MARKET ANALYSIS OF DAIRY PRODUCTS PRODUCED IN THE PARMIGIANO-REGGIANO AREA

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ABSTRACT

The present work aims to realize a market analysis related to a particular high quality dairy product category, such as Ricotta and Caciotta products, obtained by typical cows of the Parmesan Area. The purpose is to estimate the sales volumes for each product, considering the consumer interest on buying new product obtained with high quality standards, which therefore guarantee a superior genuineness, taste and chain control than market standards.

The market analysis was carried out on the "Parmigiano Reggiano" territory, taking into account some stores in the province of Mantova (south of Po River) and Parma, both supermarkets and discounts; Photographic surveys have also been carried out for this purpose.

For each product, we have noted all the informations reported on the label (ingredients, nutritional values, production plant, and price) and the size of the specific sales area for each brand. All the specific information were then tabulated and analysed.

Once this phase has been completed, a questionnaire has been set up for consumers of large distribution. Through this questionnaire, it is possible to understand the sales possibilities of each analyzed product, as well as their market placement potential and the average price range per kg at which consumers would be willing to buy them.

Keywords: market analysis, ricotta, caciotta, cheese, stores, survey

1. INTRODUCTION

The innovation represent, in the opinion of academics and executives, a foundamental prerequisite for the growth of society in today's competitive environment, as well as one of the key factors of long-term business success (Baker e Sinkula, 1999; Balkin Et al., 2000; Darroch e McNaugton, 2002; Lyon e Ferrier, 2002). In fact, innovative companies are able to respond to environmental challenges more quickly and better than non-innovative ones (Jimenez et al., 2008). Therefore, the organizations consider the innovation as an integral part of their business strategy Therefore, organizations consider innovation as an integral part of their business strategy by offering products tailored to the needs of target customers to create a sustainable competitive advantage and stay above the rivality (Calantone et al ., 1995; Damanpour e Gopalakrishnan, 2001; Scarborough e Zimmerer, 2002). In recent decades, a change has been observed from the model of technological innovation to market innovation, forcing companies to focus more on the quality product rather than on internal efficiency. In this way it is possible to quickly identify the needs of changing customers, to develop complex products to meet these needs, thus providing a higher level of support and customer service (Sheperd e Ahmed, 2000).In a world that dramatically change, where not only the demographic changes is altered, but where the impact of globalization result to be significant, the food industry is not an exception and must find its role in these revolutionary challenges (Vrontis and Altaluna,2017).

In the food industry and in general in the manufacturing sector, the dairy industry is characterized by the high number of typologies and characteristics of "cheese". Cheese which is derived from milk transformation, has different features in relation to the times and methods of production, its intrinsic and specific characteristics, its consumption patterns, maturing degrees, the intensity of the bond with the lands of origin. The relationship with the territory is very strong: in the cheese chain, the territoriality of production and the originality of the raw material still represent a distinctive character, so as to make the territory a commercial value. The "product", belonging to a cheese family determines the added value, time of remuneration, packaging, supply and professional work. Of course, the same distribution channel, today crucial to the success of a product, is influenced by cheese type and vice versa (Freddi and De Angelis,2015).

The cheese world market growth was largely due to the implementation of the World Trade Organization (WTO) international trade agreements, which facilitated the circulation of foodstuffs around the world. The dairy industry has also had repercussions, with increasing downward pressure on prices in the face of ever increasing quantities, similar to what has happened to other important products in the agri-food trade. In Italy, where cheese traditionally plays an important role both in production and consumption, the effect of the transformation of world trade has been very significant, leading to a reaction of domestic dairies and a quality repositioning of the industry, facilitated by the presence of Trademarks already widely known in the world (Ceccherini, 2016).

The growth in consumption and imports of dairy products in international markets is expected to continue in the coming years due to both economic development and the gradual urbanization of most populations currently residing in rural areas: industrialization / outsourcing of Economies that accompanies the increase in incomes result in a massive transfer of people from country to city, while accentuating the evolution of lifestyles and eating patterns. As a proof of this, according to the OECD (Organization for Economic Co-operation and Development) estimates, within ten years the consumption of cheeses will grow altogether (in quantity) by an awatrage of 17 % world-wide, with an increase that will reach 41% in Asian countries (Nomisma,2015).

The aim of the paper is to realize a market analysis related to a particular "high quality" dairy product category, such as Ricotta and Cacciotta products. The remainder of the article is composed as follows. The second chapter describe the method, through photografic relief, to perform a market analysis on two dairy products (ricotta and caciotta). In the tird chapter wil be analyse all the information characterized the label of the produtc. Finally, section 4 concludes the work by summarizing the main results obtained.

2. MATERIALS AND METHODS

The market analysis of dairy products, and in particular of ricotta and caciotta products, was carried out in the territory of Parmigiano Reggiano. As shown the following table, the study sites were altogether 10 of which 7 supermarkets and 3 discounts (Eurospin, Lidl and In's). For each supermarket, all the information on the label (ingredients, nutritional values, production plant and price) was taken into account through appropriate photographic surveys. Such information was then collected, tabulated and analyzed.

Table 1: Address of the ten supermarket

Supermarket	Address
FAMILA	Via Langhirano (PR)
ESSELUNGA	Via Sandro Pertini, 14 (PR)
SIGMA	Viale Antonio Gramsci, 9 (PR)
PANORAMA	Via Silvio Pellico, 20 (PR)
COOP	Via F. Mitterand, 1 Suzzara (MN)
CONAD	Via Venezia, 40/A (PR)
AFFARE	Via Donelli 4,Suzzara (MN)
EUROSPIN	Str. Langhirano, 150 (PR)
LIDL	Via Della Cooperazione, Gonzaga (MN)
IN'S	Str. Nazionale, 15/a Suzzara (MN)

In the context of the market analysis of high quality dairy products, namely ricotta and caciotta, two questionnaires were prepared to understand the possibilities of selling the products concerned, their market placement and the average price per kg to which consumers would be willing to buy them.

The questionnaire, which will be compiled by consumers, is listed in the Appendix A.

In the specific case of ricotta, the survey has set the following objectives:

1. Knowing consumer habits;
2. Understanding consumer perception of MAP (Modified atmosphere packaging);
3. Assess the interest of consumers in purchasing a new product created according to high quality standards;
4. Get an estimate of the value-added economic assessment of a quality product packaged in a protective atmosphere.

The questionnaire consists mainly of closed responses and 20 people will be interviewed in each of the 10 supermarkets so in total 200 people will be submitted in anonymous form.

After the photographic relief phase in the various supermarkets taken into account, all the information on the label has been reported in Excel. This work was done for both ricotta and caciotta. In the two Excel sheets, one for each product, tables were created showing the dimensions of the shelves used, the size of each brand in detail, the number of products per supermarket, price, nutritional values, place and manufacturing plant.

3. RESULTS AND DISCUSSION

3.1. Ricotta

The appendix B shows, for each supermarket, the space dedicated to each brand was quantified.

The average shelf space dedicated to the ricotta cheese amounts to 189.2 cm, the supermarket in which this product is most exhibited on shelves is "Esselunga" of Parma with a 22% share of ricotta brand "Esselunga". This brand represents the most exposed even among all the supermarkets under consideration.

As shown in table X, the supermarket in which the maximum number of brands is present is the "Rossetti Affair" of Suzzara (MN) with 17 different companies, against "Lidl" (Gonzaga, MN), where there is a only brand (“Marino”) occupying 30 cm on shelves. The average is 9.2 brands per supermarket.In the 60% of retail stores analysed there are "Granarolo", "Santa Lucia" and "Vallelata" and in the 50% ones "Happened".

However, the average of supermarkets covered by a specific brand is only 15%. The "In's" (Suzzara, MN), "Eurospin" (PR) and "Lidl" (Gonzaga, MN) discounts have an average of 2 brands on the shelves while the other supermarkets have 13 different ricotta products; No brand is present in both discounts and supermarkets.

In the appendix C shows the prices of individual brands per supermarket expressed in € / kg. The product with the highest price, considering only ricotta with cow's milk and not goat's one, is "Osella Farm" in Coop Supermarket (Suzzara, MN) with 10.47 € / kg.

The brand with the highest average price also considering products with goat’s milk (Valsoia excluded) is "Bianca" with 16.98 € / kg while the products with the lowest one are "Valtenera", " Land "and" May Flower with 2.2 €/kg ".

The average price of all the brands under consideration is 6.58 € / kg.

The average selling price in each supermarket it is 6 € / kg; The highest priceis € 8 / kg, while the lowest one is € 4.2 / kg in "In's" and Lidl discounts both located in province of Mantova. Particular attention is given to ricotta made in a protective atmosphere, i.e. "Caseificio Pini" sold at 5.72 € / kg, "Caseificio preziosa" at 6.90 € / kg, "Italiani" at 4.52 € / kg, Sabelli "at 5.30 € / kg," Sigma Ricotta "of goat’s fresh milk at 12.45 € / kg.

Three of these ricotta products mentioned above are below the average total price (6.58 € / kg) while the one with the highest price is produced with goat's milk.

The average price among all packaged brands in MAP (Modified atmosphere packaging) is 6.98 € / kg or only 6% less than the total average price.

The ingredients indicated on the label were analysed. Consideringall types of ricotta, i.e. those made in a protective atmosphere,those with goat's milk rather than cow’s one, pastorized and organic milk, it is possible to notice that some products differ significantly from others. The ingredients that are present in most brands are: pasteurized milk whey (7 brands), bovine milk (9), bovine milk / vaccine serum (28), cream of cow milk (9), cream Pasteurized milk (10), salt (45), acidity regulator (49), lactic acid (21) and citric acid (32). The acidity regulator is present in 85% of the brands being tested.

On the label are also shown,per 100g of product, the nutritional values for each brand.

The first is the energy value with an average value of 601.48 kcal: the maximum value is 844 kcal and the minimum one 256 kcal for the brands "Valsoia" and "Sigma goat" respectively.

Regarding the fat component, the average value is 11g, of which 7.54g of saturated fats. The maximum value is for "Sigma goat" with 23.5g (16.83g saturated fats), while "Malghette" has the minimum value with 5.5g of which 1.8g saturated fats. Carbohydrates, however, have a maximum value that amounts to 6.3 g associated to the brand "Fidel" with 5.4g of sugars. The minimum value amounts to 1.4g: 0.6 g of sugars for "Spega". The average value is 3.43g, of which 3.10g related tosugar.

Proteins have an average value of 8.35g, a maximum value of 12.3g and a minimum value of 3.20g for "Spega" and "Valsoia" respectively.Finally, for salt we find a maximum of 0.8g for "Sicilian Dairy" and a minimum value of 0.1g for "Spega" with a total average value of 0.37g. Calcium and phosphorus measured in milligrams are indicated in some ricotta. Vitamin D is only present in the "Valsoia" brand in a smallest amount.

Finally, the Table 2 shows the number of brands served by a particular production plant. In some cases this information was unreadable as the label was damaged, or even such specifications were missed.
The most interesting thing is definitely the number of brands produced in one plant.In fact, in in "Lat Bri" (Usmate Velate (MB)) 14 different brands are processed, followed by "Casaeificio Pini" in Sanguinetto (VR), "Jacob Bustaffa "in Bagnolo San Vito (MN) and" Egidio Galbani spa "in Corteleona (PV) with 5 different type of ricotta.

Table 2: Number of brands served by a particular production facilities

Production facilities	Number of brands produced
Lat Bri	14
Caseificio del Cigno s.p.a.	1
Caseificio Villa	1
Caseificio Busti s.n.c.	1
Soc.Agri. Latte Beressanone	3
Biraghi s.p.a	1
Giacobbe Bustaffa	5
Caseificio Pini	4
Caseificio Preziosa	1
Caseificio Elda	4
Fattorie Osella	1
Egidio Galbani s.p.a.	5
Sterilgarda s.p.a	1
Francia Latticini s.p.a	1
Sabelli s.p.a	1
Latterie Venete s.p.a	1
Soc.Argri. Cooperlat	1
Caseificio Matteassi Onelio srl	1
Fattorie Garofalo soc coop.	1

3.2. Caciotta

Referring to the size of a whole medium caciotta, for each supermarket analysed, the space dedicated to this cheese was evaluated by considering all the brands (Table 3).

On average, the size of shelves dedicated to caciotta is 55.7 cm. The "Famila" of Parma is the supermarket with less dedicated space (21 cm.), followed by "Esselunga" (22 cm.), while "L’affare Rossetto" in Suzzara (MN) has 117 cm. dedicated to the caciotta.
Analysing the spaces occupied by the different brands in the supermarkets considered in our study, "Valtenera" is the one with the largest space (60 cm- “IN’S” Suzzara, MN), while those with the smaller space are "Cusna" and "Sabelli", respectively in supermarkets "Esselunga" (PR) and "panorama" (PR), with 7 cm of dedicated space.

The following table shows all the brands (22) in the 10 supermarkets analysed.

Apart from being the supermarket with the largest space dedicated to caciotte, "Affare Rossetto" (Suzzara, MN) is also the supermarket with the most numbers of products, in particular 6 followed by "Coop" (Suzzara, MN) with 4 products. The last ones are “Famila" (PR) and "Sigma" (PR) supermarkets with just one caciotta. The average number of products is 2.7 brands per supermarket.

Table 3: Size of the shelves used for caciotta and the size of each brand in detail.

Store	Street	Length (cm)	Number of shelves	Height of shelves (cm)	Brand 1	Length (cm)	Brand 2	Length (cm)	Brand 3	Length (cm)	Brand 4	Length (cm)	Brand 5	Length (cm)	Brand 6	Length (cm)
AFFARE	Via Donelli 4,Suzzara (MN)	117cm	3	30	Bergader	15	Bucaneve	30	Bayernland	15	Roverella	30	Caciottina Cascina	12	Stella del Grappa	15
COOP	Via F. Mitterand, 1 Suzzara (MN)	71cm	3	30	Faggiola	12	Ceccardi	15	BelPaese	30	Monte cusna	12				
PANORAMA	Via Silvio Pellico, 20 (PR)	57cm	2	30	Bergader	30	Primi Pascoli	20	Sabelli	7						
CONAD	Via Venezia, 40/A (PR)	43cm	2	30	Fochi	14	Bosco Gerolo	15	Bacio di luna	14						
ESSELUNGA	Via Sandro Pertini, 14 (PR)	22cm	2	30	Cusna	7	BelPaese	15								
FAMILA	Via Langhirano (PR)	21m	1	30	Sabelli	21										
SIGMA	Viale Antonio Gramsci, 9 (PR)	15	1	30	Belpaese	15										
EUROSPIN	Str. Langhirano, 150 (PR)	45cm	2	30	Italiani	20	Steffel	25								
LIDL	Via Della Cooperazione, Gonzaga (MN)	28cm	2	30	Milbona	8	Merivio	20								
IN'S	Str. Nazionale, 15/a Suzzara (MN)	110cm	1	30	Valtenera	60	Caciotta in's	30	Piumetta	20						

Sales, price and quantity formats, depending on the brands and the supermarkets, change from the sale of whole caciotte to one-packed “monoportion”. Obviously, this involves a change in sales price, so the price expressed in € / kg (Fig.1) was analyzed.

The average of caciotte made with cow's milk is 8.61 € / kg, while among the caciotte tested is 8.85 € / kg.

The brand with the highest average price is "Sabelli" sold at (13.25 € / kg), while "Belpaese" at "Sigma" (PR) has the highest price (15.9 € / kg), due to the fact that is not sold as a packaged product but served by the staff at the counter of fresh cheeses.

On the other hand, the brand with a lowest average price is "Steffel" at the "Eurospin" in Parma sold at 6.49 € / kg, followed by "Faggiola" at Coop (Suzzara, MN) and Valtenera at the "In's" discount Suzzara, (MN) at 6.5 € / Kg.

The caciotta with a variance between the highest price and the highest difference between the maximum and the minimum price is "Belpaese", as it is also sell in the counter of fresh cheeses while, with regard to the caciotte present only at the fridge, we have those of " Bergrader "and" Sabelli ".

Particular attention is given to the caciotta packaged in protective atmosphere (MAP) "Buyernland" sold at 6.77 € / kg and "In's" at 6.9 € / kg. The average price of MAP products is 6.8 € / kg, which is 22% lower than the average of caciotte made only with cow's milk and 58% lower than the highest price, in particular if compared with "Belpaese" sold by "Sigma" (PR).

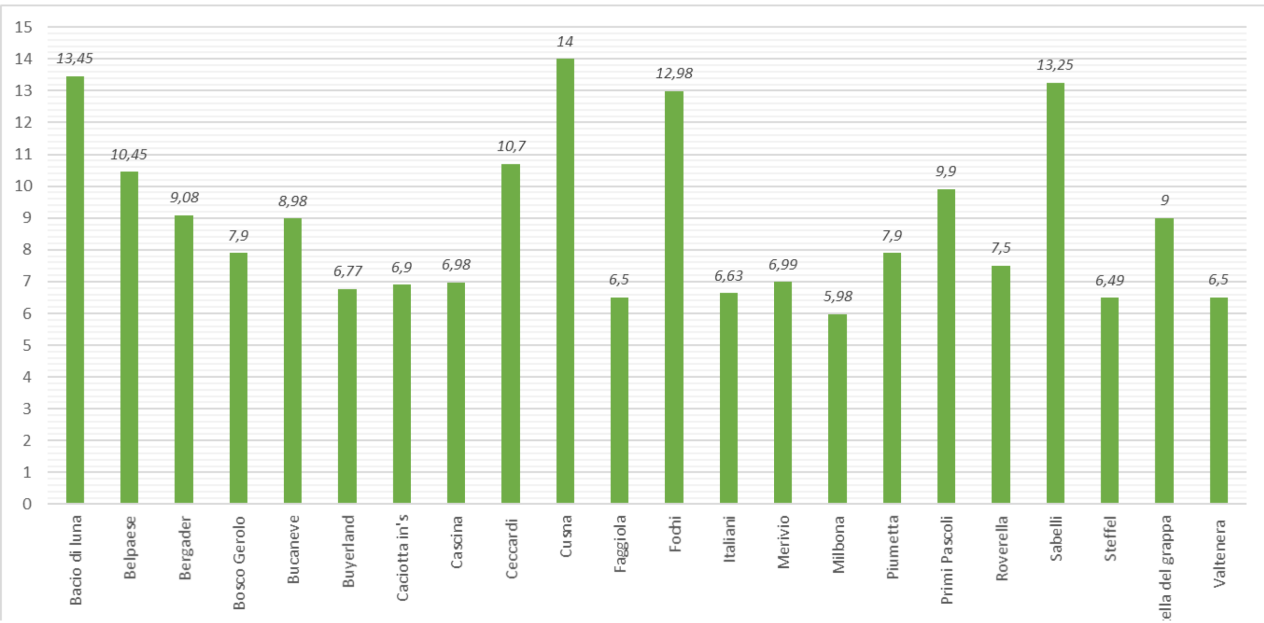

Figure 1: Average caciotta price for each brand

Table 4: The presence of a given ingredient for each brand

BRAND / INGREDIENTS	Biological pasteurized cow's milk	Pasteurized cow's milk	Cow's milk	Pasteurized sheep milk	Salt	Rennet	Ferments	Preservatives	Modified starch	Microbiological rennet	Lactic ferments	Penicillium candidum
Bacio di luna			x		x	x						
Belpaese			x		x	x			x			
Bergader			x		x	x				x	x	
Bosco Gerolo		x			x	x						
Bucaneve		x			x	x						x
Buyerland			x		x	x						
Caciotta in's			x		x	x						
Cascina		x			x	x					x	
Ceccardi		x			x	x						
Cusna		x		x	x	x		x				
Faggiola	x				x	x	x					
Fochi			x		x	x						
Italiani			x		x	x						
Merivio			x		x	x						
Milbona			x		x	x					x	
Piumetta			x		x	x						
Primi Pascoli			x		x	x		x			x	
Roverella			x		x	x	x					
Sabelli			x		x	x						
Steffel			x		x					x	x	
Stella del grappa			x		x	x						
Valtenera			x		x	x				x	x	
Competitive number for a particular product	**1**	**5**	**16**	**1**	**22**	**21**	**2**	**2**	**1**	**3**	**6**	**1**

In the above table lists the ingredients such as: milk type (cow or sheep), salt, rennet, preservatives, starch, lactic ferments and penicillium candidum.

The presence of salt and rennet (except the "Steffel" caciot) is a constant in all products. The type of milk used is always cow's milk, but in some brands it can be "pasteurized" or "biological", whereas only one case is added to sheep's milk (only for the brand "Cusna").

Lactic ferments are only present in 6 brands, such as "Valtenera", "Steffel", "Primi Pascoli", "Milbona", "Cascina" and "Bergader".

The only caciots packaged in MAP are "In's" and "Buyerland" and both have the same ingredients (salt, rennet and cow milk).

In the following table summarizes nutritional values for each brand by referring to 100g of product. Some brands, being sold in monoportion, have some unreadable data due to the ineffective state of the original

Table 5: Nutritional value for every 100 g of product

NUTRITIONAL VALUES IN A DETERMINED BRAND (for 100g)								
Number of brands	BRAND/ NUTRITIONAL VALUES	Energy(kcal)	Fat (g)	of which saturated	Carbs (g)	of which sugars	Protein (g)	Salt (g)
1	Bacio di luna*	/	/	/	/	/	/	/
2	Belpaese	1279	24	17	3	0,6	20	1,5
3	Bergader	1414	30	20,7	0,3	0,1	17,6	1,9
4	Bosco Gerolo	1416	28	20	0	0	22	0,63
5	Bucaneve	1383	25,94	16,83	0,95	0,68	23,3	1
6	Buyerland	1470	31	22	<0,1	< 0,1	19	1,3
7	Caciotta in's	1248	25	16,2	2	2	17	2,2
8	Cascina	1416	28	20	0	0	22	0,63
9	Ceccardi	1493	30	20	<0,5	0	22	0,8
10	Cusna	1510	30	20	<0,5	0	23	1,6
11	Faggiola	1493	29	20	1,7	1,7	23	0,9
12	Fochi	1210	24,96	16,73	1,8	1,38	18,3	0,99
13	Italiani	1550	31	22	1,7	0,8	22	0,96
14	Merivio	1364	25,7	17,9	1,3	0	23,3	1,47
15	Milbona	1242	23	15,4	1	1	22	1,6
16	Piumetta	1390	27	15	0	0	20	1,7
17	Primi Pascoli*	/	/	/	/	/	/	/
18	Roverella	1466	29,5	20,2	1,5	0,9	20,5	1,4
19	Sabelli	1524	29	20	2	2	24,5	2
20	Steffel	1414	30	20,7	0,3	0,1	17,5	1,9
21	Stella del grappa	1400	29	23	0,7	0,68	20	1,7
22	Valtenera	1414	30	20,7	0,3	0,1	17,5	1,9

* Packaged in monophorion and unreadable data

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label being cut or torn. The analysis shows that the average energy of the caciotta is 1404.8 kcal, the highest is 1550 kcal (the "Italian" brand) and the lowest is 1210 kcal (brand "Fochi").

The “fat” is on average 28g of which 19g of saturated fat;The bands with the highest values are "Italians" and "Buyerland" with 31g of fat, of which 22g are saturated, whereas the one with the lowest is "Milbona" with 23g of fat, of which 15.4g saturated.

As for carbohydrates, the avarage value is 1.09g of which 0.63g of sugars. The maximum value is 3 of the "Belpaese" brand, which contains 0.63g of sugars while the minimum value is 0 in "Cusna" and "Piumetta" products.

The "Sabelli" caciotta has 24.5g of protein and represents the highest value among the brands taken into consideration, while with 17g the "In's" has the minimum value. The average protein quantity is 20.73g.

Finally, the average salt value is 1.4g; The "In's" cachet, packaged in a protective atmosphere, holds the maximum value with 2.2g, while the smaller quantity (0.63g) is contained in the "Bosco Gerolo" caciotta.

The transcription of the area and production site data for some brands was impossible, as the original labeling was unreadable due to ruined part of the label or of the packaging format of the caciotta itself, such as the monoporition.

On a total of 22 tabulated brands, five have German origins, while among the caciots of Italian origin, only those of "Ceccardi" and "Cusna" are produced in the same production site, in particular Gennaro Auricchio in Scandiano (RE).

Table 6: Production place and production facilities of caciotta

Number of brands	Brand	Production place	Production facilities
1	Bacio di luna*		
2	Belpaese	Giussaago (PV)	Galbani Egidio s.p.a
3	Bergader	Germania	Waging
4	Bosco Gerolo	Rivegnano (PC)	Cascina Bosco Geroldo s.r.l.
5	Bucaneve*		
6	Buyerland	Germania	Buyerland s.r.l
7	Caciotta in's	Pagazano (PG)	Arrigoni battista s.p.a
8	Cascina*		
9	Ceccardi	Scandiano (RE)	Gennato Auricchio s.p.a
10	Cusna	Scandiano (RE)	Gennato Auricchio s.p.a
11	Faggiola	Palazzuolo sul senio (FI)	Agricoop sac
12	Fochi	Parma	Fochi e tagliavini s.r.l.
13	Italiani	Cavaso del Tomba (TV)	Centro Veneto Formaggi s.r.l.
14	Merivio	Savignano (CN)	Perla s.n.c
15	Milbona	Germania	Meeder
16	Piumetta	Grigno (TN)	Cesaria Monti Trentini
17	Primi Pascoli	Noventa del Piave (VE)	Alimenta s.p.a
18	Roverella	Rovere Veronese	Lessini s.r.l.
19	Sabelli	Ascoli Picena	Sabelli s.p.a
20	Steffel	Germania	Bad Aibling
21	Stella del grappa*		
22	Valtenera	Germania	Bad Aibling

* Packaged in monoporition and unreadable data

4. CONCLUSIONS

The collected data show that dairy products and, in particular, ricotta and caciotta, regardless of where they are purchased, have very variable quality and packaging characteristics, probably depending on the geographical area of production.

From the extrapolated data it can be seen how ricotta is produced with different ingredients, packages and prices; In fact, for the price per Kg, it is noticed the passage from 2.2 € to over € 10 depending on the different origins of the milk (cow’s milk rather than goat’s one) but also according to the packaging (protective atmosphere). In addition, the average price per kg of ricotta is 6.10 €. An interesting data is about ricotta production: indeed, many brands are produced at the same plant (Usmate Velate (MB) excels with 14 different brands served.) The ricotta brand that appears to be present in most supermarkets with greater dedicated space is "Santa Lucia" with a price of 3.94 € / Kg for non-light cow's milk ricotta.

From the analysis carried out it is shown how the caciotta is produced and sold with different packaging and prices but with similar ingredients (except for milk differentiation); Indeed, for the price per Kg, it is possible to note the passage from € 5.8 to € 14, mainly based on the sales size (pre-packaged, bulk or full caciotion). The average price per kg of ricotta is 8.85 €. In addition, one of the interesting data is the sales size difference that is noticed by passing from the area of Parma, where monoportion prevails with low brand depth, to Suzzara (MN), where there are more than one full-size and more branded caciotte.

Probably this is due to the differentiation of customers according to the size and to the location of the city where the supermarket is present. Thanks to the compilation of the questionnaires, it will be possible to understand the possibilities of selling the products under review as well as their market placement and the medium-price at which consumers would be willing to buy them.

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APPENDIX A: Questionnaire for consumers.

PERSONAL DATA

1) Age

____

2) Are you?

- ☐ Male
- ☐ Female

3) Job

____

PURCHASE RICOTTA

1) How often do you buy ricotta?

- ☐ Never or almost never
- ☐ Daily
- ☐ Several times a week
- ☐ Several times a month

2) Where do you usually buy ricotta?

- ☐ Supermarket - Great distribution
- ☐ Market
- ☐ Farms (direct sales)
- ☐ GAS (Purchase groups)

3) Do you know the difference between the ricotta packaged in a protective atmosphere and in a traditional packaged?

- ☐ Yes
- ☐ No

4) Considering an average price of ricotta made in a protective atmosphere of 5.61 €/kg, how much is it willing to pay for buying a higher quality product?

- ☐ 0,50 €/kg
- ☐ 1,00 €/kg
- ☐ 1,50 €/kg
- ☐ 2,00 €/kg
- ☐ 2,50 €/kg
- ☐ 3,00 €/kg

PURCHASE CACIOTTA

1) How often do you buy ricotta?

- ☐ Never or almost never
- ☐ Daily
- ☐ Several times a week
- ☐ Several times a month

2) Where do you usually buy ricotta?

- ☐ Supermarket - Great distribution
- ☐ Market
- ☐ Farms (direct sales)
- ☐ GAS (Purchase groups)

3) In which format do you usually buy the caciotta?

- ☐ Monoportion
- ☐ Unpackages (at the counter fresh)
- ☐ Caciotta entire

4) Do you know the difference between the ricotta packaged in a protective atmosphere and in a traditional packaged?

- ☐ Yes
- ☐ No

5) Considering an average price of 8.85 € / kg of caciotta, how much are you willing to pay for buying a superior quality product?

- ☐ 0,50 €/kg
- ☐ 1,00 €/kg
- ☐ 1,50 €/kg
- ☐ 2,00 €/kg
- ☐ 2,50 €/kg
- ☐ 3,00 €/kg

APPENDIX B: Size of the shelves used for ricotta and the size of each brand in detail

Store	Street	Length (cm)	Number of shelves	Height of shelves (cm)	Brand 1	Length (cm)	Brand 2	Length (cm)	Brand 3	Length (cm)	Brand 4	Length (cm)	Brand 5	Length (cm)	Brand 6	Length (cm)	Brand 7	Length (cm)	Brand 8	Length (cm)	Brand 9	Lungh. (cm)	Brand 10	Length (cm)	Brand 11	Length (cm)	Brand 12	Length (cm)	Brand 13	Length (cm)	Brand 14	Length (cm)	Brand 15	Length (cm)	Brand 16	Length (cm)	Brand 17	Length (cm)
FAMILA	Via Langhirano (PR)	80	6	40	Accadì	12	Brimi bio	10	Cas.Pini a fette	12	Fattorie Osella	10	Granarolo	12	Granarolo light	12	Le Malghette	10	Santa Lucia	20	Selex	12	Spega	12	Vallelata	10												
ESSELUNGA	Via Sandro Pertini, 14 (PR)	200	3	40	Accadì	24	Antiche Bonatà	10	Benessere bio	10	Bianca	10	Esselunga equilibrio	24	Ricotta Esselunga	100	Ricottine Esselunga	12	Fidel	20	Pettinicchio	10	Santa Lucia	100	Valdichiana	20	Vallelata	20	Vallelata ricottine	24	Vallelata Bufala	20	Granarolo	40				
SIGMA	Viale Antonio Gramsci, 9 (PR)	140	3	30	Brimi bio	10	Granarolo	20	Granarolo ricottine	24	Santa Lucia	60	Santa lucia light	20	Sigma capra	30	Sigma ricotta	30	Sigma ricottine	12	Spega	12	Ricottine Vallelata	12														
PANORAMA	Via Silvio Pellico, 20 (PR)	60	4	40	ricottine Granarolo	12	Lago Maggiore	20	Latteria Siciliana	10	Panorama	20	Sabelli	30	Santa Lucia light	20	Vallelata	10	Ricottine Vallelata	24	Valsoia	12																
COOP	Via F. Mitterand, 1 Suzzara (MN)	100	7	30	Accadì	20	Bustaffa bio	12	Coop bene	12	Coop ricotta	40	Coop ricottina	48	Coop viva verde	20	Fattoria Osella	24	Fior di Maggio	40	Granarolo	30	Granarolo light	12	Santa Lucia	80	Sarda Formaggi	20	Spega	24	Vallelata-ricottine	24						
CONAD	Via Venezia, 40/A (PR)	100	4	30	Accadì	12	Conad alimentari	12	Conad ricotta	10	Conad ricottine	24	Conad piacer e si	12	Caseificio Preziosa	10	Granarolo	20	Granarolo light	12	Granarolo ricottine	12	Santa Lucia	20	Vallelata	20												
AFFARE	Via Donelli 4,Suzzara (MN)	220	3	40	Accadì	12	Biraghi	18	Brimi	10	Bustaffa	12	Caseificio Pini	10	Cas.Pini gocce di r.	20	Cas.Pini misto pecora	10	Cas.Pini a fette	12	Fattorie Osella	12	Granarolo	20	Granarolo light	12	Santa Lucia	20	Trevalli	10	Vallelata	10	Vallelata bufalina	6	Vallelata ricottine	12	Rossetto	12
EUROSPIN	Str. Langhirano, 150 (PR)	20	3	50	Italiani	20	Land	30	Land senza lattosio	12																												
LIDL	Via Della Cooperazione, Gonzaga (MN)	30	1	40	Merivio	30																																
IN'S	Str. Nazionale, 15/a Suzzara (MN)	50	2	40	Bio	18	Valtenera	30																														

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APPENDIX C: Average Ricotta price for each brand