



**Consumers' Behavioural Responses to Price Promotions of Organic Products: An Introspective Pre-Study and an Online Field Experiment**

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## Consumers' Behavioural Responses to Price Promotions of Organic Products: An Introspective Pre-Study and an Online Field Experiment

### Abstract

*Design/methodology/approach.* To develop alternative hypotheses about consumers' behavioural responses to price promotions of organic FMCG products, we employed the researcher-introspection method in a pre-study. To test the hypotheses developed based on the pre-study, we conducted a field experiment on online advertising of an FMCG sold in drugstores. In the field experiment, we exposed consumers to an online ad featuring either a price promotion (-20%) or the regular price of the product. The ads also varied in terms of whether they contained explicit organic claims or not, and whether they included implicit organic cues or not.

*Purpose.* While most marketing research on organic products refers to the premium price levels of organic products, little research exists on consumers' behavioral responses to price promotions or discounts of organic products. The present studies fill this research gap.

*Findings.* The price promotion increased the click-through rate of the ad both when combined with an explicit organic claim and when combined with the implicit cue of green product pack. The results suggest that consumers do not have significant suspicions about price promotions of organic products, but rather presume that the price promotion of an organic FMCG product is a periodical promotional action, similar to the price promotions for conventional, non-organic products. Also, consumers seem to assume that the regular prices of organic FMCG products are so high that the retailer/manufacturer can well afford periodic price discounts.

*Research limitations/implications.* Present research shifts the focus of organic marketing research from the premium price levels to the effectiveness of price promotions and discounts. Further, the present results contrast with certain earlier studies which have questioned the effectiveness of price promotions for organic products.

*Practical implications.* The results have different implications for marketing managers of (a) brands not yet providing organic product versions in the market, of (b) brands producing non-organic products, which cannot easily be rendered organic, and of (c) brands offering organic products in the market.

*Originality/value.* This is to our knowledge the first empirical study and field experiment on price promotions of organic products, including explicit organic claims.

**Keywords:** Organic products; price promotions; organic claims; packaging colour; digital advertising; online advertising; banner advertising; click-through; field experiment

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**Data availability statement:** The data can be made available by the authors, on request.

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## Introduction

While the actual organic nature of organic consumer goods is primarily determined by *supply*-side factors (e.g., no artificial fertilizers, pesticides, or preservatives used in value chain), a growing body of research also addresses various *demand*-side aspects of organic consumer products, including consumer behaviour pertaining to organic products. An increasing number of such demand-side, consumer behavioural studies has been recently emerging in various disciplines, ranging from marketing (Baker et al. 2004; Bernal-Jurado et al. 2017; Frank and Brock, 2018; Verhoef and Van Doorn 2016) and economics (Cecchini, Torquati, and Chiorri 2018), to health and nutrition sciences (Olson 2017; Hemmerling, Canavari, and Spiller 2016) and environmental sciences (Liu et al. 2022; Mauracher, Procidano, and Valentini 2019).

In this growing literature, one of the most commonly touched-upon aspects is the *pricing* of the organic fast-moving consumer goods (FMCGs). Indeed, nearly all studies addressing demand-side aspects of organic FMCGs at least mention pricing—usually to emphasize the generally higher price levels of organic products, compared to conventional, non-organic products. Specifically, a number of studies analyze the premium price patterns of organic products (e.g., Marian, Chrysochou, Krystallis, and Thøgersen 2014; Nimón and Beghin 1999), or survey consumers' willingness to pay premium prices for organic products (e.g., Bishop and Barber 2015; Ellis, McCracken, and Skuza 2012; Van Doorn and Verhoef 2011) or their price perceptions related to organic FMCG stores (Zielke 2010). However, within and beyond these research streams—which essentially focus on the *premium prices* of organic products—, much less research exists on consumers' behavioural responses to price *promotions* or *discounts* of

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3 organic products. These behavioural responses to price promotions of organic FMCGs constitute  
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5 the research gap which the present research aims to fill.  
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8         There is a two-fold reason for why it is important to study consumers' behavioural  
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10 responses to price promotions of organic FMCGs in particular, even if a vast body of research  
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12 literature exists on the behavioural effects of price promotions of (non-organic) FMCGs in  
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14 general (e.g., Darke and Chung 2005; Delvecchio, Krishnan, and Smith 2007; Delvecchio and  
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16 Puligadda 2012; Guha et al. 2018; Raghubir and Corfman 1999; Zheng et al. 2021). Firstly, it is  
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18 not clear whether price promotions of organic FMCGs actually increase consumer demand for  
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20 these products, like price promotions for non-organic, conventional products tend to do. Namely,  
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22 as organic FMCGs are generally perceived as high-quality products—and, to some extent, even  
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24 status goods—, consumers might perceive that price promotions of these products conflict with  
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26 their high quality and status image (Ngobo 2011). This might lead price promotions of organic  
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28 FMCGs to lack the positive effect on consumer demand that price promotions of conventional,  
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30 non-organic FMCGs typically have.  
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35         Secondly, the few extant studies (e.g., Bezawada and Pauwels 2013; Ngobo 2011; Van  
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37 Doorn and Verhoef 2015) that do address price promotions of organic products tend to assume  
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39 that consumers self-evidently notice, when buying FMCG products, whether they are buying an  
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41 organic or a non-organic, conventional product. This assumption is mainly due to the  
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43 methodological reliance, in previous studies, on scanner data or other sales register data. Indeed,  
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45 in scanner and register data, organic products (or stock-keeping units SKUs) are typically  
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47 marked 'organic', regardless of how visible or explicit (vs. invisible or implicit) the organic label  
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49 or claims are to consumers, in product packaging, advertising, and in-store promotions. This  
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51 means that such studies provide, at most, indirect evidence about consumers' behavioural  
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3 responses to price promotions of organic FMCGs. Thus, in present research, we pursue direct  
4 behavioural evidence of how consumers respond to price promotions of such organic FMCGs  
5 that they can explicitly recognize to be organic.  
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10           Against this backdrop, the research question which we focus presently on is: How do  
11 consumers' behaviourally respond to price promotions, when combined with explicit organic  
12 claims related to a FMCG product? Rather than implicit scanner data, our primary data in  
13 investigating this research question are explicit, causal field experiment data. As such, the data  
14 provide us with evidence about how consumers' behavioural responses are affected, when they  
15 are treated with a price promotion (vs. regular price), and with explicit organic claims (vs.  
16 implicit cues, vs. no cues at all) related to an FMCG product. With such field experiment data,  
17 we aim to 'bring behaviour back' into the study of price promotions of organic products, in the  
18 sense of providing direct evidence about consumers' actual behavioural responses to organic  
19 products, as opposed to mere implicit or indirect evidence.  
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33           Another way, in which the present study seeks to 'bring behaviour back' into the study  
34 of consumer behaviour vis-à-vis price promotions, is even more unconventional—even for the  
35 experimental paradigm of marketing and consumer research. That is, in order to inductively  
36 develop theoretical hypotheses to be tested in our main field experiment, we conducted a pre-  
37 study that employed an introspective research method (e.g., Gummesson 2005; Wallendorf and  
38 Brucks 1993), in the form of researcher-focused introspection (see Ekpo et al. 2015; Gould 1995;  
39 Xue and Desmet 2019). Specifically, in the pre-study, one of the authors—who has four decades  
40 of experience and expertise in consumer behaviour in the focal sector—produced a series of  
41 narrative vignettes reflecting on his understanding regarding consumers' thoughts and opinions  
42 about price promotions of organic drugstore products. The second author, together with the  
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3 researcher–introspector author, then analyzed and interpreted the vignettes. Based on this  
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5 analysis, we inductively developed alternative, competing hypotheses about consumers’  
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7 behavioural responses to price promotions of organic FMCGs.  
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10 Subsequently, in order to test which of the alternative hypotheses developed in the pre-  
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12 study dominates in real consumers’ behaviour in the market, we collected our primary data  
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14 through a field experiment. Specifically, in a split-test field experiment, we alternated eight  
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16 versions of an online ad for the focal product (bottled mouthwash), in the banner advertising  
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18 sections of online media sites. The experimental versions of the ad varied on three dimensions:  
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20 price promotion (“– 20%” price promotion vs. regular price), explicit organic claims (present vs.  
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22 absent), and implicit organic cues (green vs. purple colour of the product pack shown in the ad).  
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24 The eight versions of the ad accumulated almost two million exposures (N = 1,957,037) by  
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26 consumers in total. To answer our research question, and to test which of the alternative  
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28 hypotheses held, we measured the relative effectiveness of the ad versions in terms of click-  
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30 through rate (CTR) as the dependent variable (see Orazi and Johnston 2020).  
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35 The present research makes several contributions to the literature on behavioural,  
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37 demand-side aspects of organic products. First, while most research on organic products in  
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39 marketing, economics, and nutrition/health sciences focus on the price premiums commanded by  
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41 organic products (including consumers’ willingness-to-pay), our research shifts the focus from  
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43 premium price levels to the effectiveness of price promotions and price discounts of organic  
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45 products. Second, when it comes to the earlier, sparse literature addressing price promotions of  
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47 organic products, we add to those rare studies (esp. Bezawada and Pauwels 2013) that have  
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49 found price promotions to be equally effective for organic products as for non-organic  
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51 conventional products. At the same time, our results contrast with such pieces of earlier literature  
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3 (Ngobo 2011; Massey, O'Cass, and Otahal 2018; Troiano, Maragon, Tempesta, and Vecchiato  
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5 2016) which have questioned the effectiveness of price promotions for organic products (due to,  
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7 e.g., price promotions' potential negative effect on quality image). To these literatures, we also  
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9 provide two methodological contributions: (a) we examine price promotion effectiveness through  
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11 a field experiment on online banner ad messages, instead of scanner or sales register data, or  
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13 surveys or lab experiments, and (b) we pilot a novel approach of integrating a qualitative  
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15 researcher–introspection method with a quantitative field experiment, in order to inductively  
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17 develop hypotheses for the main field experiment.  
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22 Third, albeit less importantly, our research also adds to literature on advertisements  
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24 which include the picture of product packaging (e.g., Reimann, Zaichkowsky, Neuhaus, Bender,  
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26 and Weber 2010; Rundh 2016; cf. Underwood and Klein 2002). For this literature, the present  
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28 findings suggest that showing a green packaging in an ad or promotional message—implying the  
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30 organic or environment-friendly nature of the product—may not only influence consumer  
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32 interest in organic products, but it may also influence consumer interest in non-organic products,  
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34 or products advertised without explicit organic claims.  
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### 40 **Literature Overview on Organic Products and Price Promotions**

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42 As mentioned above, many of the earlier studies on organic products' price promotions do not  
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44 focus, explicitly, on organic product claims made in connection with the price promotion, but  
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46 rather assume that consumers automatically recognize or notice the product's organic nature.  
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49 This is especially true for studies utilizing scanner, panel, or sales register data (e.g., Bezawada  
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51 and Pauwels 2013; van Doorn and Verhoef 2015; Ngobo 2011), as well as non-empirical,  
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53 mathematical modeling studies (Liu et al. 2022). Thus, regardless of whether these studies have  
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3 suggested price promotions to be effective for organic products (Bezawada and Pauwels 2013) or  
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5 not (van Doorn and Verhoef 2015; Ngobo 2011), they fall short of providing direct evidence of  
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7 price promotions' behavioural impact on consumer demand for organic products. This is because  
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9 the buying consumers in these studies may not have recognized the products to be organic in the  
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11 first place. In turn, survey-based studies (Troiano, Marangon, Tempesta, and Vecchiato 2016), as  
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13 well as meta-analyses (Massey, O'Cass and Otahal 2018) have only indirectly studied price  
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15 promotions, as well, by typically focusing on the inverted effects of price premiums. In the  
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17 present research, we attempt to overcome this shortcoming by shifting the focus on studying how  
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19 *explicit* organic claims, in combination with price promotions, affect consumer behaviour  
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21 towards the product under study.  
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27 Even such studies are only a few, that would simultaneously address price-related  
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29 variables (albeit not price promotions/discounts) and explicit organic claims. Frank and Brock  
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31 (2018) measured consumers' perceptions of the price–quality ratio of organic products as one  
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33 “purchase barrier” among others. Their results indicated, among other things, that ordinary  
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35 consumers, who are not engaged in green consumerism, perceived the prices of organic products  
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37 more favorably, in case explicit organic product claims were provided at the point of sales  
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39 (POS).  
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43 Second, Liu et al. (2019, 2022) study “behavioural-based pricing” of organic and green  
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45 products, in which prices in the supply and distribution chain of organic products are set on the  
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47 basis of end-consumers' behavioural characteristics (incl. purchase history). However, the  
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49 studies of Liu et al. represent non-empirical, mathematical modeling, and as such, do not provide  
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51 evidence of consumers' actual behavioural responses to the prices or price discounts of organic  
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53 products. A third existing study, by Bang et al. (2021), utilizes a behavioural experiment  
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3 approach to investigate prosocial product claims—which can be considered somewhat analogous  
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5 to organic claims. They find that price discounts are effective for American consumers when  
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7 combined with assertive prosocial claims (“must”, “should”, etc.), while not being effective for  
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9 Korean consumers, regardless of the style of the claim. However, while focusing on different  
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11 *styles* of claims, even the study of Bang et al. (2021) does not compare the effect of price  
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13 promotions in the presence vs. absence of prosocial claims, let alone organic claims.  
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17 Figure 1 depicts the positioning of the present research in the intersection of the  
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19 aforementioned streams of literature. Furthermore, our research is to our knowledge the first one  
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21 to study the impact of price promotions on consumer interest in organic products through a field  
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23 experiment. Indeed, while the earlier studies either analyze scanner, panel, or sales register data,  
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25 collect survey data, or conduct laboratory experiments, the previous research literature lacks  
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27 experimental studies conducted in field settings. Moreover, our study is also novel for  
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29 behavioural marketing and consumer research in general, in employing a researcher–  
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31 introspection pre-study to inductively develop hypotheses to be tested with the quantitative field  
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33 experiment. We turn to this pre-study next.  
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38 ----INSERT FIGURE 1 ABOUT HERE----  
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## 42 **Pre-Study**

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### 46 ***Method***

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49 *Form of introspection utilized.* We utilized a ‘syncretic form of introspection’  
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51 (Wallendorf and Brucks 1993) to explore the subjective experiences and knowledge that one of  
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53 the present authors had about consumers’ behavioural responses to pricing actions of FMCG  
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3 products sold at drugstores and pharmacies. The aim of the introspective pre-study was to  
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5 inductively theorize and develop alternative hypotheses for our main field experiment study—  
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7 which would be conducted in the same focal domain (FMCGs sold at drugstores).  
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10 The primary nature of the present introspection study was ‘researcher introspection’,  
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12 addressing one of the authors’ own experiences, insights, and knowledge (see examples in Ekpo  
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14 et al. 2015; Xue and Desmet 2019). Yet, as the study focused especially on probing his second-  
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16 hand experiences, insights, and knowledge about consumers’ (first-hand) experiences and  
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18 reactions to pricing actions in the focal domain, the method can also be considered to represent a  
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20 ‘syncretic form of introspection’ (Wallendorf and Brucks 1993). That is, both the experiences of  
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22 the researcher and (his experiences about) the experiences of the consumers, whom the  
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24 researcher is highly familiar with, are used as “elements in the sample” to be studied, “with little,  
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26 if any, differentiation made between the two during data analysis” (Wallendorf and Brucks 1993,  
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28 p. 341). This syncretic approach—of sampling the researcher’s second-hand experiences about  
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30 consumers’ first-hand experiences—can be considered to mitigate some of the reliability issues  
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32 related to introspective studies that only focus on the researcher’s own first-hand experiences  
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34 (e.g., convenience sample of one [researcher] only; lack of analytical “distance” to subjects)  
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36 (Wallendorf and Brucks 1993; cf. Gould 1995). Moreover, these reliability issues were also  
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38 mitigated by the fact that the analyses of the introspective narratives were not performed by the  
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40 researcher–introspector alone. Instead, the narratives were analyzed together by the researcher–  
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42 introspector and the other, present author.  
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49 Furthermore, the utilization of introspection in the pre-study also met the criteria  
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51 suggested by Gould (1995) for researcher introspection: (1) “the researcher as instrument–  
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53 subject must be [a] knowledgeable and [b] motivated with respect to both [i] introspection and  
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3 [ii] the topic of study” and (2) “the topic of study must be susceptible to introspection” (p. 721).

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5 In our case, the author taking the role of researcher–introspector was (1a.ii) highly  
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7 knowledgeable about the topic, having run his own company in the drugstore products industry  
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9 for 45 years. His role as the entrepreneur–manager of a manufacturing firm of drugstore products  
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11 (including the one experimented with in the field experiment) also ensured that he was (1b.ii)  
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13 highly motivated to understand and learn how consumers may behaviourally respond to price  
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15 promotions of such products. With educational background both in dental healthcare and  
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17 business administration as well as keen personal interest in psychology, he also had (1b.i) a high  
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19 motivation (1a.i) as well as above-average knowledge and skills to engage in introspective  
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21 reflection. In turn, when it comes to the (2) susceptibility of the focal research topic to  
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23 introspection, we consider that consumer behaviour in the drugstore context is a topic that is  
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25 fundamentally apt to such introspection, given that the researcher–introspector is not only a  
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27 professional in this field but also a consumer–customer of drugstores himself.  
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35 *Documents and data.* To facilitate the introspection process, the author serving as the  
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37 researcher–introspector was asked to write short, narrative vignettes with the following two  
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39 tasks: (1) “Describe what thoughts or feelings might arise to a consumer visiting a drugstore,  
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41 when encountering a price discount for an *ordinary* product?”; (2) Write a couple of short stories  
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43 or vignettes about what (a) positive or (b) negative thoughts or feelings might arise to a  
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45 consumer visiting a drugstore, when encountering a price discount for an *organic* product? The  
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47 aim with first asking briefly about (1) ordinary products was to stimulate more varied and  
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49 differentiated thoughts and experiences in the (2) second, main task, as a contrast to the baseline  
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51 thoughts elicited in the first task. The aim in asking the researcher–introspector to explicitly  
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3 describe both (a) positive and (b) negative experiences, respectively, in the second task, was to  
4 ensure that he would not ignore any negative thoughts or experiences, in case most of the  
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6 prevalent thoughts were positive—and vice versa.  
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12 *Analysis.* As the aim of the first task (1) above was only to stimulate more varied  
13 thoughts in the second task (2), we focused our analyses on the vignettes that the researcher–  
14 introspector co-author wrote for task (2) only. Both of the authors first independently analyzed  
15 and interpreted each of the raw vignettes, conceptualizing and summarizing (I) the underlying  
16 reason for the positivity or negativity of the thoughts and experiences described in the vignette in  
17 an abstracted form. Furthermore, we further conceptualized and summarized (II) the effect that  
18 the thought or experience summarized above, seemed to have on the behaviour of the consumer  
19 described in the vignette.  
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31 After each of the authors had analyzed the raw vignettes in the aforementioned manner,  
32 we compared the conceptualizations (I–II) drafted by both authors in a joint session. To the  
33 extent that there were differences in the content and wordings of the conceptualizations, we  
34 discussed the differences and pursued a joint understanding and consensus. Through these  
35 discussions, we crafted final conceptualizations which both authors were satisfied with. These  
36 final conceptualizations were then summarized in a single table, reproduced below as Table 1.  
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### 47 ***Findings***

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51 Table 1 below summarizes the results of the syncretic introspective pre-study. As visible in the  
52 table, the introspection-based vignettes included both experiences that implied positive effects by  
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3 organic products' price discounts on consumer behaviour, and experiences that implied negative  
4 behavioural effects by such price discounts. In what follows, we briefly summarize the contents  
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6 of the vignettes, regarding the potential positive and negative effects.  
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10 On one hand, implying a positive effect, consumers may simply assume, when  
11 encountering a price promotion for an organic product, that its price is discounted periodically—  
12 just like the prices of conventional, non-organic products are also periodically discounted  
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14 (vignette #1). Although not for organic products in particular, prior research has also shown that  
15 consumers expect FMCG products in general to be discounted regularly, such that consumers  
16 may even delay their purchases while waiting for the next price promotion to take place (e.g.,  
17 Blattberg et al. 1995; Lewis 2005; Mela et al. 1997). As also implied by vignette #1, consumers  
18 may use the occasional price discount of a high-quality product (such as an organic one) as an  
19 opportunity to purchase a product of higher quality than what they can normally afford (Chandon  
20 et al. 2000). As such, a price promotion of an organic FMCG might not raise any particular  
21 suspicions in the consumer, either, about why the manufacturer or retailer would be price-  
22 promoting an organic product. On the contrary, the consumer may further assume that because  
23 the regular prices of organic products are so high, the retailer and manufacturer can well afford  
24 to price-promote them periodically (vignette #4)—even more so than they can afford to price-  
25 promote conventional, non-organic products (of lower regular price point). Indeed, consumers  
26 may assume that the regular prices of organic products might be set at a somewhat inflated level,  
27 vis-à-vis their true or fair cost level (see Dekhili and Achabou 2013).  
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31 On the other hand, what implies a negative effect by organic products' price discounts  
32 on consumer behaviour, is the suspicion that such discounts may raise in consumers, either about  
33 the quality of the product (vignette #3), or about the popularity of the product (vignette #2).  
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3 Regarding the former, the thought that ‘higher price equals higher quality’ (e.g., Monroe and  
4 Krishnan 1985; Völckner and Hofmann 2007; Zeithaml 1988; Zheng, Chen, Zhang, and Che  
5 2021) may be prevalent in consumers’ minds, leading them to suspect the the price of the organic  
6 product would not be discounted if the product was of very good quality. Price promotions have  
7 been shown to raise such suspicions even in the case of conventional products (Darke and Chung  
8 2005; Raghubir and Corfman 1999), and these suspicions have been speculated (although not  
9 shown) to be especially likely for organic products (Bezawada and Pauwels 2013; Ngobo 2011).  
10 Regarding the latter, in turn, consumers may suspect that the reason for why the manufacturer or  
11 retailer is price-promoting the product is that it is not selling very well. That is, the company may  
12 be trying to make the product more popular among consumers by cutting its price. However,  
13 because organic products are associated with social status, their excessive popularization, by way  
14 of price discounts, may paradoxically reduce consumers’ willingness to purchase them  
15 (Bezawada and Pauwels 2013). Thus, due to the potential association of price promotions with  
16 poor product quality and/or with the retailer’s attempt to popularize the product, a price discount  
17 of an organic product might make consumers less instead of more interested in the product.

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40 Summarizing the findings of the introspective pre-study, Table 2 presents our  
41 propositions about the psychology of price promotions of organic products, as well as poses  
42 corresponding, alternative hypotheses about their behavioural effects. Note that for both the  
43 positive and negative effects hypothesized, we assume that the organic nature of the product is  
44 explicit to the consumers, such that the price promotion message itself includes an explicit  
45 organic claim. In contrast, implicit cues (e.g., green colour) are not likely to make the thoughts  
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3 and cognitions proposed in the propositions salient to the consumer. Thus, the hypotheses about  
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5 the behavioural effects are mainly justified for explicit organic claims only.  
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8 ----INSERT TABLE 2 ABOUT HERE----  
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## 10 11 12 **Field Experiment**

### 13 14 15 16 17 *Method*

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19 *Product category context.* We conducted the field experiment in the same context as the  
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21 researcher-introspection pre-study: FMCGs sold in drugstores. Moreover, the focal FMCG in the  
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23 experiment is manufactured by the same company owned by researcher-introspector of the pre-  
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25 study. Of the different products produced by the company, we selected a new bottled mouthwash  
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27 product as the focal product for the experiment. Bottled mouthwash was considered a suitable  
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29 focal product for the present experiment, due to the following reasons. First, bottled mouthwash  
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31 is one of the highest-volume pharmacy products, the purchase of which does not necessitate a  
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33 doctor's prescription. Thus, the purchase decisions for this product are made by consumers  
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35 themselves (instead of doctors/physicians). Second, among non-prescription pharmacy products,  
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37 bottled mouthwash is one of the most common products that are consumed orally. We  
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39 considered that for a product consumed orally, the organic ad claims are particularly relevant for  
40  
41 consumers. Third, for many other orally consumable, prescription-free pharmacy products (e.g.,  
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43 dietary supplements), organic claims cannot be made in a very convincing way, due to the  
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45 artificial nature of their production.  
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3        *Participants.* To test which of the behavioural hypotheses H1 or H2 holds in a real  
4 market setting, we conducted an online field experiment on a promotion message of the focal  
5 mouthwash product in the Finnish drugstore market. The experimental promotional messages  
6 were published in the banner advertising sections of online sites of seven popular newspapers  
7 and magazines in Finland. Consumers were exposed to the ad messages altogether almost two  
8 million times ( $N_{\text{impressions}} = 1,957,037$ ). The advertising platform estimated that the gender split  
9 was equal among the participants: 50.4% females and 49.6% males. This suggests that the  
10 participant sample is rather representative of the consumer population in Finland overall.  
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24        *Design and Procedure.* The experiment had a full-factorial 2 X 2 X 2 design, with 2  
25 Price Promotion (Present vs. Absent), 2 Explicit Organic Claim (Present vs. Absent), and 2  
26 Implicit Organic Cue (Green vs. Non-Green) between-subject conditions. For the key treatment  
27 variable, Price Promotion, the banner ad included a text “–20%” in the Present condition, while  
28 in the Absent condition, the ad stated the price point as “14.90 €”. This was the real regular price  
29 for the product in question, and the –20% discount was a typical discount percentage in the  
30 online store for the product category in question (oral care products). The reason for only  
31 including the discount percentage (i.e. for not including the discounted price in Euros) in the  
32 Present condition was twofold. First, the online banner ad was relatively small in size, such that  
33 including a longer text (“–20% off original price 14.90€, now 11.92€”) was not practically  
34 feasible, or would have resulted in the font size to be so small that consumers seeing the ad on  
35 their mobile devices would have had difficulties in reading the text. Second, we were concerned  
36 about the fact that such a longer text would have made the price promotion ad to include much  
37 more detailed numeric information (both the price in Euros and the discount percentage, plus the  
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3 discounted price with several decimals) than the regular price ad. This would likely have reduced  
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5 the readability and processing fluency of the price promotion ad considerably.  
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8 When it comes to the other main treatment variable, Explicit Organic Claim, in the  
9  
10 Present condition, the product was described as “Domestic, healing mouthwash – with organic  
11  
12 berries and herbs as effective ingredients. Produced with the energy of the Northern sun.” In the  
13  
14 Absent condition, the text did not include references to organic aspects: “Domestic novelty – The  
15  
16 healing mouthwash contains 0.15% fluoride, which helps to effectively prevent cavities in your  
17  
18 teeth. The unique combination of xylitol and erytritol provides strong additional protection  
19  
20 against caries”. Finally, regarding the third treatment variable Implicit Organic Cue, in the  
21  
22 Present condition, the label of the product bottle depicted in the promotion message had a green  
23  
24 colour, whereas in the Absent condition, the colour was purple. The green colour was chosen due  
25  
26 to its implicit association with organic products, while the purple colour was considered to be  
27  
28 free of such associations or connotations. Moreover, the product manufacturer had earlier used  
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30 the purple colour in its other products’ labels and packages.  
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35 We employed a professional graphic designer and user interface designer to draw the  
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37 layout for the eight ad versions, given the standard, rectangular banner ad frame of the  
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39 advertising platform. The designer invested considerable effort to implementing the text and  
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41 photos of the ad versions in a reader- and user-friendly format.  
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45 The algorithm of the advertising platform assigned one of the eight versions of the ad to  
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47 each unique browser visiting the website of the newspapers and magazines included in the study,  
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49 over three weeks’ time (May 18<sup>th</sup>, 2020 – June 7<sup>th</sup>, 2020).  
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3           *Measures.* As the key dependent variable, we measured the click-through rate (CTR),  
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5 i.e., what proportion of the consumers who were exposed to the ad (in the form of “impressions”)  
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7 in fact clicked the ad. We selected CTR as the focal outcome measure following Orazi and  
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9 Johnson (2020), who assessed the feasibility of different ad effectiveness measures in field  
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11 experiments conducted as split tests on online advertising platforms, such as Facebook. Orazi  
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13 and Johnson (2020) concluded that CTR is superior to other measures (such as amount of clicks  
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15 or cost-per-click), as the CTR is a simple “indicator of effectiveness of one condition over  
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17 another” (p. 194). The overall CTR in our experiment was 0.28%. According to the experts of  
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19 the advertising platform company, this is a typical CTR level for banner ads like the present one.  
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## 26 **Results**

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28           *Validation check for manipulations.* We conducted a validation check experiment for  
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30 the field experiment’s treatment manipulations with a separate sample of consumers. An  
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32 invitation to participate in the validation check experiment was sent by email to a subset (n =  
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34 130) of the customer register of the same product manufacturer whose online ads were tested in  
35  
36 the field experiment. Within a two-week answering time, complete responses were obtained from  
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38 n = 42 customers, with a satisfactory response rate of 32%.  
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42           The participants of the validation check experiment were randomly assigned to the same  
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44 8 (2 X 2 X 2) experimental treatments which were employed in the field experiment. That is, the  
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46 online experiment questionnaire first showed each participant one of the eight versions of the ad.  
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48 On the following pages of the questionnaire, validation check questions about the ad were  
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50 presented to the participants.  
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3 In validating the manipulation of Price Promotion, an ANOVA revealed a significant  
4 main effect ( $F(1, 40) = 9.84, p = .03$ ) by this treatment factor on participants' responses to the  
5 question "Was the price level mentioned in the ad inexpensive or expensive in your opinion?" (1  
6 = "very inexpensive"... 7 = "very expensive"). Specifically, participants seeing the ad with the  
7 price discount percentage viewed that the product was significantly less expensive ( $M_{W/Price\ discount}$   
8 = 3.50,  $SE = .23$ ) than participants who saw the ad that only stated the product's price level  
9 without the price discount percentage ( $M_{W/O\ Price\ discount} = 4.45, SE = .20$ ). Thus, the manipulation  
10 of Price Promotion was effective.  
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22 For the manipulation of Explicit Organic Claim, an ANOVA also revealed a significant  
23 treatment effect ( $F(1, 40) = 18.84, p < .001$ ) on the question "Did the ad verbally state that the  
24 product would be a natural, organic product?" (1 = "didn't state anything about [the product's]  
25 organic nature"... 7 = "emphasized much [the product's] organic nature"). Here, participants  
26 who saw the ad that included the explicit organic claim found the ad to be significantly more  
27 organic ( $M_{W/Expl.\ organic} = 4.92, SE = .37$ ) than participants seeing the ad with functional, non-  
28 organic claims ( $M_{W/O\ Expl.\ organic} = 2.61, SE = .37$ ). This result confirms that the manipulation of  
29 Explicit Organic Claim was also successful.  
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40 Finally, to validate the manipulation of Implicit Organic Cue, we asked the  
41 participants: "What was, in your opinion, the main color of the ad on the previous page?"  
42 ("white," "blue," "green," "lila/purple," or "red"). A full 100% of participants (Std. Res. = 3.0)  
43 who had seen the ad with the green color chose "green" as their answer. Among the participants  
44 who had seen the ad with the non-green, purple coloring, 81% answered "lila/purple" (Std. Res.  
45 = 2.9), while 14% answered "blue" (Std. Res. = 1.2), and only 1% "green" (Std. Res. = -3.0). A  
46 chi square test further indicates that these percentages depended significantly on the treatment  
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3 condition ( $\chi^2 (2, n = 42) = 38.18, p < .001$ ; Cramer's  $V = .953$ ). Thus, the manipulation of  
4  
5 Implicit Organic Cue can also be considered effective.  
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10 *Test of hypotheses.* Figure 2 displays the main results of the field experiment: the  
11 CTR % of ads with vs. without the price promotion, in the presence vs. absence of the explicit  
12 organic claim. To estimate the CTR %, we employed a log linear model, which is analogous to  
13 extending a cross-tabulation analysis from two to four dimensions or categorical variables (three  
14 experimental conditions plus the CTR/click of the ad). In this log linear model, the parameter  
15 estimate for the interaction of Price Promotion and CTR obtained a positive and significant sign  
16 ( $b = .532, SE = .064, Z = 8.30, p < .001$ ). As visible in Figure 2, the CTR was clearly higher for  
17 ads including the price discount ( $CTR_{W/Price\ discount} = 0.34\%$ ) than those that did not contain the  
18 price discount ( $CTR_{W/O\ Price\ discount} = 0.25\%$ ). However, our main focus, in testing whether H1 or  
19 H2 holds, is on the interaction effect of Price Promotion, Explicit Organic Claim, and CTR. In  
20 the log linear model, this interaction effect also obtained a positive and significant sign ( $b =$   
21  $.197, SE = .077, Z = 2.55, p = .01$ ). Specifically, as again visible in Figure 2, the presence of the  
22 price promotion increased the ad's CTR to a greater extent in the presence of the explicit organic  
23 claim ( $CTR_{W/ Expl. organic, W/O\ Price\ discount} = 0.21\%$ ;  $CTR_{W/ Expl. organic, W/ Price\ discount} = 0.35\%$ ) than in  
24 the absence of the explicit organic claim ( $CTR_{W/O\ Expl. organic, W/O\ Price\ discount} = 0.27\%$ ;  $CTR_{W/O\ Expl.$   
25  $organic, W/ Price\ discount} = 0.33\%$ ). This result confirms H1 (and rejects H2): A price promotion of an  
26 FMCG product, with explicit organic claims, has a positive (not negative) effect on consumers'  
27 purchase interest in the product.  
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3 While the main treatment factors of interest in the field experiment were the  
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5 aforementioned Price Promotion and Explicit Organic Claim, we also performed additional  
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7 analyses on the secondary treatment factor, Implicit Organic Cue. Figure A1 in Appendix A  
8  
9 depicts the effects of the Implicit Organic Cue, in the absence of Explicit Organic Claim, while  
10  
11 Figure A2 depicts its effects in the presence of Explicit Organic Claim. In the log linear model,  
12  
13 the interaction of Price Promotion, Implicit Organic Cue, and CTR obtained a positive but only  
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15 marginally significant sign ( $b = .163$ ,  $SE = .093$ ,  $Z = 1.74$ ,  $p = .08$ ), as does the four-way  
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17 interaction including the former three as well as Explicit Organic Claim ( $b = .203$ ,  $SE = .123$ ,  $Z$   
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19  $= 1.65$ ,  $p = .098$ ). The former result suggests that whereas the price promotion increased the ad's  
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21 CTR to a clearly greater extent in the presence of the explicit organic claim than in its absence  
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23 (see the result in the previous paragraph and Figure 2), the same occurred to a certain but lesser  
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25 extent when the ad included an implicit organic cue (i.e. green color). In other words, the price  
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27 promotion increased the ad's CTR somewhat but not substantially more in the presence of the  
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29 implicit organic cue than in its absence.  
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35 Finally, the marginally significant four-way interaction effect implies, on one hand, that  
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37 if both the explicit organic claim and the implicit organic cue were present, then the price  
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39 discount's effect got somewhat reinforced still. On the other hand, if the ad did *not* include either  
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41 the explicit organic claim or the implicit organic cue (Figure A1), then the price promotion had a  
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43 null effect on CTR. This is somewhat surprising considering that in the absence of both the  
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45 explicit organic claim and the implicit cue, a conventional (non-organic) price promotion ad  
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47 could have been, *ex ante*, expected to increase consumer interest in the product. At the same  
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49 time, the results suggest that even when there is no explicit organic claim to make, a mere green  
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51 label in the product may enhance the effectiveness of the price promotion ( $CTR_{W/ \text{Impl. organic, W/}}$   
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3 Price discount, W/O Expl. organic = 0.37%) compared to a non-green label (CTR<sub>W/O Impl. organic, W/ Price discount,</sub>  
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5 W/O Expl. organic = 0.27%). However, being only marginally significant statistically, these results  
6  
7 must be taken with caution—and the main result of the field experiment remains in the non-  
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9 negative, significantly positive moderating effect that the explicitly organic ad claim had on the  
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11 effect of the price discount on the ad's CTR.  
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## 17 **Discussion**

### 21 ***Summary of Results and Theoretical Implications***

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26 Our focal research question was: How do consumers' behaviourally respond to price promotions,  
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28 when combined with explicit organic claims related to a FMCG product? The results of the field  
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30 experiment suggest that including a price promotion in an online ad for a FMCG product (bottled  
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32 mouthwash) increased consumer interest in the product in the form of clickthrough rate (CTR)—  
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34 both when combined with an explicit organic product claim and when combined with an implicit  
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36 cue of green product label. If, in turn, the implicit organic cue was added to an ad which also  
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38 included an explicit organic claim, the effectiveness of the price promotion was further  
39  
40 reinforced. In contrast, interestingly enough, when combined with *neither* the explicit organic  
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42 claim *nor* the implicit green cue, the price promotion did not increase the CTR of the ad. In other  
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44 words, the price promotion appeared to be relatively ineffective when used in a conventional  
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46 manner, in combination with a non-organic claim and a non-green product label.  
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51 Theoretically, these results can be interpreted in light of the findings of the qualitative  
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53 pre-study. The hypothesis H1 suggested that a price promotion of an explicitly organic FMCG  
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3 product has a *positive* effect on consumers' purchase interest in the product. This hypothesis was  
4 based on the findings of the qualitative pre-study, proposing that (P1a) consumers presume that  
5 the price promotion of an organic FMCG product is a periodical promotional action, similar to  
6 the frequent price promotions for conventional products. As such, consumers do not seem to  
7 have substantial suspicions about a price promotion of an organic product, or the motivations of  
8 the manufacturer or retailer offering the price promotion. Instead, consumers just seem to (P1b)  
9 assume that the regular price of the organic FMCG product is so high that its manufacturer and  
10 retailer can well afford the periodic price discount. At the same time, consumers do *not* seem to  
11 (cf. P2a) reason that the price promotion of an organic FMCG product signals its poor quality, or  
12 (cf. P2b) that the product is not selling well and is being made more popular through the price  
13 cut.  
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28 Figure 3 summarizes the above findings of the present empirical research, as well as the  
29 theoretical mechanisms which the found effects can be concluded to support.  
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33 ---- INSERT FIGURE 3 ABOUT HERE ----  
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### 40 ***Contributions to Research***

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44 Overall, the present research contributes to and extends extant research on organic products in  
45 marketing, economics, and nutrition/health sciences by shifting the research focus to price  
46 *promotions and discounts*—rather than focusing on the price *levels* of organic products and  
47 consumers' willingness to pay premium prices for them. Also, a general contribution of our  
48 research is to study the price promotions of organic products in the behavioural setting of a real  
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3 market, through a field experiment, rather than through scanner or sales register data, or lab  
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5 experiment or survey data.  
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8         Regarding specific earlier studies, our results add to marketing research that has found  
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10 price promotions to be effective even for organic products (Bezawada and Pauwels 2013), or for  
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12 analogous products such as ones making pro-social claims (Bang et al. 2021). At the same time,  
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14 the present results contrast with earlier pieces of literature (e.g., Ngobo 2011; Massey, O'Cass,  
15  
16 and Otahal 2018; Troiano, Maragon, Tempesta, and Vecchiato 2016) which have questioned the  
17  
18 effectiveness of price promotions for organic products. Theoretically, the previous studies have  
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20 questioned the effectiveness of price promotions of organic FMCGs by speculating that such  
21  
22 price promotions may signal poor product quality, or a motivation of the retailer to make the  
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24 product more popular through price discounts (Bezawada and Pauwels 2013; Ngobo 2011). In  
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26 revealing a positive effect by price discount on consumer interest in products advertised with  
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28 either an explicit organic claim or an implicit green cue, our results refute those speculations.  
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33 Table 3 summarizes the findings of the present research vis-à-vis these earlier studies.  
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36         Finally, the present research also adds to literature on advertisements which include the  
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38 picture of product packaging (e.g., Reimann, Zaichkowsky, Neuhaus, Bender, and Weber 2010;  
39  
40 Rundh 2016), as well as literature on colours of product packaging or advertisements (e.g.,  
41  
42 Kauppinen-Räsänen 2014; Singh 2006; Spence and Velasco 2018; Underwood 2003).  
43  
44 Especially, the present findings add to research (Gollwitzer and Bragh 1994; Chartrand 2005;  
45  
46 Mueller, Lockshin, and Louviere 2010; Spence 2012; Su, Cui, and Walsh 2019) implying that  
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48 colours (and other design features) in advertising and packaging may have unconscious  
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50 influences on consumer behaviour, even if the colours had little to do with the product features  
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52 themselves, or the explicit advertising claims. In our results, we observed this when the green  
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3 colour of the product label shown in the advertising increased the effectiveness of the price  
4 promotion even in the absence of the explicit organic claim. Nevertheless, another possible  
5 explanation to this result is that the green colour is not only a cue for organic products but also a  
6 cue for economically attractive product pricing<sup>1</sup>. In this sense, the finding would also be in line  
7 with prior research emphasizing the importance of congruence between packaging colours and  
8 explicit marketing cues (Garber et al. 2008; Huang and Lu 2013; Van Ooijen et al. 2017;  
9 Piqueras-Fiszman and Spence 2015; Velasco and Spence 2019).

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19 ----INSERT TABLE 3 ABOUT HERE----

### 20 21 22 23 24 ***Managerial Implications***

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28 For managers of companies and brands that do not yet provide organic product versions in the  
29 market, our results suggest that launching organic versions to the market should not be  
30 hesitated—at least not for a fear that conventional promotional tactics such as price promotions  
31 would not be effective for organic products. Indeed, our results show that price promotions were  
32 consistently effective in increasing consumer interest in the product, when combined with  
33 explicit organic product claims, with implicit cues such as a green product label, or with both.

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42 For non-organic products, which cannot easily be rendered organic or claimed to  
43 include organic features, the present results suggest that managers should still consider utilizing  
44 green colour in advertising and product packaging, especially when engaging in price promotion

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<sup>1</sup> The validation check for the field experiment's manipulations indicated some support for this complementary theorization as well. As a response to question "Is this color [i.e., the main color used in the ad], in your opinion, a color for an inexpensive or expensive product", participants who saw the green-colored viewed that this color signaled a somewhat less expensive product ( $M = 3.48$ ) than participants who saw the purple-colored ad ( $M = 3.86$ ; pair-wise comparison  $t$  value = 1.11; one-sided  $p < .14$ ).

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3 campaigns. This is because our results showed that even in the case of ads for products with no  
4 explicit organic claims whatsoever, a green label in the product pack displayed in the ad  
5 increased the effectiveness of its price promotion. In other words, the click-through rate (CTR)  
6 of a price promotion ad without actual organic product claims was higher when the product label  
7 displayed in the ad was green instead of purple.  
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15 Finally, for companies and brands offering organic products in the market, our results  
16 consistently point out that price promotions can increase consumer interest in the product, even  
17 in the presence of organic product claims or green product labels in the price promotion ad.  
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19 Whether to engage in price promotions for organic products can therefore be largely decided  
20 based on conventional criteria: whether the price promotion increases the product's unit sales  
21 sufficiently, such that the decreased sales margin per unit sold is exceeded. Of course, the  
22 managers also have the option not to use organic product claims or green colour in the ads, even  
23 if the product itself was organic. Nevertheless, in our study, when engaging in price promotions,  
24 using organic product claims or green colour, or both, was always at least equally effective in  
25 terms of CTR, as not using either organic claims or green colour. Only when *not* engaging in  
26 price promotions *and* not using green colour, managers may want to refrain from emphasizing  
27 organic claims: in our results, the ad without price promotion and without green colour but  
28 including explicit organic claims led to a lower consumer interest than a similar ad excluding  
29 organic claims.  
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#### 49 ***Limitations and Avenues for Future Research***

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3 As the main empirical limitation of our research, the dependent variable of our field  
4 experiment was the click-through rate (CTR) of the product ad, and not actual purchase of the  
5 product. Even if Orazi and Johnston (2020) also recommended CTR as the effectiveness measure  
6 (over number of clicks, or cost-per-click) for online ads, future research should aim to gather  
7 complementary data about actual conversion and purchase rates, as well.  
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12 A further theoretical limitation arises from our focus on CTR. Since clicking an online  
13 ad also has to do with information search behaviour (besides being a proxy for purchase interest),  
14 part of the results might be explained by information search related theories, in addition to the  
15 theoretical mechanisms proposed presently (in P1a and P1b, Table 2). Notably, being exposed to  
16 a combination of a price promotion and an organic product cue may elicit some cognitive  
17 dissonance (see Lindsey-Mullikin 2003; Festinger 1957) in consumers, because they are used to  
18 the fact that organic products are relatively expensive, rather than cheap. Thus, when perceiving  
19 the dissonant relationship of organic product information and price discount, some consumers  
20 may have clicked the ad in order to seek further information about the product and its pricing,  
21 hoping that the further information would clarify and explain the initial, dissonant information.  
22 This additional theory might also partly explain why the price promotion did not increase  
23 consumers' CTR in case the ad contained neither the explicit organic claim nor the implicit green  
24 cue. In that case, the consumers were not exposed to dissonant information (because price  
25 promotions for non-organic products are so expectable), and partly for this reason, might not  
26 have been motivated to click the ad in order to seek further information. At any rate, this theory  
27 is likely to be complementary to our theoretical propositions (P1a, P1b), rather than an  
28 alternative or competing theory. Namely, as part of our propositions (P1a), we also suggested  
29 that consumers may be motivated to check for further information, regarding whether some non-  
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3 organic products are also price discounted, when encountering the price promotion offer for an  
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5 organic product.  
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8 Yet another limitation of our data is that even if we studied the effect of the explicit  
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10 organic claims in the ads, we cannot be sure that all the consumers still noticed, or carefully read,  
11  
12 the claim texts. Thus, for some participants, the found effects might also have been partly elicited  
13  
14 by the length of the text, for instance, rather than by the organic vs. non-organic content of the  
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16 text only. Nevertheless, what increases our confidence in our main result—that price promotion  
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18 increases rather than decreases consumers' purchase interest for organic FMCGs—is the fact that  
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20 this effect was observed in the presence of both explicit organic claims and implicit green cues.  
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**Table 1.** Pre-Study Analysis: Vignettes (Raw Data) and Conceptualized Experiences (Data Interpretation) on Consumers' Behavioural Responses to Price Promotions of Organic FMCGs in Drugstores

<i>Vignette</i>	<i>Summarized/Conceptualized Experiences</i>	
	<i>Positive influences (by organic products' price promotions)</i>	<i>Negative influences (by organic products' price promotions)</i>
<p>#1 Christian enters the online drugstore through his web browser. He enters the section for sunscreen lotions. The list is long, and many of the sunscreen products are on discount. He notes that a few of the products on the list are marked organic. They have a discount as well. Christian thinks that the discount on the organic products is surprising, as they are normally quite expensive. But then he realizes that probably most sunscreen products are actually discounted this time of the year, in Autumn, whether they are organic or not. Thus, Christian decides to purchase one of the organic products, thinking that he has found a good deal, because the organic sunscreen lotions are rarely discounted.</p>	<p>Particular organic products are periodically discounted just like other non-organic products in the particular context  → Desire for more information (e.g., checking whether non-organic products are discounted as well)  → Increased willingness to purchase (to make savings)</p>	
<p>#2 Sandra browses the toothpaste products in an online drugstore. She filters the list of products down, with the filtering criterion 'organic'. A list of organic toothpastes appears. Next, Sandra notices that all the organic toothpaste products of one brand, which she is unfamiliar with, are price-discounted. Sandra starts to wonder why this is the case. She comes to the conclusion that probably that brand is not selling very well, and is not very popular, in the online store, and that's why the products of that brand have been discounted. Therefore, Sandra decides to purchase one of the organic toothpaste products that do not have the discount.</p>		<p>Particular organic products are discounted because they are not selling well, and not very popular.  → Decreased willingness to buy (to avoid buying unpopular products)</p>
<p>#3 Maria enjoys browsing the catalogue of organic facial soaps in her favorite drugstore at the local shopping mall. Honey, Lavendel, Chamomille..., all lovely ingredients, and most of the products are completely free of paraben. Suddenly, she notices that some of the organic soaps are sold with substantial price discounts. What is this? The discounted products are new products, unfamiliar to Maria, even if she is familiar with the brand behind the products. Maria gets a bit suspicious. Why are these organic products having a price discount...? Could the reason be that the brand</p>		<p>Particular organic products are discounted because their quality may not be good.  → Decreased willingness to buy (to avoid buying products of not-so-good quality)</p>

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4 has reduced the quality level of these new  
5 products a bit, in order to cut costs and achieve a  
6 lower price point...? Maria gets concerned.  
7 Eventually she decides to select soaps without  
8 discounts, in order to stay on safe side with her  
9 shopping.

10  
11 #4 Matias notices that the signs outside his favorite  
12 pharmacy in the shopping street are promising  
13 outstanding price discounts for a new line of  
14 organic oral care products. Matias has been  
15 interested in organic oral care products in general  
16 for a while already, but because they are usually  
17 priced quite high, he has not yet ever purchased  
18 such products. Now as the store is offering –25%  
19 discount on this new product line, Matias decides  
20 to go into the store to find out more about the  
21 products, as well as about their regular price level.  
22 Inside the store, he learns that the price discount is  
23 temporary, and that the campaign is only there for  
24 one week. Matias still wonders why the drugstore  
25 is offering a price discount for this new organic  
26 product line, even if they could probably very  
27 well sell the product with the full price, too.  
28 However, he then reasons that even after the  
29 discount, the price remains relatively high, such  
30 that the drugstore probably makes reasonable  
31 profits even when discounting the products with a  
32 –25% discount.  
33

Particular organic products  
are discounted because their  
regular price is so high that  
the store makes profit even  
with discounted price  
→ Desire for more  
information (e.g., checking  
the regular price)  
→ Increased willingness to  
buy (to make savings, vs.  
regular price)

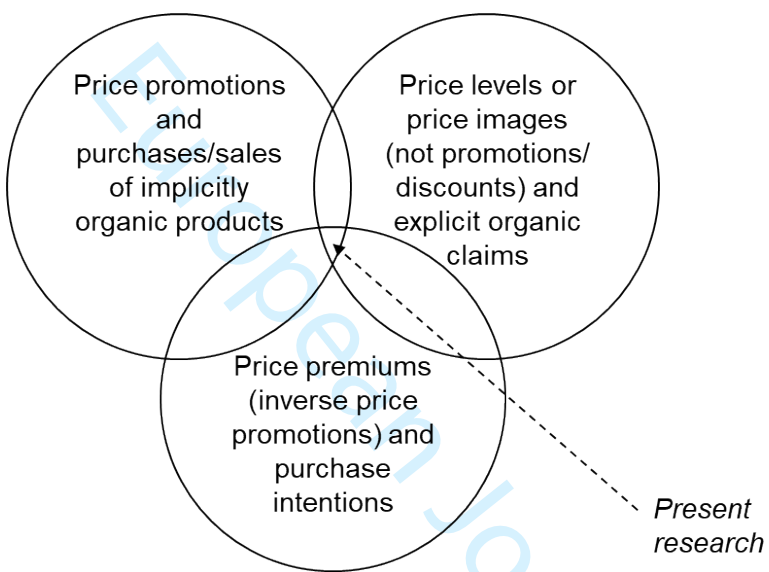
**Table 2.** Inductive Propositions Based on Pre-Study and Hypotheses for Field Experiment

<i>Positive or Negative Effect (implied by introspective vignettes)</i>	<i>Proposition on Psychology of Price Promotion of Organic Products</i>	<i>Hypothesis on Behavioural Effect of Price Promotion of Organic Products</i>
Positive	<p><b>P1a:</b> Consumers presume that the price promotion of an organic FMCG product is a periodical promotion action, similar to the frequent price promotions for conventional products.</p> <p><b>P1b:</b> Consumers do not doubt the motivations of the retailer/manufacturer, as they assume that the regular price of the organic FMCG product is so high that the retailer/manufacturer can well afford the periodic price discount.</p>	<p><b>H1:</b> A price promotion of an explicitly organic FMCG product has a <i>positive</i> effect on consumers' purchase interest in the product.</p>
Negative	<p><b>P2a:</b> Consumers presume that the price promotion of an organic FMCG product, which tend to be premium-priced, is a signal of poor quality of the particular product.</p> <p><b>P2b:</b> Consumers presume that an organic FMCG is being price-promoted, because it might not be selling well otherwise, and the retailer attempts to make it more popular by cutting the price.</p>	<p><b>H2:</b> A price promotion of an explicitly organic FMCG product has a <i>negative</i> effect on consumers' purchase interest in the product.</p>

**Table 3.** Present Research vis-à-vis Earlier Literature on Price Promotions of Organic Products

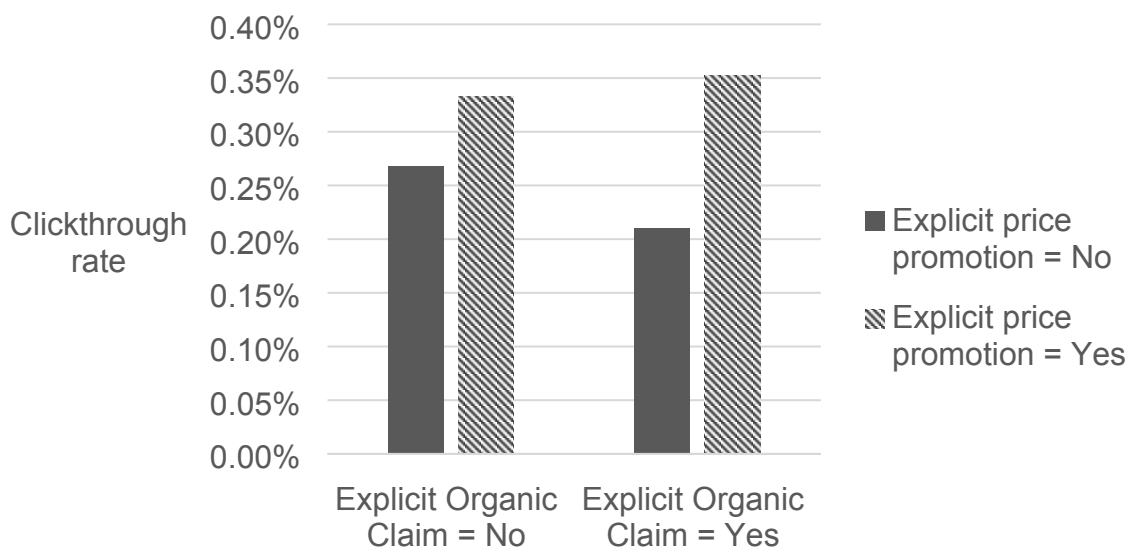
<i>Study</i>	<i>Data</i>	<i>Theoretical anticipation regarding the effect of price promotions</i>	<i>Empirical finding regarding the effect of price promotions</i>
Van Doorn and Verhoef (2015)	Household purchase/ scanner data	Negative (In product categories wherein price promotions are frequent for ordinary products <i>and</i> organic products, consumers select organic products less often)	Negative (same as left)
Bezawada and Pauwels (2013)	In-store sales register data	Positive or negative	Positive (Price promotion breadth and depth had positive effects on purchases of organic products, and greater than for conventional, non-organic products)
Ngobo (2011)	Household purchase/ scanner data	Negative	Negative (Feature and display advertising/promotions, which often announce price discounts, had negative effects on organic brand choice and purchase quantity)
Massey, O’Cass and Otahal (2018)	Meta-analysis of studies on perceptions and purchases of organic products	Positive (negative for price premiums)	Negative (When consumers perceived organic products to be cheaper, their purchase intentions decrease)
Troiano, Marangon, Tempesta, and Vecchiato (2016)	Survey/choice experiment	Positive (negative for higher price in choice experiment)	Negative (The higher the price, the more likely consumers were to choose the organic wine in a choice experiment)
<i>Present research</i>	Researcher-introspection pre-study; Field experiment (split test) on online ad	Positive or negative	Positive

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**Figure 1.** Positioning of Present Research in the Intersection of Extant Literature Streams





**Figure 2.** Field Experiment Results: Clickthrough Rate of Ads With vs. Without Price Promotion—With vs. Without Explicit Organic Claim

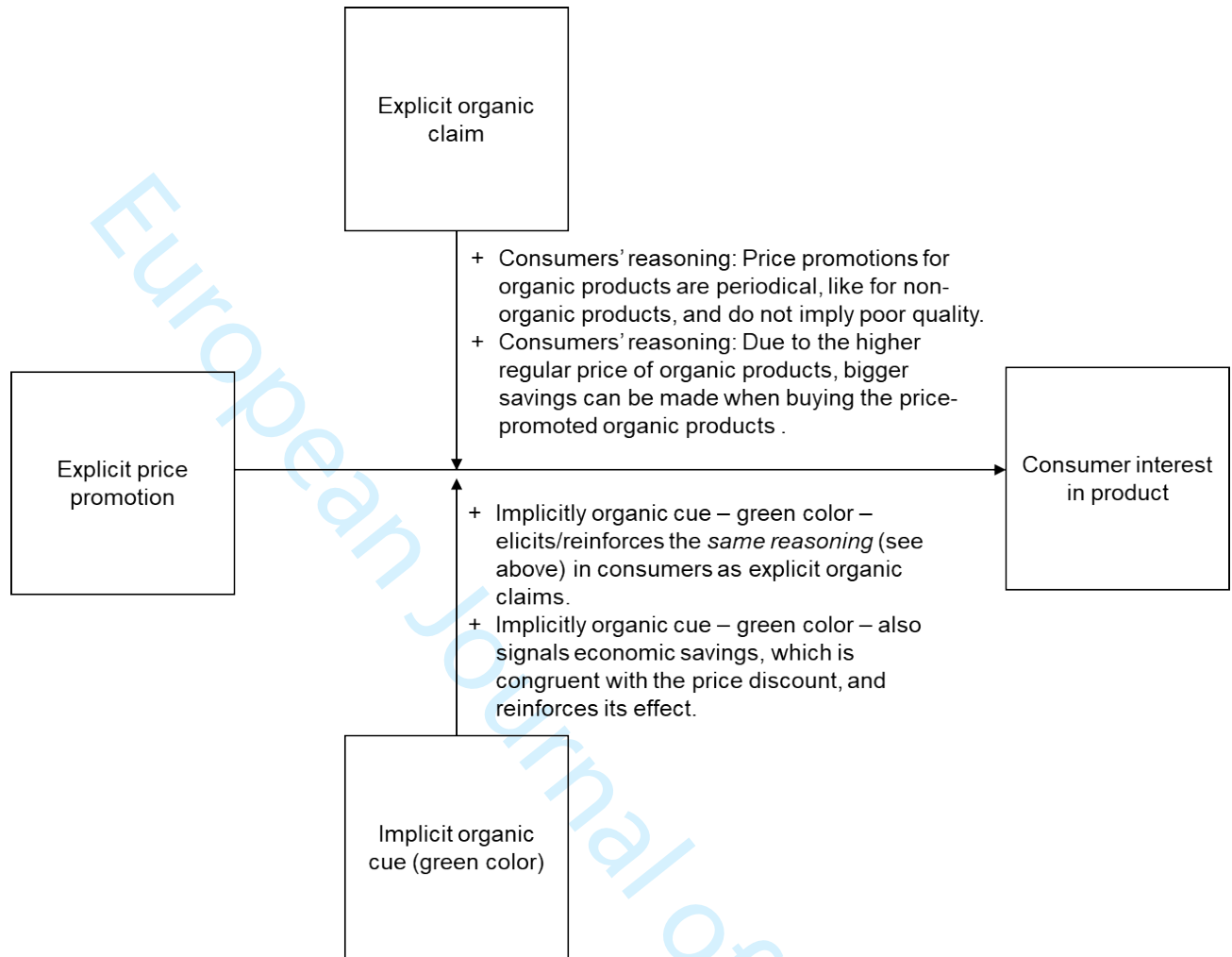
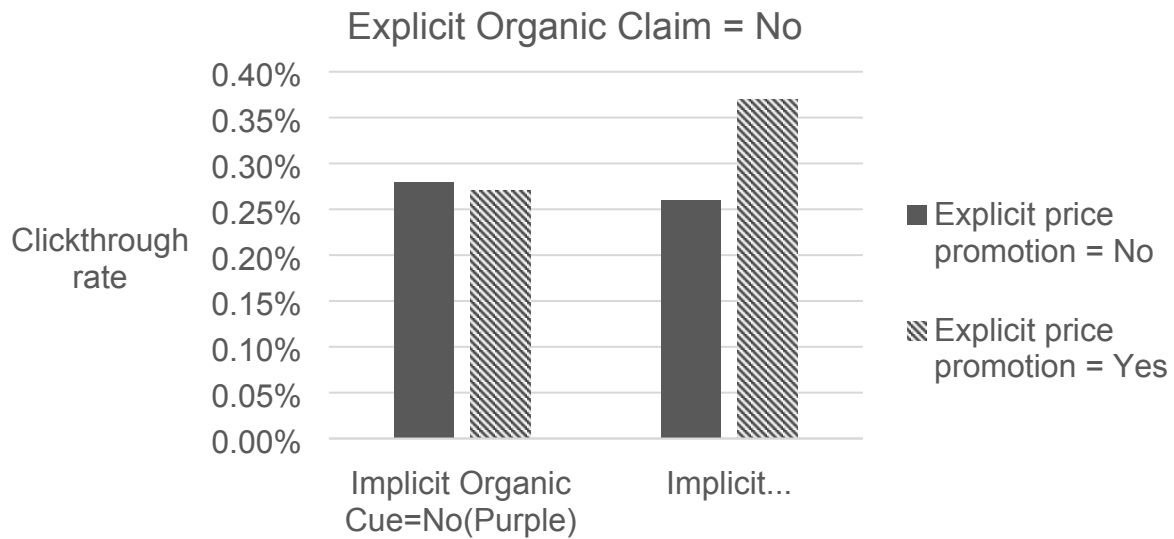
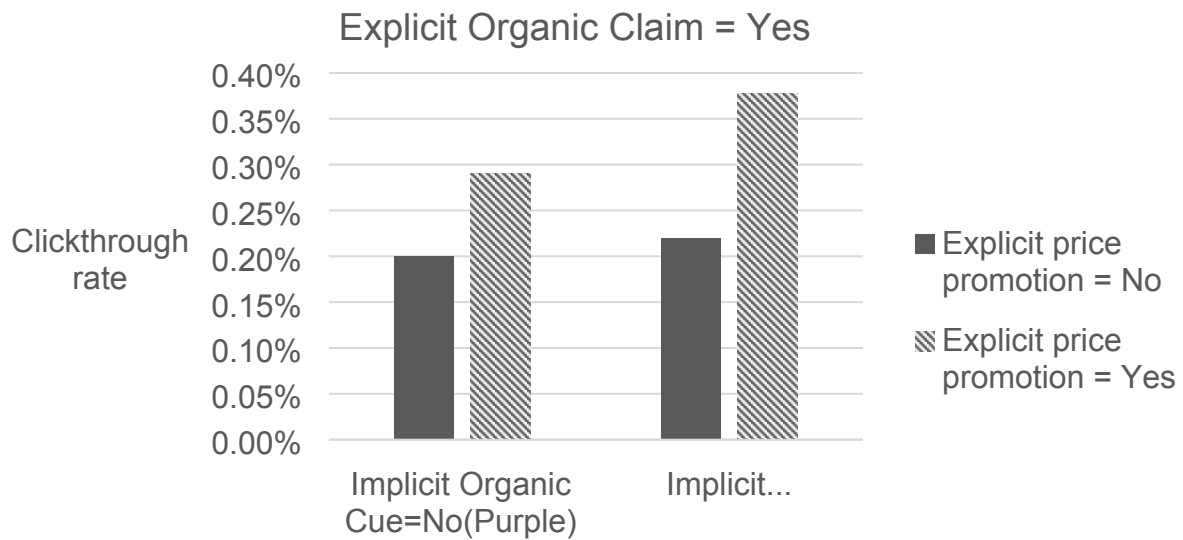


Figure 3. Summary of empirical effects found and theoretical mechanisms supported

## APPENDIX A



**Figure A1.** Field Experiment Results: Clickthrough Rate of Ads *without* Explicit Organic Claims



**Figure A2.** Field Experiment Results: Clickthrough Rate of Ads *with* Explicit Organic Claims