



Revisiting the paradox of whether retail buyers behave more like consumers or industrial purchasers: the case of price discounts

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Abstract

A long-lasting debate in marketing literature is whether retail buyers who purchase consumer products behave like consumers or like industrial purchasing managers. We address this question empirically, by focusing on retail buyers' behavioral responses to price discounts. Cooperating with a national wholesaler of drug-store products, we conduct a field experiment on the wholesaler's product ordering platform. We expose the retail buyers ($n = 780$) to a new product offer that either includes a price discount or not. Simultaneously, we vary peripheral cues included in the offer (package color and organic claim). The results support the "industrial buyer resemblance" argument: The price discount decreases the retail buyers' purchase likelihood, and there is no significant interaction effect between the price discount and the peripheral cues. An additional qualitative study reveals that retail buyers speculate on the motivations behind the price discount, which elicits suspicions about the product's quality and resale potential.

Keywords Retail buyers · Price promotion · Price discount · Peripheral cues · Consumer · Industrial buyer

1 Introduction

An ever-green dilemma for marketers of consumer-packaged goods (CPGs) is that they face two contradictory patterns of buyer behavior when engaging in trade marketing and promoting products to retailers. On one hand, to the extent that retail buyers act as intermediaries or gatekeepers (Sternquist 1994) between

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CPG manufacturers and consumers, retail buyers' purchasing behavior may simulate or resemble that of consumers (see e.g., Hansen and Skytte 1998; Kline and Wagner 1994; Reardon et al. 2017). For instance, when a manufacturer promotes a new product to retail buyers, retail buyers may attempt to look at the new product through the lenses of a consumer or layperson, trying to estimate whether the product would likely generate excitement among them (Alpert et al. 2001). On the other hand—as implied by early retail buying behavior models (Sheth 1981) as well as retail management textbooks (e.g., Varley 2014)—, retail buyers' behavior may often reflect that of professional industrial buyers, as well. To the extent that their behavior resembles that of business-minded, “cold-blooded” industrial buyers, retail buyers may engage in more rational and systematic purchasing behavior and information processing than consumers tend to do (see e.g., Alpert et al. 1992).

Even though the aforementioned juxtaposition is well-known to CPG marketers, retail managers, and researchers alike, surprisingly few academic studies exist that would empirically test whether one of these two perspectives in fact dominates in retail buyers' reactions to CPG manufacturers' marketing efforts. The present research addresses this research gap by focusing empirically on one key marketing tactic that may lead to especially unintuitive or contradictory responses among retail buyers: price promotions or discounts.

Indeed, whereas many other marketing variables, such as product quality or advertising volume, presumably “work” at least in the same direction (i.e., increase both retail buyers' and end-consumers' interest in the product) on retail buyers regardless of whether their behavior resembles that of consumers or industrial buyers, price discounts may have differential effects on retail buyers' behavior depending on the perspective. In particular, the perceived role of pricing as an economic cost versus a signal of quality (e.g., Monroe and Krishnan 1985; Völckner and Hofmann 2007; Zeithaml 1988) may differ substantially depending on the perspective—and so may, by extension, the role of price discounts: whether more weight is put on the economic savings that discounts yield, or the question marks about product quality that discounts may raise. Previously, mixed findings have been obtained about the effect of price discounts on quality perceptions of both consumers (see for example Zheng et al. 2021; Grewal et al. 1998; Lee and Chen-Yu 2018) and industrial buyers (Saab and Botelho 2020)—indeed ranging from positive effects (e.g., Huang et al. 2014) to negative ones (e.g., Garretson and Clow 1999).

To address the research gap mentioned above, we focus presently on two research questions. First, is the effect that price discounts have on retail buyers' likelihood to purchase CPG products positive or negative in direction and sign? Second, how do peripheral cues in the promotional advertising message (e.g., green/organic cues, package color) moderate or confound the effect of price discounts on retail buyers' purchase likelihood?

To answer these questions, we conduct, to our knowledge, the first sizeable randomized controlled trial (RCT) and field experiment with retail buyers in marketing literature in general. Our research context, the drug store retail market in Finland, provides a unique setting for this RCT field experiment, as the market is constituted of hundreds of independent drug stores, whose buyers make independent purchase decisions (instead of a couple of national chains with centralized buyers). This

allows us to randomize the price discounts as well as the peripheral advertising cues across the independent retail stores ($n = 780$), to obtain causal evidence of the effects of these marketing variables on retail buyers' decisions. Nevertheless, while this field experiment provides us with real-market evidence on retail buyers' purchase behavior, it falls short of providing us with insights into the reasons underlying the retail buyers' behavior. Therefore, before reporting the field experiment, we report the results of an additional qualitative study, with 20 retail buyers sampled from the same pool of buyers as the field experiment. The qualitative study reveals that when encountering a new product offer with a price discount, the retail buyers tend to engage in speculation about the motivations and intentions that the manufacturer has for the price discount. These speculations essentially shape their decisions on whether to purchase the discounted product or not.

2 Conceptual background

2.1 Retail buyer behavior as resembling industrial buyer behavior

Traditionally, retail buyer behavior has been assumed to follow the behavioral patterns of industrial buyers (Varley 2014, p. 29). Thus, many marketing researchers (Fairhurst and Fiorito 1990; Kline and Wagner 1994) have traditionally relied on industrial buyer behavior models in studying retail buyer behavior. Most commonly, this research has referred to the classic industrial buyer behavior model of Sheth's (1973), about the product- and company-specific factors affecting the buying process. In a similar vein, other features of the industrial buying context, such as complex negotiation processes and power imbalances between buyers and sellers, have also been considered to be applicable in the retail buying context (e.g., Gaski 1984; Gaski and Nevin 1985).

Furthermore, what is common to retail buyer research applying industrial buyer behavior models like that of Sheth (1973) is the assumption that retail buyers make purchase decisions based on systematic information search and careful consideration of the product and offer features, as well as alternative products and suppliers (Wagner and Benoit 2015; Wagner et al. 1989). Through a systematic process like this, retail buyers will attempt to optimize a number of purchase "objectives" or "criteria" of different importance and weight, such as "product quality, delivery time, the quantity of supply, after-sale service where appropriate, and price" (Sheth 1981). Table 1 reproduces three further lists of such purchase criteria of retail buyers: Nilsson and Høst (1987; also reproduced in Hansen and Skytte 1998), McLaughlin and Rao's (1991; also reproduced in Sternquist and Chen 2006), and Pellegrini and Zanderighi's (1991; reproduced in Sternquist and Chen 2006).

With regard to the focus of the present research, all the aforementioned lists include "price" among the listed criteria (under "marketing strategy" in McLaughlin and Rao 1991; under "economic conditions" in Pellegrini and Zanderighi 1991; Nilsson and Høst 1987). Some of the lists also include price discounts, or "allowances and rebates," as additional decision-making criteria (e.g., Pellegrini and Zanderighi 1991; Nilsson and Høst 1987). Some lists even include price discount-related

Table 1 Selected lists of retail buyers' decision-making criteria from earlier literature

Nilsson and Høst (1987) (reproduced in Hansen and Skytte 1998): "merchandise requirements"	McLaughlin and Rao (1991) (reproduced in Sternquist and Chen 2006): "decision criteria for new product acceptance"	Pellegrini and Zanderighi's (1991) (reproduced in Sternquist and Chen 2006): "assortment decision criteria"
Profitability and sales <ul style="list-style-type: none"> • Overall profitability • Rate of turnover • Sales potential Economic conditions <ul style="list-style-type: none"> • Supplier's price • Gross margin • Allowances and rebates • Support to cooperative advertising • Credit terms • Other economic conditions Assortment considerations <ul style="list-style-type: none"> • Existence of private brands • Relations to other products Consumer evaluation <ul style="list-style-type: none"> • Overall consumer value • Retail price • Product's physical characteristics • Product's psychological characteristics • Packaging Supplier marketing <ul style="list-style-type: none"> • Introductory marketing campaign • Continual marketing Supplier characteristics <ul style="list-style-type: none"> • Supplier representative • Reputation and reliability • Salesforce organization • Services and functions • Other characteristics Competitive considerations <ul style="list-style-type: none"> • Distributive factors • Transportation adaptation • Store adaptation Tactical considerations <ul style="list-style-type: none"> • Salesman presentation 	Financial <ul style="list-style-type: none"> • Gross margin • Profit per unit shelf space • Opportunity cost of capital needed to obtain the new item Competition <ul style="list-style-type: none"> • Number of firms in the trading area • Number of competing brands Marketing strategy <ul style="list-style-type: none"> • Product uniqueness • Vendor effort • Marketing support • Terms of trade: slotting allowances, off-invoice allowances, free cases, bill back provisions • Price Other <ul style="list-style-type: none"> • Category growth • Synergy with existing items 	Economic conditions <ul style="list-style-type: none"> • Supplier price • Allowances and rebates • Support for cooperative advertising • Credit terms • Services and functions • Salesforce organization • Reputation and reliability Logistic impact <ul style="list-style-type: none"> • Volume/weight of the product • Shipment conditions • Shelf space allocation • Impact on other products' shelf allocation Marketing support <ul style="list-style-type: none"> • Introductory marketing campaign • Continual marketing Sales potential <ul style="list-style-type: none"> • Rate of turnover • Retail price and implied gross margin Newness <ul style="list-style-type: none"> • Product physical characteristics • Product psychological characteristics • Packaging Supplier characteristics <ul style="list-style-type: none"> • Tactical considerations • Supplier power • Attitude to innovative offer to consumers Competitive consideration <ul style="list-style-type: none"> • Existence of distributor brands • Strategic assortment consideration

Emphases on price-related items are added by the authors of the present research (i.e., the items are not underlined in the original sources)

items implicitly within constructs like “channel motivation,” especially when it comes to retailers’ acceptance of manufacturers’ new products to their assortments (Lin and Chang 2012b).

Interestingly, the above lists seldom, if ever, explicate their assumptions about whether and in what conditions the higher vs. lower prices (or absence vs. presence of price discounts) will have a positive vs. negative effect on retail buyers’ purchase decisions. As an exception, Skytte and Blunch (2001) explicitly suggest that (although do not empirically test whether) retail buyers may indeed associate a lower price with a lower quality (see also Prince et al. 2019). This implies that price discounts could decrease retail buyers’ willingness to purchase a product, due to suspicions about quality. In addition, price discounts may make retail buyers concerned that the product as such, is not sufficiently appealing to consumers and that the retailer, therefore, has to pass the price discount on to consumers, to be able to resell the product. This would negatively affect the profit margins of the product for the retailer, and constitute an additional factor lowering the buyers’ purchase interest in the product (e.g., Hansen and Skytte 1998).

2.2 Retail buyer behavior as resembling consumer behavior

While Sheth’s model (1973) of industrial buyer behavior has been widely used to explain retail buyer behavior, Sheth himself (1981) early noted that “a retailer is more like a consumer in *what* he buys, and more like a producer in *how* he buys” (p. 181). Since this remark, scholars have recognized many aspects of retail buyer behavior that differ from typical industrial buyer behavior. To start with, while industrial buyers are mainly responsible for controlling the costs of the purchased items, retail buyers are also responsible for generating revenue by reselling the items to the end-consumers (Wagner et al. 1989). Thereby, industrial buyers need more technical information about products, while retail buyers need more information on the products’ end-consumer demand (Kline and Wagner 1994). Retail buying decisions are also generally made more autonomously by a single decision-maker, while industrial buying decisions usually involve several actors from the organization (Sheth 1973).

Such dissimilarities between industrial vs. retail buying behavior have led, more recently, to notions that the retail buying process may have more resemblance to consumer buying behavior rather than to conventional industrial buyer behavior (Bahng and Kincade 2014; Hansen and Skytte 1998; Kline and Wagner 1994; Reardon et al. 2017). Specifically, retail buyer behavior may resemble that of consumers in two broad aspects, as follows.

First, as retail buyers are concerned about the end-consumer demand for the products (Kline and Wagner 1994), factors that retail buyers presume to influence consumer decisions will naturally influence the retail buyers’ own decisions, as well. Product uniqueness, newness, consumer value, sales potential, and retail price are among these factors (see the lists in Table 1). Broadly, this relates to Sheth’s (1981) aforementioned point that “a retailer is more like a consumer in *what* he buys.” As the price and price discounts are essential

components of the offer of “what,” retail buyers’ responses to price discounts could be theoretically assumed to be similar to consumers’, as well. As price discounts mean savings for both consumers and the retailer, a price discount might indeed increase retail buyers’ interest in buying the product, similarly as it does for consumers, typically.

Second, even if Sheth (1981) also noted that a “retailer is more like... a producer in *how* he buys his merchandise”, retail buyers’ behavior may still resemble that of consumers in terms of how they process information, in particular. That is, retail buyers may sometimes diverge from the systematic information gathering and processing practices typical for industrial buyers. Prince et al. (2019), for instance, refer to the classic elaboration likelihood model of consumer behavior (Petty et al. 1981, 1983), and find that less experienced or less resourceful retail buyers may engage in less elaborate information processing, much like consumers often do. Thus, with regard to price discounts, they might *not* start to suspect why a new product is sold with a discount, but simply be content about getting the product for a cheaper price. This would resemble the behavior of consumers, as a recent study found that consumers are not generally concerned about the fact that brands with frequent price discounts may have compromised quality (Olbrich et al. 2017).

2.3 Summary and setting for the qualitative study

In summary, insofar as retail buyers’ behavior resembles that of industrial buyers, price discounts, especially in the case of new products, may tend to make a retail buyer suspicious about the quality of the product, or its resale potential. From this perspective, price discounts might decrease the likelihood that the retail buyer purchases the product. In contrast, insofar as retail buyers’ behavior resembles the behavior of consumers, price discounts are not likely to lead to speculations about product quality, due to the less elaborate information processing tendencies typical for consumers. In that case, price discounts may rather be seen optimistically as good deals, leading to savings and higher sales margin for the retailer (assuming that the discount is not passed on to end consumers).

In what follows, we report an exploratory qualitative survey study conducted among a small sample ($n = 20$) of retail buyers of drugstores in Finland. In the qualitative study, we focus on exploring whether retail buyers, when encountering a new product offer with a price discount, will engage in speculations about the reasons behind the price discount, as well as about potential issues with the product’s quality, end-consumer demand, or the like.

Following the qualitative survey, we will report a large-scale field experiment, conducted among the same retail buyer population as the qualitative survey. The field experiment focuses on the actual purchasing behavior of retail buyers in terms of whether they order (or not) a new product offered to them, in the presence vs. absence of a price discount and other promotional cues.

3 Qualitative survey study

The primary aim of the qualitative study was to explore and identify various positive and negative thoughts and assumptions that retail buyers may have about price discounts that product manufacturers offer for new products. Secondly, the study aimed to assess whether differences would emerge between the opinions of buyers who encounter the price discount at the very same time as they see the new product offered for the first time, and the opinions of buyers who do not learn about the price discount until a while later, after first seeing the new product offer without the discount.

3.1 Method

3.1.1 Participants

We used a survey to collect qualitative data, including mostly open-ended questions on an online questionnaire form. The survey was sent to 120 individual retail buyers of drugstores in Finland, who were selected randomly from the customer pool of a national wholesaler of drugstore products. The survey remained open for 3 weeks, resulting in 20 complete responses (response rate 17%). Participants were compensated with a free sample of a product of their choice (including the target product of the survey, as well as two other products).

3.1.2 Survey design

At the beginning of the questionnaire, the drugstore buyers were shown a digital product information card, including a picture of the target product: a new bottled mouthwash product, introduced by an existing brand. Below the photo of the product, the product information card contained detailed information about the product and its features. The information also mentioned that the product is organic and environmentally friendly (i.e., the same mention as in the later field experiment). The product's wholesale price was indicated as €6.12 per bottle. Furthermore, roughly half (9 out of 20) of the respondents were randomly selected to be shown a -20% price discount within the product information card, on the first page of the questionnaire.

The survey questions that followed were structured in two sections. In the first section, the drugstore buyers were asked to provide their opinions about the product in general, reflecting on its attractiveness for themselves as well as the end consumers. Then, at the beginning of the second section, the product information card was reshown to the respondents, and this time it indicated the 20% price discount to all respondents. The open-ended questions that followed asked the respondents about their specific thoughts regarding why the product manufacturer might be offering the price discount, as well as any general, positive, or negative thoughts that the discount may have triggered in their minds about the product and its manufacturer. At the end of the second section, the questionnaire also included two closed-end quantifying questions: (i) "The product described before is of high quality" (Likert scale: 1 = "completely disagree"... 7 = "completely agree"), and (ii) "How would

you evaluate the original (undiscounted) price of the described product”? (1 = “absolutely underpriced”... 7 = “absolutely overpriced”). (Appendix 1 Table 3) summarizes the list of questions included in the survey.

To conduct a content analysis, the qualitative answers to each open-ended question were thoroughly studied by two coders; both coded and interpreted all the responses separately then the codes were discussed among the coders to obtain a common interpretation (Miles et al. 2014). The analysis, which generally followed Gioia’s methodology (2013), implied that we had reached content saturation after about 12 respondents. Therefore, we did not pursue additional respondents after the initial 20 responses received.

3.2 Results: differences between respondents who saw the price discount immediately vs. later

In the first section of the survey, we found few differences in the answers about the perceived attractiveness of the product for the end-consumers between the two groups of respondents, i.e., those who saw the price discount from the very beginning vs. those who did not see the discount until later in the survey. Five respondents (half/three of which were in the group seeing the discount at the beginning) mentioned “too much text” or “too much information” as the main factor decreasing the attractiveness of the product description for end consumers. However, when asked about their general opinion and the attractiveness of the product to *themselves*, as retailers, the retail buyers who had been exposed to the discount from the beginning of the survey expressed considerably more negative viewpoints. Up to one third of retail buyers exposed to the discount at the beginning (compared to only one out of eleven from the other group) mentioned that the claims on the product information card were groundless, questionable, and probably not based on research or trials. This observation implies (albeit not constituting conclusive or statistical evidence) that seeing a new product being introduced with an immediate price discount may tend to elicit suspicions, in retail buyers, about the product’s features and quality.

In the second section, all participants saw the product information card including the 20% discount. Then, they were asked to express their general opinions as well as possible negative and positive thoughts and assumptions about the product manufacturer’s intentions and reasons to provide the discount. We will analyze these thoughts and assumptions in 3.3 and 3.4. At the end the second section of the survey, the respondents were still asked to answer the aforementioned two quantifying questions. An analysis of the first of these questions revealed, despite the very small sample size, that retail buyers who were exposed to the discount immediately when encountering the new product (compared to those who saw the discount only later) perceived the target product to have lower quality ($M_{\text{Discount}}=4.86$; $SD=0.90$, $M_{\text{Non-discount}}=6.0$, $SD=0.63$; $t(16)=3.18$, $p<0.01$). This is another indication that exposure to a price discount simultaneously with a new product introduction may elicit suspicions about the product quality in retail buyers. As for the second question, the results showed that the original price was perceived to be

approximately equally reasonable by all participants ($M_{\text{Discount}}=4.00$; $SD=0.53$, $M_{\text{Non-discount}}=4.27$, $SD=0.47$; $p > 0.05$). Thus, it is probably the price discount itself, rather than perceptions about the original price level, that was driving the results.

Notwithstanding the quantified results above, the focal aim of the qualitative study was to explore, qualitatively, the thoughts and assumptions that the drugstore buyers would have about the price discount offered by the manufacturer of the new product. In the next sections, we present our findings regarding these thoughts and assumptions, based on the qualitative coding and categorization analysis. It is worth noting that even though the analysis was not primarily quantitative, it seems that the price discount elicited more, and more varied, negative thoughts and assumptions in the buyers than positive ones. Given the greater variety of negative thoughts, we categorize them under four headings, while the positive thoughts are summarized under one heading only. Table 2 presents a number of example citations for each category and heading.

3.3 Results: negative thoughts and assumptions about price discount

3.3.1 Quality and functioning

Some drugstore buyers believed that the product manufacturer was offering a price discount possibly because of the weaknesses or flaws that the product formulation or ingredients might have. For instance, they raised the concern that the product may not be tested properly or checked for allergens (respondents #6, #12, #14, #15, #17, #21). Further, there was speculation that the lengthy product description text might intend to distract attention from the actual product formula (#14), as it made the product description resemble that of a cosmetic product (#17).

3.3.2 Competitiveness and sales performance

A number of respondents were skeptical about the competitive performance of the product, mentioning that the price discount was likely offered due to the lack of competitiveness of the target product, relative to competing products in the market (respondents #3, #8). They speculated that because of this, the product may have experienced poor sales when launched, forcing the manufacturer to offer a discount soon after the launch (e.g., #1, #8, #10). Some respondents also suggested that the expiry dates of the products may be approaching (#3, #10).

3.3.3 Marketing skills

A few of the drugstore buyers also suggested that offering a price discount could indicate that the manufacturer lacked professional marketing and advertising skills (respondents #1, #5, #12). They believed that in the presence of proper skills, no initial price discount would have been needed or offered (e.g., #12).

Table 2 Qualitative study results: examples quotes from retail buyers when asked what they think about the discount

Negative thoughts	
Quality and functioning	<p><i>Research results are missing, is it tested at all? (#6)</i></p> <p><i>I am skeptical of its claims (#21)</i></p> <p><i>May not be tested. Is the 24-h protection tested? Berries may cause an allergic reaction, is it studied? (#17)</i></p> <p><i>The contents are blurred in small text. The emphasis and the word choice resemble that of a cosmetic ad. (#17)</i></p> <p><i>The product is not attractive, the text is flamboyant (to) obscure questionable contents (#14)</i></p>
Competitiveness and sales performance	<p><i>Seems it is not compared with other products, can it compete? (#8)</i></p> <p><i>May not have that much-added value over others, no differentiation (#3)</i></p> <p><i>The product is left in stocks, maybe expiring (#10)</i></p> <p><i>The product is probably poorly sold and aging (#3)</i></p> <p><i>Probably no one was buying without a discount (#1)</i></p>
Marketing skills	<p><i>Too many target groups, too much info on the label (#1)</i></p> <p><i>Bad label design, not useful, too many difficult terms for an average buyer (#5)</i></p> <p><i>Not good campaign, producing insufficient demand (#12)</i></p> <p><i>Difficult names, they tell the consumer nothing, have no added value (#11)</i></p>
General credibility	<p><i>Solves too many problems at the same time, skeptical (#6)</i></p> <p><i>You have tried to make a product for too many problems at once (#21)</i></p> <p><i>I think the description might promise too much, can anyone believe that the product will help with all the problems described on the label? (#15)</i></p> <p><i>I doubt the promise of "natural active ingredients" while considering "24-h protection against cavities" (#11)</i></p>
Positive thoughts	
Motivation to add to the assortment	<p><i>Organic nature elements attract consumers (#7)</i></p> <p><i>In addition (to discount), being organic has a weight (#1)</i></p> <p><i>Product evokes a sense of responsibility (#9)</i></p> <p><i>It is easier to add a new product to the range if it has a discount (#3)</i></p> <p><i>[The discount] facilitates product inclusion in the range (#16)</i></p> <p><i>[By offering the discount]the manufacturer is actively looking to market the product from the beginning and reduce the threshold for having the product in the range (#19)</i></p>

The numbers in parentheses indicate the number of respondent

3.3.4 General credibility

Finally, the drugstore buyers frequently mentioned concerns related to the credibility of the product's claimed qualities and features. That is, many respondents mentioned that having all the advertised qualities in the product, a reasonable regular price, and a further price discount looked too good to be true (respondents #6, #8,

#13, #21). Many also mentioned that the manufacturer's ability to offer an introductory discount may be due to its potentially low investments in research and development (#1, #3, #6, #9, #11, #15). Some respondents further questioned whether the characteristics (preventive hygiene) of the product had been compared with existing products (#9), or whether the product had been tested for side effects (#1, #8, #15).

3.4 Results: positive thoughts and assumptions about price discount

While the drugstore buyers had some positive thoughts about the product itself, especially its organic (respondents #2, #7, #11) and sustainable (#4, #7, #9) nature, only two positive thoughts emerged about the price discount linked with the new product. Firstly, some respondents viewed the introductory price discount as a sign of the fact that the product manufacturer would be prepared to actively promote the product, and invest in marketing support (#2, #3, #6, #10, #16, #19). Secondly, some drugstore buyers expressed appreciation for the discount, in the sense that it signaled that the manufacturer was being considerate towards retailers, being willing to compensate for some of the trouble that adding the new product to assortments would cause to the retailers (#1, #3, #19, #11).

4 Field experiment

4.1 Predictions

The qualitative study showed that encountering a price discount in connection with a new product offer elicits a variety of thoughts, assumptions, and speculations in retail buyers, about why the product manufacturer might be offering such a discount, and what it implies about the product itself. While the price discount elicited some positive thoughts in retail buyers, too, a clearly greater variety and a greater number of negative thoughts emerged, such as suspicions about the quality and functioning of the product and about its competitiveness and sales performance. This would suggest that offering a price discount for a new product might in fact rather decrease, than increase, retail buyers' interest in purchasing the product. In this sense, the qualitative findings provided initial support to the notion that retail buyers' responses to such price discounts may resemble rather those of rational (or skeptical) industrial buyers than those of impulsive (or optimistic) consumers.

However, the variety and number of negative thoughts, in the qualitative data, do not alone constitute evidence of retail buyers' actual behavior and purchase decisions. To obtain such evidence, we designed and conducted a randomized controlled trial (RCT) in the form of a field experiment in a real drugstore market channel, addressing drugstore buyers' actual purchase behavior. Accordingly, the main aim of the field experiment was to test, quantitatively and statistically, the following prediction:

Prediction P1 Drugstore retail buyers' purchase behavior with respect to a price discount offered for a new product resembles more that of (skeptical) industrial buyers than that of (impulsive) consumers, such that the price discount decreases rather than increases their purchase likelihood.

Furthermore, in designing the field experiment, we pursued additional evidence of the industrial buyer resemblance argument by addressing potential moderating effects that other peripheral advertising cues, unrelated to the price discount, would have on the effect of the discount. We focus on two topical advertising cues in the category of drugstore products—the same two that were included in the product information card of the qualitative study: an organic claim and a green-colored package. We anticipate that insofar as the retail buyers' purchase behavior resembles that of professional and rational industrial buyers, then these peripheral advertising cues may only have independent effects on purchase likelihood, while there will be no interaction effects between the cues and the price discount. This is because rational industrial buyers should evaluate such cues independently, as independent purchase criteria (cf. Cressman 2012; Iyer et al. 2015).¹ Instead, for consumers, the presences of appealing peripheral cues should mutually reinforce each other's effect on purchase decisions (Gunden et al. 2020; Hennessey and Anderson 1990), implying an interaction effect (Chandon et al. 2000). Thus, our second prediction for the field experiment is:

Prediction P2 Drugstore retail buyers' purchase behavior with respect to a price discount offered for a new product resembles more that of industrial buyers than that of consumers, such that there is no interaction effect between a price discount and other peripheral advertising cues (e.g., organic claim and green labeling).

4.2 Method

4.2.1 Participants

In the field experiment, we collaborated with the same national wholesaler of drugstore products in Finland as in the qualitative study, to target the retail buyers of individual drugstores. We exposed the drugstore buyers to the experimental stimuli (product offers) through the wholesaler's ordinary product ordering platform. Obtaining an ordinary-looking product offer message through the platform, the retail buyers were not aware of their participation in a field experiment. Altogether $n = 780$ drugstores participated in the experiment, conducted during April and May 2020. As to the descriptive statistics of the

¹ When it comes to the *main* effects of the organic claim and green package color, we do not make a priori predictions. Notwithstanding the fact that organic cues (e.g., Griskevicius et al. 2010; Kronrod et al. 2012; Lin and Chang 2012a; Olsen, Slotegraaf, and Chandukala 2014) and packaging colors (e.g., Petty and Cacioppo 1983, 1984; Wood, Robinson, and Poor 2018) have been found to influence consumer behavior (in health and well-being products in particular; see Batte et al. 2007), we maintain that they might also have independent main effects on retail buyer behavior—and even if retail buyers behaved like industrial buyers.

sample, about half of the participating drugstores (49%) belonged to a certain store chain, while the other half (51%) were independent stores. However, even the small drugstore chains in the Finnish market do not have centralized buying centers, such that the buyers of each drugstore largely make their independent buying decisions.

4.2.2 Experiment design and procedure

The focal product of the field experiment was the same new bottled mouthwash product that we used as the stimulus in the qualitative study. In fact, the particular product was launched to the drugstore buyer population for the first time in this field experiment. Yet, the manufacturer and brand were not unfamiliar to the buyers, as the manufacturer had already been selling other products to the same buyers for several years.

We utilized a 2 X 2 X 2 full-factorial experiment design, with the focal experimental factor being the price discount (presence vs. absence), and the other two factors representing peripheral advertising cues: green packaging color (presence vs. absence) and organic claim (presence vs. absence). In the presence condition of price discount, the product description sent to the participants indicated a price discount of -20% off the regular price (6.12 €). In the absence condition, such a price discount was not indicated, and only the ordinary price was listed. In the presence (vs. absence) condition of green packaging color, the product had a green (vs. purple) label. In the presence (vs. absence) condition of organic claim, the description of the product on the label focused on the organic (non-organic) contents of the product. The stimuli are shown in Appendix 2, Fig. 2 Table 4.

The drugstores were randomly assigned to one of the 8 conditions above. The product offer was sent to the drugstore buyers by email, through the ordering platform. The randomization was effective, as chi-square tests applied to cross-tabulations of the experimental variables with the background control variables (chain, location) were statistically insignificant. That is, the buyers' exposure to the different experimental conditions was approximately evenly distributed across drugstores belonging (vs. not) to a chain, and drugstores located in different locations.

4.2.3 Measures

As the dependent variable, we measured whether the buyer made an order of the focal product within 30 days after they received the offer through the ordering platform. As another dependent variable, we measured the size of the offer (in terms of number of products ordered). As covariates, we controlled for whether the drugstore belongs (vs. not) to a chain of drugstores as well as the location of the drugstore (urban vs. rural; shopping center vs. stand-alone).

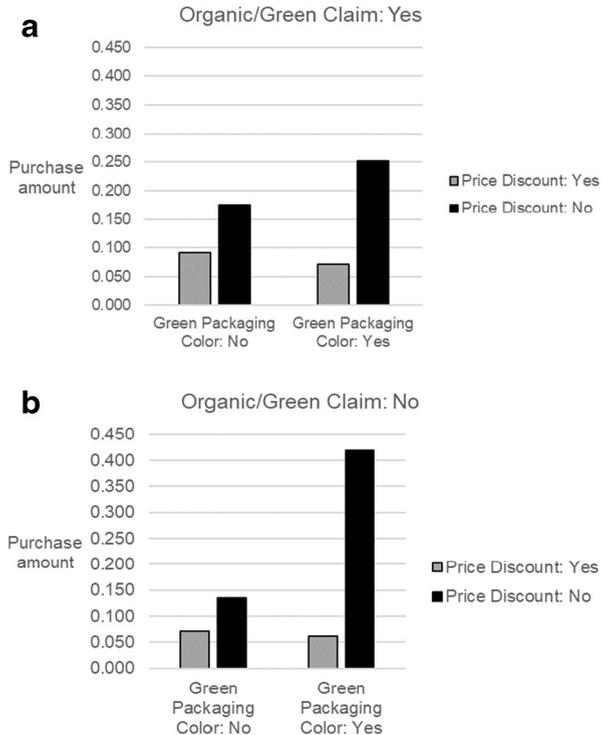
4.3 Results

First, we conducted a binary logistic regression of the buyer's decision to make an order (of whichever size) of the promoted product, including predictor dummies pertaining to the focal variable (price discount) and the other peripheral advertising cue variables, as well as the covariates (chain drugstore, location). Regarding the focal effect of a price discount on purchase likelihood, the coefficient obtained a statistically significant negative sign in the binary logistic regression ($\beta_{\text{Price Discount}} = -0.64$, $SE = 0.30$, $p = 0.037$). The negative coefficient suggests that the presence of a price discount did not increase, but decreased, the drugstore buyers' purchase likelihood of the product. The log odds indicate that the price discount decreased the odds of purchase by 47% ($= 1 - 0.53$). This finding suggests that introductory price discounts have a negative (not positive) effect on retail buyers' purchase likelihood. In other words, the retail buyers would seem to react to an introductory price discount in a manner that is more in line with professional industrial buyer behavior (being skeptical of the reasons behind the discount, e.g., the quality and sales potential of the product), rather than in a way that accords with consumer buying behavior. Thus, the prediction P1 was confirmed.

In the above logistic regression analysis, neither of the peripheral advertising cues obtained a statistically significant coefficient ($\beta_{\text{Green Color}} = -0.002$, $SE = 0.29$, $p > 0.9$; $\beta_{\text{Organic Claim}} = -0.20$, $SE = 0.30$, $p > 0.5$). Furthermore, another binary logistic regression analysis, including interaction effects between price discount, green label color, and organic contents message, revealed no statistically significant two-way or three-way interaction effects between the variables, either ($\beta_{\text{Price Discount} \times \text{Green Color}} = -0.51$, $SE = 0.83$, $p > 0.5$; $\beta_{\text{Price Discount} \times \text{Organic Claim}} = 0.23$, $SE = 0.84$, $p > 0.7$; $\beta_{\text{Price Discount} \times \text{Green Color} \times \text{Organic Claim}} = -0.42$, $SE = 1.25$, $p > 0.7$). The insignificant interaction effects between the price discount and the other peripheral cues provides further support to the notion that retail buyers' responses to the price discount are unaffected by other peripheral advertising cues—behavior more common with professional industrial buyers rather than consumers. This finding supports our prediction P2.

As a robustness check, we also conducted an analysis of variance (ANOVA) of the number of products ordered by the retail buyers (instead of the binary outcome of ordering vs. not ordering the product). Consistent with the binary logistic regression above, the ANOVA again revealed the price discount to be the only independent variable with a statistically significant effect on the purchase amount ($F(1, 762) = 4.34$, $p = 0.038$). As visible in Fig. 1 a–b, pairwise comparisons of the conditions of price discount further indicate that participants who were not exposed to the price discount ordered, on average, over the double amount of the product ($M = 0.22$) than participants who were exposed to the price discount ($M = 0.10$). None of the two-way and three-way interaction terms of price discount, green packaging color, and organic claim were statistically significant.

Fig. 1 **a** Least squares means of purchase amount when buyers received an offer *with* an organic cue. **b** Least squares means of purchase amount when buyers received an offer *without* an organic cue



5 Discussion and conclusions

5.1 Theoretical implications

As its main finding, our research shows that retail buyers seem to respond to CPG manufacturers' price discounts in a manner more typical for informed and professional industrial buyers than for consumers. That is, rather than increasing retail buyers' product purchases by representing an appealing "deal" to them, the price discount decreased the retail buyers' purchase likelihood and amounts in our experiment.

The qualitative study helped us to anticipate as well as interpret this result. The qualitative study suggested that retail buyers will not be very attracted by price discounts like consumers, but may instead have some suspicions about discounts. Specifically, a price discount offered for a newly launched product may elicit doubts about the product's quality and functioning as well as competitiveness and sales potential. The price discount may also lead some retail buyers to question the marketing skills of the manufacturer and the credibility of the manufacturer's claims overall. As additional evidence of the industrial buyer resemblance argument (Saab and Botelho 2020), the field experiment also indicated no significant interaction effect between the price discount and peripheral advertising cues. If retail buyers' behavior rather resembled that

of consumers, a positive interaction effect could have been expected between the different cues (see for example Gunden et al. 2020). The qualitative study further showed that the peripheral cues used in the field experiment were not too subtle for retail buyers to notice; instead, the buyers did notice them but assessed their importance to be rather low, and independent of the price discount.

Despite the consistent evidence obtained from both the field experiment and qualitative study, we should note some boundary conditions for the observed effects. Especially, the negative effect of the price discount could have gotten pronounced in our research setting, which offered a new, unfamiliar product to the retail buyers. In other words, the retail buyers had no prior experience with the target product, as it was just launched to the market. Furthermore, the discount was not either a seasonal or otherwise expected discount. Thus, the somewhat unexpected nature of the price discount, for the new product, probably raised more speculation and suspicions in the retail buyers about the reasons behind the manufacturer's discount offer (than what a seasonal discount, for example, would have raised). Also, if the product had been an established one, or if the drugstore buyers had had some prior satisfactory experience with its quality, they would probably have responded less negatively to the discount—even if it had been somewhat unexpected. The same would obviously be the case if the retail buyers themselves had asked about a discount possibility, as is the case with “negotiated discounts” often occurring with large retailers like Walmart.²

At any rate, unless a price discount offered to them is seasonal, pre-requested or negotiated, or otherwise intuitively expected, price discounts can be expected to raise speculations, skepticism, and suspicions in retail buyers, about the reasons behind the discount. Such suspicions and skepticism, in turn, play a substantial role in likely decreasing the buyers' interest in the discounted product. Notably, it is interesting that we found such effects even for a relatively low-involvement, low-risk product such as bottled mouthwash.

5.2 Contributions to research

The present research primarily contributes to the literature on retail buyer behavior. Much of the previous literature on retail buyer behavior discusses—conceptually—the question of whether retail buyers behave more like individual consumers or like professional industrial buyers (e.g., Bahng and Kincade 2014; Hansen and Skytte 1998; Kline and Wagner 1994; Reardon et al. 2017). However, we are unaware of any previous studies which would have empirically tested whether retail buyer behavior, in fact, resembles, to a greater extent, consumer or industrial buyer behavior, in terms of any particular marketing variable. This is therefore the primary contribution of the present research: we report

² We thank an anonymous reviewer for raising this good point.

a sizeable RCT field experiment that provides causal evidence about retail buyers' behavioral patterns regarding a key marketing variable, price discount, enabling the assessment of whether retail buyers' behavioral responses match, empirically, rather with the behavioral tendencies of consumers or those of professional industrial buyers. We also contribute to behavioral research on price discounts more broadly (e.g., Krishna et al. 2002; Völckner and Hofmann 2007) by demonstrating the potential negative effect that price discounts offered with new products may have on purchasing behavior of retail buyers, in particular. To this literature, our qualitative study also provided insights into the potential mechanism underlying such a negative effect, as the qualitative survey showed that the price discount elicited a variety of negative thoughts and suspicions in retail buyers, about the new product. Specifically, the price discount elicited doubts about the new product's quality and functioning and competitiveness and sales potential, as well as raised questions about the marketing skills of the manufacturer and the credibility of the manufacturer's claims overall.

5.3 Practical implications

For managers, the results of our field experiment—being a real-market test—suggest that in promoting products to retailers, product manufacturers and marketers should be cautious about utilizing price discounts. In our experiment, focusing on a new product launch to drugstores, offering a price discount in fact had a negative effect on the retail buyers' purchase likelihood of the new product. This suggests that retail buyers interpret an introductory price discount as a sign of the not-so-good quality or competitiveness of the product itself, and/or get concerned about their ability to offer and resell the product at a non-discounted price to end consumers.

Admittedly, the newly launched, unfamiliar product could have made the negative effect of the price discount particularly pronounced in our experiment (i.e., if the product had been an established product with well-known quality, the price discount might not have elicited as much suspicion as it did now). Still, our results advise marketers to be cautious about using price discounts as a primary marketing tactic in promoting products to retailers. This is especially the case with irregular situations wherein the retail buyers will not intuitively expect (or ask) to get a discount, such as new product launches. Another example of such a situation is one whereby the macro-economic price inflation creates expectations of price increases, instead of price cuts. If a retail buyer encounters an offer with a price discount in such a situation, suspicions are likely to arise.

When it comes to nuances of the found effects, the timing and placing of price discount information may matter, too. For example, we noticed in the qualitative study that when retail buyers were presented with the discount after (vs. before) they were evaluating product information, they remained more positive (or less suspicious) about the product's quality. That is, when the perceptions of quality have already been formed at the time when the retail buyer learns about the price

discount, then its negative effect on quality perceptions and purchase likelihood may be alleviated.

Finally, when it comes to peripheral advertising cues other than the price discount, marketers should not get over-optimistic about their effects on retail buyers, either. The results of our experiment suggest that unlike the case with consumers, such cues as packaging color and organic claims may not have much effect on retail buyers' purchase decisions. This is especially true when a price discount is present, somewhat outweighing any potential positive effect from the peripheral cues. Thus, for any positive effect of peripheral cues to occur, marketers may want to leave price discounts away from the same offer.

5.4 Limitations

The main limitation of our research lies in its focus on one utilitarian product category only (bottled mouthwash), combined with the fact that the peripheral cues included in our product advertisements (especially label coloring) were rather hedonic, or affect-based ones (Reimann et al. 2010). In this sense, the peripheral cues might have had little importance for drugstore buyers, who are primarily interested in utilitarian arguments. Thus, it may not be surprising that even if our qualitative study indicated that the buyers did notice the peripheral cues, those cues did not, eventually, have significant main effects on the buyers' purchase likelihood. This should not, however, be seen to suggest that any peripheral advertising cues will not influence retail buyers. In other words, the particular peripheral cues selected for this research and its focal product category might have just lacked sufficient relevance for the buyers, while other peripheral cues (e.g., country of origin, not tested on animals, locally produced, high tech) might have had more effect. In other words, if the product itself had been more hedonic (e.g., a cosmetics product), the affective peripheral cues would likely have had more influence on the retail buyers' purchase likelihood, and possibly even moderated the negative effect of price discounts thereon. As such, replicating the present research in a more hedonic product category is an interesting option for future research.

Another limitation lies in our reliance on the between-subjects design in our main experiment, and the fact that (half of) the buyers in the experiment were exposed to the price discount immediately when the product information was introduced. If the new product had first been introduced to all the buyers, potentially with a free sample product, and if the price discount had not been offered to half of the buyers until after the product introduction, then the negative effect of the price discount could have been milder (as indicated by our qualitative study). Alternatively, if all buyers had first been given the chance to order the product at a regular price, and if the price discount had been offered only later to all buyers, the within-subjects effect of the price discount (before vs. after discount) could also have been less negative. Possibly, the within-subjects effect of a price discount for a previously known, high-quality product might even turn positive, even for the initially skeptical retail buyers.

Appendix 1

Table 3 Questions to respondents in the qualitative survey

Section 1

- What thoughts have the above announcement and product description brought to your mind?
- How attractive would the above product description and packaging be to you? In what sense would it be attractive? In what sense would it be unattractive?
- How attractive do you think the above product description and packaging would be to the end consumer? In what sense would it be attractive? In what sense would it be unattractive?

Section 2

- What would you think about the price (and the discount) that the product manufacturer has offered? What positive or negative thoughts does it trigger for you?
 - What do you think is the reason for the manufacturer to offer the discount for the product?
 - To what extent would you agree with the following statement: The product described is of high quality: (1 = completely disagree... 7 = completely agree)
 - How would you evaluate the original (undiscounted) price of the described product? (1 = absolutely underpriced... 7 = absolutely overpriced)
-

The original questions were in Finnish

Appendix 2

Fig. 2 Product photos included in experiment stimuli in presence (left photo) vs. absence (right photo) conditions of green packaging color



Table 4 Texts included in experiment stimuli (i.e., product information on the label) in presence (left column) vs. absence (right column) conditions of organic claim

Organic claim – presence	Organic claim – absence
<p>DOMESTIC, EFFECTIVE NOVELTY FOR MOUTH CARE – <i>FORMULA INCLUDING ORGANIC INGREDIENTS, BERRIES, AND HERBS</i></p> <p>IsoDent Fluor+ is designed especially for persons who have a high risk of dental caveats (incl. users of braces and dentures). It also alleviates symptoms of hurting, dry mouth!</p> <p><i>IsoDent Fluor+ is one of the only mouthwashes on the market, the formula of which is based on ingredients, berries, and herbs sourced straight from nature. The product is also produced with solar energy from the Northern sun</i></p> <p>IsoDent Fluor+ healing mouthwash includes 0.15% of fluoride, which effectively protects teeth from caveats. A unique combination of xylitol and erythritol further reduces harmful demineralization in the mouth. Sea-buckthorn extract reinforces the mucosa of the mouth and accelerates the healing of wounds. Chamomile in turn has a soothing effect, and lingonberry acts as a natural conservative</p> <p>The product refreshes one's breath naturally, yet has a mild and soft taste. It also helps to keep the mucosa of the mouth nice and moist. When used twice a day, IsoDent Fluor+ provides a 24 h protection against caveats</p>	<p>DOMESTIC, EFFECTIVE NOVELTY FOR MOUTHCARE</p> <p>IsoDent Fluor+ is designed especially for persons who have a high risk of dental caveats (incl. users of braces and dentures). It also alleviates symptoms of hurting, dry mouth!</p> <p>IsoDent Fluor+ healing mouthwash includes 0.15% of fluoride, which effectively protects teeth from caveats. A unique combination of xylitol and erythritol further reduces harmful demineralization in the mouth. Sea-buckthorn extract reinforces the mucosa of the mouth and accelerates the healing of wounds. Chamomile in turn has a soothing effect, and lingonberry acts as a natural conservative.</p> <p>The product refreshes one's breath naturally, yet has a mild and soft taste. It also helps to keep the mucosa of the mouth nice and moist. When used twice a day, IsoDent Fluor+ provides a 24 h protection against caveats</p>

The italics indicate the texts that were only included in the Presence condition of the Organic Claim treatment, but not in the Absence condition. The italics are added here to pinpoint the differences in the stimuli; the texts were not in italics in the original experiment stimuli. The original texts were in Finnish, not English

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Data availability Sample of the overall data is available from the authors, on request.

Code availability Not applicable.

Declarations

Conflict of interest One of the authors (J.I.) is entrepreneur-owner of the company whose products were subject to the experiment.

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