

**ORGANIC AND HEALTHY: ASSESSING THE IMPACT OF CLAIMS AND
THIRD-PARTY CERTIFICATIONS ON PREMIUM PRICE**

Isabella Maggioni*

Department of Marketing

ESCP Europe

Corso Unione Sovietica, 218 bis

10134 Torino, Italy

Luigi Orsi

Dipartimento di Scienze e Politiche Ambientali

Università degli Studi di Milano

Via Celoria, 2

20133 Milano, Italy

Luca Zanderighi

Department of Economics, Management and Quantitative Methods

Università degli Studi di Milano

Via Conservatorio, 7

20122 Milano, Italy

Fabrizio Zerbini

Department of Marketing

ESCP Europe

79 Avenue de la République

75011 Paris, France

Conference track: Consumer Behaviour

*corresponding author

ORGANIC AND HEALTHY: ASSESSING THE IMPACT OF CLAIMS AND THIRD-PARTY CERTIFICATIONS ON PREMIUM PRICE

Abstract

Organic food consumption is steadily growing across a variety of product categories. While consumers are increasingly focused on the healthiness of the food they purchase, companies are experimenting alternative ways to communicate and guarantee the organic and health-related benefits of their products. This study explores the effect of different combinations of front-of-package (FoP) components on premium price. Specifically, we focus on the interaction and visual salience of FoP organic claims, health-related claims, and third-party organic certifications. Based on an analysis of grocery sales data and product packaging visuals, the study identifies FoP component combinations that could maximise premiums. We offer insights to marketing managers and companies involved in enhancing the communication of organic food benefits to consumers.

Introduction

The organic food market is rapidly growing fuelled by an increasing consumer interest in how food is produced and processed. While consumers are constantly looking for healthier and less processed food, companies are experimenting new ways to communicate such attributes and features. Tapping into this opportunity, food manufacturers have introduced front-of-packaging (FoP) labels and claims to promote the organic and health-related attributes of their products. Companies' efforts in communicating natural and organic product qualities are supported by regulators' and third-party agencies' certifications that aim to assure quality and prevent the misuse of organic claims and labels. The inclusion of FoP claims and certifications to promote the organic, natural and healthy qualities of food products is a common practice in the FMCG industry. However, there is limited research exploring the role of different FoP claims and certifications on consumer purchase choices and willingness to pay.

The ubiquitous presence of organic and health-related claims combined with third-party certifications on the front of food packages makes it difficult for many brands to break the clutter from a design perspective (Berry et al., 2017) and could at the same time overwhelm consumers with potentially unnecessary information. Although attention is commonly referred to as a catalyst for further information processing and decision making (Bialkova et al., 2014), companies should be cautious when designing packages primarily aiming at attracting consumers' attention. This could indeed backfire by encouraging consumers' scepticism towards food labels (Bialkova et al., 2016).

Given the theoretical relevance and managerial importance of this issue, the purpose of this study is to examine: (1) how FoP organic and health-related claims influence consumers' willingness to pay and (2) how third-party organic certifications could potentially moderate the direct influence of those claims on premium price.

Background

Organic and Health-related claims

A successful FoP label policy focused on organic and health-related attributes enhances well-informed food choices and attracts consumers' attention, while determining product choice (Bialkova et al., 2014). Health-related claims have been found to positively affect the perceptions of customers (Andrews et al., 2012; Bialkova et al., 2016). However, such attributes have also been found to be often ignored or attract limited attention when shopping for grocery products (Grunert et al., 2010). A series of empirical studies suggest that FoP health and nutrition-related claims are associated with an increased consumer demand and firm financial performance (Cao & Yan, 2016), as well as having positive effects on product evaluations and purchase intentions (Balasubramanian & Cole, 2002; Chandon & Wansink, 2007). Organic claims have been conceptualised as a specific type of process claim which defines how a given food is produced and processed (Chrysochou & Grunert, 2014). Such claims have been shown to influence consumers' perceived product healthfulness and affect purchase intentions (Bauer et al., 2012; Chrysochou & Grunert, 2014), leading to a preferences for natural food, which are believed to be healthier than conventional food (Rozin, 2005). Berry et al. (2017) explores the role of both organic and health-related claims on inferred product attributes and purchase intentions, revealing that consumers' inferences about the organic nature of a product have the strongest indirect effect on such outcomes.

Based on past research, we suggest that more visually salient FoP claims related to the organic nature and the healthiness of food products result in positive consumer and company-related outcomes. These include an increased willingness to pay as a result of an effective and efficient communication of the product key benefits, which in turn leads to a greater premium price.

H1: A more visually salient FoP (a) organic claim; (b) health-related claim have a positive impact on premium price.

The role of third-party organic certifications

The attribute organic has been the focus of several regulations in the European Union. The EU Organic Certification aims at guaranteeing food quality, animal welfare and environmental protection along the supply chain and is granted when agricultural systems, farm management and food production combine the best environmental practices, a high level of biodiversity, the preservation of natural resources, and the application of high animal welfare standards (834/2007/EC).

Being classified as credence good, organic food may be particularly susceptible to scepticism and lack of trust among consumers who cannot directly verify the actual organic nature of a product (Gerrard et al. 2013). Certifications issued by a regulator body or an independent third-party could be a means of overcoming such scepticism. However, research has shown that the presence of a third-party certification does not necessarily result in greater consumer trust (Eden et al., 2008). Moreover, consumers

feel confused about the increasing number and conflicting messages concerning healthy eating (Pettinger et al., 2004) and are generally unaware of how the food industry is regulated (Gerrard et al., 2013). At the same time, they also appear willing to pay a premium for the additional assurance that these certifications provide, suggesting that, when recognised, certification logos are valued (Gerrard et al. 2013).

While claims tend to have a positive effect on product inferences and purchase behaviour, third-party organic certifications could alter this effect when presented on the front of packaging and either persuade consumers or raise questions about the claim's objectivity and truthfulness (Kozup et al., 2003; Berry et al, 2017). Based on this argumentation, the presence and visual salience of a FoP third-party organic certification should moderate the effect of organic and health-related claims on premium price. Therefore, we propose that:

H2: The presence of a FoP third-party certification moderates the effects of the visual salience of (a) an organic claim, and (b) a health-related claim. Specifically, the presence of a FoP third-party certification will reduce the effects of (a) organic claim, and (b) health-related claim visual salience on premium price.

H3: The size of a FoP third-party certification moderates the effects of the visual salience of (a) an organic claim, and (b) a health-related claim. Specifically, the size of a FoP third-party certification will reduce the effects of (a) organic claim, and (b) health-related claim visual salience on premium price.

Methodology

A sample of 2583 grocery products was extracted from a nationwide database of product labels and packaging visuals and combined with sales data sourced through a leading market research agency. The sample covered 22 grocery product categories. Product visuals were coded to identify the presence and size of (1) a third-party organic certification, (2) an organic claim (e.g. 100% natural, organic, all natural, etc.), (3) a health-related claim (e.g. high in fibre, low sugar, fat free). The dependent variable *Premium price* was computed based on unit prices and adopting the following approach:

$$(1) \quad \text{Unit price} = \frac{\text{Value Sales}/\text{Unit Sales}}{\text{Product size (ml, gr)}}$$

$$(2) \quad \text{Premium Price} = \text{Unit price} - \text{AVG unit price}_{\text{category}}$$

Analysis were conducting using multiple linear regression and Hayes' PROCESS Macro (Model 3) to test interaction effects (Hayes, 2017).

Results

We assessed the impact of organic claim and health-related claim visual salience on premium price through a multiple linear regression model. Both organic claim size ($\beta=0.053$, $\rho<0.05$) and health-related claim size ($\beta=0.053$, $\rho<0.05$) show a statistically significant and positive effect on premium price, leading to accept H1a and H1b.

To analyse the interaction effects of organic claim and health-related claim visual salience with a FoP third-party organic certification, we conducted a moderated moderation analysis using PROCESS Model 3 with a 5,000 sample bootstrapping (Hayes, 2017). Both models are significant ($F_{\text{FoPCert}}(8, 2574) = 11.53$; $F_{\text{FoPSize}}(8, 2574) = 16.71$). The two-way interaction between organic claim visual salience and presence of FoP third-party organic certification is negative and statistically significant ($\beta = -0.9966$; $t = -2.2881$; $p < 0.05$), while the interaction between health-related claim visual salience and presence of FoP third-party organic certification is statistically non-significant. This leads to accept H2a and reject H2b. The interaction effect of organic claim visual salience and FoP third-party organic certification size on premium price is also negative and statistically significant ($\beta = -187.9703$; $t = -6.7346$; $p < 0.001$), while the interaction between health-related claim visual salience and FoP third-party organic certification size is statistically non-significant. Thus, we accept H3a and reject H3b.

The analyses also highlight a statistically significant three-way interaction effect among organic claim, health-related claim visual salience and FoP third-party organic certification size. Specifically, more visually salient organic claims and health-related claims combined with a small-sized FoP third-party organic certification result in a higher average premium price. The combination of a highly visually salient organic claim, a less visually salient health-related claim and a FoP third-party organic certification results in the second-highest average premium price.

Conclusions and managerial implications

This study's findings provide insight into the effects of the visual salience of FoP components associated with natural and organic grocery products. We tested the impact of the visual salience of organic claims, health-related claims, and third-party organic certifications on premium price, which was adopted as a proxy of consumers' willingness to pay. The results suggest that an equilibrium among these FoP packaging components is required to generate a higher premium price. Generally, a higher visual salience of organic claims and health-related claims results in greater premiums. However, when these claims are combined with a FoP third-party organic certification their effect on premium price varies. Specifically, when there is a FoP third-party organic certification, the more salient an organic claim is, the lower the premium price becomes. Moreover, the more salient both organic claim and a FoP third-party organic certification are, the lower the premium price becomes. We also identify some conditions in which premium price is maximised; This occurs when combining highly visually salient organic claims and health-related claims with a small-sized FoP third-party organic certification. These findings assist managers and companies with optimising the communication of organic and natural attributes through product packaging and to balance the asymmetry in communicating natural, organic and health-related messages to consumers.

Acknowledgements

The authors thank GS1 Italy, Nielsen and Osservatorio Immagino for promoting and supporting this research project.

References

- Andrews, J. C., Burton, S., Kees, J. (2012). Is simpler always better? Consumer evaluations of front of-package nutrition symbols. *Journal of Public Policy and Marketing*, 30(2), 175-190.
- Balasubramanian, S. K., & Cole, C. (2002). Consumers' search and use of nutrition information: the challenge and promise of the nutrition labeling and education act. *Journal of Marketing*, 66(3), 112-127.
- Bauer, H. H., Heinrich, D., & Schäfer, D. B. (2012). The effects of organic labels on global, local, and private brands: more hype than substance? *Journal of Business Research*, 66(8), 1035-1043.
- Berry, C., Burton, S., Howlett, E. (2017). It's only natural: the mediating impact of consumers' attribute inferences on the relationships between product claims, perceived product healthfulness, and purchase intentions. *Journal of the Academy of Marketing Science*, 45(5), 698-719.
- Bialkova, S., Grunert, K., Juhl, H. J., Wasowicz-Kirylo, G., Stysko-Kunkowska, M., van Trijp, H. (2014). Attention mediates the effect of nutrition label information on consumer's choice: evidence from a choice experiment involving eye-tracking. *Appetite*, 76, 66-75.
- Bialkova, S., Sasse, L., Fenko, A. (2016). The role of nutrition labels and advertising claims in altering consumers' evaluation and choice. *Appetite*, 96, 38-46.
- Cao, Z., & Yan, R. (2016). Health creates wealth? The use of nutrition claims and firm performance. *Journal of Public Policy & Marketing*, 35(1), 58-75.
- Chandon, P., & Wansink, B. (2007). The biasing health halos of fast-food restaurant health claims: lower calorie estimates and higher side dish consumption intentions. *Journal of Consumer Research*, 34, 301-314.
- Chrysochou, P., & Grunert, K. G. (2014). Health-related ad information and health motivation effects on product evaluations. *Journal of Business Research*, 67(6), 1209-1217.
- Eden, S., Bear, C. and Walker, G. (2008). The sceptical consumer? Exploring views about food assurance, *Food Policy*, 33, 624-630.
- Gerrard, C., Janssen, M., Smith, L., Hamm, U., Padel, S. (2013). UK consumer reactions to organic certification logos, *British Food Journal*, 115(5), 727 - 742
- Grunert, K. G., Wills, J. M., Fernandez-Celemin, L. (2010). Nutrition knowledge, and use and understanding of nutrition information on food labels among consumers in the UK. *Appetite*, 55, 177-189.
- Hayes, A.F. (2017). *Introduction to Mediation, Moderation, and Conditional Process* (2nd Edition). New York: Guilford Press
- Kozup, J. C., Creyer, E. H., & Burton, S. (2003). Making healthful food choices: the influence of health claims and nutrition information on consumers' evaluations of packaged food products and restaurant menu items. *Journal of Marketing*, 67(2), 19-34.
- Pettinger, C., Holdsworth, C. and Gerber, M. (2004). Psycho-social influences on food choice in Southern France and Central England, *Appetite*, 42, 307-316.
- Rozin, P. (2005). The meaning of "natural": process more important than content. *Psychological Science*, 16(8), 652-658.