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Designing a post-purchase regret model and determining online business strategies

Sara Salimi[1], Ali Hajiha[*2], Hamid Reza Saeednia[3], Kambiz Heidarzadeh[4]

[1] Department of Management, UAE Branch, Islamic Azad University, Dubai, United Arab Emirates.
[2] Department of Industrial Management, North Tehran Branch, Islamic Azad University, Tehran, Iran.
[3] Department of Business Management, North Tehran Branch, Islamic Azad University, Tehran, Iran.
[4] Department of Business Management, Science and Research Branch, Islamic Azad University, Tehran, Iran.

Abstract

The purpose of this study is to design a post-purchase regret model and determine online business strategies. Regret is a state of mind in which the customer is hesitant to buy a product or service. This hesitation can be due to paying a high price for the quality received, comparing the quality of the goods or services received with competing companies, or the result of various risks that may arise in online shopping. To design the regret model, the qualitative research method was used utilizing the grounded theory strategy and the Strauss-Corbin systematic design. The sampling method was judgmental and to collect information and achieve theoretical saturation, 14 semi-structured interviews were conducted with university professors and managers of online commerce and web-based businesses. The key points of the interviews were analyzed during the three stages of open, axial, and selective coding. For the validity and reliability of the research, the members` review, participatory, triangulation, and retest methods were used. The results were extracted in a paradigm model with 20 categories and 76 concepts. The Delphi method was used to prioritize the constructive factors of the model and the opinion of experts was determined in 2 stages and converged with a standard deviation of less than 0.05. The results of the research help online business activists to gain an accurate understanding of post-purchase regrets in online shopping behavior.

Keywords: post-purchase regret; business strategy; grounded theory; Delphi.

Paper Type: Original Research

1. Introduction

The Internet is an important business factor that has grown faster than any other communication technology and has revolutionized global markets more than any other media technology (Lazim et al., 2020). Understanding online shopping behavior is one of the priorities of all businesses that intend to expand their activities and be present in virtual markets (Si-To et al., 2014). Product features, purchase trust, product price, consumer evaluation, resource trust, online store usability, brand trust, product bad reputation, and loyalty programs are some of the factors that influence the consumer's online shopping decision (Mican and Taut, 2020).

One area that has come to the attention of marketing researchers in the last decade is the feeling of regret in online shopping. Research shows that consumers are increasingly sharing their regret experience online (Kaur et al., 2016). Regret is an emotion that occurs during or after the shopping process, and this feeling can be caused by not meeting the customer's initial expectations (Zulkarnain et al., 2019). The buying process refers to the steps during which the consumer buys the product and includes stimulus, problem awareness, information search, evaluation of options and shopping behavior (Armstrong et al., 2017). Results of a British study show that about 82% of adults have experienced shopping regrets in the past (Skelton and Alwood, 2017). Post-purchase regret can be due to personal characteristics, inappropriate buying behavior, or negligence in the seller's behavior (Deepak and Partners, 2018) due to personality (Zulkarnain et al., 2018) or due to different risks in nature that are in online shopping (Herweg and M The Internet is an important business factor that has grown faster than any other communication technology and has revolutionized global markets more than any other media technology (Lazim et al., 2020). Understanding online shopping behavior is one of the priorities of all businesses that intend to expand their activities and be present in virtual markets (Si-To et al., 2014). Product features, purchase trust, product price, consumer evaluation, resource trust, online store usability, brand trust, product bad reputation, and loyalty programs are some of the factors that influence the consumer's online shopping decision (Mican and Taut, 2020).

[*]Corresponding Author: a_hajiha@iau-tnb.ac.ir

One area that has come to the attention of marketing researchers in the last decade is the feeling of regret in online shopping. Research shows that consumers are increasingly sharing their regret experience online (Kaur et al., 2016). Regret is an emotion that occurs during or after the shopping process, and this feeling can be caused by not meeting the customer's initial expectations (Zulkarnain et al., 2019). The buying process refers to the steps during which the consumer buys the product and includes stimulus, problem awareness, information search, evaluation of options and shopping behavior (Armstrong et al., 2017). Results of a British study show that about 82% of adults have experienced shopping regrets in the past (Skelton and Alwood, 2017). Post-purchase regret can be due to personal characteristics, inappropriate buying behavior, or negligence in the seller's behavior (Deepak and Partners, 2018) due to personality (Zulkarnain et al., 2018) or due to different risks in nature that are in online shopping (Herweg and Müller, 2021; Nicolas & Castillo, 2008). Perceived risk is as uncertainty that the consumer feels after buying something and leads to regret (Aydin and Unal, üller, 2021; Nicolas & Castillo, 2008). Perceived risk is as uncertainty that the consumer feels after buying something and leads to regret (Aydin and Unal, 2016). Post-purchase regret can change with variation of income (Kumar et al., 2020). When the consumer feels that the product of competing companies is better than the purchased product in terms of price, features, and characteristics of the product, or when there is a difference between the previous evaluation of the product and the final purchase, there will a feeling of regret (Bui et al., 2009).

Research results show that impulse buying is positively associated with feelings of regret (Parsad et al., 2019). Consumption motivated by hedonism and excessive consumption leads to customer regret (Celik et al., 2019). Brand loyalty or abandonment is two aspects of customer behavior towards brand perception and experience. Consumers express a negative feeling about the product when they are looking for their ideal product but have not achieved it (Actas and Simsk, 2020). Companies looking to develop their e-commerce need to analyze the online shopping behavior of their target customers and apply appropriate marketing and sales strategies (Svobodova and Rajchlova, 2020).

So far, several studies have been conducted on the relationship between post-purchase regret and variables such as impulse buying (Secapramana et al., 2020; Mishra et al. 2021); demographics (Kaur et al., 2016); risk (Herweg and Müller 2021); decision-making process (Natalie et al., 2010); personality (Zulkarnain et al., 2018); brand trust (Zulkarnain et al., 2019); consumer engagement and expectations (Izah and Iskandar, 2019) and so on. But research that comprehensively covers online shopping behavior and addresses post-purchase regret indicators has received less attention. The present study tries to design a model of post-purchase regret in online shopping behavior among Iranian customers with an exploratory approach and using the grounded theory strategy and the Strauss-Corbin systematic design. Therefore, the main question of the research is what is the model of post-purchase regret in the online shopping behavior of Iranian customers?

To answer this question and to discover the concepts and categories of the regret model, the research sub-questions are as follows:

- What categories and concepts are causal conditions, core category, context, intervening conditions, strategies, and consequences of the regret pattern?
- What is the priority of the categories and concepts of the post-purchase regret model?

The paper is structured as follows: In the literature section, online shopping behavior, cases that lead to regret after shopping in the online environment, as well as models of online shopping behavior are discussed. In the third part, the research methodology is discussed. The fourth section is dedicated to research findings. In this section, grounded theory coding from open coding to axial coding paradigm and prioritizing categories and concepts are described. In the final part, according to the priority of the obtained categories, strategies were suggested.

2. Literature review

Customers face various problems when buying from online stores, which discourages them buying from stores (Daroch et al., 2021). Meanwhile, only businesses can remain in the world of competition that can keep their customers satisfied, and this can only be achieved by recognizing customer behavior (Aktas and Simsek, 2020). Consumer purchasing decisions usually begin with an awareness of the need. It then includes searching for information, evaluating alternatives, making purchasing decisions, and finally post-purchase behavior (Katawetawarakas and Wang, 2011). Customers' intention to repurchase a product or reuse a service is determined by their satisfaction with the previous use of that product or service (Liao et al., 2011). So, dissatisfaction can be a sign of post-purchase regret or its result (Ekici and Dogan, 2013). In their theory of purchasing behavior, Howard and Sheth discussed the rationality of the consumer's choice of product in the face of lack of information and reduced processing power (Howard and Sheth, 1969). The Kotler model is a stimulus-response model of behavior. In this model, it is stated that the individual characteristics of the buyer and his decision-making process affect the buying

behavior, which is in the form of a black box (Celik et al., 2019). Findings show that in the purchase decision, customers first consider many products as possible options to meet the needs, then evaluate the products based on their desirability criteria, and finally decide to buy (Dhaliwal et al., 2020). According to Tseng et al., in the online shopping process, two main categories of perceptual risk are formed. The first dimension of perceptual risk is related to the product/service and the second dimension is to the context of online transactions (Tseng et al., 2020). Customer attitude and trust in stores can reduce perceptual risk. Overall, users' perceptual control, enjoyableness, and real value-adding are the most important dimensions of customers' attitudes toward online shopping (Swoboda and Sinning, 2020).

The concept of regret has been defined in the existing literature in several ways (Tata et al., 2021). Zeelenberg and Pieters defined regret as the emotion that we experience when realizing or imagining that our current situation would have been better, if only we had decided differently (Zeelenberg and Pieters, 2007); or regret is defined as a passive negative reaction to past and lost points (Chen et al., 2020). Regret theory refers to human behavior about the fear of regret that results from predicting regret if one chooses wrong. This fear can affect a person's rational behavior and impair his/her ability to make decisions that are in his/her favor over what harms him or her (Bell, 1982). Regret is closely linked to decision making (Natalie et al., 2010) and in everyday decisions, satisfaction is achieved by minimizing regret (Zillenberg, 2015). Regret theory explains that alternatives are re-evaluated in the post-purchase phase and thus affect satisfaction (Park and Hill, 2018). Relying on regret theory and product type literature, it is argued that emotions evoked during hedonic consumption of the product reduces the negative consequences of regret and betrayal of the brand (Sameeni et al., 2022). A theory of regret regulation distinguishes regret from related emotions, specifies the conditions under which regret is felt. Post-purchase regret also occurs when the consumer does not think enough about the product purchased (Zeelenberg and Pieters, 2007).

In a study using in-depth interviews and a focus group, M'Barek and Gharbi identified the factors influencing the experience of regret. This research is one of the few researches that has been done using qualitative method. In this research, the moderators of regret were grouped into situational and dispositional moderator's categories. (M'Barek, and Gharbi, 2011)

A review of research in the field of online post-purchase regret shows that most of them have been done with case studies and quantitatively, using surveys and limited to one or more variables. Therefore, qualitative research that is done with an inductive approach and with the aim of identifying the factors affecting post-purchase regret in the online environment is necessary in order to enrich the research literature. Table 1 presents a number of post-purchase regret studies.

Table 1. Studies on Post-purchase regret

Antecedent(s)	Research Methodology	Product/Category	Data Analysis	Study
Drivers of Post-purchase regret	Qualitative study	university professors/ managers of online commerce and web-based businesses	Grounded Theory	Current study
Brand betrayal	Experimental study survey	Hedonic vs. Utilitarian products	SEM	Sameeni et al. (2022)
Unplanned buying behavior	Online survey	Ready-made clothing	SEM	Bil & Gokce, (2022)
Decrease the goal level strategy	Experimental study	Vacation destination	Testing DGL	Kamiya et al. (2021)
Product assortment/ Product quality/ Price transparency/ Service quality/ Quality of personalization/ Firm's sincerity	Experimental study survey	Preferred retailer	SEM	Tata et al. (2021)
Impulsive buying	Experimental study survey	Fashion products	Linear regression	Secapramana et al. (2020)
Brand trust/ Brand reliability/ Brand intentions	Experimental study survey	Any category offering online deals	Stepwise regression	Zulkarnain et al. (2019)
Expected benefit	Online survey	Intelligent CCTV for home use	SEM	Youngwook, (2018)
Purchase decision	Online survey	Digital camera	Manipulation checks/ moderation analysis	Davvetas & Diamantopoulos, (2018)
Bog five personality	Experimental study survey	Student university	Stepwise regression	Zulkarnain et al. (2018)
Scarcity/ Discount	Online survey	Departmental store jeans	Manipulation checks/ Logistic regression	Galber et al. (2017)
Demographic variables	Online survey	Adolescent Facebook users	ANOVA/ Hierarchical regression	Kaur et al. (2016)
Cognitive effort	Online survey	Laptop	Manipulation checks	Park et al. (2015)

3. Research method

The present study is qualitative research that has designed the post-purchase regret model in online shopping behavior with an inductive approach and using the research strategy of the Grounded theory. This is a method in which theories, concepts, hypotheses, and propositions are derived directly from data, instead of deriving from the previous assumptions, other research or existing theoretical frameworks. Because a theory is "grounded" in the data, it provides a better explanation than a theory borrowed "off the shelf," because it fits the situation, actually works in practice is sensitive to individuals in a setting, and may represent all the complexities actually found in the process. (Creswell & Gutterman, 2018).

In this research, the systematic design of Strauss and Corbin has been used for theorizing. A systematic design in Grounded theory emphasizes the use of data analysis steps of open, axial, and selective coding, and the development of a logic paradigm or a visual picture of the theory generated. In this approach the data obtained from the interviews are placed in predetermined sections, i.e., Causal Conditions (categories of conditions that influence the core strategy), Core Category (the idea of phenomenon central to the process), Contextual Conditions (the specific conditions that influence the strategies), Intervening Conditions (the general contextual conditions that influence the strategies, Strategies (the specific actions or interactions that result from the core phenomenon, and Consequences (the outcomes of employing the strategies). In other words, this approach is more structured compared to the other two approaches of Grounded theory, namely Glasser`s The emergent design and Charms The constructivist design (Charmaz, 2006).

3.1. Data collection and sampling

The data collection tool was semi-structured interviews. To obtain the required data, triangulation strategy was used. The logic of triangulation is based on the premise that no single method ever adequately solves the problem. Four kinds of triangulation including method triangulation, investigator triangulation, theory triangulation, and data triangulation, contribute to verification and validation of qualitative analysis (Patton, 1999). In this research the data triangulation was used. Data triangulation involves the collection of data from different types of people, including individuals, groups, families, and communities, to gain multiple perspectives and validation of data (Carter et al., 2014). Therefor 14 managers and experts, including professors, academic experts, online commerce industry activists, and web-based businesses were interviewed using judgmental sampling. In this way, people were interviewed who had both appropriate knowledge in the field of marketing and operational experience in online business. The sampling process continued until the model reached the construction and saturation level. Theoretical saturation occurs when the complete range of constructs that make up the theory is fully represented by the data (Saunders et al., 2018).

3.2. Research reliability and validity

To determine the validity of the interviews, the following methods were used:
- Study method by research members: The research members, which included 4 university professors and a Ph.D. student, reviewed the coding process, and the points of view presented by them were applied in the coding process.
- Participatory research: In the research process, the reciprocal approach was predominant and the opinions and views of the participants in different stages of the analysis were used.
- Using the triangulation strategy: As mentioned, to collect data, 14 university professors and managers of the online commerce industry and web-based businesses were interviewed so that the data would have the necessary diversity. Table 2 shows the level of education and expertise of the interviewees in the present study.

Table 2. Level of education and specialization of the interviewees

Specialization	Number	Education	Total
University faculty member (marketing and consumer behavior)	6	Ph.D. in Business Management	6
Online Business Marketing Manager	2		
Director of Online Business Research and Development	3	M.A	8
Manager and owner of online business brand	3		

To measure the reliability, the retest method was used. In this way, from the interviews, 3 of which were selected, and each of them was coded twice by the researcher in 15 days. The total reliability of the retest interviews was 83%.

4. Findings

The Grounded Theory method contains three data analysis steps: open coding (the development of concepts and categories), axial coding (the development of connections between a category and its subcategories), and selective coding (the integration of categories to create a theoretical framework) (Charmaz, 2001).

4.1. Open coding

Open coding is an analytical process through which key concepts or ideas within textual data are identified. In conducting the research, after implementation of all of the interviews, their key points were identified and the initial codes of each were extracted. Finally, after 14 interviews, 457 codes were obtained as primary codes, which by removing similar codes, 76 concepts were created. The interviews continued until the data became theoretically saturated and nothing new was observed in the interviews. Table 3 provides an example of coding based on the results of the first interview analysis.

Table 3. Example of open coding

Key points of the interview	Extracting the initial codes
In recent years, the growth of online shopping has been increasing for reasons such as the increase in the young population in the country, which can help the development of this field.	Increasing online shopping
If the purchased goods are not delivered to people on time, they will no longer want to buy from this website.	Timely delivery of goods
Responding to complaints in less than 24 hours increases customer satisfaction.	Response speed
Two-way interaction between the customer and the website environment plays a role in attracting customers.	Interacting with the website
Unfortunately, there is no proper advertising in the field of online shopping.	Weak advertising
If the website creates a good experience for the customer, others will be advised to buy from that website.	Recommended ads
The online store must be secure, and if it is not secure, it means that the website is not safe.	Website safety
Proper planning can lead to more customers.	Proper planning
Website support staff should be trained.	Training of support personnel
Appropriate information should be given to customers interested in online shopping.	Appropriate information
We can use this industry and generate revenue.	Revenue generation
If the needs of customers are taken into account, they will advertise for us.	Recommended ads
Customers are more likely to buy the product when they see it.	Creating an online culture
Security from online shopping is one of the important factors in attracting interested customers that should be provided by store managers.	Purchase risk
The company must ensure that the customer does not regret the purchase.	Reliability
Some customers are obsessed and always feel regret after the purchase.	Regret of purchase
The reputation of a sales website with others plays a role in increasing customer trust.	Website credibility
Some customers do not trust the prices of the site and say it is not real.	Website credibility
Iran is not far behind in online shopping from neighboring countries such as Turkey and the UAE, which entered the industry earlier than us, because our capacities in this area are large.	Existing potential
Weak infrastructure is a challenge that is known as a problem in the online sales sector.	Weak infrastructure
The customer must be reassured that hackers cannot hack his information.	Reliability
In case of cancellation of the purchase, timely return of funds to the customer's account is very reliable.	Reliability
The government must remove the restrictions on investment.	Eliminating legal loopholes
The low loading speed of the website causes a negative behavioral reaction from this portal.	Negative behavioral reaction
Incorrect inclusion of information about the goods leads to customer dissatisfaction.	customer dissatisfaction
We need to emulate the successful programs implemented by other countries in this regard.	Following the example of successful countries
We still have weaknesses in introducing online shopping malls on social networks and cyberspace, which can be very damaging in this time of digital age.	Social media marketing

4.2. Axial coding

Categories are needed to reduce the number of concepts and to create an overview of a topic to understand a social theory. At this stage, similar concepts were put together and categorized. Categories, in comparison with concepts, are more abstract and show a higher level to changing to the Grounded structures. In this way, 76 obtained concepts were classified and placed in the form of 20 sub-categories. The results are presented in Table 4.

Table 4. Extracted subsidiary and general concepts and categories

General category	Subcategory	Main concepts
Technical mechanism of online shopping	Security of transaction	Secure payment symbol -Website hosting - Timely return of money - Payment at home
	Customer social network	Idea sharing - Content generation - Creating a hashtag for a specific product -Placing buyer posts - Categorizing popular products - Using celebrities
	Website design	Visual website design - Placement of important information - Customer communication channel diversity - Website quality
Shopping experience	Usefulness	Ease of purchase - Product quality - Product replacement warranty - Free return of goods

General category	Subcategory	Main concepts
	Trust	Behavior of support personnel - Website reputation - Information accuracy
	Sales system	Commission - Discount - Wholesale/single sales
	Online shopping support center	Telephone chat - Online chat - File complaints via email
	Brand belief	Mental Image - Perceived quality - Brand association - Availability - Brand loyalty - Brand familiarity
Customer relationship	Customer retention	Customer appreciation - Customer club -Managers' commitment to customers - Complaints tracking speed - Free shipping
	Online advertising	Advertising on social media - Loyal customer advertising campaign - Video marketing
	One or two stars symbol of trust	Internet business qualification - Security certificate
Legal licenses	Site security	Authentication - Firewall - Virtual key -Public key - Purchase transaction security
	Electronic ID symbol of national content registration	Internet sales license - Site credibility
	Creating a long-term relationship	Proper interaction with the company - Membership in the customer club - Discount coupons for specific customers - Free product for specific customers
Customer development	Communication development	Website functional factors - Creating two-way interaction - Attention to customer psychology - Search engine optimization - Technology
	Variety of product supply	Social networks - Creating hashtags for cheap products - site optimization
	Site problems	Incomplete product information - Low website speed when purchasing - Credit card information risk
	Shipping problems	Prolonged shipment of goods - Order mismatch - Product damage - long replacement process of product - Delayed timely return of funds
Post-purchasing regret	Product problems	Performance quality - Product technical defects - Perceived differences
	Other problems	Lack of approval from family and friends -Weak after-sales service - Irresponsibility of employees

4.3. Selective coding

The last stage of Grounded theory is selective coding, which requires identifying a central category and linking this category systematically and logically to other categories. In this way, in the form of selective coding, 20 extracted categories were related to each other using the systematic design of Strauss and Corbin, and the paradigm pattern of post-purchase regret in online shopping behavior was obtained as shown in Figure 1.
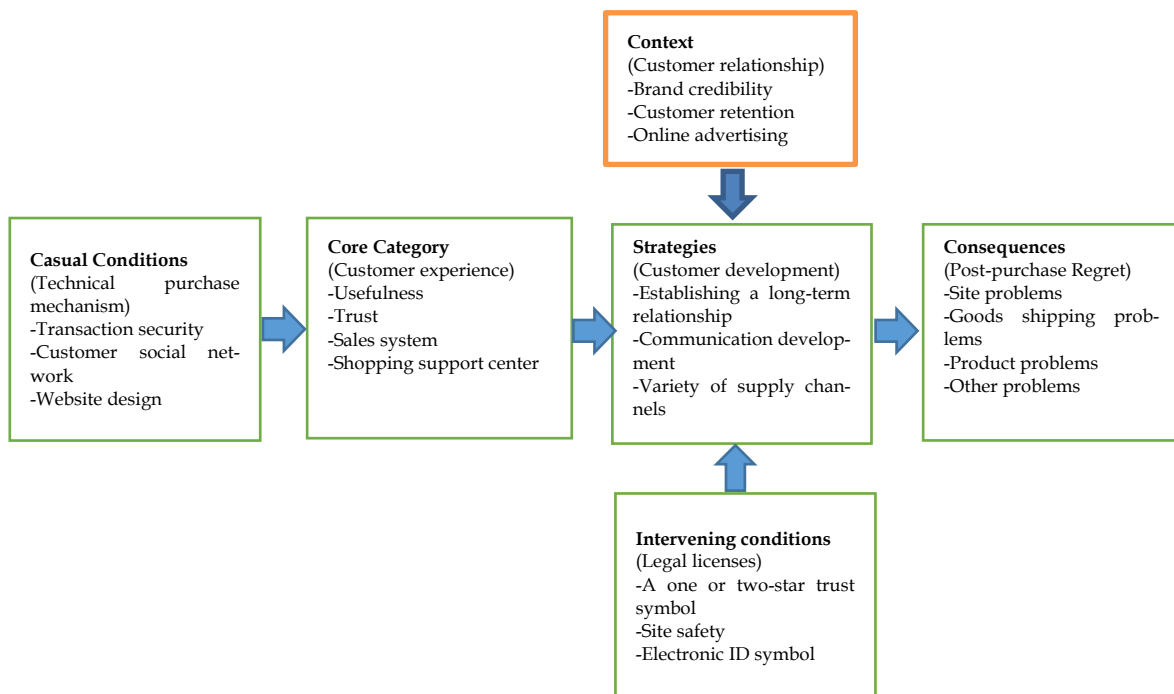
Figure 1- Post-purchase regret model in online shopping behavior

4.4. Prioritizing categories and concepts

Using the Delphi technique, the importance of sub-categories and model concepts were determined with 14 experts who had previously been interviewed. In this way, the experts were asked to design a questionnaire and in the form of separate tables to determine the importance of sub-categories and concepts separately and in the range of zero to 100. By taking the average of the answers, the importance of the sub-categories and the designed concepts were obtained. Table 5 provides an example of a questionnaire that is related to the average of the answers obtained from the first stage of the Delphi technique and is related to the sub-categories of Consequences.

Table 5. Sub-categories of Consequences (Delphi first stage)

No.	Subcategories of consequences	Percentage of importance factor
1	Site Problems	79
2	Shipping problems	70
3	Product Problems	73
4	Other problems	67

Due to the relative dispersion of the given answers, the second stage of the Delphi technique was performed. At this stage, to reach a consensus of experts, the average of the answers obtained and also the previous opinion of each person was placed in a questionnaire and they were asked to consider the previous opinion and compare it with the average of the answers. If you have a possible corrective opinion, express your answer again in the range of zero to 100. Table 6 provides an example of the second stage Delphi technique questionnaire, which is related to the answers of one of the experts to the sub-categories of Consequences.

Table 6. Sub-categories of Consequences (Delphi second stage)

No.	Subcategories Consequences	Previous response	Average responses	Possible corrective response
1	Site Problems	79	78	78
2	Shipping problems of goods	70	75	75
3	Product Problems	73	78	75
4	Other problems	67	72	72

The standard deviation of the answers given in the first stage was 13% and in the second stage, it converged with less than 5% finally, using the average of the new corrective ideas and their normalization, the priority of the categories and concepts of the model was determined.

5. Conclusion and suggestion

In the field of online post-purchase regret, various researches have been done with a quantitative and deductive approach. Therefore, in this study, an attempt was made to provide a comprehensive model of the interaction of factors affecting online post-purchase regret from a qualitative methodology based on the strategy of Grounded theory and systematic Strauss-Corbin design, to help online business activists identify customer post-purchase behavior and determine appropriate strategies. To benefit from the experts' opinion, judgmental sampling and data triangulation methods were used and semi-structured interviews were conducted with 14 university professors, managers of the online commerce industry, and web-based businesses. In this way, people were interviewed who have both appropriate knowledge in the field of marketing and operational experience in online business. The obtained data were analyzed using a three-step open, axial, and selective coding method and a paradigm model of post-purchase regret in online shopping behavior was designed. Then, using the Delphi technique and with the help of experts, the obtained categories and concepts were prioritized. Table 7 presents the priorities of the created categories, which are also the basis of the importance of the proposed research strategies.

Table 7. Prioritization of research model categories

Importance of 80% and more	Importance of 60 to 80%	Importance of less than 60%
1-Site safety	1-Customer retention	1-Sales system
2-Website designing	2-One- or two-stars symbol of trust	2-Communication development
3-Customers' social network	3-Variety of product supply channels	3-Usefulness
4-Trust	4-Site problems	4-Brand credibility
5-Transaction security	5-Product problems	5-Online advertising
6-Shopping support Center	6-Problems of goods shipment	6-Creating a long-term relationship
	7-Other problems	
	8-Electronic ID symbol	

5.1. Managerial insights

The model obtained from the present study from a systemic perspective provides a comprehensive and macro view of companies active in the field of online business and also those in charge of this field to know the buying behavior of online customers and make decisions regarding appropriate marketing and sales strategies. Given the importance of the model categories presented in Table 7, practical strategies are presented for each group.

- **Importance of 80% and more**

According to experts, site safety, website design, customer social network, trust, transaction security, and shopping support center are in the first group.

Creating security is one of the most important categories of online shopping for customers. With the expansion of online sales, people who seek to abuse this space are also increasing. An insecure website can spread malware, steal information or send spam. There are good ways to secure cyberspace. Choosing the right server, determining the level of access to the site's files and folders, setting a password for important files, choosing a secure password, and limiting the number of logins are some of the strategies suggested to secure the site.

Maintaining data security has been cited by experts as the most important way to build trust between online trading parties. Accordingly, the service provider organization should evaluate the level of importance of the information used and in proportion to the fact that the interests of the transaction are in maintaining the confidential information of the parties, take the necessary measures and costs to ensure the health, accuracy, and precision of information.

Website design is a process consisting of web page design, content production, graphic design, and SEO. To have an attractive and customer-friendly website, all principles and standards of coding and graphics must be observed by a professional website design team to better attract customers.

Gaining customer trust is one of the most important categories to achieve greater profitability in internet business. To gain trust in online transactions, it is first necessary to present the items that are in the customer's interest and show that the company is honest with the customer. Full description of the company's policies for customers, providing 24-hour service, adding security layers to protect payments, providing purchase invoices to customers, the possibility of returning the goods without receiving money and the possibility of paying at the door are strategies offered to create a sense of confidence in customers.

Among the categories, social networks have been emphasized many times. A strong presence on social networks and cyberspace is essential for any brand. Improper use of networks can lead to the loss of customers and business opportunities. Using influential people in social networks, addressing customer issues and problems, providing customer support services and proper and successful use of networks along with customer relationship management systems are very effective.

Good support services attract users and increase their trust over time. No business has easily gained users, customers, and credibility. Good support services and instant response to users, along with conveying the feeling that if a problem or question arises for the customer, it will be dealt quickly, creates confidence in the customer. Considering various possibilities for communicating with the customer, such as answering via email, follow-up, and responding to incoming messages via phone messenger, the possibility of creating an online conversation on the site and allocating mobile phones along with landlines to answer essential calls of customers are effective in providing appropriate services and their satisfaction with the purchased goods and services.

- **Importance of 60 to 80%**

Customer retention, one or two-star trust symbol, product supply channel diversity, site problems, product problems, shipping problems, and electronic ID symbol are in this group.

Customer retention should be the focus of the company in digital marketing strategies. This plan should be based on interaction and communication with current customers. Using email marketing is an effective way to retain current customers. Also, the use of social media marketing, search engine optimization, as well as mobile marketing are other areas of digital marketing that the company must have a specific program and through which to retain customers. The e-Trust symbol is a sign given to authorized virtual businesses to organize and verify their authentication and credentials, so customers will buy online more confidently if they see this symbol.

Customers need to send the ordered goods at the right time. It is suggested that to build trust, the customer will receive his/her order in the form of door-to-door delivery so that he/she can simply fully check the desired product and then pay for it. Quality of service and support for customer purchases, and speed of sending and receiving goods are features that can attract a customer forever or lose customer trust.

The main platform of digital marketing is effective and efficient website designing through which various strategies for digital marketing methods can be created. Decisions about website goals should not be left to technicians alone, and marketers should be used in the process to address them with a customer-oriented perspective. The website is a digital marketing showcase and the appeal of the page design should be such that the customer once visited is encouraged to come back again. The customer should also be able to find the desired website with a

simple search. Usability, ease of use, interactivity, appropriate speed, customer data collection, and access through various digital devices are other strategies that should be considered in website designing.

Product replacement warranty is an important point that can solve the product problem for customers. The product may have been damaged before it reached the customer. Therefore, considering the warranty, the unhealthy product must be replaced.

With the expansion of Internet penetration in the country, social networks and digital media have become more popular than ever before, and now many people are informed about the latest domestic and foreign news and developments through these channels. Digital Electronic Content ID (Shamid) is an electronic code given by the Ministry of Culture and Islamic Guidance to any digital platform and content. This code indicates the validity of the website, software, channel, and various forms of digital products.

- **Importance of less than 60%**

Sales system, communication development, usefulness, online advertising, brand credibility, and long-term relationship with customers are in this group.

The speed of production and supply of new products, increasing competition in the market, and avoiding crowded places and traffic have made customers more willing to buy easily and safely using online services. In-person shopping is very different from online shopping. By entering and visiting the website, the customer should see comprehensive and complete information about the variety of the desired product. Considering different sales methods, whether credit or cash, for the products available on the website, will attract customers. Some websites have designed a customer loyalty system to increase customer satisfaction. In such a way that the buyer receives a point by buying each product and then through the same points can buy a product. The possibility of receiving the customer's requested price offer for the product, offering various discounts, producing appropriate content, and following the sales situation of the product is effective in customer satisfaction.

Using online shopping is beneficial for customers. Ability to compare goods and services in cyberspace, the ability to communicate directly with the store and eliminate intermediaries, easy access, the ability to buy 24-7 service, ease of the purchase process, saving time and money are some of the benefits that the customer acquires during the online shopping process.

Credibility is created if the customer notices the points of difference in the business and evaluates it appropriately and believes that the company has different possibilities than the competitors to offer. Many companies have neglected to choose their brand differentiation points and as a result, their market share has decreased.

Building a long-term relationship with a customer can make an online business a success or a failure. Understanding the needs and better communication with the customer creates the opportunity for the company to better adapt to market conditions than competitors and better understand the needs of the customer. In online shopping, pre-purchase communication and advice as well as post-purchase communication, which includes customer support and guidance, is very effective. For this purpose, the website can create a connection package with internet customers so that customers who are hesitant or need advice in their purchase can connect with the website with the help of the website's telephone consultation plugin. Providing the necessary guidance and after-sales support helps to establish a useful and constructive relationship with customers and their satisfaction.

5.2. Further research

Researchers who intend to study the behavior of online post-purchase regret are encouraged to deeply analyze the reasons for regret in the types of purchases in which they are more likely to regret. For example, the possibility of regret in choosing luxury and expensive goods, or cheap goods that are of low quality as well as evaluating post-purchase regrets for goods that have an impact on the environment. Conducting comparative studies in online stores in neighboring countries to investigate the impact of culture as well as the impact of technology acceptance on customers' online shopping behavior, review the impact of discounts offered on sites, put customers under shopping time pressure, review the impact of demographics features such as gender, age, education, and income, or examining the impact of psychological characteristics such as shopping style and risk-taking on customers' post-purchase regret , are other areas that are recommended to researchers.

References

Aktas, H., & Simsek, G. (2020). Consumer Behavior Models: Social Cognitive Theory. Peterlang, 139-152.

Armstrong, A., Abubakar, N. J., Sikayena, I. (2017). Investigating into factors accounting for cognitive dissonance (post-purchase regrets). International Journal of Multidisciplinary Research and Development, 4(3), 229-239.

Aydin, H., & Unal, S. (2016). Evaluation of Consumer Regret in Terms of Perceived Risk and Repurchase Intention: A Research on Car Owners. 6th International Conference on Leadership, Technology, Innovation and Business Management.

Bell, D. E. (1982). Regret in decision making under uncertainty. Operations research, 30(5), 961-981.

Bil, E., & Gökçe, G. (2022). The effect of consumers' unplanned buying behaviour on post-purchase regret and webrooming behaviour. Business & Amp; Management Studies: An International Journal, 10(1), 208–228.

Bui, M., Krishen, A. S., & Bates, K. (2009). Modeling regret effects on consumer post-purchase decisions. European Journal of Marketing, 45(7), 1068-1090.

Carter, N., Bryant, D., DiCenso, A., Blythe, J., Neville, A. J. (2014). The use of triangulation in qualitative research. Oncol Nurs Forum, 41(5), 545-547.

Çelik, I. K., Eru, O., & Cop, R. (2019). The effects of consumers' FoMo tendencies on impulse buying and the effects of impulse buying on post-purchase regret: An investigation on retail stores. BRAIN. Broad Research in Artificial Intelligence and Neuroscience, 10(3), 124-138.

Charmaz, K. (2001). Grounded Theory: Methodology and theory construction. International Encyclopedia of the Social & Behavioral Sciences.

Charmaz, K. (2006). Constructing Grounded Theory, A practical guide through qualitative analysis, SAGE Publications, 1st edition.

Chen, W.K., Chen, C.W. & Lin, Y.C. (2020). Understanding the influence of impulse buying toward consumers' post-purchase dissonance and return intention: an empirical investigation of apparel websites. Journal of Ambient Intelligence and Humanized Computing.

Creswell John W., & Timothy C. Guetterman. (2018). Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research, 6th Edition, Pearson.

Daroch, B., Nagrath, G., & Gupta, A. (2021). A study on factors limiting online shopping behaviour of consumers. Rajagiri Management Journal.

Davvetas, V. & Diamantopoulos, A., (2018). Should have I Bought the other One?, Experiencing Regret in Global versus Local Brand Purchase Decisions. Journal of International Marketing.

Deepak S.S., & Shrikrishnan J. (2018). Factors Affecting Post Purchase Regret in Online Shopping. International Journal of Pure and Applied Mathematics, 118(22), 915-920.

Dhaliwal, A., Singh, D.P. & Paul, J. (2020). The consumer behavior of luxury goods: a review and research agenda. Journal of Strategic Marketing, 1-27.

Ekici, N., & Dogan, V. (2013). An Analysis of the Regret Concerning the Process of Purchasing and the Regret Concerning after the Purchasing in the Context of Characteristic Properties. International Journal of Marketing Studies, 5(6), 73-83.

Gabler, C. B., Landers, V. M. &. Reynolds, K. E. (2017). Purchase decision regret: Negative consequences of the Steadily Increasing Discount strategy. Journal of Business Research, 76, 201-208.

Herweg, F., & Muller, D. (2021). A comparison of regret theory and silence theory for decisions under risk. Journal of Economic Theory, Vol. 193, Issue C. 1-19.

Howard, J. A., & Sheth, J. N. (1969). The theory of buyer behavior. Journal of the American Statistical Association, New York: Wiley.

Izah, V. N., & Iskandar, B. P. (2019). I see it, I buy it, I regret it: A study of online post-purchase regret phenomena of fashion products. Proceeding Book of the 4th ICMEM 2019 and the 11th IICIES, 281-286.

Kamiya, A. S. M., Zeelenberg, M., & Hernandez, J. M. D. (2021). Regulating regret via decreasing goal level: Comparing maximizers and satisfiers. Personality and Individual Differences, 178. Article 110870.

Katawetawaraks, C., & Wang, C. L. (2011). Influences of Online Shopping Decision. Asian Journal of Business Research, 1(2), 66-74.

Kaur, P., Dhir, A., Kaur, P., Chen, S., & Lonka, K. (2016). "Understanding online regret experience in Facebook use: Effects of brand participation, accessibility & problematic use", Computers in Human Behavior, 59, 420–430. Mican, D., & Taut, D. A. (2020). Analysis of the factors impacting the online shopping decision-making process. 65(1), 54-66.

Mishra, A., Shukla, A., Rana, A. P., & Dwivedi, Y. K. (2021). From "touch" to a "multisensory" experience: The impact of technology interface and product type on consumer responses. Psychology & marketing, 38(3), 385-396.

Nicolas, C., & Castillo, J. (2008). Customer Knowledge Management and E-commerce: The role of customer perceived risk. International Journal of Information Management, 28, 102-113.

Park, J., Hill, W. T., Raacke, J. B. (2015). Exploring the relationship between cognitive effort exertion and regret in online vs. offline shopping. Computers in Human Behavior, 49, 444-450.

Park, J., & Hill, W.T. (2018). Exploring the role of justification and cognitive effort exertion on post-purchase regret in online shopping. Computers in human behavior, 235-242.

Parsad, C., Prashar, S., Vijay, T. S., Sahay, V. (2019). Role of In-Store Atmospherics and Impulse Buying Tendency on Post-Purchase Regret. Journal of Business and Management, 25(1), 1-24.

Patton, M. Q. (1999). Enhancing the quality and credibility of qualitative analysis. Health Sciences Research, 34, 1189–1208.

Sameeni, M. S., Ahmad, W., Filieri, R., (2022), "Brand betrayal, post-purchase regret, and consumer responses to hedonic versus utilitarian products: The moderating role of betrayal discovery mode", Journal of Business Research, 141, 137-150.

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: exploring its conceptualization and operationalization. Quality & quantity, 52(4), 1893–1907.

Secapramana, L. V., Magdalena, G. J., Yuwanto, L. (2020). Impulsive Buying, Post-purchase Regret, and Credit Card. 2nd International Conference on Business and Management of Technology, 175, 5-10.

See-To, E. W., Papagiannidis, S., & Westland, J. C. (2014). The moderating role of income on consumers' preferences and usage for online and offline payment methods. Electronic Commerce Research, 14(2), 189-213.

Skelton, A., & Allwood, J. (2017). Questioning demand: A study of regretted purchases in Great Britain. Ecological Economics, Vol. 131, 499-509.

Svobodova, Z., & Rajchlova. J. (2020). Strategic Behavior of E-Commerce Businesses in Online Industry of Electronics from a Customer Perspective. Administrative Science, 10(78), 1-24.

Swoboda, B. & Sinning, C. (2020). How country development and national culture affect the paths of perceived brand globalness to consumer behavior across nations. Journal of Business Research, 118, 58-73.

Tata, S. V., Prashar, S., Parsad, C., (2021), "Examining the influence of satisfaction and regret on online shoppers' post-purchase behavior" Online shoppers' post-purchase behavior, 28(6), 1987-2007.

Tseng, M.L., Sujanto, R.Y., Iranmanesh, M., Tan, K. & Chiu, A.S.F. (2020). Sustainable packaged food and beverage consumption transition in Indonesia: Persuasive communication to affect consumer behavior. Resources, Conservation and Recycling, 161, 1-11

Kumar, A., Chaudhuri, S., Bhardwaj, A., Mishra, P. (2020). Impulse Buying and Post-Purchase Regret: A study of shopping behavior for the purchase of grocery products. International Journal of Management, 11(12), 614-624.

Lazim, N., Sulaiman, Z., Zakuan, N., Mas'od, A., Chin, TA. & Awang, S. R. (2020). Measuring Post-purchase Regret and Impulse Buying in Online Shopping Experience from Cognitive Dissonance Theory Perspective. The 6th IEEE International Conference on Information Management, 7-13.

Liao, C., Liu, C. C., Liu Y. P., To, P. L., & Lin, H. N. (2011). Applying the Expectancy Disconfirmation and Regret Theories to Online Consumer Behavior. Cyber psychology, Behavior, and Social Networking, 14(4), 241-246.

M'Barek, M. B. and Gharbi, A. (2011). The Moderators of Post Purchase Regret. Journal of Marketing Research & Case Studies, 1-16.

Williams, N. J., Edwards, A., Elwyn, G. (2010). The importance and complexity of regret in the measurement of good decisions: a systematic review and a content analysis of existing assessment instruments. an International Journal of Public Participation in Health Care and Health Policy, 14(1), 59-83.

Youngwook Ha. (2018). Expectation's gap, anticipated regret, and behavior intention in the context of rapid technology evolvement. Industrial Management & Data Systems. 1-22.

Zeelenberg, M., & Pieters, R. (2007). A theory of regret regulation. Journal of Consumer Psychology, 17(1), 3-18.

Zeelenberg, M. (2015). Robust satisficing via regret minimization. Journal of Marketing Behavior, 1(2), 155-166.

Zulkarnain, Z., Ginting, E. D; Novliadi, F., Siahaan, S. (2019). Outcome or process regret in online purchasing: Consequences of Brand Trust to Consumer Purchase Regret. International Journal of Supply Chain Management, 8(6), 75-80.

Zulkarnain, Z., Novliadi, F; Zahreni, S., Iskandar, L. M. (2018). Consumer purchase: how personality influences outcome regret and process regret. Journal of Business and Retail Management Research, 13(1), 100-107.