mark. Sci.* 51, 716–745. <https://doi.org/10.1007/s11747-022-00901-7>
- Liu, W., Yan, X., Li, X., Wei, W. (2020). The impacts of market size and data-driven marketing on the sales mode selection in an internet platform based supply chain. *Transp. Res. Part E: Logist. Transp. Rev.* 136, 101914.
- Loureiro, S.M.C. (2023). Overview of the brand journey and opportunities for future studies. *Ital. J. Mark*, 179–206. <https://doi.org/10.1007/s43039-023-00069-0>
- Mafi, R. (2021). Marketing performance in adulthood and effective marketing strategies. *New research approaches in management and accounting*, 5(71), 85-98. (In Persian)
- Maleki, F. (2013). The effect of online social networks on brand value and positive word-of-mouth marketing in the market with an emphasis on the willingness to use online social networks (MBA Master's Thesis).

University Faculty of Economics and Management and Administrative Sciences. (In Persian)

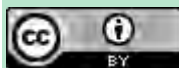
- Masafari B., M., & Shahroudi, K. (2013). Prioritizing factors influencing brand marketing in order to create special brand value (case study: Bank Sina), International Business Development and Excellence Conference, Tehran, Ide Pardaz Institute of Capital Managers. (In Persian)
- Mirfardi, A., & Safarpour, M. (2022). Thematic analysis of female students' use of new makeup accessories and patterns. *Women and society*, 13(49) 134-19. (In Persian)
- Mohammadi, M., Maliki, M., & Saidi, L. (2022). The effect of organizational capabilities on competitive advantage in National Bank Iran according to the role of market dynamics and building relationships with customers. *New Management Research Approaches*, 6 (85), 1074-1096. (In Persian)
- Mozaffari, S., Iranzade, S., Gharabeygloo, H. , Ranjpoor, R. (2023).The Conceptual Model for the Digital Content Marketing of Social Media to Boost Green Marketing, *International Journal of Digital Content Management (IJDCM)*, 4(6), 175-196
- Olson, E. M., Olson, K. M., Czaplewski, A. J., & Key, T. M. (2021). Business strategy and the management of digital marketing. *Business horizons*, 64(2), 285-293.
- Ozcan, T., Gunasti, K. (2019). How associations between products and numbers in brand names affect consumer attitudes: introducing multi-context numbers. *J Brand Manag* 26, 176–194. <https://doi.org/10.1057/s41262-018-0125-1>
- Perumal, R. K., Ullah, I., Inam, G., & Fah, B. C. Y. (2017). Impact of social media advertising on consumer buying behaviour towards cosmetic products in Lahore, Pakistan. In the context of modern problems.
- Phan, L., Le, Q. H., & Hoang, T. H. (2022). Customer brand co-creation on social media: a systematic review. *Marketing Intelligence & Planning*, 40(8), 1038-1053.
- Rahim Nia, F., & Lotfi, R. (2014). Global brand value chain: The Effect of brand communication, service quality and brand experience mediated by brand trust on brand loyalty. *International Conference on Management and Economics in the 21st Century*, 12, 17-1. (In Persian)
- Rezazadeh, V., & Pourabraham, A. (2022). Investigating the effect of word-of-mouth marketing on the sales performance of real estate units with the mediating effect of social networks. *Management Science Research*, 4(10), 352-371. (In Persian)
- Rivanovic, B., Zutshi, A., Grilo, A., & Nodehi, T. (2023). Linking the potential of extended digital marketing impact and start-up growth: Developing a macro-dynamic framework of start-up growth drivers

- supported by digital marketing. *Technological Forecasting and Social Change*, 18(6), 122-128.
- Rostgar, A. A., & Amini Khabani, G. (2018). Success based on positive word-of-mouth marketing and market control: Examining the moderator role of brand management capability. *Scientific quarterly of modern marketing research*, 9(2), 219-236. (In Persian)
- Safavi, S., Piran, A., & Taheri, F. (2021). Investigating the effect of online (digital) marketing by social media on the purchase intention of clothing consumers. *Knowledge-Based Business Management*, 2(6), 74-95. (In Persian)
- Saura, J. R., Ribeiro-Soriano, D., & Palacios-Marqués, D. (2021). Setting B2B digital marketing in artificial intelligence-based CRMs: A review and directions for future research. 1-178. *Industrial Marketing Management*, 98, 16
- Shabani, K. (2022). Identifying and prioritizing marketing mix elements in the cosmetics industry from the perspective of the final consumer. *Management Science Research*, 4(11), 136-146. (In Persian)
- Shafiiian, N., Aghaei, M., & Gharib Nawaz, R. (2022). Examining the digital marketing model using the database approach in the banking system. *Government Accounting*, 8(16), 59-72. (In Persian)
- Shaori, A. (2021). Per capita consumption of cosmetics in Iran. *Islamic Jamhvi Journalist*. Retrieved from <https://irna.ir/xjwmgX> (in Persian)
- Shawky, S., Kubacki, K., Dietrich, T., & Weaven, S. (2020). A dynamic framework for managing customer engagement on social media. *Journal of Business Research*, 121, 567-577.
- Soltani Nejad, N., & Nowrozi, H. (2016). The effect of brand recognition on store brand identity (case study of Refah chain stores in Kerman). *Brand Management* 3(2), 107-132. (In Persian)
- Taiminen, K., Ranaweera, C. (2019). Fostering brand engagement and value-laden trusted B2B relationships through digital content marketing, *European Journal of Marketing*, Vol. 53 No. 9, pp. 1759- 1781
- Tenenhaus, M., Vinzi, V. E., Chatelin, Y.-M., & Lauro, C. (2007). PLS path modeling. *Computational statistics & data analysis*, 48(1), 159-205.
- Vlachvei, A., Notta, O., & Koronaki, E. (2021). Effects of content characteristics on stages of customer engagement in social media: Investigating European wine brands. *Journal of Research in Interactive Marketing*, 49(1), 51-70.
- Wang, X., Wang, Y., Lin, X., & Abdullat, A. (2021). The dual concept of consumer value in social media brand community: A trust transfer perspective. *International Journal of Information Management*, 59, 102-115.
- Zhang, X., Hou, W. (2022). The impacts of e-tailer's private label on the sales

mode selection: from the perspectives of economic and environmental sustainability. *Eur. J. Oper. Res.* 296, 601–614.



How to Cite: Hashemnia, S., Karimi, O., Emamgholi, N. (2024). Presentation and Validation of Brand-Customer Communication Model in Social Media Platform: A Case Study: Cosmetics Industry, *International Journal of Digital Content Management (IJDCM)*, 5(9), 110-138. DOI: 10.22054/dcm.2023.72733.1194



International Journal of Digital Content Management (IJDCM) is licensed under a Creative Commons Attribution 4.0 International License.