How well do food retailers know their customers? The case of mountain food products in Europe

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Abstract

The issue of how well retailers predict consumers' preferences and requirements for food products has seldom been examined in literature. This paper deals with this issue focusing on the specific case of mountain food products (MFP) in Europe. Due to consumers' imperfect knowledge of MFP and the absence of an official definition of these products, retailers are surrounded with uncertainty about how to market these products and especially about how consumers perceive and assess MFP. In this paper, we analyse retailers' perceptions as regards MFP and the extent to which they match consumers' views. Results reveal that retailers' perceptions differ by country. They also show that retailers associated with 'alternative' supply chains seem to have a more accurate perception of consumers' preferences as regards MFP.

Keywords: quality perception, retailers' predictions, mountain food products, 'alternative' food networks

1. Introduction

Retailers act as mediators between producers and consumers. They are among the marketing experts in charge of presenting products and making them attractive to consumers. Barrey *et al.* (2000) identify three types of marketing experts participating in a supply chain. At the upstream stages of the chain, the first type is the designer who defines the appearance of the product (e.g. colour, shape, material). The second type is the packager who defines the signals and information about the extrinsic attributes (i.e. which are not part of the physical product like brand name or price) and intrinsic attributes (e.g. taste, nutrition, ingredients) that have to be displayed on the product's packaging. The third type comprises the retailers, who are responsible for presenting the product on the shelves at the outlet as part of their merchandising function. They are in charge of creating a 'market scene' and of presenting products in a way that captures consumers' attention and makes the consumers want to buy them. The presentation must not only be logical and readable in order to minimise the consumers' search time but also ease the comparison and the choice between products. The retailer's objective is to create in-store stimuli through shelf-space arrangement, display, layout, atmosphere, etc. in order to influence consumer buying behaviour (Chen *et al.*, 2006). The effectiveness of the aforementioned marketing experts' tasks highly depends on their ability to identify, learn about and understand the preferences and needs of their customers

(Weitz *et al.*, 1986). Apart from basing their understanding on surveys or the requests of different prescribers, experts also use their own experience and put themselves in the place of the consumers (Barrey *et al.*, 2000; Hoch, 1988). Thus, marketing experts may base their predictions of the consumers' behaviour on their own perceptions. However, as shown by Hoch (1988), the sociologic and psychological 'distance' between marketing experts and consumers generally leads to a biased prediction concerning the activities, interests and opinions of the average consumer. The issue of retailers' predictions of consumers' preferences and requirements for food products has seldom been studied in literature. The objective of this paper is to assess the level of consistency between consumers' preferences regarding food products and retailers' perceptions of these preferences for a specific category of food products – mountain food products (MFP).

Maintaining and developing food production, processing and marketing in mountain areas is perceived as a way of preserving economic activity, and thereby counteracting the negative effects of the geo-climatic constraints specific to these areas (UNGA, 2009). Despite their recognised importance for mountain areas, however, there is no consensus or official definition of what MFP are. This leads to uncertainty about how the various stakeholders of the food chain may perceive MFP. Moreover, if retailers lack information about what product attributes are important for consumers, this can lead to inefficient promotion of

these products, thereby limiting their development and the impact of their production on mountain areas. The purpose of this paper is to analyse the degree of coincidence between those attributes that retailers find important in MFP and those that appeal to consumers. The underlying idea is that the more coincident the retailers' perceptions of consumers' views are, the more efficient the marketing process should be. For this purpose, the paper uses consumer and retailer surveys conducted in Europe. Beyond the cross-country dimension, this research also aims to identify the characteristics of those retailers whose perceptions are closest aligned with consumer preferences. The structure of the paper is as follows: it starts with a literature review of research conducted on retailer perceptions of consumer preferences related to product attributes. It is followed by an overview of the empirical methods used in the analysis, which comprises a description of the data, the construction of the index of fit and the variables used to analyse the index. Next, the results are discussed, and the paper ends with final remarks and ideas for future research.

2. Retailers' perceptions of consumers' preferences: a literature review

In this section several issues that are connected with the topic of this paper are reviewed such as retailers' strategies to generate sales and the accuracy of retailers' perceptions about consumers' preferences.

Research on retailers' behaviour to generate sales

The marketing research conducted on this topic may be broken down into two large areas. The first area focuses on in-store merchandising. Here, authors study how retailers – mainly mass retailers – create buying stimuli by organizing the in-store environment (Chen *et al.*, 2006; Curhan, 1973; Hubbard, 1969). A second area of research is devoted to retailers' buying behaviour (e.g. Hansen and Skytte, 1998; Johansson and Burt, 2004; Skytte and Blunch, 2001) and mainly aims at identifying the attributes retailers are sensitive to when selecting their products and suppliers. In both cases, the ultimate goal of the retailers is to generate sales. To do this efficiently, the retailer has to anticipate consumers' needs, preferences and buying behaviour. To choose the best method of in-store merchandising, the retailer needs to understand and predict consumers' preferences and their behaviour in the outlet (e.g. Amine and Cadenat, 2003; Barrey *et al.*, 2000). Likewise, as pointed out by Skytte and Bove (2004), retailers base their choice of suppliers and products on their perceptions of what consumers like and want.

In addition to the above literature, research on interpersonal perception may also enlighten the subject of retailers' perceptions. This literature focuses on the prediction by one person (the *agent*) (e.g. buyer, marketer, real estate agent) of another (the *target*) person's preferences and on the factors influencing the accuracy of this prediction. Hoch (1988) analyses how marketing decision makers predict a target's preferences by projecting their own experience. He shows that these experts are not always more accurate than novices in predicting consumers' preferences. Marketing experts are aware of their differences from consumers but they do not know the extent of these differences. This may explain the difficulties in predicting consumers' preferences. Similarly, West (1996) develops a 'model of interpersonal learning' studying the way the agent's own preferences, on the one hand, and how the agent uses the informative feedback from the target to learn and improve his (or her) prediction, on the other, impact the accuracy of the prediction. Lerouge and Warlop (2006) show, in contrast to what could be expected, how familiarity has a negative effect on the accuracy of the predictions of the target person's product attitude.

These studies mainly focus on understanding the 'intellectual' process leading to the prediction of someone else's tastes. However, it should be noted that they do not specifically refer to the case of retailers, as intermediaries between producers and consumers. Furthermore, they do not consider the case of food products, which is an interesting category due to the importance of the symbolic values associated with their consumption (e.g. Aurier *et al.*, 2005; Cochoy, 2004; Roos *et al.*, 2007; Van Ittersum, 2001).

On the accuracy of retailers' perceptions about consumers' preferences

Despite the importance of the retailers' perceptions of consumers' preferences, little has been written about the accuracy of those perceptions (Moreau *et al.*, 2001). Moreau *et al.* (2001) focus on the predictions of food manufacturers and retailers about consumers' perceptions of sales promotions. They test which '*belief relationships*' hold within the manufacturer-retailer-consumer triad. They examine the degree of consistency between manufacturers' and retailers' beliefs about consumers' perceptions, and show that there are no significant differences between the different channel members in their ability to predict consumers' perceptions. This research offers an analysis of the accuracy of food retailers' predictions about consumers. However, it only deals with pricing strategy, i.e. it does not take into account other product attributes and does not focus on consumers' preferences.

More closely related to the topic of this paper is the study by Chung *et al.* (2006), which tested the accuracy of retailers'

perceptions as regards how Indian consumers (who are unfamiliar with processed food) use intrinsic and extrinsic cues to evaluate processed food quality. They show that Indian retailers' perceptions may diverge from consumers' perceptions as retailers focus on cues such as price and brand name while consumers assess product quality using cues such as nutrition and freshness.

Similar to the case of processed food in India, it is possible that the majority of European retailers are not familiar with what MFP attributes are important for consumers, especially as these products are not clearly defined as a specific category. Therefore, the results of this paper may provide an indication of the differences between what retailers think consumers prefer regarding MFP and what consumers declare as appealing in food products.

What factors may affect the matching between retailers' and consumers' perceptions as regards MFP?

It is important to emphasize that contrary to many specialty food products in Europe there is no official definition or certification label for MFP. In fact, 'mountain' may refer to very diverse areas depending on the national culture and it also refers to a very wide and discontinuous area. This may explain why despite their accepted importance for the economic development of mountain areas, there has been almost no research reported on issues related to the perceptions of agro-food chains' operators and consumers regarding MFP (Schjøll *et al.*, 2010). Nevertheless some information can be inferred from literature devoted to local (or regional) products, as mountain products can be considered as local products from mountain areas.

A large part of marketing literature is devoted to the study of how consumers use cues to assess products when there is uncertainty about quality (Chung *et al.*, 2006; Steenkamp, 1990). Within this literature, growing attention has been paid to the importance of geographic origin in the assessment of food products' quality (Tregear *et al.*, 1998; Van Ittersum, 2001; Weatherell *et al.*, 2003). This literature shows that the region of origin may affect consumers' perceptions of food products either indirectly, as a quality cue indicating specific characteristics of the good, or, directly, because it is valued *per se* by consumers (Stefani *et al.*, 2006). EU food policy which aims to protect the regional origin is based on this assumption (Tregear *et al.*, 1998).

Couget and Fouquet (1996), cited by Schjøll *et al.* (2010), showed that MFP are often perceived as pure, authentic, simple (even harsh) products by French consumers. These results indicate that mountain as a specific geographical origin may be valued by consumers. Consumers and their perceptions about MFP remain, however, almost unknown, especially for retailers. This suggests that retailers'

perceptions of consumers' perceptions regarding MFP may be inaccurate.

It may also be assumed that the MFP features retailers consider to be important differ per retailer. For instance, studies about the retailing of local food conducted in the UK (Ilbery and Maye, 2006) and in the USA (Dunne *et al.*, 2011) show that when there is no consensual definition of local food, perceptions and values associated with this kind of food product differ widely according to the types of retailers. These results suggest that the vagueness of the definition may induce a diversity of retailers' perceptions regarding MFP. Dunne *et al.* (2011) show that the size and the ownership type of the store are factors that determine variation between retailers' perceptions regarding local food, as they influence the level at which decisions are made. These factors may also influence the relational proximity between retailers and consumers. Even though some supermarket chains have developed loyalty programs, relationships between retailers and their customers can be considered intermittent (the relationship is almost nonexistent when the customer is not visiting the outlet), indirect (a relationship with the department or store manager is very rare) and depersonalised (supermarket chains satisfy the requirements of the average consumer) (Licoppe, 2001). On the contrary, small independent retailers are considered to develop tighter and more direct relationships with their customers (Clarke and Banga, 2010) and therefore can be expected to better predict consumers' perceptions.

Based on the aforementioned results we hypothesised that retailers' perceptions as regards consumers' purchasing criteria for MFP may differ according to the type of retailer. Large retailers, or those depending on a supermarket chain, may be expected to be less sensitive to consumers' requirements regarding very specific products as MFP than small independent retailers.

Cross-country differences may also be anticipated in the perceptions of consumers and retailers regarding MFP and in the accuracy of the retailers' perceptions about consumers' preferences. As regards this point, surveys conducted during the EuroMARC project revealed that the perception of what a mountain was largely differed according to the country. Based on this, one may consider that the perceptions of MFP by the different stakeholders of food chains may differ according to the nationality. Moreover, socio-cultural environment is recognised as an important factor influencing food consumption practices (Steenkamp, 1993), just as retail practices differ across countries, especially in response to different consumption behaviours (Burt and Sparks, 1997; Fernie, 1992).

3. Empirical methods

The empirical analysis comprised two steps. The first step consisted of constructing an indicator of the degree of matching or fit (i.e. Index of Fit or IF) between retailers' perceptions as regards those attributes of MFP that may appeal to consumers and those attributes considered by consumers when they purchase MFPs. The second step consisted of analysing the IF results by using a number of variables describing the retailers in order to identify those that obtained results above or below the sample mean. This section presents the data used in the analysis, explains the construction of the index of fit and presents the variables used to characterise the retailers.

Data used in the analysis

The data used for this analysis was collected as part of the EU-FP6 project 'European Mountain Agrofood products, Retailing and Consumers' (EuroMARC). This project investigated consumers' general food habits and expectations with regards to MFP as well as mountain food retailers' perceptions of mountain foods. This paper is based on the data from five European countries: Austria, France, Norway, Scotland, and Slovenia. The data was collected in two surveys, a retailer survey and a consumer survey, carried out in 2008. Table 1 presents the number of respondents by survey and country.

Retailer survey

The retailer survey aimed at gaining knowledge on the retailers' perceptions of MFP. It was conducted as a postal survey aimed at a variety of outlets, from producers who retail their own products to members of supermarket chains. As shown in Table 1, 424 retailers returned the questionnaire, of which 313 sold MFP, and of which 308 filled in the section on appeal of their MFP characteristics. Retailers had to focus on one of the MFP that they retailed and answer a series of questions, including 'Which of these characteristics of your MFP ought to appeal to consumers?', by rating six attributes (Table 2) on a five-point Likert scale ranging from one (i.e. not important) to five (i.e. very important). This question allowed us to measure how important, according to the retailer, a characteristic of MFP is to consumers.

Consumer survey

The purpose of the consumer survey was twofold: first to gain knowledge on factors that consumers find important in making food purchases in general (i.e. not necessarily MFP) and second, on their perceptions and expectations as regards MFP.

Consumers were recruited for this survey using existing databases, adverts, or random sampling in the street. Care was taken to include respondents from mountain and

Table 1. Number of respondents in consumer and retailer survey in each country.

	Austria	France	Norway	Scotland	Slovenia	Total
Consumer survey	338	359	303	302	302	1,604
Retailer survey	82	53	33	67	73	308

Source: EuroMARC.

Table 2. Items used for comparison of mountain food products characteristics and purchase criteria.

Attributes	Abbreviation on graphs
Price / value for money	Price
Short distance from producer to consumer	Dist
Support to small-scale production	Scale
Local origin	Local
Well-known brand	Brand
Environmentally friendly production	Env

Source: EuroMARC.

non-mountain areas, rural and urban areas, however, the proportions of respondents from the different locations varied according to the country. As shown in Table 1, a total of 1,604 consumers were interviewed.

Consumers were asked to rank, on a five-point Likert scale ranging from one (i.e. not important) to five (i.e. very important), their purchase criteria for different categories of food products. The criteria suggested to them were the same as the attributes suggested to retailers as presented in Table 2.

Consumers were asked to rank the importance of attributes considering two different categories of products, which differed by country as shown in Table 3. Categories of products were selected because reliability of answers on the whole range of food products consumed would have been questionable.

Figure 1 presents the average scores by country obtained from retailers and consumers (per product category). It provides an idea of how similar the valuations of retailers and consumers are per country. It shows, for instance that retailers generally attribute a higher importance to all the characteristics compared to consumers, particularly in Scotland, where a high proportion of retailers who answered the survey were also producers.

Considering each country individually, in general the consumers' scores appear to be similar for both product categories except in the case of water. This could be because water is often not considered as food by consumers. In almost all countries, price is an important purchase criterion relative to the others, but it is not one of the main characteristics of MFP that retailers think is important to consumers. Local origin is a characteristic of MFP considered to be important by both consumers and retailers in all countries except in Slovenia, where retailers seem to value it less compared to other criteria. Local origin and environmentally friendly production are not particularly valued by the Norwegian consumers, whereas Norwegian retailers believe they are appealing characteristics of MFP. A well-known brand is neither appealing in MFP according to the retailers nor a purchase criteria for consumers in Austria, France and Scotland. This is a major difference with Slovenia, where a well-known brand is both considered to

be an appealing characteristic of MFP by retailers and an important purchase criterion for consumers. Norwegian retailers believe that brand is not a major appealing characteristic of their products, but Norwegian consumers are more brand-conscious than consumers in most of the other countries studied.

Testing the results in every country by means of Cronbach's alpha coefficient revealed that retailers' perceptions differ. The value of these coefficients ranged from 0.59 (Scotland) to 0.83 (Norway), and the mean was 0.70. Although retailers tend to have a similar overall perception of MFP, Cronbach's alpha showed that there is residual variability and it is on this variability that the index of fit focuses.

Construction of the index of fit

The idea behind the construction of the IF is that if the most important characteristics of MFP (according to retailers) are the same attributes that consumers find most important, then we may consider that the retailers will be able to sell MFP in a way which appeals to consumers. Hereafter, we refer to the retailers' answers as 'the chosen MFP characteristics' (scored on a Likert scale of one to five) and we refer to the consumers' answers as 'the importance of the purchasing criteria' (also on a Likert scale from one to five).

To compare the perceptions of retailers and consumers, an index of fit (IF) was constructed based on the items presented in Table 2. The index assigned a high value to retailers who gave high scores to the most important purchase criteria according to consumers. The idea behind the index is given by Equation (1):

$$\text{Retailer IF} = \text{'chosen MFP characteristics which are important purchase criteria'} - \text{'chosen MFP characteristics which are not important purchase criteria'} \quad (1)$$

As the consumers indicated the importance of the purchase criteria on a Likert scale, instead of classifying the purchase criteria as important *versus* unimportant (e.g. as a dichotomous variable), we used the mean scores to quantify the importance of the purchase criteria for consumers in

Table 3. Products considered by country in the consumer survey

	Austria	France	Norway	Scotland	Slovenia
Product No.1	Cheese	Apples	Meat	Cheese	Dairy products
Product No.2	Water	Water	Fruits and vegetables	Venison	Meat

Source: EuroMARC.

Figure 1. Average consumers' score by purchase criteria and products and average retailers' score by MFP characteristics per country. This figure indicates how on average consumers and retailers rank the different attributes. The score must be interpreted in a relative way, not in an absolute way. For instance, in France, as regards apples, the most important purchase criterion, compared to others, is the price and the least important is the brand. The result is the same for cheese in Scotland.

general. We used deviations with respect to the mean rather than the mean scores so that the purchase criteria which were more important than average had a positive score, and the purchase criteria that were less important than average had a negative score. Thus, for each country, c_j , the deviation with respect to the mean score for the purchase criterion j for product p , is calculated as follows:

$$c_j^p = b_j^p - \bar{b}^p \quad \text{where} \quad \sum_{j=1}^6 c_j^p = 0 \quad (2)$$

where b_j is the mean importance of purchase criterion j for product p and $\bar{b}$ is the mean importance of all purchase criteria for product p (where n is the number of consumers sampled in the country and s_{hj} is the score assigned by the consumer h to the attribute j).

$$b_j^p = \sum_{h=1}^n \left(\frac{1}{n} \right) s_{hj}^p$$

$$\bar{b}^p = \sum_{j=1}^6 \left(\frac{1}{6} \right) b_j^p \quad (3)$$

Using deviations with respect to the mean also guarantees that retailers with high or low scores on all items do not necessarily obtain a high or low IF. This allows for individual variations in the use of scales, which is an important issue in cross-cultural research (Van de Vijver and Leung, 1997). The c_j were used as weights in the calculation for the IF for each retailer by product p in each country. Thus, the IF for retailer i for product p is defined as:

$$IF_i^p = \sum_{j=1}^6 c_j \cdot x_{ij} \quad (4)$$

where x_{ij} the score for retailer i on attribute j and IF_i is the index of fit for retailer i for product p .

As a result of the calculations a positive IF was assigned to retailers with high scores on important purchase criteria and low scores on unimportant purchase criteria. A negative IF was assigned to retailers with low scores on important purchase criteria and high scores on unimportant purchase criteria. A 0 was assigned to retailers with the same score on each item. As the consumers were interviewed on two product categories in each country, the calculations were done for each product separately.

Variable used to analyse the results obtained from the index of fit

A number of categorical variables were used to identify the characteristics of those retailers with a high IF and those with a low IF. These variables, which are presented in Table 4, were collected in the retailers' survey.

As shown in Table 4, six groups of variables were considered to analyse the IF: type of retail business, type of management, scale and geographical area of operation, how the business started selling MFP, how the MFP are supplied and how the supply is organised. Each of the aforementioned groups includes a number of dichotomous variables that allow us to identify which retailers have higher IFs and which have lower IFs. Note that several of these variables have been mentioned in the literature as having an effect on the marketing of local food. In addition to the groups presented in Table 4, variables for each country were created as well as for the products that were retailed.

Statistical tests, including t-tests, enabled us to determine whether the effect of each variable on the response variable was significant, assuming that the response variable had a normal distribution. Linear regression analysis was not applied due to the high collinearity of several variables.

To avoid type I errors (i.e. to reject a true null hypothesis) and define a very restrictive threshold as with the Bonferroni correction, we used large sets of variables (Cabin and Mitchell, 2000), which we ranked according to their importance (given by the test). This sorted the variables according to their relevance (Morineau, 1991). The tables include only those variables with at least 5% significance.

4. Results and discussion

This section presents the results obtained from the estimation of the IF and analyses them considering several variables representing retailers' characteristics.

Results of the index of fit

Table 5 presents the average results of the IF by country and by product category. As shown there are significant differences by country and product. Furthermore, on average the most important consumer purchase criteria are not considered by retailers to be the most appealing characteristics of MFP. This could be a major drawback for the marketing of MFP.

Analysis of the results of the index of fit

Table 6 presents the results of the tests analysing the results of the IF. As described in Table 4 several categories were considered namely: country, retailed product (i.e. which MFP the retailer sells), type of retail business, type of management, business location (in a mountain area or not), how the retailer started marketing MFP, how MFP are supplied and how the supply is organised.

As regards the differences among countries, the Scottish retailers' perceptions of appealing characteristics of MFP

Table 4. Independent variables by category used to analyse the index of fit.

Variables	Values	Variables	Values
Retailed products		How the business started selling mountain food products	
• I sell mountain food products	1 if yes 0 otherwise	• I was approached by a producer or a group of producers	1 if yes 0 otherwise
• Pork	1 if yes 0 otherwise	• I approached a producer or producers to market their products	1 if yes 0 otherwise
• Lamb, mutton	1 if yes 0 otherwise	• I was approached by a distributor/wholesaler	1 if yes 0 otherwise
• Game/venison	1 if yes 0 otherwise	• I approached a distributor/wholesaler	1 if yes 0 otherwise
• Beef	1 if yes 0 otherwise	• I decided to market my own products	1 if yes 0 otherwise
• Other dairy products	1 if yes 0 otherwise	• A number of us established a cooperative to market our products	1 if yes 0 otherwise
• Honey	1 if yes 0 otherwise	• The central purchasing office decided we should sell it	1 if yes 0 otherwise
• Vegetables	1 if yes 0 otherwise	• Other	1 if yes 0 otherwise
• Fruit	1 if yes 0 otherwise	How mountain food products are supplied	
• Water	1 if yes 0 otherwise	• I have an informal supply agreement with the producer	1 if yes 0 otherwise
• Processed food	1 if yes 0 otherwise	• I just order when required	1 if yes 0 otherwise
• Others	1 if yes 0 otherwise	• I have regular repeat orders	1 if yes 0 otherwise
Type of retail business		• I have a contract	1 if yes 0 otherwise
• Multiple retailer: branch of supermarket chain	1 if yes 0 otherwise	• We have a central purchasing office	1 if yes 0 otherwise
• Independent retailer/franchise	1 if yes 0 otherwise	• We have a cooperative and we retail our products	1 if yes 0 otherwise
• General store	1 if yes 0 otherwise	• I retail my own products	1 if yes 0 otherwise
• Food shop	1 if yes 0 otherwise	• Other	1 if yes 0 otherwise
• Tourist shop	1 if yes 0 otherwise	How supply is organised	
• Farm shop	1 if yes 0 otherwise	• Delivery by wholesaler	1 if yes 0 otherwise
• Speciality shop	1 if yes 0 otherwise	• Delivery organised by distributor	1 if yes 0 otherwise
• Producer – retailer	1 if yes 0 otherwise	• Delivery by producer	1 if yes 0 otherwise
• Stall or market	1 if yes 0 otherwise	• Picked up at producer	1 if yes 0 otherwise
• Other	1 if yes 0 otherwise	• Picked up at wholesaler	1 if yes 0 otherwise
Type of management		• Delivery by retail company's own supply system	1 if yes 0 otherwise
• A farm business	1 if yes 0 otherwise	• Own products	1 if yes 0 otherwise
• A corporate business	1 if yes 0 otherwise	• Other	1 if yes 0 otherwise
• A family-owned business	1 if yes 0 otherwise		
• A trust or charity business	1 if yes 0 otherwise		
• A cooperative	1 if yes 0 otherwise		
• Other	1 if yes 0 otherwise		
Scale and geographical area of operation			
• Business is located in a mountain area	1 if yes 0 otherwise		
• Business has branches outside the mountain area	1 if yes 0 otherwise		

Table 5. Average value of the index of fit by country and product category.

	Austria	France	Norway	Scotland	Slovenia
Product No.1	Cheese	Apples	Meat	Cheese	Dairy products
	0.56	0.54	0.17	0.87	-0.21
Product No.2	Water	Water	Fruit and vegetables	Venison	Meat
	-0.13	-0.13	0.49	-0.30	-0.30

Table 6. Results of the t-statistics by category.

Categories	Index of fit	Test values	Number of observations
Mean value for all the data	0.43		308
Country			
Scotland	0.87	3.37	67
Slovenia	-0.21	-5.34	73
Category of the mountain food products that is retailed			
Dairy	0.24	-2.52	137
Type of retail business			
Multiple retailer or supermarket branch	-0.05	-5.02	101
Also a producer	1.03	3.66	45
Tourist shop	1.57	2.75	8
Specialty shop	0.82	2.03	34
Farm shop	0.87	1.63	18
Type of business management			
Family owned	0.68	2.94	119
Farm business	0.85	2.56	45
Corporate business	0.03	-5.59	142
Scale and geographical area of operation			
Branches outside the mountain area	0.11	-3.50	108
How the business started selling mountain food products			
Retailer approached a producer to market their products	0.75	2.29	60
Central purchasing office decided to sell mountain food products	-0.02	-4.23	88
How mountain food products are supplied			
Informal supply agreement with the producer	0.78	2.10	45
Central purchasing office	-0.01	-3.97	82
How supply is organised			
Retailer sells own produce	0.71	2.04	63
Delivery by retail company's own supply system	0.05	-3.02	68

The t-test with respect to the mean value.

Only variables with statistical significance of at least 5% are presented in the table.

seemed to best fit their consumers' purchase criteria, while the Slovenian case was just the opposite. All the other cases were not different than the mean value.

In terms of the product category sold, the test indicates that those retailers selling dairy products showed an IF significantly above the mean. This category includes cheese sellers, which as shown in Table 5 had the highest scores per product category.

The type of retail business was found to be important in terms of the closeness of retailers' and consumers' perceptions. Those obtaining a higher IF were more often producers, managers of specialised shops, tourist shops, or farm shops, sometimes having sole proprietorship. In addition, the test showed that the lowest scores were obtained by retailers that have multiple outlets or are

branches of supermarket chains. The fact that there are significant differences among the different types of retailers seems to confirm the results of Ilbery and Maye (2006) and Dunne *et al.* (2011).

Type of management was also found to be important in differentiating between retailers. Those that obtained a significantly higher IF often described their business as being a farm business or a family-owned business rather than as a corporate business.

The results indicate that a retailer's characteristics (size and ownership structure) may impact his (or her) perception of consumer preferences. In other words, it seems that greater matching between retailers and consumers is found when MFP are sold through what may be called 'alternative' supply chains, i.e. supply chains that are organised in an alternative

way compared to the prevalent model of supermarket provisioning ('conventional' model) (Holloway *et al.*, 2007; Renting *et al.*, 2003). These 'alternative' distribution channels are very diverse and are often associated with short food supply chains (Renting *et al.*, 2003) comprising direct channels involving no intermediary between producers and consumers (e.g. producer markets, farm selling) or short channels with no more than one intermediary (e.g. specialist food outlets, collective producer outlets). One common feature of these provisioning modes is notably the willingness of their stakeholders (producers and consumers) to develop closer relationships (Holloway *et al.*, 2007).

These results may be interpreted in several complementary ways. First, these retailers may be considered to be in 'close' contact with the consumers in general. This situation allows them to better know consumers' expectations and purchase criteria. In this context, if the retailers wish to emphasise the quality of their MFP, they will tend to promote the characteristics of MFP that they know are appealing. Second, one may hypothesise that small retailers do not have the same type of customers as large retailers. Thus, we may assume that their customers have purchase criteria that fit the signalled MFP characteristics (e.g. they want to support producers and the local area and are not too price sensitive), as they are deliberately selecting 'alternative' food channels. Development of 'alternative' food networks is often interpreted as a rejection of an 'agro-industrial' system based on industrial and standardised products, and mass and 'depersonalised' retailing, which is seen as the root cause of various food crises in recent decades (most notably the BSE crisis) (Ilbery and Maye, 2006; Vannoppen *et al.*, 2001). We may thus logically assume that a majority of consumers using these food networks are sensitive to some of the specific criteria associated with MFP.

The results obtained from the variables 'scale', 'business location' (in a mountain area or not), 'how the retailer started marketing MFP', 'how MFP are supplied' and 'how the supply is organised' seem to all reinforce the idea that small businesses located in mountain areas have a closer idea of what consumers want as regards MFP than for instance larger businesses with branches outside the mountain areas. Furthermore, higher significant IFs were obtained for producers that retail their own products, retailers that have informal contracts with producers, and retailers that have close contact with producers, such as in the case of a retailer that approached a producer to market the latter's products.

Note that several of the obtained results seem to question the role of multiple retailers in the marketing of MFP (e.g. lower IFs were obtained for retailers supplied by central purchasing offices or with branches outside the mountain areas). This is significant because, due to their major role in consumers'

food supply, they may be considered as an important channel through which to develop the consumption of such products. However, our results show that with respect to MFP, perceptions of multiple retailers seem to be less consistent with consumers' requirements than those of the other retailers. Thus, developing MFP consumption through supermarkets would imply 'educating' retailers in order to make them sensitive to the nature and characteristics of MFP valued by consumers, in particular geographic origin and the support they may provide to small-scale producers. This could in part be achieved through development of direct relationships (by way of direct supply) between supermarkets and producers. In addition, it should be noted that marketing through supermarkets may appear to contradict the idea that MFP are produced in a traditional manner, especially respecting seasonality of products, in small-scale units, in small quantities, etc.

6. Final remarks and future research

The purpose of this paper has been to contribute to the analysis of one aspect of the marketing of European MFP, namely alignment between retailers' views of consumers' preferences when purchasing those products and what consumers actually prefer. MFP are of special interest not only because of their economic implications for mountain areas but also because, with no official definition (and/or certification scheme) common to all the stakeholders of the food network, it is still unclear what exactly constitutes an MFP.

It should be noted that the character of this research remains exploratory. Further research on MFP based on more complete data would allow deeper analysis of the coherence between retailers' and consumers' perceptions. Beyond the specific case of MFP, this study sheds some light on the issue of retailers marketing non-familiar products, particularly the question of whether they are susceptible to inaccurately predicting consumers' preferences related to such products. Despite the increasing interest in 're-localising' food consumption, little attention has been paid to retailing of local/regional food in the literature (Ilbery and Maye, 2006). This is particularly true with respect to mass retailers, which may be considered as one symbol of the 'conventional' system. Yet, some supermarket chains have developed local food initiatives partly in order to address public criticism and to meet the perceived consumers' requirements. Further research could be conducted to study how retailers market these products, particularly which attributes they promote (e.g. short distance, environmental impact, taste, support of the local economy), and how these marketing strategies relate to consumers' perceptions and requirements. The same investigation could be applied to

innovative products sold by small firms that lack sufficient resources to develop a strong marketing strategy.

This research can contribute to the debate regarding development of a European label for MFP. It shows that national differences remain strong, not only among consumers, but also among retailers. An official and common label could help create a common idea of what MFP are. The pertinence of such a quality scheme, however, rests on how well informed all stakeholders are, especially retailers and consumers.

Of more general interest would be further research to explore retailers' quality perception process. Steenkamp (1990) presents a conceptual model of the quality perception process, however he focuses on the consumer and considers his model only as a tool that may assist the marketing manager in developing a marketing strategy. A better understanding of the quality perception process of retailers could help identify potential gaps between their predictions and consumers' preferences. Considering the role played by intermediaries in the marketing of products, producers could benefit from a better understanding of the quality perception process of all the stakeholders in the product distribution chain. This is especially relevant for products retailers are not familiar with, such as local/regional or innovative products.

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