

# Consumer price search behaviors in online shopping

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## ABSTRACT

**Aims:** Simultaneously, the decelerating economy in the real world due to the covid-19 has intensified the competition in the virtual world, forcing online retailers to consider how to steering effective price promotion strategies to attract customers and to increase their purchase intentions. Online retailers are either struggling to find ways to formulate their online price promotion strategies or simply adopt the offline price promotion strategies. However, the Internet provides online shoppers with the benefit of searching and evaluate price information efficiently and effectively, greatly reduces consumers' information search costs. Under this circumstance, the effect of offline price promotion strategies on consumers' price perceptions and purchase decision may become a hinderance instead of an assistance. Overall, the price information provided by the Internet influences consumer perceptions and reactions to online shopping. The purpose of this research is to provide insight into consumers' online price search behavior and consumers' reactions to online price promotion.

**Methodology:** An in-depth discussion of the literature review on online consumer price search behavior was applied. Specifically, the literature review covers the issues of price comparison search engine, price comparison refund policy, price promotion, and semantic cues related to consumer price perception and purchase intention.

**Conclusion:** These research propositions can help online retailers to gain a deeper understanding of consumer price search behavior, response to price information, and promotions. Consequently, online retailers are able to better formulate price communication strategies effectively. This price scheme can influence consumer price search behavior and then purchase intention.

*Keywords: Online pricing, price promotion, price search behavior, online price perception, price comparison search engine, price comparison refund policy, semantic cues*

## 1. INTRODUCTION

Information search plays a very important role in consumers' purchasing decision-making process in particular online shopping. Research in this area has previously been widely discussed [1, 2, 3, 4, 5, 6, 7]. Emerging interests and rising discussion are the search behavior for price information of consumers when shopping online [5, 8, 9]. The discussion in this part is of great significance, because for many online retailers, if consumers can be convinced that the price, they offer is the most reasonable, valuable or even the lowest price, consumers will be less likely to search for price information from other online retailers. Information search behavior will decrease, while the probability of purchasing from this online retailer will increase dramatically [6, 8, 10].

Due to the easy access to a wealth of information about the online market, the Internet has become an important source for consumers looking for products and prices, regardless of whether they shop online or offline. Subsequently, online retailers should pay attention to consumers' online price search behavior when considering consumers' responses [8].

Hence, the purpose of this research is to review consumer online price search behavior and the influence of online price promotion mode on consumer price perception and value judgment.

## 2. LITERATURE REVIEW AND PROPOSITION

Consumers can search for price information through internal search and external search. Internal search refers to searching for relevant information from memory while external search refers to searching through external stimuli related to the problem. Internal and external information searches involve information search costs. Search costs include the time, energy, money, and opportunity costs of other activities consumed by consumers. Thus, the initiation of the information search will depend on the identification of the relationship between the benefits obtained from the information search and the cost of the search [6, 11].

Unlike in-store shopping, the Internet provides consumers with a simpler search and quick access to relevant price information when shopping online. The lower cost of searching for price information may lead consumers to seek lower or lowest prices to reduce their shopping risks and increase transaction value. In fact, compared with other offline channels, consumers do pay lower prices when shopping online [6, 12, 13]. In addition, since the Internet lowers the cost of searching for price information for online shoppers, it may also lead consumers to becoming more price-sensitive [14]. With this, we put forward the following propositions:

P1: Consumers are more willing to search for lower prices or consider the lowest price when shopping online than when shopping offline.

P2: Consumers are more sensitive to price changes when shopping online than when shopping offline.

From the perspective of online retailers, because consumers can easily and at low cost, this situation can lead to fierce price competition. Therefore, in order to reduce consumers' attempts to search for lower prices, many online retailers try to change consumer price perceptions or use other price strategies to attract consumers to complete the entire transaction [8]. Some online retailers are currently providing a site's comparison engine on their website. The intention is that when an online retailer provides a website price comparison search engine, consumers may think that the online retailer's price is lower, so their willingness to search for price information will also be reduced [8]. Based on this argument, we propose:

P3: When an online retailer provides a price comparison search engine, consumers will think that the online retailer's price is lower, so their willingness to search for price information will also decrease.

Off-line retailers often use the price-matching refund policy to first indicate their low prices and then to ensure and make consumers to believe they are getting the lowest price. This may reduce consumers' information searches and increase their willingness to buy. The price comparison refund policy is that for the same product, if a consumer finds that other retailers sell at a lower price, the consumer can get back one or several times the price difference with the invoice or purchase certificate. Indeed, previous studies have found that consumers perceive retailers to offer low-price features by offering a refund policy for price comparisons, and consumers reduce their price searches accordingly [6, 8, 9, 15].

However, the story about online shopping may differ. These researchers also found that when the retailer offers a price-comparison refund policy, the number of store searches by consumers increases when the search costs are lower [6, 8, 9, 15]. On the contrary, when the search cost is high, the number of consumer searches in stores will decrease. These findings implies that when the search cost is low, consumers' willingness to search will not be affected by whether the retailer offers a refund policy for price comparison. In online shopping, because the Internet provides consumers with the ease and speed of searching for price information, it results in lower search costs for consumers. Under such circumstances, the online retailer's price comparison refund policy may not reduce the number of online store searches and increase consumers' willingness to purchase. Hence, we propose that:

P4: The price comparison refund policy offered by online retailers will not reduce the number of online store searches and increase consumers' willingness to purchase.

To increase sales and generate profits, offline retailers often use price promotions to attract price-sensitive consumers [16]. However, consumers have different levels of cognition for different types of retailers in terms of price promotion. For example, Research found that consumers were more accepting of price promotions offered by price-orientated retailers than department store price promotions [16]. In online shopping, since the prices offered by online retailers are cheaper than those of offline retailers [13, 17, 18, 19], we can assume that consumers are therefore more interested in online

shopping. The acceptance of price promotions offered by retailers should be higher than that of offline retailers. Therefore, we propose the following.

P5: Compared with the price promotion activities of offline retailers, consumers will have higher saving perception, price acceptance and purchase intention for the price promotion activities provided by online retailers.

Framing price promotions have been shown to have significant effects on consumers' transaction evaluation, savings perception, price acceptance, purchase intention, and store selection [4, 20, 21, 22, 23, 24, 25, 26]. For example, Smith and Sinha (2000) explored the evaluation of transaction value to consumers using three different but equivalent price promotion patterns (1. direct price promotion: 50% off, 2. additional product or quantity promotion: buy one get one free, 3. mixed promotion: buy two for 50% off) [24]. They found that the order in which consumers prefer price promotions for high-priced products is direct price promotions (50% off), additional product or quantity promotions (buy one get one free), and mixed promotions (buy two and get 50% off) [24].

In an online shopping environment, additional product or quantity promotions and mixed promotions are less used because of the shipping costs involved. The method of matching price with semantic cues (semantic cues) is widely used to convey the message of discount (for example: the original price is \$1,000 and the promotional price is \$500). Scholars distinguished several frequently used semantic cues into two broad categories: low-consistency cues or high-distinctiveness cues [21]. The low-consistency cue method refers to the original price offered by the retail store itself or the price it once sold; it is thus a within-store comparison of the retail store's history of prices. A high distinctiveness signal, on the other hand, refers to a comparison with the prices of other retailers or manufacturer's suggested retail prices (MSRPs); it is a between-store comparison [21]. Others found that high uniqueness cues lead to greater value perceptions by consumers compared to low consistency cues [27]. On the contrary, Liefeld and Heslop (1985) pointed out that for some products, the low consistency cue method can be more effective in improving consumers' normal price evaluation [28]. Other studies have also found that high uniqueness cues lead consumers to evaluate a transaction more negatively [29].

In view of the conflicting research results, research pointed out that the impact of semantic clues on consumers' value perception depends on two important interfering variables: purchase context and discount size [23]. These scholars found that when consumers are in a retail store, the semantic cue method using the comparison method within the retail store will produce greater cognitive value than the comparison between retail stores. Inter-store comparisons using semantic cues are more effective than intra-store comparisons when consumers are at home.

In online shopping, inter-store price comparisons using semantic clues may be less influential because consumers can easily obtain price information from other online retailers. Unless this comparison between retailers refers to between online retailers and offline retailers. Also, it would not be attractive if this semantic clue approach uses a manufacturer's suggested retail price because this suggested manufacturer's selling price only reflects the likely costs and profits of the manufacturer and can be applied to any on-line and offline retailer, unless the gap between the MSRP and the promotional price is large enough for consumers to perceive the authenticity and value of the discount. However, the semantic clue method may have a greater effect by adopting the internal comparison method of retail stores, as consumers may think that online retailers sell at lower prices than offline retailers [25]. Therefore, online retailers emphasize that prices are cheaper than before, and consumers may perceive a larger price discount. Accordingly, this study proposes the following.

P6: In online shopping, using semantic clues to compare within retail stores will have a greater impact on online shoppers' perceived value and purchase intention than comparing prices between retail stores.

Finally, we expect that consumers' online price information search, price perception and processing, and response to price promotion models will be different due to their individual characteristics. Researchers pointed out that any studies on consumer information processing and judgment need to consider differences in consumer characteristics [30-36]. The characteristics of consumers themselves can be manifested through demographic, psychological, behavioral and other characteristics. Therefore, we propose:

P7: Consumers' online price information search, cognition and processing, and response to price promotion models will vary due to differences in age, income, gender, education level, and other demographic characteristics.

P8: Consumers' online price information search, perception and processing, and response to price promotion methods will vary according to their attitudes towards online shopping.

P9: Consumers' online price information search, perception and processing, and response to price promotion methods will vary according to their online shopping experience, number of times and time spent online.

How can online retailer do to minimize consumers price search behavior online? If online retailers know better about consumer responses to price scheme online, the probability of enhancing consumer purchase intention is likely to rise. In this review, we consider that when shopping online, consumers look for lower price often and are more sensitive to price changes. On the one hand, online retailer offers price comparison search engine will decrease consumers' price search behavior. On the other hand, an online retailer that offers a price comparison refund policy will not reduce consumer online price search behavior and will not improve consumers' willingness to purchase. In addition, price promotion provided by online retailers mean that the consumer would have a higher level of price savings perception, price acceptance, and purchase intention than offline retailers. As for online shopping using semantic clues to compare within retail stores have a greater impact on consumers perceive value and purchase intention than between retail stores. Finally, the search for online price information from consumers, perception and processing, and response to price promotion methods will vary according to demographic differences, attitude, and online shopping experience of consumers.

### 3. CONCLUSION

In summary, it is expected that through this in-depth discussion and the conclusions, online retailers can gain a deeper understanding of consumer price search behavior, response to price information, and online promotions. The propositions should be able to assist online retailers to effectively formulate price communication strategies. The better formulated pricing strategy can influence online shoppers' price search behavior and hence the purchase decisions. However, this review is limited by the scope of consumer search behavior and reaction to online promotion strategy that affect consumer purchase intention. Future studies may consider concepts of consumer willingness to pay online and taking this deeper psychological perspective might be a better approach [38, 39, 40].

### REFERENCES

1. Bettman J. An Information Processing Theory of Consumer Choice. Reading, MA: Addison-Wesley. 1979.
2. Kiel G, Layton R. Dimensions of consumer information seeking behavior. *Journal of Marketing Research*. 1981, 18 (May): 233-270.
3. Lynch J, Ariely D. Wine online: Search costs and competition on price, quality, and distribution. *Marketing Science*. 2000, 19(1): 83-103.
4. Weisstein FL, Monroe KB, Kukar-kinney M. Effects of price framing on consumers' perceptions of online dynamic pricing practices. *Journal of the Academy of Marketing Science*. 2013, 41(5): 501-514
5. Andrés-martínez M, Gómez-borja M, Mondéjar-jiménez J. A model to evaluate the effects of price fairness perception in online hotel booking. *Electronic Commerce Research*. 2014, 14(2): 171-187.
6. Lin HH. The effects of price-matching guarantees on consumer response in an online retail context. *Journal of Service Theory and Practice*. 2015, 25(6): 658-679.
7. Priya KM, Jaidev UP. Price perception & continued intention to buy organic food: A mediated moderation model. *Academy of Marketing Studies Journal*. 2022, 26(2). Retrieved from [http://easysearch.lib.fcu.edu.tw/fcu/sendurl\\_api\\_v3.jsp?](http://easysearch.lib.fcu.edu.tw/fcu/sendurl_api_v3.jsp?)
8. Bodur HO, Klein NM, Arora N. Online price search: Impact of price comparison sites on offline price evaluations. *Journal of Retailing*. 2015, 91(1): 125-139.
9. Zheng X, Lee M, Cheung CMK. Examining e-loyalty towards online shopping platforms: The role of coupon proneness and value consciousness. *Internet Research*. 2017, 27(3): 709-726.
10. Kwak M. Searching for search costs. *MIT Sloan Management Review*. 2001, 42 (Spring): 8-9.
11. Stigler G. The economics of information. *Journal of Political Economy*. 1961, 72: 44-61.
12. Bakos, J. Reducing buyer search costs: Implications for electronic marketplaces. *Management Science*. 1997, 43: 1676-1692.
13. Strader T. The impact of electronic commerce on consumer and organizational costs. College of Commerce and Business Admin., Univ. of Illinois at Urbana Champaign. 1997, May.
14. Alba J, Lynch J, Weitz B, Janiszewski C, Lutz R, Sawyer A, Wood S. Interactive home shopping: Consumer, retailer, and manufacturer incentives to participate in electronic marketplaces. *Journal of Marketing*. 1997, 61 (July): 38-53.
15. Srivastava J, Lurie N. A Consumer perspective on price-matching refund policies: Effect on price perceptions and search behavior," *Journal of Consumer Research*. 2001, 28 (September): 296-307.
16. Gorji M, Siami, S. How sales promotion display affects customer shopping intentions in retails. *International Journal of Retail & Distribution Management*. 2020, 48(12): 1337-1355.

17. Fry J, McDougall G. Consumer appraisal of retail price advertisement. *Journal of Marketing*. 1974, 38(July): 64-67
18. Brynjolfsson E, Smith M. Frictionless commerce? A comparison of Internet and conventional retailers. *Management Science*. 2000, 46 (4): 563-585.
19. Morton F, Zettelmeyer F, Risso J. Internet car retailing. Mimeo, Yale University, New Haven, CT. 2000.
20. Mohammed R. How retailers should think about online versus in-store pricing. *Harvard Business Review*. 2017, January 26. <https://hbr.org/2017/01/how-retailers-should-think-about-online-versus-in-store-pricing>
21. Das P. Semantic cues and buyer evaluation of promotion communication," in Leone, R.P. and Kumar, V. (Eds), *Enhancing knowledge development in marketing*, 3, American Marketing Association, Chicago, IL. 1992, 12-17.
22. Lichtenstein D, Burton S, Karson E. The effect of semantic cues on consumer perceptions of reference price ads. *Journal of Consumer Research*. 1991, 18 (December): 380-391.
23. Grewal D, Marmorstein H, Sharma A. Communicating price information through semantic cues: The moderating effects of situation and discount size. *Journal of Consumer Research*. 1996, 23 (September): 148-155.
24. Folks V, Wheat R. Consumers' price perceptions of promoted products. *Journal of Retailing*. 1995, 17 (3): 317-328.
25. Smith M, Sinha I. The impact of price and extra product promotions on store preference. *International Journal of Retail & Distribution Management*. 2000, 28(2): 83-92.
26. Lo S, Chou Y, Teng C. Source effect of advertised reference price influences on transaction value in online shopping environments. *Electronic Commerce Research*. 2013, 13(4): 411-421.
27. Shirai M. Effects of price reframing tactics on consumer perceptions. *Journal of Retailing and Consumer Services*. 2017, 34: 82-87.
28. Berkowitz E, Walton J. Contextual influences on consumer price responses: An experimental analysis. *Journal of Marketing Research*. 1980, 17: 349-358.
29. Liefeld J, Heslop L. Reference prices and deception in newspaper advertising. *Journal of Consumer Research*. 1985, 11 (March): 868-876.
30. Bhaduri G, Stanforth N. Evaluation of absolute luxury: Effect of cues, consumers' need for uniqueness, product involvement and product knowledge on expected price. *Journal of Fashion Marketing and Management*. 2016, 20(4): 471-486. <https://doi.org/10.1108/JFMM-12-2015-0095>
31. Gardial S, Biehal G. Evaluative and factual ad claims, knowledge level, and making inferences. *Marketing Letter*. 1991, 2: 349-358.
32. Meyers-Levy J, Sternthal B. Gender differences in the use of message cues and judgments," *Journal of Marketing Research*. 1991, 28: 84-96.
33. Payne J, Bettman J, Johnson E. Behavioral decision research: A constructive processing perspective," *Annual Review Psychology*. 1992,43: 87-131.
34. Chen I, Hu S. Gender differences in shoppers' behavioural reactions to ultra-low price tags at online merchants. *Electronic Commerce Research*. 2012, 12(4): 485-504.
35. Wu JF, Chang YP, Yan J, De-Lin H. Online product category and pricing strategies of land-based retailers: Homogenous vs prototypical orientation. *Internet Research*. 2019, 29(1): 245-270.
36. Melovic B, Cirovic D, Dudic B, Vulic, T.B, Gregus M. The analysis of marketing factors influencing consumers' preferences and acceptance of organic food products—Recommendations for the optimization of the offer in a developing market. *Foods*, 2020, 9(3): 259.
37. Balabanis G, Stathopoulou A. The price of social status desire and public self-consciousness in luxury consumption. *Journal of Business Research*. 2021, 123: 463-475.
38. Farzin M, Bagheri Abbassalikosh A, Sadeghi M, Makvandi R. The effect of sensory brand experience and brand equity on WTP a price premium in Iranian fast food restaurants: Mediating role of eWOM. *Journal of Foodservice Business Research*. 2023, 26(3):528-48.
39. Farzin M, Sadeghi M, Fattahi M, Eghbal MR. Effect of social media marketing and eWOM on willingness to pay in the retailing: Mediating role of brand equity and brand identity. *Business Perspectives and Research*. 2022, 10(3):327-43.
40. Farzin M, Shababi H, Shirchi Sasi G, Sadeghi M, Makvandi R. The determinants of eco-fashion purchase intention and willingness to pay. *Spanish Journal of Marketing-ESIC*. 2023. <https://doi.org/10.1108/SJME-07-2022-0158>