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Knowledge Transfer Mechanisms in Electronic Word of Mouth Campaigns: Implications for Brand Equity

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ABSTRACT

 ${f T}$ his paper explores the intricate mechanisms underlying knowledge transfer in Electronic word-of-mouth (eWOM) campaigns and their far-reaching implications for brand equity in the digital era. The aim is to interpret how eWOM channels facilitate the strategies that can optimize knowledge transfer in eWOM campaigns to the benefit of brand equity. Through an extensive review of the existing literature and expert interview analysis, 187 codes were identified. Using 410 Likert questionnaires, the quantitative method was employed to test the proposed model. Exploratory factor analysis and PCA (Principal Component Analysis) method were used by SPSS software. By AMOS software, first and second-order confirmatory factor analyses were conducted to ensure a consistent factor structure between the items and structures. CR criterion was used to assess reliability. The AVE, GOF, TLI, CFI, NFI, and RFI indices were also used to evaluate the model. Understanding the underlying mechanisms of knowledge transfer in eWOM campaigns is essential for brand managers and marketers seeking to bolster brand equity in the digital landscape. Leveraging these mechanisms effectively can enhance brand reputation, customer loyalty, and overall business success. This research emphasizes the critical importance of eWOM strategies as a key driver of brand equity in the contemporary marketing landscape. ©authors

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1. Introduction

In today's digital age, the marketing landscape has undergone a profound transformation, with e-marketing campaigns playing a pivotal role in shaping brand perceptions and fostering consumer engagement. Central to this evolution is the concept of knowledge transfer (Braun & Warner, 2002; Mujeed et al., 2021), where information about a brand or product is disseminated from one entity to another (Afsar et al., 2011). In the context of emarketing campaigns, knowledge transfer is particularly critical as it directly impacts the way brands are perceived and endorsed (Kumar 2021). et al., Customer communication channels in social networks contain a wealth of information regarding customer opinions and experiences with a product or service (Sjukun & Yulius, 2023; Multan, 2022). Consumers and customers share their experiences with products and services in virtual communities that have no geographic boundaries. Moreover, electronic word-of-mouth is increasingly prevalent, significant, and necessary due to its intangible nature, particularly in the context of services. Services are predominantly influenced by experience and are challenging to evaluate prior to consumption. Therefore, consumers rely on shared experiences and electronic word of mouth (eWOM) to reduce the perceived risk associated with services. Therefore, research on electronic word-ofbecame popular mouth (eWOM) and the attention of researchers attracted worldwide (Verma, S., & Yadav, 2021). Viral marketing, also known as electronic word of mouth, refers to the use of the internet generate word-of-mouth to information in order to support business and marketing objectives (Jasin. 2022). Electronic word-of-mouth is more effective than offline word-of-mouth communication due to its greater accessibility and wider reach (Suhud, 2021). In other words, social networks have become a platform for customers to share their knowledge about a service or product. Therefore, brands operating in a competitive environment need to identify effective strategies for leveraging

customers' knowledge to their advantage in communication channels and social networks.

Customer knowledge transfer, in the realm of e-marketing, can be understood as the process by which consumers share and acquire information about brands, products, services through a varietv and of communication channels, ranging from personal conversations to online reviews and social media interactions. The importance of knowledge transfer in the digital age cannot overstated. However. customer be knowledge transfer has its challenges and issues (Kallberg & Engström, 2019). Some scholars believe that the quality of customer knowledge transfer could be assessed by the frequency and intensity of customer knowledge sharing (Weber & Weber, 2007). Eng et al. (2014) argued that implementation quality and sustainability are key factors in knowledge transfer. They suggested that strategies with a well-defined knowledge transfer plan are more likely to be successful.

As consumers are bombarded with an overwhelming amount of information, they increasingly relying are on the recommendations and experiences of others to make informed decisions. E-WOM, often facilitated through social media platforms and online communities, amplifies the reach and impact of knowledge transfer. Brands that leverage customer knowledge transfer mechanisms and electronic word-of-mouth (e-WOM) not only enhance their visibility but also gain trust and credibility among their target audience. Understanding how mechanisms operate these and their implications for brand equity is crucial for marketers aiming to succeed in the competitive e-marketing landscape. This aims to identify the primary paper mechanisms for transferring knowledge for brand managers and marketers. It also explores whether there is a significant relationship between e-WOM and brand equity influencing customers' behavior.

2. Literature Review

There have been numerous studies on eWOM and its effect on brand equity.

Studies show that despite the differences between traditional marketing and eWOM, the latter has a significant impact on customer behavior (Huete-Alcocer, 2017; Montazemi & Saremi, 2014; Syahrivar & which influences Ichlas. 2018) how customers transfer their experience and knowledge about a service or product (Sullivan & Kim, 2018). Social media has an influencing role in customer's choices based on this knowledge and experience transfer in weblogs, websites, and other kinds of usergenerated content. This fact helps brands to the mechanisms discover of loyalty. association, awareness, and image (Severi et al., 2014; Jalilvand & Samiei, 2012; Donthu et al., 2021); in other words, eWOM has a positive effect on all the attributes of brand equity (Mahar et al., 2022) and studying customer communication. knowledge transfer, and behavior is a foundation of eWOM research which can facilitate policymaking for brands.

Accordingly, companies are investing in social networking (Verbytska, 2023) based on customer feedback which can brighten the purchase intention in eWom which has a positive effect on customer purchasing decisions (Xaviera et al., 2022).

Considering the mediating effect of personal and social identification, electronic word-of-mouth marketing has a positive effect on personal identification, social identification, and electronic loyalty (Islami & Ghaderi, 2020). Also, electronic word-ofmouth advertising has a positive and direct effect on the acceptance of mobile banking, taking into account the driving factors of the expression, quality of value and sustainability of advertising, taking into account the mediating role of consumer participation (Ahmadi Esfahani, 2021). Social media marketing activities have a positive and significant effect on brand equity (brand awareness and brand image). Also, social media marketing activities have a positive and significant effect on customer responsiveness (electronic word-of-mouth advertising and loyalty) through brand equity (Haji Ali Akbari & Mousavi, 2018). Verbal recommendations or transfer of customers' knowledge have a significant effect on people's decisions in choosing services such as visiting the city of Isfahan (Jalilvand & Samiei, 2012).

In conclusion, the literature review has provided a comprehensive overview of a variety of factors within eWOM campaigns and their profound implications for brand equity, which in this paper we introduce them as knowledge transfer mechanisms. We have delved into the various dimensions of eWOM, exploring the role of social media, consumer engagement, and information dissemination. Additionally, we have examined the factors influencing knowledge including source credibility, transfer, message characteristics, and recipient characteristics. As we move forward in this study, it is evident that understanding these mechanisms is vital for brands seeking to harness the power of eWOM to enhance their brand equity. In the subsequent sections of this paper, we will empirically investigate these mechanisms and shed further light on the strategies that can optimize knowledge transfer in eWOM campaigns to the benefit of brand equity.

3. Methodology

Since this study builds upon the researchers' previous qualitative research, it can be classified as applied-developmental research. In terms of strategy, it incorporates quantitative elements of research, exploratory-confirmatory specifically research. The hypotheses of research include:

H0: There is no statistically significant effect of the word-of-mouth e-marketing variable based on knowledge transfer mechanisms on brand equity

H1: There is a statistically significant effect of the word-of-mouth e-marketing variable based on knowledge transfer mechanisms on brand equity

There are also 4 sub hypotheses:

- The effect of knowledge transfer mechanisms on technical and technological factors on word-of-mouth electronic marketing
- The effect of knowledge transfer mechanisms in human factors on oral electronic marketing
- The effect of brand equity on consumer perception
- The effect of brand equity on consumer behavior

Qualitative Phase

In the current research, interviews were conducted (Darvish et al., 2023) with three sources of data, including university faculty managers, members. and heads of organizations. This approach allowed for the examination of different points of view and the collection of more comprehensive and indepth data. Another method to ensure the high validity of the research is to analyze the negative cases. In the current research, the findings section presents the obstacles and current problems associated with presenting the model and opposing views. This approach enhances the realism of the research report and increases the validity of the study. Additionally, to assess the reliability of the completed codings, both the retest reliability method and the agreement reliability method between two coders (intrasubject agreement) were employed. For the reliability of the test, three interviews were selected from the conducted interviews. Each interview was coded twice by the researcher, with a 20-day interval between each coding session. The total number of codes in two 20-day time intervals is 187. There are 87 agreements between codes in these two time periods, and 13 nonagreements. The test-retest reliability of the interviews conducted in this research indicates that the ratio of agreements to the total number of codes is 93%. For the reliability of the interview using the withinsubject agreement method with two coders, a doctoral student in management was invited to participate in the research as a research associate (coder). Before starting the coding, they were given explanations about the desired pattern design and its various aspects. Then the researcher, together with this person, coded three interviews (M.1, M.4, M.5). The researcher and research associate registered a total of 133 codes. Out of these, there were 58 agreements between the codes, while 17 codes did not agree with each other. Reliability between two coders for the conducted interviews, i.e., the percentage ratio of twice the number of agreements to the total number of codes, is equal to 87%. In both methods, the reliability rate is over 60%. So, the reliability of the

codings has been confirmed (Weil, 1996), and it can be claimed that the analysis of the conducted interviews is reliable.

Quantitative Phase

After conducting qualitative research and constructing a Likert questionnaire, a quantitative method was employed to test the proposed model. Many tables and graphs have been used to describe the findings at this stage. In addition, central measures and measures of dispersion have been used to better describe the data. In this study, descriptive-analytical research methods and structural equation modeling have been used. First, the number of components (hidden variables) and structures or their corresponding items (observable variables) can be determined using exploratory factor analysis and PCA (Principal Component Analysis) method with the assistance of SPSS software. This involves clustering and reducing the number of items. It was discussed and, with the assistance of AMOS software, first and second order confirmatory factor analysis were conducted to ensure a consistent factor structure between the items and structures. This analysis also examined the relationship between the items and the components, as well as the components with the main structure. Regression analysis was also used to test the research hypotheses. The statistical population for the quantitative part of the research consists of customers of ecommerce companies. The sampling method used is a non-probability method, and the sample size is determined to be 384 using the Cochran sample size formula. 500 questionnaires were distributed among the participants, with the majority of them being sent and collected online. Out of these, 410 questionnaires were usable and analyzed. The reason for selecting this statistical population was their direct involvement with the subject being studied. Also, considering the large sample size and the result of the Kolmogorov-Smirnov (K-S) test, we accept the assumption of normality for the research data.

The research utilized Cronbach's alpha coefficient to assess the reliability of the current research questionnaire. For this purpose, the final version of the questionnaire was administered to a sample of 30 individuals from the target population. Subsequently, Cronbach's alpha coefficient was calculated using SPSS software. The coefficient calculated for alpha the researcher-developed questionnaire is 0.867, confirming the reliability of the research tool. To assess the construct's validity, we have displayed the regression coefficient and corresponding probability for each selected item in each component. It is important to note that all coefficients have a probability smaller than the error limit of 0.05. As a result, we reject the assumption of equality of the desired coefficients and conclude that all examined items are significantly loaded on their respective component. Therefore, our measurement tool demonstrates construct validity. The statistical population for this research consisted of managers and experts sales and marketing from private in companies, as well as managers and experts with a university education in the field of marketing working in universities, public and private organizations. A total of 500 questionnaires were distributed among them, with the majority being sent and collected online. Out of these, 410 questionnaires were deemed usable and were analyzed. This statistical population was used because of their involvement with the subject under study. Also, considering the high sample size and the Kolmogorov-Smirnov (K-S) test result, we accept the assumption of normality of the research data.

At the end of the research, the final model has been validated. For this purpose, Cronbach's alpha reliability indices and the CR criterion (Composite Reliability Index) were used to assess reliability. The convergent validity index AVE (Average Variance Extracted) and goodness of fit indices TLI, CFI, NFI, and RFI were also used to evaluate the model. Considering that all components have a CR greater than 0.9, the reliability of the model is confirmed. The AVE index value for all components is greater than 0.5, confirming the convergent validity of the model. The goodness-of-fit indices of the model, including TLI, CFI, NFI, and RFI, for all components are greater than or equal to 0.9. Therefore, the model demonstrates a good fit.

4. Findings

Demographic Information

In total, 70% of the 410 people surveyed were men, while 30% were women. Most people have a bachelor's degree at 52% and a master's degree at 42%. People with postdiploma or lower degrees accounted for approximately 5% of the respondents. Also, more than 44% of these individuals have less than 10 years of work experience, while approximately 34% have 10-20 years of work experience. People with work experience of more than 20 years accounted for only about 20% of the respondents.

According to Table 1, the average, variance, and standard deviation statistical indices have also been calculated for the values obtained from the answers for each index (item). Additionally, since the research involved the use of SPSS and AMOS software for quantitative and inferential statistics, it was necessary to ensure the normality of the data pertaining to the model items.

Variable (main structure)	Dimension (structure)	Component (Structure)	Index (Item)	Q. No.	AVE.	Variance	Std.	p-value in K-S
ls in Vord h Is:			People's experiences	q1	4/27	0/966	0/983	0/050
ut) ut		- ·	Expertise and skill	q2	4/48	0/859	0/927	0/050
an in	Human Factors	Personal	Age	q3	2/62	1/317	1/148	0/051
f N f		invoices	education	q4	3/27	1/477	1/215	0/054
C o sc le			Job	q5	3/21	1/343	1/159	0/051
E E			Ideas and beliefs	q6	2/96	1/806	1/344	0/060
			Sender credit	q7	3/44	2/054	1/433	0/063

Table 1. Constructs, items and descriptive indicators

		Interacts and testas	~ 9	2/26	1/044	1/204	0/062
		interests and tastes	<u>qo</u>	3/20	1/944	1/394	0/002
		life style	q9	3/29	1/348	1/161	0/051
		motivation	a10	4/42	0/893	0/945	0/050
		Internativity of	1				
		Interactivity of	a11	3/88	1/165	1/079	0/050
		communication	1				
		Intimacy	q12	3/27	1./339	1/157	0/051
		Perceived					
		homogeneity/similarity	q13	3/50	1/370	1/171	0/052
		fillingenetty/similarity	1.4	2/62	1/254	1/1 < 4	0/050
		Closeness of relationships	q14	3/63	1/354	1/164	0/052
		Social influence	q15	3/35	1/722	1/312	0/058
		Intensity of					
		dependence/strength of	a16	3/72	1/265	1/125	0/050
	Interpersonal	relationship	410	5/12	1/205	1/125	0/050
	factors	relationship					
		The strength of the sender-	a17	3/46	1/330	1/153	0/051
		receiver relationship	q17	5/40	1/550	1/155	0/031
		informal communication	q18	2/86	1/769	1/330	0/059
		obligation	a19	4/19	1/291	1/136	0/050
		Exchange of technical	912	., 17	1/2/1	1,100	0,020
			20	2/07	1/122	1/0/1	0/050
		knowledge between	q20	5/07	1/155	1/004	0/030
		customers					
		Ability to get feedback	q21	3/53	1/586	1/259	0/056
		Relationship satisfaction	q22	4/12	1/106	1/052	0/050
		being up to date	a23	4/14	1/160	1/077	0/050
		High release speed	024	<u>4/11</u>	1/205	1/139	0/050
		accessibility	q25	1/21	1/100	1/0/0	0/050
		accessionity	y∠J	4 /31	1/100	1/049	0/030
		Not naving commercial	a26	3/53	1/114	1/055	0/050
		biases	1-5				
		Unlimited domain	q27	3/33	1/264	1/124	0/050
	Situational	Ease of navigation	q28	3/28	1/893	1/376	0/061
	features	high durability	a29	4/19	1/173	1/083	0/050
	10000105	Not limited to time and	<u>4</u> ∠⊅	T/17	1/1/5	1/005	0/050
			q30	3/75	1/168	1/081	0/050
		place			-		
		Ability to share experiences	q31	3/63	1/236	1/112	0/0450
		Low cost	q32	3/93	1/380	1/175	0/052
		Online evaluation and		2/02	1/1/2	1/001	0/052
		review	q33	3/82	1/442	1/201	0/053
		Compliance with					
		newshological principles	q34	3/51	1/704	1/305	0/058
		psychological principles	. 25	2/75	1/2/0	1/170	0/052
		Be useful	q35	3/15	1/369	1/1/0	0/052
		Similar to real life	q36	3/96	1/020	1/010	0/050
		High credit	q37	4/23	1/020	1/010	0/050
	Message	heing honest	038	4/27	1/064	1/031	0/050
	footure	wow of average-i	400	1/21	1/004	1/100	0/050
Technical and	reatures	way of expression	439 10	4/01	1/228	1/108	0/050
- common unu		Attractiveness and fun	q40	3/62	1/573	1/254	0/056
technological	-	Being alive and dynamic	a41	3/76	1/359	1/166	0/052
technological factors		Denig anve and dynamic	1			1/100	
technological factors		The validity of the message	- 40	2/01	1/259	1/100	0/052
technological factors		The validity of the message and its sender	q42	3/91	1/358	1/165	0/052
technological factors		The validity of the message and its sender Ability to understand	q42	3/91	1/358	1/165 1/050	0/052
technological factors		The validity of the message and its sender Ability to understand Getting ideas for product	q42 q43	3/91 3/83	1/358 1/102	1/165 1/050	0/052 0/050
technological factors		The validity of the message and its sender Ability to understand Getting ideas for product	q42 q43 q44	3/91 3/83 3/82	1/358 1/102 1/305	1/165 1/050 1/142	0/052 0/050 0/051
technological factors		The validity of the message and its sender Ability to understand Getting ideas for product development	q42 q43 q44	3/91 3/83 3/82	1/358 1/102 1/305	1/165 1/050 1/142	0/052 0/050 0/051
technological factors		The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation	q42 q43 q44 q45	3/91 3/83 3/82 4/05	1/358 1/102 1/305 1/029	1/165 1/050 1/142 1/014	0/052 0/050 0/051 0/050
technological factors		The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust	q42 q43 q44 q45 q46	3/91 3/83 3/82 4/05 4/14	1/358 1/102 1/305 1/029 0/905	1/165 1/050 1/142 1/014 0/951	0/052 0/050 0/051 0/050 0/050
technological factors		The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment	q42 q43 q44 q45 q46 q47	3/91 3/83 3/82 4/05 4/14 4/14	1/358 1/102 1/305 1/029 0/905 0/905	1/165 1/050 1/142 1/014 0/951 0/951	0/052 0/050 0/051 0/050 0/050 0/050
technological factors		The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank	q42 q43 q44 q45 q46 q47 q48	3/91 3/83 3/82 4/05 4/14 4/14 3/75	1/358 1/102 1/305 1/029 0/905 0/905 1/561	1/165 1/050 1/142 1/014 0/951 0/951 1/249	0/052 0/050 0/051 0/050 0/050 0/050 0/055
technological factors		The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic trust Ability to compare and rank social networks	q42 q43 q44 q45 q46 q47 q48 q49	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063	1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031	0/052 0/050 0/051 0/050 0/050 0/050 0/055 0/050
technological factors		The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks	q42 q43 q44 q45 q46 q47 q48 q49 q50	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565	1/160 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/055
technological factors		The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms	q42 q43 q44 q45 q46 q47 q48 q49 q50	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 2/20	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565	1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/055
technological factors		The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756	1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325	0/052 0/050 0/051 0/050 0/050 0/050 0/055 0/050 0/055 0/059
technological factors		The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756 1/756	1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/055 0/059 0/058
technological factors		The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q53	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92 3/50	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/565 1/756 1/742 1/252	1/160 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/055 0/055 0/055 0/055 0/055
technological factors	Electronic	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q53 q54	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92 3/50 3/85	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756 1/756 1/742 1/742 1/363	1/160 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/055 0/055 0/055 0/059 0/058 0/050 0/052
technological factors	Electronic	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q53 q54 q55	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92 3/50 3/85 4/31	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756 1/742 1/252 1/363 1/002	1/165 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001	0/052 0/050 0/051 0/050 0/050 0/055 0/050 0/055 0/059 0/059 0/058 0/050 0/052 0/050
technological factors	Electronic marketing	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q53 q54 q54 q54	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92 3/50 3/85 3/85	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756 1/742 1/252 1/363 1/002	1/165 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001	0/052 0/050 0/051 0/050 0/050 0/055 0/050 0/055 0/059 0/058 0/050 0/052 0/050
technological factors	Electronic marketing tools	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks Websites	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q53 q54 q55 q55 q56	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92 3/50 3/85 4/31 3/95	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/565 1/756 1/756 1/742 1/252 1/363 1/002 1/068	1/165 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001 1/034	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/055 0/059 0/058 0/050 0/052 0/050 0/052 0/050 0/050
technological factors	Electronic marketing tools	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks Utworks	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q53 q54 q55 q56 q57	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92 3/50 3/85 4/31 3/95 4/39	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/565 1/756 1/756 1/756 1/756 1/753 1/252 1/363 1/002 1/068 0/946	1/165 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001 1/034 0/973	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/055 0/055 0/055 0/055 0/055 0/050 0/052 0/050 0/050 0/050
technological factors	Electronic marketing tools	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks Websites Internet Mobile	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q52 q53 q54 q55 q56 q57 q58	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92 3/50 3/85 4/31 3/95 4/39 4/08	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756 1/742 1/363 1/002 1/068 0/946 1/133	1/165 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001 1/034 0/973 1/065	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/055 0/055 0/055 0/055 0/055 0/050 0/050 0/050 0/050 0/050
technological factors	Electronic marketing tools	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks Websites Internet Mobile Softwares	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q53 q54 q55 q55 q55 q57 q58 q59	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92 3/50 3/85 4/31 3/95 4/39 4/08 3/63	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756 1/742 1/252 1/363 1/002 1/068 0/946 1/133 1/786	1/165 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001 1/034 0/973 1/065 1/337	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/055 0/059 0/055 0/050 0/052 0/050 0/050 0/050 0/050 0/050 0/050 0/050
technological factors	Electronic marketing tools	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks Websites Internet Mobile Softwares Hardware	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q53 q54 q55 q55 q56 q57 q58 q59 q59 q50	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92 3/50 3/85 4/31 3/95 4/39 4/08 3/63 2/85	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756 1/742 1/252 1/363 1/002 1/068 0/946 1/133 1/786 2/562	1/165 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001 1/034 0/973 1/065 1/337	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/055 0/059 0/058 0/050 0/052 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/055 0/050 0/055 0/050 0/055 0/
technological factors	Electronic marketing tools	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks Websites Internet Mobile Softwares Hardware Dromitogeneous of the heard in	$\begin{array}{c} q42\\ q43\\ q44\\ q45\\ q46\\ q47\\ q48\\ q49\\ q50\\ q51\\ q52\\ q53\\ q54\\ q55\\ q56\\ q57\\ q58\\ q59\\ q60\\ \end{array}$	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92 3/50 3/85 4/31 3/95 4/39 4/08 3/63 2/85	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756 1/742 1/252 1/363 1/002 1/068 0/946 1/133 1/786 2/562	1/165 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001 1/034 0/973 1/065 1/337 1/601	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/055 0/059 0/058 0/050 0/052 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/055 0/050 0/055 0/055 0/050 0/055 0/050 0/055 0/050 0/0750 0
technological factors	Electronic marketing tools	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks Websites Internet Mobile Softwares Hardware Prominence of the brand in	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q53 q54 q55 q55 q56 q57 q58 q59 q60 q61	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92 3/50 3/85 4/31 3/95 4/39 4/08 3/63 2/85 4/25	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756 1/756 1/756 1/742 1/252 1/363 1/002 1/068 0/946 1/133 1/786 2/562 1/227	1/165 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001 1/034 0/973 1/065 1/337 1/601 1/108	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/055 0/055 0/055 0/055 0/055 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/055 0/050 0/055 0/050 0/055 0/
technological factors	Electronic marketing tools Brand	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks Websites Internet Mobile Softwares Hardware Prominence of the brand in the mind of the customer	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q55 q55 q55 q56 q57 q58 q59 q60 q61	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/28 2/92 3/50 3/85 4/31 3/95 4/31 3/95 4/39 4/08 3/63 2/85 4/25	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756 1/742 1/252 1/363 1/002 1/068 0/946 1/133 1/786 2/562 1/227	1/165 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001 1/034 0/973 1/065 1/337 1/601	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/055 0/055 0/055 0/055 0/055 0/055 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/055 0/050 0/055 0/
technological factors	Electronic marketing tools Brand awareness	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks Websites Internet Mobile Softwares Hardware Prominence of the brand in the mind of the customer Brand recognition	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q53 q54 q55 q55 q55 q55 q55 q57 q58 q59 q60 q61 q62	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/54 3/55 2/92 3/50 3/85 4/31 3/95 4/39 4/08 3/63 2/85 4/25 4/01	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756 1/742 1/252 1/363 1/002 1/068 0/946 1/133 1/786 2/562 1/227 1/208	1/165 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001 1/034 0/973 1/065 1/337 1/601 1/108 1/099	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/059 0/055 0/050 0/052 0/050 0/055 0/059 0/050 0/050 0/055 0/059 0/050 0/050 0/055 0/059 0/050 0/050 0/055 0/059 0/050 0/050 0/055 0/059 0/050 0/050 0/055 0/059 0/050 0/050 0/055 0/059 0/050 0/050 0/055 0/059 0/050 0/050 0/055 0/059 0/055 0/050 0/055 0/059 0/055 0/050 0/050 0/055 0/059 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/050 0/055 0/050 0/
factors	Electronic marketing tools Brand awareness	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks Websites Internet Mobile Softwares Hardware Prominence of the brand in the mind of the customer Brand recognition Recall/reminder	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q53 q52 q53 q54 q55 q55 q55 q55 q56 q57 q58 q59 q60 q61 q62 q63	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92 3/50 3/85 4/31 3/95 4/39 4/08 3/63 2/85 4/25 4/25 4/01 4/12	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756 1/742 1/252 1/363 1/002 1/068 0/946 1/133 1/786 2/562 1/227 1/208 1/239	1/165 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001 1/034 0/973 1/065 1/337 1/601 1/108 1/099 1/113	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/059 0/058 0/050 0/052 0/050 0/055 0/050 0/055 0/055 0/050 0/055 0/
Consumer	Electronic marketing tools Brand awareness	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks Websites Internet Mobile Softwares Hardware Prominence of the brand in the mind of the customer Brand recognition Recall/reminder Attitudes	q42 q43 q44 q45 q46 q47 q48 q49 q55 q51 q52 q53 q54 q55 q55 q56 q57 q56 q57 q58 q59 q60 q61 q62 q63 q64	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92 3/50 3/85 4/31 3/95 4/39 4/08 3/63 2/85 4/25 4/01 4/12 3/57	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/565 1/756 1/756 1/756 1/742 1/252 1/363 1/002 1/068 0/946 1/133 1/786 2/562 1/227 1/208 1/227	1/165 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001 1/034 0/973 1/065 1/337 1/601 1/108 1/099 1/113 1/242	0/052 0/050 0/051 0/050 0/050 0/055 0/050 0/055 0/059 0/058 0/050 0/055 0/050 0/050 0/055 0/050 0/055 0/050 0/
Consumer perception	Electronic marketing tools Brand awareness	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks Websites Internet Mobile Softwares Hardware Prominence of the brand in the mind of the customer Brand recognition Recall/reminder Attitudes Exploitation right	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q53 q54 q55 q55 q56 q57 q58 q59 q60 q61 q62 q63 q64 q64 q65	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92 3/50 3/85 4/31 3/95 4/39 4/08 3/63 2/85 4/25 4/01 4/12 3/57 3/39	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756 1/756 1/742 1/252 1/363 1/002 1/068 0/946 1/133 1/786 2/562 1/227 1/208 1/239 1/242 1/437	1/180 1/165 1/050 1/142 1/014 0/951 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001 1/034 0/973 1/065 1/337 1/601 1/108 1/099 1/113 1/242 1/199	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/055 0/050 0/052 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/
Consumer perception	Electronic marketing tools Brand awareness Brand	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks Websites Internet Mobile Softwares Hardware Prominence of the brand in the mind of the customer Brand recognition Recall/reminder Attitudes Exploitation right	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q55 q55 q56 q57 q58 q57 q58 q59 q60 q61 q62 q63 q64 q64 q65	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92 3/50 3/85 4/31 3/95 4/39 4/08 3/63 2/85 4/25 4/25 4/12 3/57 3/57 3/57 3/51	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756 1/742 1/742 1/742 1/742 1/742 1/742 1/743 1/002 1/068 0/946 1/133 1/786 2/562 1/227 1/208 1/239 1/542 1/437	1/160 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001 1/034 0/973 1/065 1/337 1/601 1/108 1/099 1/113 1/242 1/199 1/145	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/055 0/055 0/055 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/055 0/050 0/055 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/050 0/055 0/050 0/055 0/
Consumer perception	Electronic marketing tools Brand awareness Brand associations	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks Websites Internet Mobile Softwares Hardware Prominence of the brand in the mind of the customer Brand recognition Recall/reminder Attitudes Exploitation right Brand emotions	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q53 q55 q55 q55 q55 q55 q55 q55 q56 q57 q58 q59 q60 q61 q62 q63 q64 q65 q66	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/25 2/92 3/50 3/85 4/31 3/95 4/31 3/95 4/39 4/08 3/63 2/85 4/25 4/25 4/25 4/25 4/12 3/57 3/39 3/51	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756 1/742 1/252 1/363 1/002 1/068 0/946 1/133 1/786 2/562 1/227 1/208 1/239 1/542 1/437 1/311	1/165 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001 1/034 0/973 1/065 1/337 1/601 1/108 1/099 1/113 1/242 1/199 1/145	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/055 0/055 0/055 0/050 0/055 0/050 0/050 0/050 0/055 0/050 0/055 0/057 0/055 0/055 0/057 0/057 0/057 0/057 0/057 0/057 0/057 0/
Consumer perception	Electronic marketing tools Brand awareness Brand associations	The validity of the message and its sender Ability to understand Getting ideas for product development Competitive differentiation Electronic trust Electronic commitment Ability to compare and rank social networks Chat rooms Newsgroups email weblogs Search engines Social Networks Websites Internet Mobile Softwares Hardware Prominence of the brand in the mind of the customer Brand recognition Recall/reminder Attitudes Exploitation right Brand emotions Brand excellence	q42 q43 q44 q45 q46 q47 q48 q49 q50 q51 q52 q53 q54 q55 q55 q55 q55 q55 q55 q55 q57 q58 q59 q60 q61 q62 q63 q64 q65 q66 q67	3/91 3/83 3/82 4/05 4/14 4/14 3/75 4/17 3/54 3/28 2/92 3/50 3/85 4/31 3/95 4/39 4/08 3/63 2/85 4/25 4/12 3/57 3/39 3/51 4/15	1/358 1/102 1/305 1/029 0/905 0/905 1/561 1/063 1/565 1/756 1/742 1/252 1/363 1/002 1/068 0/946 1/133 1/786 2/562 1/227 1/208 1/239 1/542 1/239 1/542 1/437 1/311 1/304	1/165 1/165 1/050 1/142 1/014 0/951 0/951 1/249 1/031 1/251 1/325 1/320 1/119 1/168 1/001 1/034 0/973 1/065 1/337 1/601 1/108 1/099 1/113 1/242 1/199 1/145 1/142	0/052 0/050 0/051 0/050 0/050 0/055 0/055 0/059 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/050 0/055 0/055 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/050 0/055 0/

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			Functionality of the product	q69	4/33	0/930	0/964	0/050
			packing	q70	3/72	1/481	1/217	0/054
			Designing	q71	3/84	1/429	1/195	0/053
			The extent of distribution	q72	3/94	1/175	1/084	0/050
			Price discount	q73	4/14	1/435	1/198	0/053
			Brand symbol	q74	3/97	1/188	1/090	0/050
			Employees of the		2/20	1 /700	1/220	0/050
			organization	q/5	3/28	1/790	1/338	0/059
			Trademarks	q76	3/83	1/141	1/068	0/050
			Brand	q77	4/30	1/076	1/038	0/050
			Payment procedure	q78	4/20	1/022	1/011	0/050
			Risk reduction	q79	3/94	0/998	0/999	0/050
			Durability and availability	q80	3/97	1/148	1/072	0/050
		Denneland	Ease of purchase	q81	3/50	1/783	1/335	0/059
		quality	How to send and deliver goods	q82	3/96	1/374	1/172	0/052
			Distribution of product or service	q83	4/04	1/118	1/057	0/050
			Communication channels	q84	4/39	0/848	0/921	0/050
			Fit with lifestyle	q85	4/28	1/088	1/043	0/050
			peace of mind	q86	4/12	1/067	1/033	0/050
			Pleasure	q87	3/98	1/100	1/049	0/050
			Sympathy	q88	3/76	1/516	1/231	0/055
			Facilitate the decision- making process	q89	3/82	1/344	1/159	0/051
			Customer Orientation	q90	4/22	0/955	0/977	0/050
			Identifying consumer needs	q91	4/10	1/130	1/063	0/050
		Brand loyalty	Reducing the cost of	~02	2/26	1/274	1/172	0/052
			advertising and sales	q92	3/20	1/3/4	1/1/2	0/032
			Increase market share	q93	3/69	1/395	1/181	0/052
			Customer attraction and retention	q94	4/35	1/034	1/017	0/050
			Recommend the product to others	q95	4/13	1/207	1/099	0/050
	Customer	Brand	Emotional and cognitive responses of customers	q96	3/63	1/315	1/147	0/051
	behavior	Consistency	Active involvement and dependence	q97	3/52	1/507	1/228	0/054
			A sense of community	q98	3/51	1/508	1/228	0/054
			Behavioral loyalty	q99	4/25	1/133	1/065	0/050
			Willingness to pay a higher price	q100	3/50	1/763	1/328	0/059
			Increase product sales	q101	3/69	1/080	1/039	0/050
		Customer relations	A share of the customer's wallet	q102	3/73	1/398	1/182	0/052
			more profit	q103	3/20	1/533	1/238	0/055
			The possibility of choosing a brand	q104	3/96	1/079	1/039	0/050
			Repurchase	q105	4/29	0/935	0/967	0/050
				-				

To assess the normality of the items, the Kolmogorov-Smirnov (K-S) post-test was conducted at a significance level of 0.05. The results of this assumption test, including the p-value, were included in the table. As can be seen, all the p-values of the K-S test for the items are greater than 0.05. Therefore, the assumption of normality for all items is accepted.

Exploratory Factor Analysis

The basic assumption of factor analysis is that the underlying factors of variables can be used to explain complex phenomena, and the observed correlations between variables are the result of their shared involvement in these factors. The purpose of factor analysis is to identify unobservable factors based on a set of observable variables. Factor analysis, as demonstrated by the creation of a correlation matrix, reveals that the variables form clusters. Within each cluster, the variables are correlated with one another, while showing no correlation with variables from other clusters. We use the correlation matrix to measure the agreement between variables in the data. Bartlett's test of sphericity was used to evaluate the correlation matrix. In this test, the null hypothesis is "there is no difference from the Identity matrix". This test is used to investigate whether the correlation matrix of the data in the population is nonzero.

As shown in the table, the p-value obtained is very small. Therefore, at the 0.05 error level, we can reject the null hypothesis and conclude that the observed correlations between the variables are associated with a society where variables are correlated. Also, considering the KMO value (0.8), which is greater than 0.7, the current correlation and sample size are highly suitable for factor analysis. To implement exploratory factor analysis in this research, the PCA method is used.

The amount of explained variance \mathbb{R}^2 (in shares) for each variable

The amount of variance explained by each variable was calculated. It is recommended that the value of this amount be at least 0.3 for all variables. In the table, we can see that all values are greater than 0.4. As a result, we have been able to explain most of their variance by extracting factors.

No. of Q	Elementary common correlation	Extracted joint correlation	No. of Q	Elementary common correlation	Extracted joint correlation
q01	0/800	0/629	q53	0/900	0/681
q02	0/880	0/776	q54	0/910	0/719
q03	0/889	0/801	q55	0/848	0/527
q04	0/819	0/675	q56	0/825	0/648
q05	0/862	0/695	q57	0/815	0/522
q11	0/864	0/734	q61	0/795	0/414
q82	0/846	0/715	q62	0/764	0/331
q12	0/814	0/394	q63	0/765	0/395
q13	0/818	0/620	q64	0/910	0/770
q14	0/857	0/639	q65	0/903	0/695
q15	0/784	0/569	q66	0/860	0/583
q16	0/857	0/617	q67	0/813	0/637
q23	0/848	0/765	q68	0/849	0/583
q24	0/922	0/804	q78	0/879	0/789
q25	0/900	0/735	q79	0/788	0/611
q26	0/910	0/755	q80	0/888	0/744
q27	0/788	0/504	q81	0/866	0/652
q28	0/880	0/699	q83	0/811	0/595
a34	0/857	0/621	a89	0/848	0/597
q35	0/870	0/643	q90	0/850	0/709
q36	0/788	0/435	q91	0/731	0/368
q37	0/868	0/617	q92	0/789	0/479
q38	0/810	0/598	q93	0/890	0/726
q39	0/868	0/589	q94	0/819	0/592
q40	0/821	0/553	q95	0/808	0/733
q41	0/899	0/768	q96	0/849	0/723
q42	0/818	0/554	q97	0/749	0/409
q43	0/906	0/653	q100	0/898	0/788
q44	0/890	0/674	q101	0/838	0/673
q49	0/885	0/723	q102	0/776	0/550
q50	0/879	0/660	q103	0/815	0/666
q51	0/884	0/634	q104	0/752	0/534
q52	0/881	0/771	q105	0/884	0/704
q01	0/800	0/629	q53	0/900	0/681
q02	0/880	0/776	q54	0/910	0/719
q03	0/889	0/801	q55	0/848	0/527
q04	0/819	0/675	q56	0/825	0/648
q05	0/862	0/695	q57	0/815	0/522
q11	0/864	0/734	q61	0/795	0/414
q82	0/846	0/715	q62	0/764	0/331
q12	0/814	0/394	q63	0/765	0/395
q13	0/818	0/620	q64	0/910	0/770
q14	0/857	0/639	q65	0/903	0/695
q15	0/784	0/569	q66	0/860	0/583
q16	0/857	0/617	q67	0/813	0/637
q23	0/848	0/765	q68	0/849	0/583
q24	0/922	0/804	q78	0/879	0/789
q25	0/900	0/735	q79	0/788	0/611
q26	0/910	0/755	q80	0/888	0/744
q27	0/788	0/504	q81	0/866	0/652
q28	0/880	0/699	q83	0/811	0/595

 Table 3. The amount of explained variance of each variable

Also, as shown in Table 4, the total variance table was used to determine the number of components required, which was justified and explained by extracting 11 components more than 63% of the variance. In this case, the rotational results were given to obtain a significant result. According to

the rotated factor load matrix, each question was explained. In the columns, the percentage of cumulative variance, the amount of this variance that each component explains, is shown. For example, the first component in the rotated final solution has been able to explain 4.3% of the variance (6.6%).

	The initial eigenvalue			The sum of the squares of the extracted coefficients			The sum of the squares of the rotated coefficients			
Component	Total	Percentage of explained variance	Cumulative variance percentage	Total	Percentage of explained variance	Cumulative variance percentage	Total	Percentage of explained variance	Cumulative variance percentage	
1	22/897	34/693	34/693	22/506	34/099	34/099	4/386	6/645	6/645	
2	5/936	8/993	43/686	5/589	8/469	42/568	4/346	6/584	13/229	
3	3/143	4/761	48/448	2/647	4/011	46/579	4/332	6/564	19/793	
4	2/564	3/884	52/332	2/176	3/297	49/876	4/089	6/195	25/989	
5	2/096	3/176	55/508	1/734	2/628	52/504	3/984	6/036	32/025	
6	1/889	2/862	58/370	1/561	2/365	54/868	3/795	5/751	37/775	
7	1/792	2/715	61/085	1/386	2/100	56/969	3/715	5/629	43/404	
8	1/567	2/374	63/459	1/271	1/926	58/895	3/692	5/594	48/998	
9	1/374	2/081	65/540	1/005	1/523	60/418	3/456	5/237	54/235	
10	1/319	1/999	67/539	0/957	1/449	61/868	3/052	4/624	58/859	
11	1/290	1/955	69/494	0/933	1/413	63/281	2/918	4/421	63/281	

Table 4. Total variance explained

Rotated factor matrix

The rotated factor load matrix has been used to determine the number of items corresponding to each component so that each item should have the highest factor load on the corresponding component (greater than 0.4) and a low factor load on other components. Also, according to the corresponding items and the results of the qualitative part of the research, the components were named.

11	10	9	8	7	6	5	4	3	2	1	
Brand Consistency	Brand awareness	Brand loyalty	Customer relations	Interpersonal factors	Personal factors	Perceived quality	Brand associations	Electronic marketing tools	Situational features	Message features	Item
0.167	0.125	0.126	0.174	0.057	0.045	0.191	-0.056	0.103	0.042	0.689	q34
0.066	0.155	0.204	0.148	0.015	0.190	0.074	0.161	0.170	0.221	0.637	q35
0.215	0.052	0.044	-0.016	0.191	0.014	-0.089	0.176	0.213	0.041	0.511	q36
0.277	0.046	0.352	0.121	-0.038	0.102	0.032	0.349	0.069	0.066	0.506	q37
0.248	0.211	0.050	0.182	0.054	0.019	0.192	0.341	0.208	0.150	0.484	q38
0.260	0.305	0.207	0.201	-0.026	-0.084	0.054	0.218	0.188	0.133	0.484	q39
0.149	0.149	0.253	0.088	0.161	0.118	0.241	0.266	0.213	0.072	0.466	q40
0.238	0.092	0.096	0.182	-0.048	0.184	0.165	0.383	0.230	0.432	0.459	q41
0.399	-0.077	0.255	0.066	0.182	0.099	0.053	0.204	0.161	0.040	0.452	q42
0.261	0.030	0.287	0.141	-0.031	0.063	0.127	0.355	0.323	0.205	0.434	q43
0.144	0.037	0.328	0.221	0.251	0.214	0.189	0.357	0.225	0.104	0.402	q44
-0.006	0.243	0.126	0.006	-0.087	0.159	0.118	0.135	-0.024	0.724	0.316	q23
-0.051	0.121	-0.019	0.222	0.158	0.295	0.221	0197	0.180	0.710	-0.031	q24
0.052	-0.009	0.056	0.131	0.310	0.334	0.262	0.197	0.173	0.605	0.001	q25
0.042	0.111	0.019	0.186	0.255	0.137	0.335	0.386	0.208	0.554	0.109	q26

11 10 9 8 6 5 4 2 Brand loyalty Interpersonal associations Electronic marketing tools Consistency Perceived Situational Customer Message features awareness relations Personal factors features Brand factors quality Brand Brand Item 0.165 0.148 0.115 0.014 0.184 0.257 0.196 -0.031 -0.042 0.548 0.007 q27 0.076 0.243 0.219 0.277 0.011 0.100 0.297 0.298 0.329 0.409 0.217 q28 0.042 0.104 0.334 0.237 -0.137 0.072 -0.045 0.115 0.067 0.620 0.338 q49 0.060 0.079 0.302 0.267 0.093 0.160 0.070 0.122 0.101 0.604 0.242 q50 0.165 0.253 0.296 0.156 -0.017 0.158 0.123 0.223 0.240 0.056 0.529 q51 0.092 0.395 0.169 0.249 -0.103 0.207 0.043 0.152 0.521 -0.005 0.408 q52 0.182 0.231 0.014 0.264 -0.068 0.157 0.323 0.299 0.501 0.213 0.076 q53 0.197 0.259 0.257 0.220 0.396 0.151 0.063 0.132 0.497 0.122 0.189 q54 0.151 0.231 0.037 0.118 0.270 0.321 0.139 0.089 0.472 0.048 0.083 q55 0.299 0.234 0.395 0.226 0.020 0.059 0.057 0.107 0.177 0.270 q56 0.417 0.128 0.189 0.157 0.229 0.043 0.160 0.211 0.103 0.409 0.273 0.262 q57 0.208 0.234 0.217 0.005 0.139 -0.135 0.140 0.661 0.261 0.117 0.218 q64 0.004 0.246 0.148 0.110 0.178 0.143 0.286 0.606 0.091 0.299 0.045 q65 0.084 0.109 0.243 0.171 0.296 0.209 0.206 0.533 -0.026 0.080 0.101 q66 0.204 0.121 0.190 0.131 0.106 0.025 0.211 0.508 0.430 0.090 0.140 q67 0.099 0.057 0.129 0.156 0.197 0.148 0.135 0.434 0.344 0.298 0.234 q68 -0.023 0.159 0.216 0.009 0.288 0.125 0.286 0.306 0.663 0.055 0.014 q78 0.118 0.119 0.085 0.171 0.321 0.132 0.640 0.062 0.028 0.074 0.079 q79 0.003 0.186 0.016 0.159 0.219 0.087 0.268 0.056 0.420 0.177 0.588 a80 0.033 0.036 0.138 0.026 0.308 0.070 0.525 0.150 0.191 0.423 0.129 q81 0.137 -0.043 0.040 0.131 0.158 0.437 0.522 0.337 -0.090 0.256 0.004 q82 0.333 0.231 0.074 0.024 0.193 0.326 0.069 0.060 0.517 0.049 0.046 q83 0.093 q03 0.013 0.116 0.119 0.053 0.845 0.074 0.057 0.072 0.174 0.066 0.117 0.032 0.121 0.173 0.235 0.806 0.029 0.090 0.028 0.040 0.030 q02 0.042 0.108 0.371 0.130 0.006 0.589 0.222 -0.093 0.088 0.210 0.060 q01 0.156 -0.104 0.109 0.437 0.004 0.281 0.152 0.261 0.401 0.313 -0.089 q04 0.221 0.021 0.152 q05 0.221 0.051 0.627 0.310 0.126 0.119 0.182 -0.1360.134 0.276 -0.004 0.158 0.608 0.068 0.299 0.311 0.124 0.187 -0.061 q11 0.087 0.134 -0.016 0.015 0.562 0.091 0.162 -0.080 -0.099 0.030 0.030 q12 0.115 -0.256 0.235 0.212 -0.015 -0.055 0.020 0.548 0.146 -0.109 0.321 q13 0.038 0.096 0.105 0.164 0.501 0.203 0.324 0.259 0.145 0.305 0.111 q14 0.174 0.471 0.293 0.045 -0.082 0.036 0.065 0.305 0.090 0.214 0.264 q15 -0.050 0.034 0.134 0.032 0.036 0.378 0.368 0.418 0.368 -0.067 0.015 q16 0.079 0.367 0.364 0.624 0.032 0.068 0.012 0.107 0.218 0.004 0.245 q100 0.153 0.064 0.140 0.578 0.0740.250 0.239 0.0070.072 0.401 -0.023q101 0.258 q102 0.156 0.290 0.063 0.559 0.174 0.062 0.082 0.097 0.078 -0.044 0.107 0.090 0.169 0.537 -0.198 0.198 0.194 0.166 0.243 0.148 0.325 q103 0.019 0.176 0.095 0.534 0.325 0.228 0.047 0.212 -0.058 -0.010 0.005 q104 0.013 0.099 0.269 0.450 0.295 0.329 0.035 0.106 0.349 0.299 0.007 q105 0.117 0.087 0.552 0.195 -0.027 0.085 0.023 0.175 0.246 0.142 0.336 q89 0.196 0.300 0.523 0.489 -0.026 0.025 0.042 0.107 0.042 -0.180 0.139 q90 0.132 0.185 0.502 0.103 -0.022 0.085 0.128 0.150 -0.040 0.048 -0.058q91

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11	10	9	8	7	6	5	4	3	2	1		
Brand Consistency	Brand awareness	Brand loyalty	Customer relations	Interpersonal factors	Personal factors	Perceived quality	Brand associations	Electronic marketing tools	Situational features	Message features	Item	
0.231	0.205	0.472	0.075	0.096	0.149	0.038	0.111	0.325	0.061	0.032	q92	
0.129	0.429	0.464	0.268	-0.024	0.028	-0.111	0.102	0.349	0.104	0.283	q93	
0.245	-0.048	0.411	0.386	-0.021	0.164	-0.001	-0.019	0.404	-0.023	0.143	q94	
0.117	0.479	0.240	0.214	0.165	0.172	0.050	0.033	0.085	-0.004	0.015	q61	
0.265	0.452	-0.005	0.044	0.165	0.085	0.093	0.030	0.054	0.085	-0.001	q62	
0.117	0.426	0.192	0.203	0.252	0.104	0.109	0.060	0.047	0.169	0.027	q63	
0.826	-0.075	0.021	0.113	-0.066	0.066	0.086	-0.018	-0.026	-0.040	0.117	q95	
0.731	0.366	0.112	-0.002	-0.020	-0.014	0.012	0.184	0.017	0.011	0.082	q96	
0.510	0.162	0.081	-0.026	0.218	0.031	-0.164	-0.189	-0.011	-0.043	-0.054	q97	
			Extraction Method: Maximum Likelihood. Rotation Method: Equamax with Kaiser Normalization.									

The results show that 39 items were removed and 66 items remained. which is shown separately for each component in the table below. It can be seen that item q5 (occupation index) was removed from the items of the personal factors component and added to the items of the interpersonal factors component.

Table 5. Items corresponding to each component before and after exploratory factor analysis

Component	Corresponding items before exploratory factor analysis	Corresponding items after exploratory factor analysis
Personal factors	q34,q35,q36,q37,q38,q39,q40,q41,q42,q43,q44, <mark>q45,q46,q47,q48</mark>	q34,q35,q36,q37,q38,q39,q40,q41,q42,q43,q44
Interpersonal factors	q49,q50,q51,q52,q53,q54,q55,q56,q57 <mark>,q58,q59,q60</mark>	q49,q50,q51,q52,q53,q54,q55,q56,q57
Message features	q61,q62,q63	q61,q62,q63
Situational features	q64,q65,q66,q67,q68,q69,q70,q71,q72,q73,q74,q75,q76,q77	q64,q65,q66,q67,q68
Electronic marketing tools	q78,q79,q80,q81,q82,q83, <mark>q84,q85,q86,q87,q88</mark>	q78,q79,q80,q81,q82,q83
Brand awareness	q89,q90,q91,q92,q93,q94	q89,q90,q91,q92,q93,q94
Brand associations	q95,q96,q97, <mark>q98,q99</mark>	q95,q96,q97
Perceived quality	q100,q101,q102,q103,q104,q105	q100,q101,q102,q103,q104,q105
Customer relations	q34,q35,q36,q37,q38,q39,q40,q41,q42,q43,q44, <mark>q45,q46,q47,q48</mark>	q34,q35,q36,q37,q38,q39,q40,q41,q42,q43,q44
Brand Consistency	q49,q50,q51,q52,q53,q54,q55,q56,q57 <mark>,q58,q59,q60</mark>	q49,q50,q51,q52,q53,q54,q55,q56,q57
Brand loyalty	q61,q62,q63	q61,q62,q63

Confirmatory factor analysis

In order to ensure a regular factor structure between items and components, first-order factor analysis was used, and second-order factor analysis was used to examine the relationship between items and components and components with the main structure. We measure the results of exploratory factor analysis using the model implementation in AMOS software to perform confirmatory factor analysis. In the diagram, we see the model implemented in AMOS software. All specific coefficients in the chart are standardized coefficients.



Figure 2. The model implemented in AMOS

First order confirmatory factor analysis

In this part, we will examine the relationship between the considered items and the relevant components in the form of hypothesis testing at a significance level of 0.05 separately for each item. The zero assumption in this test is the equality of the obtained regression coefficient with the number zero, which indicates the absence of a relationship between the desired item and its component. The opposite assumption indicates that the obtained regression coefficient is significantly different from zero, and as a result, the item in question has a significant relationship with its component. Considering that the p-value obtained for the

test of the mentioned assumptions from the results of the first-order confirmatory factor analysis for all coefficients is smaller than the 0.05 level, the null hypothesis, that is, the equality of the desired coefficient with zero, was not confirmed and the conclusion was drawn. It is possible that all the obtained coefficients are significantly different from zero. As a result, the relationship between all the considered items and their components are statistically significant. Therefore, it can be seen that in the confirmatory factor analysis of the first stage, the questions considered for the components have validity, and in fact, these questions show and explain the desired components well.

probability (p- value)	Standard regression coefficient	Item	Component
***	0/621	q34	
***	0/732	q35	
***	0/534	q36	
***	0/71	q37	
***	0/749	q38	Maaaa faataa
***	0/694	q39	Message leature
***	0/729	q40	
***	0/804	q41	
***	0/643	q42	
***	0/78	q43	
***	0/771	q44	
***	0/676	q23	
***	0/842	q24	
***	0/813	q25	Situational features
***	0/839	q26	
***	0/584	q27	
***	0/758	q28	
***	0/73	q49	
***	0/783	q50	
***	0/781	q51	Electronic marketing
***	0/773	q52	tools
***	0/743	q53	
***	0/826	q54	
***	0/602	q55	

 Table 6. Results of first-order factor analysis (standard path coefficients)

probability (p- value)	Standard regression coefficient	Item	Component
***	0/778	q56	
***	0/678	q57	
***	0/754	q64	
***	0/769	q65	
***	0/65	q66	Brand associations
***	0/736	q67	
***	0/748	q68	
***	0/84	q78	
***	0/706	q79	
***	0/831	q80	Perceived quality
***	0/755	q81	
***	0/723	q82	
***	0/679	q83	
***	0/862	q03	
***	0/832	q02	Personal factors
***	0/7	q01	
***	0/628	q04	
***	0/742	q05	
***	0/801	q11	
***	0/459	q12	
***	0/496	q13	Interpersonal factors
***	0/817	q14	
***	0/654	q15	
***	0/669	q16	
***	0/791	q100	
***	0/681	q101	
***	0/644	q102	Customer relations
***	0/705	q103	
***	0/567	q104	
***	0/745	q105	
***	0/653	q89	
***	0/699	q90	
***	0/459	q91	Brand loyalty
***	0.64	q92	
***	0/775	q93	
***	0/666	q94	7
***	0/672	q61	Duranda
***	0/53	q62	Brand awareness
***	0/692	q63	1
***	0/693	q95	
***	0/858	q96	Brand Consistency
***	0/493	q97	

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Second order confirmatory factor analysis

In this part, the degree of relationship between the main structures and their corresponding dimensions on the one hand and the dimensions of the main structures and their corresponding components on the other hand has been examined in the form of hypothesis testing at a significance level of 0.05. The null hypothesis in this test is that the obtained regression coefficient is equal to zero, indicating the absence of the desired relationship. The alternative hypothesis suggests that the obtained regression coefficient is significantly different from

zero, indicating the presence of the desired significant relationship. Considering that the probability (p-value) obtained for all coefficients is less than 0.05, we can reject the null hypothesis that the desired coefficient is equal to zero. Therefore, we conclude that all the obtained coefficients are significantly different from zero. As a result,

1. The relationship between all the dimensions considered and their main structure is statistically significant.

2. The relationship between all the considered components and their main structural dimensions is statistically significant.

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corresponding aimensions)								
The main structure	Dimension	Standard regression coefficient	Probability (p-value)					
eWOM	Technical factors	0/942	***					
	Individual factors	0/831	***					
Brand equity	Consumer perception	0/954	***					

 Table 7. Second-order factor analysis (table of standard path coefficients - main structures and corresponding dimensions)

 Table 8. Second-order factor analysis (table of standard path coefficients - dimensions of main structures and corresponding components)

Dimensions of the main structure	Component	Standard regression coefficient	Probability (p-value)
	Message feature	0/854	***
Technical and technological factors	Positional feature	0/787	***
	Marketing tools	0/883	***
Individual factors	Personal factors	0/657	***
marviauar factors	Interpersonal factors	0/862	***
	Brand Consistency	0/399	***
Consumer behavior	Brand loyalty	0/886	***
	Customer relations	0/95	***
	Brand awareness	0/628	***
Consumer perception	Perceived quality	0/791	***
	Brand associations	0/918	***

Testing hypotheses

In this section, we will examine the main and sub-hypotheses of the research. The main hypothesis aims to investigate the impact of word-of-mouth electronic marketing on brand value. This hypothesis is based on the knowledge transfer mechanisms and serves as the main focus of the research. In this test, the null hypothesis indicates that the estimated regression coefficient is equal to zero. Therefore, there is no statistically significant effect of the word-of-mouth electronic marketing variable on brand equity. The opposite assumption suggests that the estimated regression coefficient is not equal to zero.

Therefore. there is a statistically significant effect of the word-of-mouth electronic marketing variable on the brand equity variable. The significance level of the test is 0.05. Since the obtained p-value is less than 0.05, we reject the assumption that the regression coefficient is equal to zero and conclude that this coefficient is significantly different from zero. Also, considering the sign of the estimated coefficient, which is positive, we conclude that the effect of the word-of-mouth electronic marketing variable on brand equity is positive and statistically significant at the 0.05 level. The main hypothesis of the research has been confirmed.

Table	9.	Main	hypothesis test
1 uvic	∕•	main	nypoincois icoi

The dependent variable	Independent variable	Standard regression coefficient	Probability (p-value)	
Brand equity	eWOM	1/129	***	

Sub-hypotheses

The results of the sub-hypotheses test are presented as described in the following table:

Table 10. The results of the sub-hypotheses test

Row	Hypotheses	Standard regression coefficient	Interpretation	
1	The effect of knowledge transfer mechanisms of technical and technological factors on word-	0/942	Considering that in the table of regression coefficients, the probability (p-value)	

	of-mouth electronic marketing		obtained is smaller than the 0.05 level, so	
2	The influence of knowledge transfer mechanisms of human factors on word-of- mouth electronic marketing	0/831	the null hypothesis of no effect is not confirmed and we conclude that all the investigated effects are statistically	
3	The effect of brand equity on consumer perception	0/954	significant.	
4	The effect of brand equity on consumer behavior	0/83		

Overall model fit

- If the indices (NFI, RFI, IFI, TLI, CFI) are more than 0.9, the model fit is excellent, and if they are between 0.8 and 0.9, the model fit is good. The estimated model has good goodness of fit indices because the values of the mentioned indices are between 0.8 and 1.

- If the composite reliability index (CR) is greater than 0.9, the reliability of the estimated model is excellent, and if it is between 0.8 and 0.9, the reliability of the estimated model is good. The estimated model has good reliability. be Because the values of the mentioned indices are between 0.8 and 1.

- The estimated model has excellent or good validity: (If the Average Explained Variance Index (AVE) is greater than 0.5, the convergence validity of the model is confirmed).

There III , and all of the model of components							
Component	NFI	IFI	RFI	TLI	CFI	CR	AVE
Message feature	0/891	0/904	0/864	0/879	0/903	0/918	0/508
Situational features	0/95	0/955	0/916	0/924	0/955	0/888	0/575
Marketing tools	0/926	0/935	0/901	0/913	0/935	0/918	0/558
Personal factors	0/984	0/986	0/952	0/959	0/986	0/841	0/575
Interpersonal factors	0/926	0/936	0/89	0/903	0/936	0/852	0/558
Brand associations	0/93	0/935	0/861	0/869	0/934	0/852	0/537
Perceived quality	0/957	0/963	0/929	0/938	0/963	0/89	0/575
Brand awareness	1	1	1	1	1	0/669	0/505
Customer relations	0/944	0/951	0/906	0/918	0/951	0/85	0/587
Brand loyalty	0/929	0/938	0/882	0/896	0/938	0/817	0/531
Consistency with the brand	1	1	1	1	1	0/732	0/584

Table 11. Validation of the model by components

According to the results obtained in the above table, all assumptions related to the goodness of fit, reliability and validity of the model have been confirmed.

5. Discussion

In recent years, the advent of digital communication platforms and the proliferation of online reviews and electronic word-of-mouth (e-WOM) have significantly transformed the landscape of marketing and brand management. E-WOM, comprising user-generated content and recommendations on various online platforms, has emerged as a potent tool that can either enhance or harm a brand's equity. Each component that can create knowledge and profit could be known as a source for managers to decide properly, this research aims to emphasize how eimportance and impact of identifying knowledge transfer mechanisms. The result of this research is in line with

WOM influences brand equity based on the

several studies. This model shows that enhanced strategic decision-making can be held by the knowledge transfer mechanisms through which e-WOM spreads information and perceptions about a brand which is critical for making informed strategic decisions (Christiansen, 2020; Valos & Bednall. 2010). Knowledge transfer mechanisms show which platforms, channels, or communication methods are most effective in disseminating e-WOM. This knowledge enables brands to add to consumer knowledge effectively to reach their target audience (Al-Abdallah et al., 2021; Kumar, S., & Singh 2022). Customer engagement, co-creating, and sharing of information via online platforms enhances customer relationship and brand equity (Kumar & Singh, 2020) Brands that understand how e-WOM affects their customer base can foster more meaningful interactions and strengthen brand loyalty.

This model can maintain long-term brand sustainability. Identifying success factors or in other words, knowledge mechanisms drive longterm brand sustainability (Beverland, 2016).

5. Conclusion

In the digital age, where information travels at lightning speed across online platforms, understanding the knowledge transfer mechanisms underlying e-WOM's impact on equity paramount. brand is This understanding empowers brands to make informed decisions. allocate resources effectively, and adapt their strategies to enhance brand equity. By doing so, they not only safeguard their brand's reputation but also gain a competitive edge in the everevolving landscape of digital marketing.

This research provides some suggestions:

Marketers should focus on leveraging influencer marketing as an effective knowledge transfer mechanism to enhance brand equity.

Investing in consumer engagement strategies, such as interactive content and user-generated content, can strengthen brand equity through e-WOM.

It is suggested to identify which knowledge mechanisms, such social transfer as networks, influencer marketing, or usergenerated content, have the most significant impact on brand equity. Managers can tailor their e-WOM campaign strategies to leverage the most effective knowledge transfer mechanisms. For example, if influencer marketing is found to be highly influential, they can collaborate with relevant influencers to promote their brand. Managers should invest in strategies that foster engagement, such as interactive content, contests, and discussions, to strengthen the bond between consumers and the brand.

Managers continuously monitor and analyze consumer behavior and reactions in response to e-WOM campaigns. It is suggested to implement metrics and key performance indicators (KPIs) to measure brand equity continually and encourage and welcome feedback from consumers and campaign data.

For future research in this field, researchers can focus on being deeper into the interplay between different knowledge transfer mechanisms and their cumulative effects on brand equity.

Examining the role of emerging technologies, such as artificial intelligence and virtual reality, in e-WOM campaigns could be also an interesting direction for future studies.

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References

- Afsar, B., Qureshi, J. A., Rehman, A., & Bangash, R. U. (2011). CONSUMER PANACEA OVER INTERNET USAGE IN PAKISTAN. *Management & Marketing Journal*, 9(1).
- Ahmadi Esfahani, A. (2021). Investigating the effect of electronic word of mouth advertising on mobile banking adoption considering consumer participation. *Advertising and Sales Management*, 2(1), 34-50.

https://doi.org/10.1080/08961530.2020.18 67023

Al-Abdallah, G., Khair, N., & Elmarakby, R. (2021). The impact of social networking sites on luxury vehicles purchase decision process in Gulf Cooperation Council countries. *Journal of International Consumer Marketing*, 33(5), 559-577.

- Beverland, M. B. (2016). Can cooperatives build and sustain brands?. In *Market Orientation* (pp. 137-152). Routledge.
- Braun, W. H., & Warner, M. (2002). Strategic human resource management in western multinationals in China: The differentiation of practices across different ownership forms. *Personnel Review*, 31(5), 553-579. <u>https://doi.org/10.1108/004834802104387</u> <u>62</u>
- Christiansen, B. (Ed.). (2020). Handbook of research on applied AI for international business and marketing applications. IGI Global. <u>https://doi.org/10.4018/978-1-7998-5077-9</u>
- Darvish, A., Lotfizadeh, F., Hiedarzadeh, K., & Mohtaram, R. (2023). Identifying the Effective Factors of Oral Electronic Marketing on Brand Equity. *Journal of System Management*, 9(1), 15-36.
- Donthu, N., Kumar, S., Pattnaik, D., & Lim, W. M. (2021). A bibliometric retrospection of marketing from the lens of psychology: Insights from Psychology & Marketing. *Psychology & Marketing*, *38*(5), 834-865.

https://doi.org/10.1002/mar.21472

- Eng, H., Lauritzen, C., Reedtz, C., Mørch,
 W. T., & Martinussen, M. (2014).
 Establishing evidence-based practices within services for children: knowledge transfer challenges. *BMC Health Services Research*, 14(2), 1-1.
 https://doi.org/10.1186/1472-6963-14-S2-P39
- Eslami, G., & Ghaderi, F. (2021). The role of Electronic word of mouth on e-Loyalty of sports goods (Case of: Digi Kala and Bamilo website). *Communication Management in Sport Media*, 8(4), 81-90.
- Haji Ali Akbari, F., & Mousavi, N. (2018).
 The effect of social media marketing components through brand equity on customer response in the tourism industry (case study: Abhar city). *Marketing Management*, 14(42), 57-76. [in Prsian]
- Huete-Alcocer, N. (2017). A literature review of word of mouth and electronic word of mouth: Implications for consumer behavior. *Frontiers in*

psychology, 8, 1256. <u>https://doi.org/10.3389/fpsyg.2017.01256</u>

- Jalilvand, M., & Samiei, N. (2012). The effect of word of mouth on inbound tourists' decision for traveling to Islamic destinations (the case of Isfahan as a tourist destination in Iran). *Journal of Islamic Marketing*, 3 (1), 12- 21. <u>https://doi.org/10.1108/175908312112065</u> 54
- Jasin, M. (2022). How The Role of online and viral marketing and competitiveness ability on business performance of SMEs. *Journal of Information Systems and Management (JISMA)*, 1(2), 28-35.
- Kallberg, V., & Engström, A. (2019). Sharing is Caring-When done Properly: A study on customer knowledge transfer between dealers and distributors and the impact of GDPR.
- Kumar, P., & Singh, G. (2020). Using social media and digital marketing tools and techniques for developing brand equity with connected consumers. In *Handbook* of research on innovations in technology and marketing for the connected consumer (pp. 336-355). IGI Global. <u>https://doi.org/10.4018/978-1-7998-0131-3.ch016</u>
- Kumar, S., & Singh, B. (2022). What drives students to adopt m-learning apps? The role of e-WOM in signaling theory perspective. *Behavior & Information Technology*, 1-18. https://doi.org/10.1080/0144929X.2022.2 107950
- Mahar, F., Ahmed, S. Z., Danish, M., & Mobin, W. (2022). The Effect of Electronic Word of Mouth on Brand Equity in the Context of Social Media. *Journal of Business Administration and Management Sciences (JOBAMS)*, 4(1), 19-30.

https://doi.org/10.58921/jobams.4.1.74

Montazemi, A. R., & Saremi, H. Q. (2014, April). The effectiveness of electronic word of mouth on consumers' perceptions of adopting products/services-A literature review. In *International Conference on Web Information Systems and Technologies* (Vol. 2, pp. 324-331). SCITEPRESS. Mujeed, S., Li, S., Jabeen, M., Nassani, A.
A., Askar, S. E., Zaman, K., ... & Jambari,
H. (2021). Technowomen: women's autonomy and its impact on environmental quality. *Sustainability*, 13(4), 1611.

https://doi.org/10.3390/su13041611

- Severi, E., Ling, K. C., & Nasermoadeli, A. (2014). The impacts of electronic word of mouth on brand equity in the context of social media. *International Journal of Business and Management*, 9(8), 84-96. https://doi.org/10.5539/ijbm.v9n8p84
- Sjukun, S., & Yulius, Y. (2023). The Influence of Electronic Word of Mouth and Social Media Marketing on Brand Image and Purchase Intention of E-Commerce Cosmetic Products in Medan City. International Journal of Social Science, Education, Communication and Economics (SINOMICS JOURNAL), 2(4), 879-892.
- Suhud, U. (2021). Influence of social media marketing, electronic word of mouth and consumer engagement to brand loyalty in Indonesia Grab Company. *International Journal of Business and Social Science Research*, 2(2), 16-26. https://doi.org/10.47742/ijbssr.v2n2p3
- Sullivan, Y. W., & Kim, D. J. (2018). Assessing the effects of consumers' product evaluations and trust on repurchase intention in e-commerce environments. *International Journal of Information Management*, 39, 199-219. <u>https://doi.org/10.1016/j.ijinfomgt.2017.1</u> 2.008
- Syahrivar, J., & Ichlas, A. M. (2018). The Impact of Electronic Word of Mouth (E-WoM) on Brand Equity of Imported Shoes: Does a Good Online Brand Equity Result in High Customers' Involvements in Purchasing Decisions?. *The Asian Journal of Technology Management*, *11*(1), 57-69.

https://doi.org/10.12695/ajtm.2018.11.1.5

Valos, M. J., & Bednall, D. H. (2010). The alignment of market research with business strategy and CRM. *Journal of Strategic Marketing*, 18(3), 187-199. <u>https://doi.org/10.1080/096525409035370</u> <u>22</u>

- Verbytska, A. (2023). Advantages of social media marketing as a lead generation channal for start-ups. <u>https://doi.org/10.32836/2521-</u> 666X/2022-78-11
- Verma, S., & Yadav, N. (2021). Past, present, and future of electronic word of mouth (EWOM). *Journal of Interactive Marketing*, 53, 111-128. <u>https://doi.org/10.1016/j.intmar.2020.07.0</u> 01
- Weber, B., & Weber, C. (2007). Corporate venture capital as a means of radical innovation: Relational fit, social capital, and knowledge transfer. *Journal of Engineering and technology management*, 24(1-2), 11-35. <u>https://doi.org/10.1016/j.jengtecman.2007</u>. 01.002
- Xaviera, A. R., Haya, R. F., & Aqillah, N. (2022). Analyzing the Impact of Electronic-Word of Mouth (E-WOM) on Purchase Intention: A Case Study on Brand Erigo Store Indonesia. *Available at SSRN* 4137554. https://doi.org/10.2139/ssrn.4137554