

## Experiencing food by visiting its production site

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### Abstract

In the last decade, the key role played by the customer experience in marketing led many agri-food producers to open their production sites to customers and tourists. To date, the literature has mainly focused its attention on food products as a determinant of a destination image while the role of visits to the production site was neglected, apart from the literature on wine. Through a survey employing a structured questionnaire administered to a sample of tourists visiting the production site (a dairy) of one of the most famous Italian cheeses (Parmigiano Reggiano), customer satisfaction and engagement are verified as direct drivers of the intention to buy the food product, while learning is considered as a moderator of the relationship between customer engagement and purchase intentions. Results show the strong positive impact of customer satisfaction with the visit to the food production site on the purchase intention of the dairy's visitors and assess the direct as well as moderating role of the learning process determined by the visit on the engagement-intention to buy relationship. Marketing implication for producers are derived.

Key Words: customer experience, visits to food production sites, learning, survey

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5 Although the study is the result of the joint work of the authors, it can be analytically attributed to each of them in the following way: Elisa Martinelli authored section 2, 4 & 5; Francesca De Canio developed section 3 & 4; Margherita Peruzzini gave a substantial contribution to section 1; Sara Cavalloro devised the last section 6.

## **1. Introduction and Objectives**

Food products are traditionally considered experience goods (Nelson, 1970) because their quality can hardly be evaluated before consumption, as some attributes require to get a taste of them (e.g., flavours, tenderness, and juiciness). But some literature classified them also as credence products (Darby and Karni, 1973) because some product attributes cannot be accurately evaluated even after consumption. Credence attributes are features of the product that cannot be detected by visual inspection or consumption, but rather consist of seller claims about the product. For food products, these claims are often linked to the production process (e.g., GM-free, organically grown, local) and requires trust from consumers. These characteristics underpin the need for producers to explain their food products and to educate people on the complex and, sometimes, long production process that they must require. One marketing tool increasingly employed to reach these goals are the visits arranged by producers in their plants in order to let consumers experience their food production processes.

The stronger link between food and tourism is well acknowledged in the tourism literature. Consumers are increasingly choosing travel destinations linked to food. In fact, food tourism is becoming a core element in the definition of the destination image (Henderson, 2009). Actually, food products can be a good driver to improve the destination image and attract travellers that want to experience at 360 degrees the smells and tastes of their favoured food products (Henderson, 2009). Looking at the pre-pandemic situation, Tripadvisor recorded a very significant growth in bookings for food & wine tours in 2019 (e.g., +779% distillery tours; +195% chocolate tours; +67% wine tours – data retrieved from Rapporto sul Turismo Enogastronomico Italiano, 2020). The report shows also that tour operators are improving their “food & wine tour” offer to encounter the growing demand (e.g., +83% visits to winery; +70% visits to dairies; +67% visits to agri-food companies - Rapporto sul Turismo Enogastronomico Italiano, 2020). Thus, food products can become a source for destination attraction as customers want to directly experience products’ originality, locality, authenticity, uniqueness (Björk and Kauppinen-Räsänen, 2016). However, current literature is mainly focused on investigating food products as destination attractors, while the literature on the role of the visit to food production sites is very limited, apart from wineries (eg. Kim and Bonn, 2016; Park et al., 2019). To fill this gap, the current work aims at investigating the effect of some determinants of customer experience on consumer proneness to buy a food product when a food production site is involved.

Actually, allowing consumers to test and directly experience a place and a product, physical tours to the food production sites can provide useful information and engaging experiences able to influence customers’ purchasing choices. Our research question is as follows: visiting a food production site can impact consumers’ proneness to buy its products? Through a survey employing a structured questionnaire administered to a sample of tourists visiting the production site (a dairy) of one of the most famous Italian cheeses (Parmigiano Reggiano), customer satisfaction, engagement and learning are verified as direct drivers of the intention to buy the food product, while learning is also considered as a moderator in the customer engagement -purchase intention relationship.

## **2. Research Model**

Intention to buy (INTB) is a crucial indicator for assessing consumer behaviour since it can measure the likelihood of a consumer to purchase a product. Our research model considers INTB as the dependent variable.

Customer satisfaction (CSAT) is the result of confirmation of expectations during the customer experience. Extant literature proved the direct effect of CSAT on consumer

proneness to buy a product/service, also when a food is involved. The practice of many Parmigiano Reggiano producers that after the 2012 Emilia earthquake let consumers to visit their dairies and directly experience the product in the place where it is produced led to an increase in satisfaction, product knowledge and sales (Menozzi et al., 2019).

Consumer engagement is defined as “a psychological state that occurs by virtue of interactive, co-creative customer experiences with a focal agent/object (e.g., a brand)” (Brodie et al., 2011) and has received substantial consideration from marketing experts: bonds between a seller and a buyer can be easily formed through consumer engagement.

Food education has become one of the central motives of food policy in recent years, all over the world. Authorities, including government officials, public health specialists, nutritional scientists, and food activists, push citizens to “eat right”, and to gain the necessary knowledge and skills about food. Into this perspective, the role played by visiting a food production site and being acknowledged about the quality of the raw materials and the activities performed in order to get a food product like the Parmigiano Reggiano (PR) cheese (550 litres of milk to produce a wheel of PR and at least 12 months of seasoning, but the cheese can mature till 60 months) are crucial to communicate the right value of this food product. Therefore, arranging tours to the production site can show great educational and informative power and increase the intention of visitors to buy the cheese. But learning can moderate engagement.

Our hypotheses are as follows:

*H1: Customer satisfaction with the tour to the food production site positively impacts the intention to buy its product.*

*H2: Engagement with the tour to the food production site positively impacts the intention to buy its product.*

*H3: Learning through the tour to the food production site positively impacts the intention to buy its product.*

*H4: Learning through the tour to the food production site exerts a moderating role on engagement.*

### 3. Method

To investigate consumer experience with the physical tour of the Parmigiano Reggiano dairy, a survey was developed on a Google Module. A structured questionnaire was settled to test the experience of visiting the Parmigiano Reggiano dairy and its efficacy in influencing customers' buying intention. Two PC workstations were then inserted in the Parmigiano Reggiano dairy. Since August 2021, visitors to the dairy were asked to fill out the questionnaire at the end of their visit, on a voluntary basis. At the end of August 2021, 148 completed and valid questionnaires were collected.

#### 3.1 The sample

The sample consists of people with a minimum level of knowledge of the Parmigiano Reggiano product. Almost 60% of the respondents who physically visited the dairy consumes PR a couple of times a week. For the physical tour (PT), consumers were involved after the tour through the different stages of the production process. The physical tour sample is mainly represented by males (53.4%) (Table 1) and shows a good presence of young respondents (cluster: 25 – 35 equals to 46.6% of the sample).

**Table 1.** Socio-demographic characteristics of the sample

Measure	Physical Tour	
	n (N= 148)	%

Gender	Male	79	53.4%
	Female	69	46.6%
Age	< 25	10	6.9%
	25-35	69	46.6%
	36-50	52	35.1%
	51-65	15	10.1%
	> 65	2	1.4%
How often do you consume the Parmigiano Reggiano cheese?	Everyday	26	17.6%
	Usually (1-2 times /week)	61	41.2%
	Sometimes (2-3 times/month)	47	31.8%
	Rarely (a few times/year)	13	8.8%
	Never	1	0.7%
How many times have you visited a Parmigiano Reggiano dairy?	1/first time	136	91.9%
	2 times	7	4.7%
	3 times	3	2.0%
	4 times	1	0.7%
	5 times or more	1	0.7%

### 3.2 Measures

Measures used in the structured questionnaire were derived from extant literature on consumer experience and behaviour. Measures, presented in Table 2, were pre-tested on a small sample of 10 respondents each, to verify the readability and understanding of items. A 5-point Likert scale was used to anchor measure by “strongly disagree – 1” to “strongly agree – 5”. To reduce response bias, the order of measurement items was shuffled (Danaher and Haddrell, 1996). Measures are reported in Table 2.

Three items were used to measure the Intention to buy Parmigiano Reggiano, adapting items from the previous studies of De Canio et al. (2021a), Papagiannidis et al. (2013), Fiore et al. (2005). The study of Jung et al. (2015) was used to measure Customer Satisfaction (4 items). The Learning scale (4 items) was adapted from Lee et al. (2020), tom Dieck et al. (2018) and Jung et al. (2016). Engagement (2 items) was adapted by the recent study of De Canio et al. (2021b).

**Table 2.** Measures. Items loading and reliability

Measures	Mean	Standard Deviation	CA
<b><i>Intention to buy Parmigiano Reggiano (INTB)</i></b>			<b>0.806</b>
<i>(Adapted from De Canio et al., 2021a; Papagiannidis et al., 2013; Fiore et al., 2005)</i>			
I will be buying Parmigiano Reggiano in my next purchase	4.46	0.838	
I intend to buy Parmigiano Reggiano cheese in the future	4.64	0.719	
Next time I go shopping, I'll buy Parmigiano Reggiano	4.46	0.842	
<b><i>Customer Satisfaction (CSAT)</i></b>			<b>0.916</b>
<i>(adapted from Jung et al., 2015)</i>			
I am satisfied with the tour	4.43	0.908	
The tour met my expectations	4.39	0.904	
I am pleased to have been on the tour	4.41	0.944	
I am satisfied with the contents offered by the tour experience	4.40	0.913	
<b><i>Engagement (ENG)</i></b>			<b>0.688</b>
<i>(adapted from De Canio et al., 2021b)</i>			
The tour offers a rewarding experience	4.52	0.733	
The tour was engaging	4.55	0.731	

### Learning (LEARN)

0.865

(adapted from Lee et al., 2020; tom Dieck et al., 2018; Jung et al., 2016 )

I learned something new about Parmigiano Reggiano during the tour	4.39	0.957
Thanks to the tour I know the Parmigiano Reggiano more	4.39	0.952
The tour facilitates a good learning experience on Parmigiano Reggiano production phases	4.33	0.928
The tour allows to learn more about the Parmigiano Reggiano	4.45	0.878

Notes: CA= Cronbach's alpha

The Cronbach's alphas were used to estimate reliability of constructs (Bonnet and Wright, 2015). All values evidence a good reliability of measures used in the empirical analysis, being alphas close to 0.7 or above.

## 4. Findings

The statistical software IBM SPSS 27.0 was used for the empirical analysis. After the descriptive analysis of data (means, standard deviation and Cronbach's alpha) presented in table 2, a regression analysis was performed, considering Learning as a moderator of Engagement. Results evidence an acceptable model fit (Table 3).

**Table 3:** Linear regression analysis

Models	Non-standardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
(Constant)	.529	8.13	
CSAT	.594	.147	.411***
ENG	-0.24	.107	-.023
LEARN	.274	.156	.192*
Moderation LEARN*ENG	.092	.035	.270**

R<sup>2</sup>= .166 (p<.001).

\*\*\* p< .001; \*\*p< .05; \*p<.01.

## 5. Discussion

Findings evidence that consumer proneness to buy the Parmigiano Reggiano cheese strongly generates from satisfied visitors to the production plant as experience able to educate them. As a consequence, customer satisfaction is confirmed as a strong positive driver of consumer buying intention, in line with previous studies (e.g., Jung et al., 2015). Learning plays a direct role on INTB. This finding extends previous results showing that, in the physical context, a positive and direct relation between learning and intention exists (Agudo-Peregrina et al., 2014). Through the interaction with the production site, customers learn information about the product, its production process, ingredients and their origin and establish a strong bond with the product and the producer. This is particularly important for food products, such as the Parmigiano Reggiano cheese, which are encountering difficulties in transmitting to consumers the product value in relation to its price. In addition, customer engagement can have a positive influence on INTB only through the moderating role of learning, differently from previous findings in the mobile context (De Canio et al., 2021b). Learning is found to moderate the relationship through engagement and INTB. Our findings evidence that when the visit process increases the level of learning about the product and its production process, visitors show a higher level of engagement with consequent repercussions on the intention to purchase the product. Listening to the storytelling of the product and watching in presence all the production phases taking place in the food production website, customers get satisfied and they can engage with the product through the moderating role of learning, stimulating a

positive intention to buy the cheese. This result opens up new insights into the consumer behaviour and food literature evidencing a new relationship between learning and engagement. Thus, in a hypercompetitive global market, being able to engage customers in a visit to the production site may be a powerful competitive advantage for agri-food producers. To increase the sales of their agri-food products, producers are called upon to open their production sites to tourists and consumers, organising visits on a regular basis and to develop strategies capable of educating consumers about the valuable and complex production process underlying their products. In particular, PDO/PGI products, with their composite production rules not always intelligible to consumers, could benefit from a higher level of learning generated by visits to the production sites. The same would have both a direct effect on the intention to purchase the product and on the amplification of the level of engagement highlighted by visitors to the production site.

## **6. Conclusions, limitations and Further Research**

This study contributes to the tourist, consumer behaviour and food literature evidencing the role of customer satisfaction with the visit to the food production site on the purchase intention of the dairy's visitors and assessing the direct as well as moderating role of the learning process determined by the visit on the engagement-intention to buy relationship. This results in an offer of new insights on the relation between learning and engagement.

Despite the potential interest of our findings, the work presents some limitations that should be addressed in future studies. First, data collection is still on-going and only partial results are presented. Second, the analysis was performed with a simple linear regression model, while in the future the use of a multi-group structural equation model may strengthen our results. Comparing visits in different dairies or replicating the study with regards to different products and production sites can boost the validity of our findings. As a matter of fact, our results may be easily extended to other several product categories. Actually, the consumer behaviour and food literature are today too focused on winery visits, while a wider range of agri-food products and their production sites can benefit for further investigations.

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