International Journal of Computer Information Systems and Industrial Management Applications
ISSN 2150-7988 Volume 18(13s) 2026 pp. 347-362
https://doi.org/10.70917/ijcisim-2026-4056
Article

The Role of Interactive Marketing in Reducing Customer Cognitive Dissonance Toward the Product: An Exploratory Study of the Opinions of a Sample of Fast-Food Restaurant Customers in Kirkuk

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Abstract: This study aimed to clarify the role of interactive marketing in reducing customer cognitive dissonance toward the product, through an exploratory study of the opinions of a sample of fast-food restaurant customers in the city of Kirkuk. The study adopted the descriptive-analytical method to achieve its objectives, and used the questionnaire as the main tool for data collection. The study population consisted of fast-food restaurants in the city of Kirkuk, where 14 restaurants were selected to represent the study population. The study sample consisted of a random sample of customers of these restaurants, with a sample size of 380 customers. For the purpose of analyzing the data and testing the study hypotheses, a set of statistical programs (SPSS, Amos) was used. Based on the results of the analysis, the study reached a number of conclusions, the most important of which is the clear positive effect of interactive marketing and its various dimensions in reducing customer cognitive dissonance toward the product. This indicates that strengthening interactive marketing practices contributes to increasing customer satisfaction and reducing the contradiction between their prior expectations and the actual service they receive, which supports the acceptance of the main hypothesis of the study and the sub-hypotheses derived from it. In light of these results, the study recommended the need to strengthen interactive marketing practices in fast-food restaurants by developing its various dimensions represented in trust, commitment, interaction, response to complaints, two-way communication, and service quality, due to their important role in reducing customer cognitive dissonance and improving their experience with the product.
Keywords: Interactive marketing, customer cognitive dissonance, fast-food restaurants in the city of Kirkuk.

1. Introduction

Understanding customer behavior and perception of products is a major challenge for organizations in light of intense competition and technological development. Cognitive dissonance may reduce customer loyalty and cause refusal to repurchase, which affects sales stability, organizational profitability, and market image. In this context, interactive marketing is considered a modern strategic tool that aims to engage the customer through two-way communication and information exchange, reducing the expectation gap between what the customer wants and what they actually receive, limiting cognitive dissonance, enhancing loyalty, and turning the purchasing experience into a positive one. This study gains importance from analyzing the role of interactive marketing in reducing cognitive dissonance among fast-food restaurant customers in Kirkuk Governorate, using the descriptive-analytical method and field surveys, with the aim of measuring the impact of interactive marketing dimensions (trust, commitment, interaction, service quality, two-way communication) on customer perception and product experience.

2. Previous Studies

Study (Demir & Artar, 2021) The study aimed to analyze and evaluate the impact of interactive marketing and its elements, with a focus on modern tools such as electronic transfers (EFT), the SWIFT system, ATMs, and points of sale (POS), through the descriptive-analytical method and a review of literature and previous studies. The dimensions of the study included communication, interaction, response, customization, trust, and relationship building. The results showed that interactive marketing has become a decisive tool for banks to improve relationships with customers, as interactive applications are less costly and more efficient, which positively reflects on customer satisfaction and reduces transaction costs. Based on this, the study suggested strengthening interactive banking strategies while taking into account the customer profile in order to increase profitability and enhance competitiveness.

Study (Kaunda, et al., 2023) The study aimed to test the effect of interactive marketing on the marketing performance of small, medium, and micro enterprises in Nyanza Region – Kenya, and to determine the strength of the relationship between them, using the descriptive-analytical method. It relied on questionnaires collected from a sample of 356 respondents out of a population of 2503 enterprises. The data was analyzed using SPSS software, and the results showed that adopting interactive marketing strategies contributes positively to improving marketing performance and enhancing the competitiveness of enterprises. Based on this, the study suggested integrating interactive marketing practices systematically and sustainably within the plans of small and medium enterprises to achieve long-term growth.

Study (Zalat, 2025) The study aimed to measure the impact of interactive marketing dimensions, such as trust, commitment, interaction, and service quality, on customer loyalty, with an analysis of the mediating role of perceived value, using the descriptive-analytical method and a questionnaire on a sample of 308 customers. The data was analyzed using SPSS software, and the results showed that interactive marketing has a positive effect on customer loyalty, and that perceived value plays an important role in strengthening this relationship, while the absence of trust and weak interaction lead to reduced loyalty. Based on this, the study suggested improving digital communication channels, enhancing transparency, and developing customization methods to raise customers' perception of value and strengthen their loyalty.

Study (Al-Taie & Sahib, 2022) The study aimed to analyze the relationship between marketing surprise and levels of cognitive dissonance among customers through an analytical study of the opinions of a sample of electronic product customers on social media platforms. It relied on the descriptive-analytical method and the questionnaire tool, with a sample of 257 individuals. The results showed that marketing surprise raises customer expectations to unrealistic levels, and when noticing the gap between expectations and reality, cognitive dissonance arises, appearing in the form of anxiety or regret after purchase. The study concluded with a recommendation for organizations to balance attracting customer attention through promotional strategies and ensuring the credibility of marketing messages, in order to maintain customer satisfaction and sustain their relationship with the brand.

Study (Olutade & Enwereji, 2023) The study aimed to examine the effect of cognitive dissonance on customers' evaluation of product packaging and to determine its impact on future remote purchasing decisions in Lagos – Nigeria, using the descriptive-analytical method and a questionnaire on a sample of 174 individuals. The dimensions of the study included emotional perception, purchase wisdom, and concern about the deal. The results showed that packaging plays a fundamental role in forming cognitive dissonance, as misleading or unclear packaging leads to customer feelings of anxiety or regret after purchase, which weakens satisfaction and reduces repurchase intention. The study recommended designing packages that are honest and attractive at the same time, balancing between attracting the customer and maintaining product credibility, which contributes to strengthening customer loyalty and reducing the likelihood of losing them due to cognitive dissonance.

Study (Mert, 2024) The study aimed to understand the nature of cognitive dissonance among women after purchase, to identify the most influential factors on it, and how it reflects on their subsequent purchasing behavior, using the descriptive-analytical method and a questionnaire on a sample of 402 women. The results showed that women are more prone to cognitive dissonance when discovering better alternatives or lower prices, which negatively affects repurchase intention and leads to hesitation or searching for competing alternatives. The study suggested focusing on building trust with this group by clarifying product advantages, providing guarantees and flexible return services, and investing in after-sales services, as a basic strategy for dealing with cognitive dissonance and strengthening women’s loyalty to the brand.

3. Study Methodology

First: The study problem: In light of the highly competitive environment in which fast-food restaurants operate, and with the increasing awareness of customers and the multiplicity of alternatives available to them, these restaurants have become required to adopt marketing strategies. Interactive marketing is considered one of the most prominent modern trends in marketing thought, as it focuses on building a two-way interactive relationship between the organization and its customers, which contributes to reducing the expectation gap and turning the purchasing experience into a positive one. Nevertheless, fast-food restaurants spread in the city of Kirkuk still suffer from losing their customers and their shift to competitors or other restaurants outside the scope of fast-food restaurants, which places them before the challenge of knowing the reasons for losing their customers, as a result of their aversion to the products of these restaurants. To solve this problem, we pose the following questions:

1. What is the level of awareness of the surveyed sample of interactive marketing tools in the surveyed restaurants?
2. What is the level of awareness of the surveyed sample of reducing customer cognitive dissonance toward the product in the surveyed restaurants?
3. Do the dimensions of interactive marketing have an effect that can reduce customer cognitive dissonance toward the product in the surveyed restaurants?

Second: The importance of the study: The importance of the study stems from the following:

1. Raising the interest of the management of the surveyed restaurants to adopt both interactive marketing practices and marketing as a method and philosophy of work, in addition to the fact that the former is a tool that contributes to strengthening the latter in restaurants in general.
2. It is expected that this study will open the way for more studies and research in the field of marketing, specifically for all the intermediary links extending from the product to the customer, and the role of each one of them in reducing customer cognitive dissonance toward the product.
3. Enriching libraries, as the study is considered an entry point for other research in the same research field, and a reference for researchers in similar studies.
4. Strengthening the culture of organized work based on logical scientific marketing tools, including interactive marketing, due to its clear and significant role and impact in reducing customer cognitive dissonance toward the product.

Third: The objectives of the study: The main objective of the study is to clarify the role of interactive marketing in reducing customer cognitive dissonance toward the product, through an exploratory study of the opinions of a sample of fast-food restaurant customers in the city of Kirkuk. From this objective, we identify the following sub-objectives:

1. Diagnosing the problems that hinder restaurants and their customers in the study sample from applying the requirements of interactive marketing and customer cognitive dissonance.
2. Addressing the problems that affect the application of the two study variables in their field by relying on both the theoretical and field aspects of the study.
3. Measuring and evaluating the relationship between interactive marketing tools and customer cognitive dissonance toward the product, in order to identify the reality of applying these two variables in the surveyed sample.
4. Providing proposals that may be valuable for fast-food restaurants, enabling them to reduce customer cognitive dissonance toward their products through adopting interactive marketing tools.

Fourth: The study hypotheses: The study starts from one hypothesis which states: “There is a significant positive effect of interactive marketing on customer cognitive dissonance toward the product in the surveyed sample,” and from it emerge the following sub-hypotheses:

- The first sub-hypothesis: There is a significant effect of the trust dimension on customer cognitive dissonance toward the product.
- The second sub-hypothesis: There is a significant effect of the commitment dimension on customer cognitive dissonance toward the product.
- The third sub-hypothesis: There is a significant effect of the interaction dimension on customer cognitive dissonance toward the product.
- The fourth sub-hypothesis: There is a significant effect of the complaint response dimension on customer cognitive dissonance toward the product.
- The fifth sub-hypothesis: There is a significant effect of the two-way communication dimension on customer cognitive dissonance toward the product.
- The sixth sub-hypothesis: There is a significant correlation of the service quality dimension with customer cognitive dissonance toward the product.

Seventh: The study method and tool: The current study adopted the descriptive-analytical method, which relies on collecting information about facts, examining them, verifying their validity, and then conducting analysis and interpretation to organize and extract results related to its subject. To achieve the objectives of the study, it was necessary to design its tool represented by the questionnaire, and the five-point Likert scale was adopted to measure the weights of the respondents' answers, where the items (Strongly Agree, Agree, Agree to some extent, Disagree, Strongly Disagree) were adopted, with weights (1,2,3,4,5) respectively.

Table (1): Questionnaire Variables, Their Sub-Dimensions, Measurement Indicators, and Sources

Paragraphs	**Components**	**Number of Paragraphs**	**Sources**
Independent Variable	**Interactive Marketing**		
	Trust	5	(Abd Al-Wahed & Abd Al-Majid, 2025, 1317)
	Commitment	5	(Boubaker, 2022) (Kyaw, 2025)
	Interaction	5	(Al-Baydani & Al-Amri, 2025) (Adham, 2020)
	Response to Complaints	5	(Bouhafs, 2023) (Freeman & Radziwill, 2018)
	Two-Way Communication	5	(Khalil & Mohammed, 2019) (Amal, 2020, 10)
	Service Quality	5	(Hadeel & Aziza, 2024) (Abror, et al., 2020)
Dependent Variable	**Customer Cognitive Dissonance Toward the Product**		
	Enhancing Purchase Decision	5	(Razal, 2024) (Carlos & Menes, 2025)
	Information Quality & Transparency	5	(Omayya, 2019)
	Post-Purchase Interactive Communication	5	(Jang, 2007) (Kang, et al., 2013)

Paragraphs	Components	Number of Paragraphs	Sources
	Expectation Perception	5	(Jang, 2007) (Afaq, et al., 2024)

Reliability and Consistency Measurement:

The results of Table (2) on the reliability of the study tool indicate that the independent variable *"Interactive Marketing"* enjoys a high degree of internal consistency, as the overall average of Cronbach's Alpha coefficient reached (0.83). The highest value was recorded for the dimension *Service Quality* (0.85), while the lowest value was for the dimension *Trust* (0.79), which reflects good reliability for all sub-dimensions. As for the dependent variable *"Customer Cognitive Dissonance Toward the Product"*, it also showed a good level of internal consistency, as the overall average reached (0.80). The highest value was recorded for the dimension *Post-Purchase Interactive Communication* (0.82), and the lowest value was for the dimension *Enhancing Purchase Decision* (0.78). In general, these results confirm that the questionnaire tool is reliable and suitable for analyzing the relationship between interactive marketing and customer cognitive dissonance.

Table (2): Results of Cronbach's Alpha Test

Study Variable	Sub-Dimensions	Cronbach's Alpha	Overall Cronbach's Alpha
Independent Variable: Interactive Marketing	Trust	0.79	0.83
	Commitment	0.82	
	Interaction	0.81	
	Response to Complaints	0.84	
	Two-Way Communication	0.80	
	Service Quality	0.85	
Dependent Variable: Customer Cognitive Dissonance Toward the Product	Enhancing Purchase Decision	0.78	0.80
	Information Quality & Transparency	0.80	
	Post-Purchase Interactive Communication	0.82	
	Expectation Perception	0.79	

Study Population	Number of Restaurants	Sample Size
Fast-food restaurants in Kirkuk	14	380 customers

No.	Restaurant Name	Year of Establishment	Number of Employees	Working Hours
1	Mulla Nouri	1973	35	14
2	Samad	1985	43	15

No.	Restaurant Name	Year of Establishment	Number of Employees	Working Hours
3	Mahdi	1992	22	15
4	Al-Sa‘ah	2001	20	13
5	Al-Noor Al-Kabeer	2004	25	13
6	Luay	2006	15	13
7	Sunbula	2007	32	15
8	Mashallah	2010	28	17
9	Al-Aseel	2010	11	15
10	Zubaid	2010	17	14
11	Agha	2011	32	14
12	Todi	2011	45	15
13	Al-Balam	2016	32	15
14	Razko	2018	45	15

Ninth: Statistical Methods and Tools (Cronbach’s Alpha reliability coefficient, frequencies, percentages, arithmetic mean, standard deviation, response rate, gap ratio, confirmatory factor analysis)

Theoretical Framework

First: Interactive Marketing

The Concept of Interactive Marketing

Al-Dulaimi (2022, 30) sees interactive marketing as a new marketing philosophy that reveals the long-term interaction between customers and the organization, based on information technology, which enables the enhancement of customer loyalty and the necessity of establishing and developing relationships with all parties that influence the organization’s activity. Rashidirad & Shahbaznezhad (2023, 92) describe it as a multi-directional marketing process focusing on value creation and mutual influence through active communication, participation, and interaction between the brand and customers, where customers are encouraged to engage effectively in the marketing process instead of relying on one-way communication. Ayeni et al. (2024, 3) explain it as a shift from traditional operating methods to dynamic and customized marketing environments that remove barriers between brands and customers, supporting two-way communication and direct interaction between them. Maore & Wamwara (2025, 162) point out that it is a customer-focused approach based on real-time dynamic communication between organizations and customers, providing customized experiences and effective customer engagement across many digital channels such as social media, applications, email, and augmented reality interfaces.

Dimensions of Interactive Marketing

1. **Trust:** Defined as a behavioral intention reflecting reliance on the partner, a firm belief that the other party can be relied upon. Trust appears when each party in the exchange is certain of the credibility and integrity of the other. Trust is considered a fundamental element in exchange relationships (Abd Al-Wahed & Abd Al-Majid, 2025, 1317).
2. **Commitment:** Defined as a shared will to maintain a permanent and strong relationship and to continue following it in the long term, contributing to increasing the volume of dealings, sustaining profitable exchanges, and positive interaction between the two parties, where the organization achieves its profits while customers achieve satisfaction (Kyaw, 2025, 54).

3. **Interaction:** Refers to acting based on the principle of reciprocity. The term is also used to express mutual action or a relationship based on reciprocity. Customers are expected to interact more when the service provided is important to them, and interaction becomes more effective when communication channels provide an environment that facilitates interaction and is easy to use by customers (Adham, 2020, 19).
4. **Customer Communication:** Represents the ability of business organizations to deal with customers easily and effectively. It has a significant impact on the sustainability of the relationship between the organization and the customer. One reason for an organization's failure to maintain a long-term relationship with customers is neglect in direct or indirect communication with them, as well as not understanding the impact of this communication. Effective communication greatly contributes to facilitating and developing customer relationship management (Sakharov, 2025, 7).
5. **Customer Complaints:** Organizations that adopt relationship marketing respond quickly to customer complaints. This is considered a personal behavior that involves expressing the negative aspects of products. This behavior appears when the customer is dissatisfied with the organization's products due to its inability to meet their needs and desires (Rahmadi et al., 2024, 93).
6. **Service Quality:** Considered a flexible concept that is difficult to confine to a single definition due to its close connection with customer preferences and their changing needs, which differ from one individual to another. However, at its core, it represents "perceived quality," which arises from comparing customer expectations with the service actually provided (Abd Al-Wahed & Abd Al-Majid, 2025, 1319). Service quality is seen as meeting customers' expected needs and desires consistently, which makes it influence their decisions about staying with the organization that provides distinguished service quality (Abror et al., 2020, 4).

Second: Customer Cognitive Dissonance Toward the Product

The Concept of Customer Cognitive Dissonance Toward the Product

Bayraktar (2023, 513) refers to customer cognitive dissonance as the feeling of psychological discomfort that may occur when choosing among many attractive alternatives. As a result, customers may suffer from purchase anxiety, which may reflect on all aspects of the decision-making process. Cognitive dissonance may affect customer choices, evaluations, and behaviors. Suresh (2024, 86) sees it as a term describing the relationship between motivation, perception, and customer awareness, noting that when thoughts, feelings, and actions conflict, this leads to a state of dissonance between perceptions, creating discomfort. Tueanrat & Alamanos (2025, 2) describe it as a state of conflict or psychological discomfort that arises when an individual faces information, beliefs, or values that contradict what they already believe or with their behavior, generating a sense of inconsistency that drives them to try to reduce this dissonance by changing their beliefs, behavior, or justifying the differences between them.

Dimensions of Customer Cognitive Dissonance Toward the Product

1. **Enhancing Purchase Decision:** Refers to the set of procedures and strategies adopted by the organization to reduce customer hesitation and uncertainty, including providing the necessary information and incentives to facilitate the transition from the stage of evaluating alternatives to the stage of actual purchase, while ensuring a high level of satisfaction after purchase (Yakın et al., 2023, 3).
2. **Information Quality and Transparency:** The information customers receive before purchase is a fundamental factor in determining their satisfaction with purchasing decisions. The purchasing process often involves cognitive and psychological risks, especially when multiple alternatives are available or when products differ in specifications and prices (Mofokeng, 2021, 4).
3. **Post-Purchase Interactive Communication:** This stage is of great importance because it directly affects the customer's desire to repeat purchases and participate in cross-selling processes, as well as its potential impact on others' decisions through recommendations and comments shared with peers or across various social media platforms (Truc, 2022, 7).
4. **Expectation Management:** Considered a modern concept in marketing and behavioral thought, arising from the growing awareness of organizations about the importance of pre-purchase and post-purchase stages. Expectation management is based on understanding what the customer actually expects from the product or service and aligning these expectations with actual performance, which reduces the perception gap—the main cause of cognitive dissonance and post-purchase regret (Oliver, 2018, 8).

Third: The Intellectual Relationship Between Study Variables

Many studies have shown that building strong marketing relationships contributes to enhancing customer satisfaction and loyalty and reduces the feeling of cognitive dissonance resulting from unexpected experiences in using the product or service. Therefore, interactive marketing is considered one of the most important tools organizations rely on to manage customer experience and reduce cognitive dissonance associated with purchasing decisions, through its contribution to enhancing effective communication, improving information quality, and building long-term relationships with customers. This also leads to increased customer satisfaction and trust in the organization, which positively affects their future purchasing behavior (Handoyo, 2024, 5). Interactive marketing also represents an important strategic tool in managing customer experience and reducing cognitive dissonance that may appear after making a purchase decision. The higher the level of interaction between the organization and the customer through effective communication, quick response, customer participation, and building long-term relationships, the lower the level of cognitive dissonance among customers, which leads to enhancing their satisfaction and trust in the organization and increasing the likelihood of continuing to deal with it in the future (Schiebler et al., 2025, 15).

Field Framework

First: Results of the General Indicator of Interactive Marketing Dimensions:

The results of Table (4) showed that all dimensions of interactive marketing tended toward agreement, and the overall agreement percentage reached 81.06%, with an arithmetic mean of 3.943. This confirms that customers have a high awareness of the importance of interactive marketing in improving their experience inside restaurants. The values of the standard deviation (1.051) and the gap ratio (21.0%) indicate relative stability in customer opinions, with some individual differences that restaurants can work on improving to fully enhance customer satisfaction. When ranking the dimensions according to agreement percentage and arithmetic mean, the results were as follows:

1. **First Rank: Service Quality** came first with an agreement percentage of 92.14% and an arithmetic mean of 4.313, which indicates that customers value the quality of the service provided, including the restaurant's location, equipment, ease of access, and the restaurant's keenness to correct previous mistakes and improve service level. This reflects high satisfaction with the service provided.
2. **Second Rank: Response to Complaints** came with an agreement percentage of 88.38% and an arithmetic mean of 4.188, which shows that restaurants provide clear and effective channels for submitting complaints and follow them up seriously, enhancing customers' sense of care and raising the level of trust and participation in improving their experience.
3. **Third Rank: Two-Way Communication** recorded an agreement percentage of 82.74% and an arithmetic mean of 3.978, which reflects that customers value opportunities to express their opinions and observations, and see that restaurants are keen to build an ongoing interactive relationship with them, which strengthens the relationship between customers and restaurants.
4. **Fourth Rank: Interaction** obtained an agreement percentage of 77.76% and an arithmetic mean of 3.792, which indicates that customers notice that restaurants take their opinions into account when developing services, and they feel involved in improving their experience, despite some items recording lower percentages.
5. **Fifth Rank: Commitment** recorded an agreement percentage of 75.58% and an arithmetic mean of 3.813, which indicates that restaurants respect service delivery times and adhere to what they promised, enhancing customers' sense of reliability and responsibility, with room to improve some aspects of commitment.

Sixth Rank: Trust came last with an agreement percentage of 69.78% and an arithmetic mean of 3.578, which reflects that there is room to strengthen the level of transparency and clarity in restaurants' dealings with customers, especially when handling complaints and showing the reasons for actions taken, to enhance customers' sense of trust.

Table (4): Results of the General Indicator of Interactive Marketing Dimensions

	Response Scale for General Indicator Results				

Interactive Marketing Dimensions	Items	General Agreement	General Neutral	General Disagreement	Arithmetic Mean	Standard Deviation	Response Percentage	Gap Ratio
Trust	(X1 – X5)	69.78	8.48	21.8	3.578	1.198	0.715	0.284
Commitment	(X6 – X10)	75.58	5.64	18.78	3.813	1.158	0.762	0.237
Interaction	(X11 – X15)	77.76	3.42	18.8	3.792	1.078	0.758	0.241
Response to Complaints	(X16 – X20)	88.38	3.48	8.18	4.188	0.992	0.837	0.162
Two-Way Communication	(X21 – X25)	82.74	2.22	15.08	3.978	1.013	0.795	0.204
Service Quality	(X26 – X30)	92.14	2.16	5.68	4.313	0.868	0.862	0.137
Average		81.06	4.233	14.72	3.943	1.051	0.788	0.210

Source: Prepared by the researcher based on the outputs of the statistical program (SPSS, AMOS, 28)

Second: Analysis of the Results of the General Indicator of Customer Cognitive Dissonance Dimensions:

The results of Table (5) show that all dimensions of cognitive dissonance tended toward agreement, where the overall agreement percentage reached 80.5%, with an arithmetic mean of 4.085. This confirms that customers have a high awareness of the importance of restaurant practices in reducing cognitive dissonance. The values of the standard deviation (1.006) and the gap ratio (18.2%) indicate that there is relative stability in customer opinions about these practices, with some minor individual differences that restaurants can work on improving to fully enhance customer satisfaction. At the level of dimensions, their ranking was as follows:

1. **First Rank:** The dimension *Enhancing Purchase Decision* achieved the highest agreement percentage of 89.56%, with an arithmetic mean of 4.378, which is higher than the hypothetical mean of 3. This indicates that the speed of restaurants' response to requests and inquiries, and their attention to facilitating the purchasing experience, enhance customers' desire to continue purchasing and reduce hesitation after making the decision.
2. **Second Rank:** *Information Quality and Transparency* recorded an agreement percentage of 78.08%, with an arithmetic mean of 4.039, which indicates that customers feel that restaurants provide clear and transparent information and adhere to what they actually announce, reducing their hesitation after purchase and strengthening their trust in the service.
3. **Third Rank:** *Post-Purchase Interactive Communication* achieved an agreement percentage of 77.7%, with an arithmetic mean of 3.941, which means that customers value effective communication channels after purchase, which allow them to express their opinions and observations, thus making them feel involved in improving the service and strengthening their interactive relationship with the restaurant.
4. **Fourth Rank:** *Expectation Perception* reached an agreement percentage of 76.66%, with an arithmetic mean of 3.983, which indicates that customers' expectations about food and service quality largely match

the actual experience, enhancing their satisfaction and reducing their feeling of cognitive dissonance after purchase.

Table (5): Results of the General Indicator of Customer Cognitive Dissonance Dimensions Toward the Product

Customer Cognitive Dissonance Dimensions	Response Scale for the Results of the General Indicator of Customer Cognitive Dissonance Toward the Product				**Arithmetic Mean**	**Standard Deviation**	**Response Percentage**	**Gap Ratio**
	Items	General Agreement	General Neutral	General Disagreement				
Enhancing Purchase Decision	Y1 – Y5	89.56	4.78	5.68	4.378	0.869	0.875	0.124
Information Quality and Transparency	Y6 – Y10	78.08	7.52	14.36	4.039	1.046	0.807	0.192
Post-Purchase Interactive Communication	Y11 – Y15	77.7	5.0	17.32	3.941	1.019	0.788	0.211
Expectation Perception	Y16 – Y20	76.66	8.36	14.96	3.983	1.092	0.796	0.203
Average		**80.5**	**6.415**	**13.08**	**4.085**	**1.006**	**0.816**	**0.182**

Source: Prepared by the researcher based on the outputs of the statistical program (SPSS, AMOS, 28)

Third: Testing the Main Study Hypothesis

Figure (1) illustrates the structural model of the study variables and the relationships between them, showing that *Interactive Marketing* represents the main independent variable, which consists of a set of dimensions: Trust, Commitment, Interaction, Response to Complaints, Two-Way Communication, and Service Quality. These dimensions reflect the set of practices adopted by restaurants in building interactive relationships with customers and enhancing the level of communication and cooperation with them.

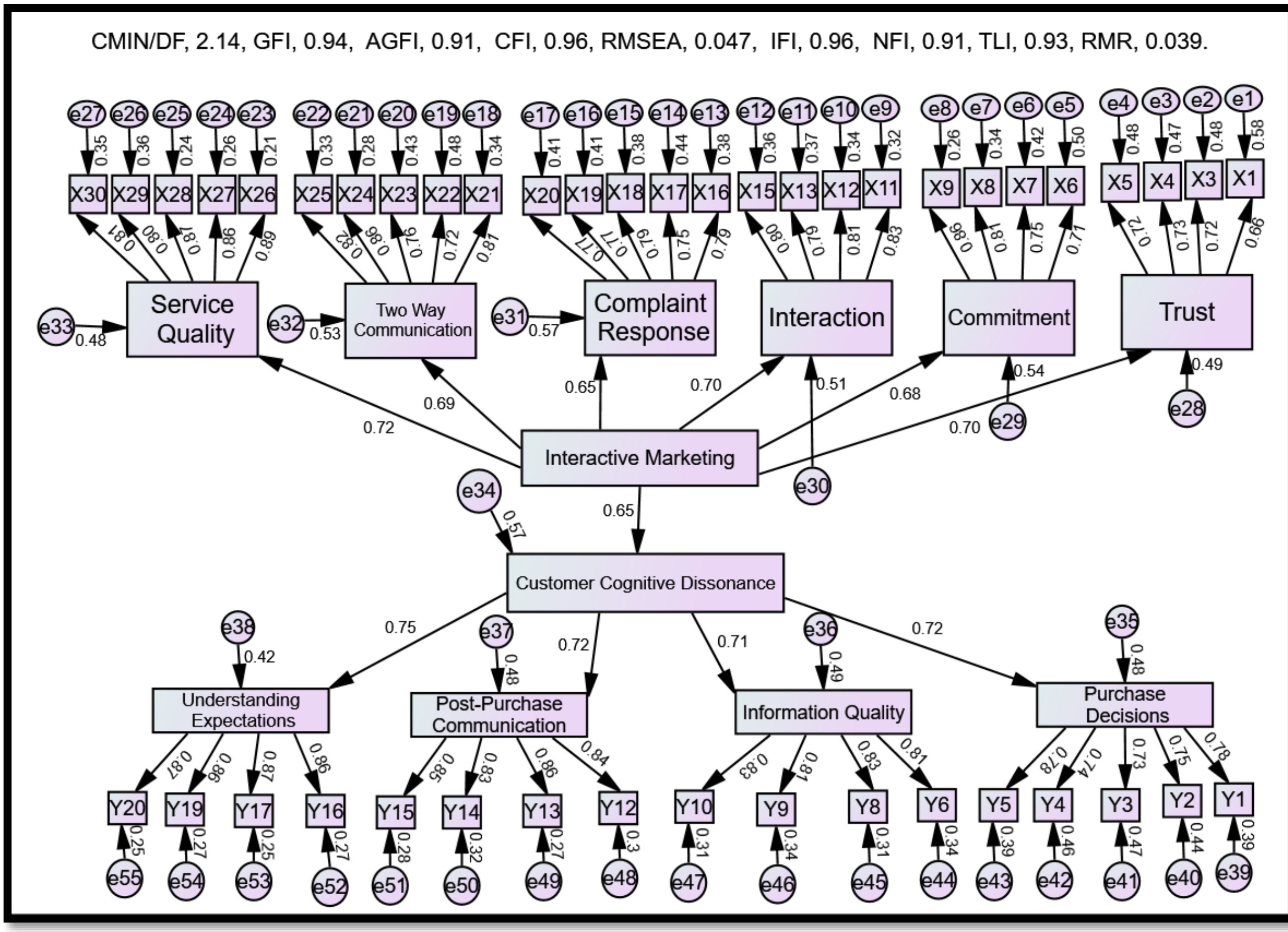

Figure (1): Structural Equations Model of the Effect Relationship of Interactive Marketing on Customer Cognitive Dissonance Toward the Product

Source: Prepared by the researcher based on the outputs of the statistical program (SPSS, AMOS, 28)

Based on the values in Figure (1) and within the framework of testing the second main hypothesis, the results of Table (6) indicate the existence of a statistically significant effect relationship of interactive marketing on customer cognitive dissonance toward the product. The unstandardized estimate coefficient (Estimate) reached a value of (0.652), which is a positive value reflecting the positive direction of the relationship between the two variables. The significance of this effect is confirmed through the critical ratio (C.R) value, which reached (11.050), exceeding the tabular value (1.96) at the significance level (0.05). This indicates that the relationship is statistically significant and strong.

This means that increasing the level of interactive marketing by one unit leads to an increase in customer cognitive dissonance toward the product by (65.2%) units, with other factors held constant. The standard error (S.E) value was (0.059), which is relatively low, indicating the accuracy of the regression coefficient estimation and the stability of the statistical results. The statistical significance level (P) was 0.000, which is less than 0.05, further reinforcing the statistical significance of the effect. Regarding the standardized regression weight (SRW), it reached (0.60), indicating a relatively strong direct effect of interactive marketing on customer cognitive dissonance toward the product.

Based on the above statistical results, the second main hypothesis is accepted, which states that there is a significant positive effect of interactive marketing on customer cognitive dissonance toward the product in the studied sample.

Table (6): Results of the Effect Relationship of Interactive Marketing on Customer Cognitive Dissonance Toward the Product

Hypothesis	Variables	Relationship	Dependent Variable	Estimate	S.E	C.R	SRW	P
H2	Interactive Marketing	→	Customer Cognitive Dissonance Toward the Product	0.652	0.059	11.050	0.60	0.000

Source: Prepared by the researcher based on the outputs of the statistical program (SPSS, AMOS, 28)

Third: Testing the Sub-Hypotheses Derived from the Second Main Hypothesis

Figure (2) illustrates the effect relationship of the dimensions of interactive marketing (*Trust, Commitment, Interaction, Response to Complaints, Two-Way Communication, and Service Quality*) on customer cognitive dissonance toward the product. This enables us to test the sub-hypotheses associated with the second main hypothesis, thereby facilitating the process of proving or disproving them.

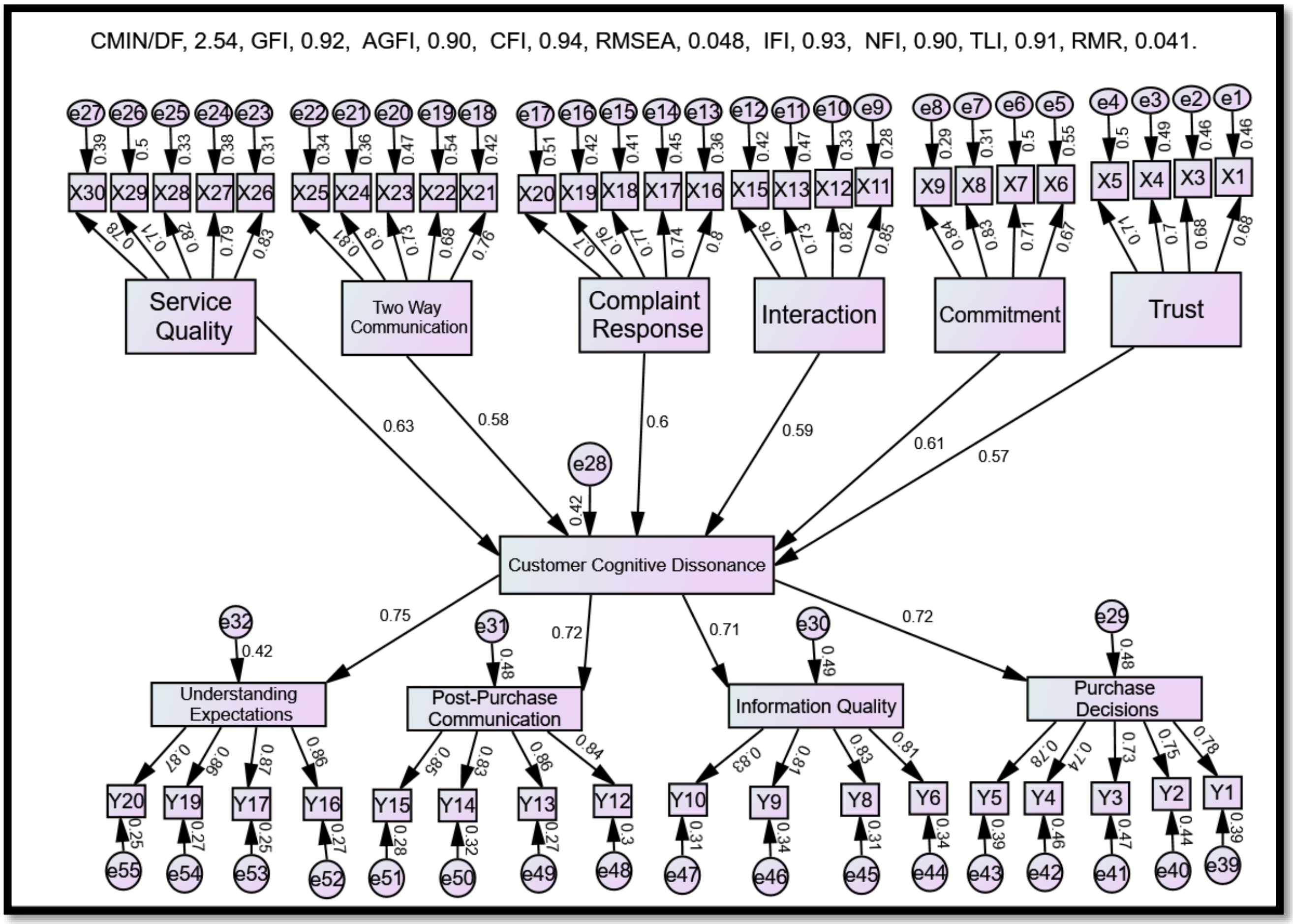

Figure (2): Structural Equations Model of the Dimensions of Interactive Marketing in Customer Cognitive Dissonance Toward the Product

1. **Testing the First Sub-Hypothesis:** Table (7) shows the results of the effect relationship of the *Trust* dimension on customer cognitive dissonance toward the product. The results indicate a statistically significant effect relationship, as the unstandardized estimate coefficient (Estimate) reached (0.57), which is statistically significant. The significance of this effect is confirmed by the critical ratio (C.R) value of (8.507), which exceeds the tabular value (1.96) at the significance level (0.05). The standard error (S.E) was (0.067), a relatively low value, indicating the accuracy of the regression coefficient estimation and the stability of the statistical results. In addition, the statistical significance level (P) was (0.000), less than (0.05), reinforcing the acceptance of the relationship statistically. The standardized regression weight (SRW) was (0.52), indicating a relatively strong direct effect of trust on customer cognitive dissonance. This suggests that strengthening trust between the restaurant and the customer helps reduce doubts and hesitation after purchase,

thereby lowering cognitive dissonance. Based on these results, the first sub-hypothesis is accepted: *There is a statistically significant effect of the interactive marketing dimension represented by trust on customer cognitive dissonance toward the product (at the overall level) in the studied sample.*

2. **Testing the Second Sub-Hypothesis:** The results in Table (7) show a statistically significant effect relationship of the *Commitment* dimension on customer cognitive dissonance. The unstandardized estimate coefficient (Estimate) was (0.61), statistically significant, confirmed by the critical ratio (C.R) of (9.838), exceeding (1.96) at the significance level (0.05). The standard error (S.E) was (0.062), relatively low, indicating accuracy and stability. The statistical significance level (P) was (0.000), less than (0.05), reinforcing acceptance. The standardized regression weight (SRW) was (0.55), indicating a relatively strong direct effect of commitment. This means that the restaurant's adherence to its promises and the quality of what it offers reduces the likelihood of customer regret or hesitation after purchase, thereby reducing cognitive dissonance. Thus, the second sub-hypothesis is accepted: *There is a statistically significant effect of the interactive marketing dimension represented by commitment on customer cognitive dissonance toward the product (at the overall level) in the studied sample.*

3. **Testing the Third Sub-Hypothesis:** The results of Table (7) show a statistically significant effect relationship of the *Interaction* dimension on customer cognitive dissonance. The unstandardized estimate coefficient (Estimate) was (0.59), statistically significant, with a critical ratio (C.R) of (9.076), exceeding (1.96) at the significance level (0.05). The standard error (S.E) was (0.065), relatively low, indicating accuracy and stability. The statistical significance level (P) was (0.000), less than (0.05), reinforcing acceptance. The standardized regression weight (SRW) was (0.54), indicating a relatively strong direct effect of interaction. This suggests that increased positive interaction between staff and customers helps clarify information and enhance the service experience, reducing the gap between expectations and actual outcomes, thereby lowering cognitive dissonance. Based on these results, the third sub-hypothesis is accepted: *There is a statistically significant effect of the interactive marketing dimension represented by interaction on customer cognitive dissonance toward the product (at the overall level) in the studied sample.*

4. **Testing the Fourth Sub-Hypothesis:** The results of Table (7) indicate a statistically significant effect relationship of the *Response to Complaints* dimension on customer cognitive dissonance. The unstandardized estimate coefficient (Estimate) was (0.60), statistically significant, confirmed by the critical ratio (C.R) of (9.375), exceeding (1.96) at the significance level (0.05). The standard error (S.E) was (0.064), relatively low, indicating accuracy and stability. The statistical significance level (P) was (0.000), less than (0.05), reinforcing acceptance. The standardized regression weight (SRW) was (0.55), indicating a relatively strong direct effect. This means that the speed and efficiency of handling customer complaints help correct the service experience and reduce dissatisfaction, thereby lowering cognitive dissonance. Based on these results, the fourth sub-hypothesis is accepted: *There is a statistically significant effect of the interactive marketing dimension represented by response to complaints on customer cognitive dissonance toward the product (at the overall level) in the studied sample.*

5. **Testing the Fifth Sub-Hypothesis:** The results of Table (7) show a statistically significant effect relationship of the *Two-Way Communication* dimension on customer cognitive dissonance. The unstandardized estimate coefficient (Estimate) was (0.58), statistically significant, with a critical ratio (C.R) of (8.787), exceeding (1.96) at the significance level (0.05). The standard error (S.E) was (0.066), relatively low, indicating accuracy and stability. The statistical significance level (P) was (0.000), less than (0.05), reinforcing acceptance. The standardized regression weight (SRW) was (0.53), indicating a relatively strong direct effect. This suggests that enhancing mutual communication and information exchange between the restaurant and customers reduces ambiguity in the service provided, thereby lowering cognitive dissonance. Based on these results, the fifth sub-hypothesis is accepted: *There is a statistically significant effect of the interactive marketing dimension represented by two-way communication on customer cognitive dissonance toward the product (at the overall level) in the studied sample.*

6. **Testing the Sixth Sub-Hypothesis:** The results of Table (7) show a statistically significant effect relationship of the *Service Quality* dimension on customer cognitive dissonance. The unstandardized estimate coefficient (Estimate) was (0.63), statistically significant, confirmed by the critical ratio (C.R) of (10.677), exceeding (1.96) at the significance level (0.05). The standard error (S.E) was (0.059), relatively low, indicating accuracy and stability. The statistical significance level (P) was (0.000), less than (0.05), reinforcing acceptance. The standardized regression weight (SRW) was (0.58), indicating a relatively strong direct effect.

This reflects that providing high-quality service helps meet customer expectations and enhance satisfaction with the purchasing experience, thereby lowering cognitive dissonance. Based on these results, the sixth sub-hypothesis is accepted: *There is a statistically significant effect of the interactive marketing dimension represented by service quality on customer cognitive dissonance toward the product (at the overall level) in the studied sample*

Table (7): Results of the Effect Relationship of Interactive Marketing Dimensions (Individually) on Customer Cognitive Dissonance Toward the Product.

Hypothesis	Variables (Dimensions of Interactive Marketing)	Relationship	Dependent Variable	Estimate	S.E	C.R	SRW	P
H2.1	Trust	→	Customer Cognitive Dissonance Toward the Product	0.57	0.067	8.507	0.52	0.000
H2.2	Commitment	→	Customer Cognitive Dissonance Toward the Product	0.61	0.062	9.838	0.55	0.000
H2.3	Interaction	→	Customer Cognitive Dissonance Toward the Product	0.59	0.065	9.076	0.54	0.000
H2.4	Response to Complaints	→	Customer Cognitive Dissonance Toward the Product	0.60	0.064	9.375	0.55	0.000
H2.5	Two-Way Communication	→	Customer Cognitive Dissonance Toward the Product	0.58	0.066	8.787	0.53	0.000
H2.6	Service Quality	→	Customer Cognitive Dissonance Toward the Product	0.63	0.059	10.677	0.58	0.000

Source: Prepared by the researcher based on the outputs of the statistical program (SPSS, AMOS, 28)

4.Conclusions and Recommendations

First: Conclusions

1. The results of the general indicator revealed that interactive marketing practices in restaurants achieve varying levels in meeting customer expectations. Some dimensions, such as service quality and response to complaints, showed clear alignment with expectations, while other dimensions, such as trust, interaction, and commitment, still suffer from a relative gap. This requires focusing efforts on strengthening these aspects to achieve a more integrated experience that better matches customer expectations.
2. The results of the general indicator clarified that the dimensions of cognitive dissonance among customers in restaurants generally tend toward reduction. Restaurant practices such as enhancing purchase decisions, providing transparent information, interactive communication after purchase, and ensuring consistency between experience and expectations contribute to raising satisfaction and reducing cognitive dissonance, with a limited gap remaining that can be addressed to fully improve the experience.
3. The results show that interactive marketing and its dimensions have a clear positive effect in reducing cognitive dissonance, indicating that strengthening these practices directly contributes to increasing customer satisfaction and reducing the inconsistency between their expectations and the actual service they receive. This led to the acceptance of the second main hypothesis and its sub-hypotheses.

Second: Recommendations

1. Focus on strengthening the dimensions of interactive marketing that show a relative gap, such as trust, interaction, and commitment, and work on developing them in balance with the other dimensions to achieve a higher level of alignment with customer expectations.

2. Continue developing practices that contribute to reducing customer cognitive dissonance by improving the purchasing experience and paying attention to customer satisfaction, which enhances their trust in restaurants and increases the likelihood of repeat dealings.

The necessity of strengthening interactive marketing practices in restaurants by developing its various dimensions (trust, commitment, interaction, response to complaints, two-way communication, and service quality), which contributes to reducing customer cognitive dissonance and improving their experience with the product.

References

1. Abdel Wahed, Yara & Abdel Majid, Sayed Hassan (2025). The Mediating Role of Customer Empowerment in the Relationship Between Interactive Marketing Using Chatbot Tools and Customer Trust in Applications: A Study on Public Commercial Bank Customers in Egypt. Scientific Journal of Financial and Commercial Studies and Research, Vol. 6, Issue 1, Part 3.
2. Abdel Wahed, Yara Mohamed & Abdel Majid, Sayed Hassan (2025). The Mediating Role of Customer Empowerment in the Relationship Between Interactive Marketing Using Chatbot Tools and Customer Trust in Applications: A Study on Public Commercial Bank Customers in Egypt. Scientific Journal of Financial and Commercial Studies and Research, Faculty of Commerce, Damietta University, 6(1)3.
3. Abror, A., Patrisia, D., Engriani, Y., Evanita, S., Yasri, Y., & Dastgir, S. (2020). Service quality, religiosity, customer satisfaction, customer engagement and Islamic bank’s customer loyalty. Journal of Islamic Marketing, 11(6).
4. Adham, Zaman Abdullah (2020). Interactive Marketing as a Tool to Face the Challenges of Electronic Marketing: An Analytical Study of the Opinions of a Sample of Employees and Customers in a Selected Group of Shopping Centers in Mosul City. Higher Diploma Thesis, College of Administration and Economics, University of Mosul.
5. Afaq, A., Gore, L., & Kumar, R. (2024). Unveiling digital ethnography: Understanding customer expectations and experiences with global hotel chains in the post-COVID-19 era. Journal of the Academy of Marketing Studies, Vol. 28, No. 2.
6. Al-Baydani, Ahmed Hassan & Al-Amri, Sarah Ali (2025). The Impact of Interactive Marketing on Customer Experience: A Field Study. Journal of Accounting and Financial Studies, Issue 72, Vol. 20.
7. Al-Dulaimi, Hadeel Ahmed Khalaf (2022). The Role of Interactive Marketing in Enhancing Marketing Opportunities: An Exploratory Study of the Opinions of a Sample of Employees in Vana Furniture Organization in Iraq. Master’s Thesis, College of Administration and Economics, University of Mosul.
8. Al-Taie, Youssef Hajim & Sahib, Jinan Hassan (2022). Marketing Astonishment and Its Relationship to Customer Cognitive Dissonance: An Analytical Study of the Opinions of a Sample of Customers of Electronic Products on Social Media Platforms. Al-Ghari Journal, College of Administration and Economics, Vol. 1, Special Issue.
9. Ayeni, Adebanji; Bisschoff, Christo A.; Sekhampu, Joseph; Lekunze, Joseph; Ayeni, Edidiong (2024). Interactive Marketing: A Systematic Review and Research Agenda. F1000Research, Vol. 13, Article No. 1383.
10. Bayraktar, P. (2022). Investigating the Factors Affecting Customer Engagement and the Influence of Customer Engagement on Brand Loyalty in Automobile Online Brand Communities. PhD Thesis, Graduate School of Informatics, Middle East Technical University.
11. Boubaker, Al-Wazen (2022). Interactive Marketing as an Approach to Achieving Customer Loyalty in Service Institutions: A Case Study. Doctoral Dissertation, Faculty of Economic Sciences, Commercial Sciences and Management Sciences, University of Ghardaïa – Algeria.
12. Bouhafs, Abdel Samad (2023). Dimensions of Interactive Marketing and Its Relationship to Repurchase Intention in Service Institutions: A Case Study of Mobilis Customers. Doctoral Dissertation, Kasdi Merbah University – Ouargla.
13. Carlos, J. D. B., & Menes, M. C. C. (2025). Purchase Decision Making Styles, Marketing Mix, and Socio Demographic Factors Influencing Consumer Buying Behavior. TPM–Testing, Psychometrics, Methodology in Applied Psychology, 32(S7).
14. Demir, U. T., & Kibritci Artar, O. (2021). The Effects of Interactive Marketing in the Banking Sector. İstanbul Ticaret Üniversitesi Girişimcilik Dergisi, Vol. 5, No. 9.
15. Hadeel, Naïmi & Aziza, Naïmi Nahlah (2024). The Role of Interactive Marketing in Enhancing Customer Trust: A Study in Algeria Telecom. Master’s Thesis, Faculty of Economic Sciences, Commercial Sciences and Management Sciences, Kasdi Merbah University – Algeria.
16. Handoyo, S. (2024). Purchasing in the Digital Age: A Meta Analytical Perspective on Factors Influencing E-Commerce Decisions. Information Processing and Management, 61, 103045.
17. Jang, D. (2007). Effects of Word-of-Mouth Communication on Purchasing Decisions in Restaurants: A Path Analytic Study.

18. Kang, L., Tan, C. H., & Zhao, J. L. (2013). The Impact of Intra-Transaction Communication on Customer Purchase Behaviour in E-Commerce Context.
19. Kaunda, K., Thuo, J. K., & Kwendo, E. (2023). The Impact of Interactive Marketing on Marketing Performance of MSEs in Kenya. International Journal of Research in Business and Social Science, Vol. 12, No. 4.
20. Khalil, Essam Abdelhadi & Mohamed, Dina (2019). The Impact of Interactive Marketing Dimensions on Customer-Perceived Benefits and Sacrifices (Field Study). Journal of Contemporary Commercial Studies, Issue 6.
21. Kyaw, Thandar (2025). Effect of Perceived E-Retailer Agility on Customer Satisfaction, Commitment and Loyalty Towards City Mall Online. MBA Thesis, Department of Management Studies, Yangon University of Economics.
22. Maore, Stephen Kirimi & Wamwara, Samuel (2025). The Effect of Interactive Marketing on Consumer Engagement in the Automotive Sector. International Journal of Research in Marketing Management and Sales, Vol. 7, No. 1, pp. 161–167.
23. Mert, İ. S., Glai, R., & Şen, C. (2024). Understanding the Cognitive Dissonance on Women Post-Purchase Behavior. Journal of International Trade, Logistics and Law, 10(1), 245–272.
24. Mofokeng, T. E. (2021). The Influence of Online Shopping Attributes on Customer Satisfaction and Purchase Intention. African Journal of Business Management, 15(1), 1–10.
25. Oliver, R. L. (2018). Satisfaction: A Behavioral Perspective on the Consumer. New York: Routledge.
26. Olutade, E. O., & Enwereji, P. C. (2023). Effect of Consumer Dissonance on Product Packaging. Aibi Revista de Investigación, Administración e Ingeniería, Vol. 12, No. 1.
27. Oumaya, Massouda (2019). Customer Perception of Ethical Responsibility in Advertising and Its Impact on Achievement (A Field Study of a Sample of Customers of Algeria Telecom Mobile – Mobilis, Ouargla). Master's Thesis, Faculty of Humanities and Social Sciences, Kasdi Merbah University – Ouargla.
28. Rahmadi, A. N., Sudarmiatin, S., Soectjipto, B. E., Putra, Y. P., & Hassan, R. S. (2024). Customer Relations Management Strategy (CRM) in Handling Customer Service Complaints to Increase Customer Satisfaction. International Journal of Management Science, 2(2).
29. Rashidirad, Mona & Shahbaznezhad, Hamidreza (2023). Interactive Digital Marketing Mechanisms: The Significance in Digital Transformation. In Wang, Cheng Lu (Ed.), The Palgrave Handbook of Interactive Marketing. Palgrave Macmillan, pp. 93–115.
30. Razal, Hajar (2024). The Impact of Electronic Marketing via Instagram on Consumer Purchase Decision: A Field Study of a Sample of Instagram Users in Algeria. Master's Thesis, Faculty of Humanities and Social Sciences, Kasdi Merbah University – Ouargla.
31. Sakharov, A. (2025). Consumer Behavior-Based Strategies Small Business Leaders Use to Increase Online Sales Revenues. Doctoral Dissertation, Walden University.
32. Schiebler, T., Lee, N., & Brodbeck, F. C. (2025). Expectancy-Disconfirmation and Consumer Satisfaction: A Meta-Analysis. Journal of the Academy of Marketing Science, 53(1), 45–67.
33. Suresh, V. (2024). Consumer Behavior and Cognitive Dissonance in Marketing Decisions. International Journal of Research in Finance and Management, 7(1), 80–90.
34. Truc, Pham Thanh (2022). Social Media Marketing and Consumer Engagement. Master's Thesis, Masaryk University, Czech Republic.
35. Tueanrat, Y., & Alamanos, E. (2025). Cognitive Dissonance Theory: A Review. In S. Papagiannidis (Ed.), TheoryHub Book. Newcastle University.
36. Yakın, V., Güven, H., David, S., Güven, E. T. A., Bărbuță-Mișu, N., & Virlanuta, F. O. (2023). The Effect of Cognitive Dissonance Theory and Brand Loyalty on Consumer Complaint Behaviors: A Cross-Cultural Study. Sustainability, 15(6), 4718. MDPI.
37. Zalat, & Mohamed Ali Mahmoud (2025). The Impact of Interactive Marketing on Customer Loyalty in the Presence of Perceived Value as a Mediating Variable: A Field Study on Customers of Egyptian Telecom Companies. Journal of Administrative Research, Vol. 43, Issue 1.