

Editors Dr. Cihan Cobanoglu Dr. Valentina Della Corte



Co-Editors

Dr. Cihan Cobanoglu, University of South Florida, USA *Dr. Valentina Della Corte,* University of Naples Federico II, Italy

ADVANCES IN GLOBAL SERVICES AND RETAIL MANAGEMENT: VOLUME 2

ISBN 978-1-955833-03-5

*Authors are fully responsible for corrections of any typographical, copyrighted materials, technical and content errors.

Co-Editors

Dr. Cihan Cobanoglu, University of South Florida, USA *Dr. Valentina Della Corte,* University of Naples Federico II, Italy

ISBN 978-1-955833-03-5

© USF M3 Publishing 2021

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed. The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use. The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This imprint is published by USF M3 Publishing, LLC

The registered company address is University of South Florida, 8350 N Tamiami Tr, Sarasota, FL 34243 USA.

Associate Editor

Dr. Seden Dogan, Ondokuz Mayis University, Turkey *Dr. Muhittin Cavusoglu*, Northern Arizona University, USA

Assistant Editor

Dr. Faizan Ali, University of South Florida, USA
Dr. Resat Arica, Adiyaman University, Turkey
Dr. Alaattin Basoda, Aksaray University, Turkey
Dr. Lisa Cain, Florida International University, USA
Dr. Giovanna Del Gaudio, University of Naples Federico II, Italy
Dr. Rab-Nawaz Lodhi, University of Central Punjab, Pakistan
Dr. Bendegul Okumus, University of Central Florida, USA
Dr. Antonella Miletti, University of Naples Federico II, Italy
Dr. Gozde Turktarhan, University of South Florida, USA

Editor Assistants

Ipek Itir Can, Anadolu University, Turkey Filiz Dalkilic Yilmaz, Nevsehir Haci Bektas University, Turkey Eda Hazarhun, Dokuz Eylul University, Turkey Gamze Kaya, Mersin University, Turkey Oguz Kiper, Sakarya Applied Sciences University, Turkey Basak Ozyurt, Trakya University, Turkey Gokhan Sener, Necmettin Erbakan University, Turkey

*Authors are fully responsible for corrections of any typographical, copyrighted materials, technical and content errors.

Survey on Purchasing Methods of Food Products in Tarragona and Catania

Matarazzo Agata, Vazzano Tommaso Alberto, and Squillaci Carmelo

Department of Economics and Business University of Catania, Italy

Abstract

Marketing can be the strategical difference between two companies. It identifies the way to sell a product, emphasizing the characteristics of the product. The paper aims to examine the relationship between green marketing strategy by food companies and consumers shopping behaviour. In order to better analyse the two factors of green marketing tools, their use and advantages are described, highlighting benefits of their application by food companies. The European Organic standard certification process is fully described by a comparison between quality and ecological labels. The European law set different requirements that companies must follow for the implementation of that standard. The last part of the paper shows data about customer satisfaction obtained by the comparison of the different behaviour of the populations leaving in two cities, Tarragona, located in the east side of Spain, and Catania, located in the south side of Italy. The survey allows to understand the people attitude in buying food product and how this process is influenced by green marketing techniques. This study allows understanding the new green marketing approach, showing a different point of view useful as a starting point to introduce a new marketing strategy to better face competitors.

Keywords: green economy, survey, food packaging, ecolabel, organic food, Catania, Tarragona

Recommended Citation: Agata, M., Alberto, V. T., & Carmelo, S. (2021). Survey on purchasing methods of food products in Tarragona and Catania. In C. Cobanoglu, & V. Della Corte (Eds.), *Advances in global services and retail management* (pp. 1–19). USF M3 Publishing. https://www.doi.org/10.5038/9781955833035

Introduction: Green Marketing and Eco-Labels

The lean green strategy is one in which the green tends to be exposed mainly in the development, design and production of the product. The defensive green strategy mostly involves the promotional aspect of the marketing mix, making particular use of softer public relations promotions, rather than explicit tools such as advertising (Milazzo et al. 2017). The defensive green also silently pursues green in the development, design and production of the product. The green shaded strategy puts a second emphasis on green in its most obvious promotional efforts and pursues green in product development, design and production, as well as pricing to possibly achieve cost efficiencies with green. Finally, the extreme green strategy involves intensive use of all elements of the marketing mix, including the place retail, since distribution systems and retailers are chosen and incentivized on the base of their green (Trandafilovic, Igor & Manić, Momčilo & Blagojević, Aleksandra 2017).

Moreover, in addition to the 4Ps of traditional marketing, the concept of green leads to the development of further social "P". Public: effective social marketing knows its audience and can attract more groups of people. "Public" are the internal and external groups involved in the

program. External audiences include target audiences, secondary audiences, policy makers and gatekeepers, while internal audiences are those who are involved in some way with the approval or implementation of the program. Partnership: most issues related to social change, including "green" initiatives, are too complex to be managed by a person or a group. Joining with other groups and initiatives to put together forces strengthens the possibilities of effectiveness. Policy: social marketing programs can do well to motivate the change of individual behaviour, but it is difficult to sustain unless the long term support of the environment in which they are found.

Changes in policies are often necessary and media promotion programs can be an effective complement to a social marketing program. Purse Strings: how much this strategic effort will cost and who is funding the effort (Ginsberg J.M., Bloom P.N. 2004). Clearly, the product area is the most involved through all the strategies. In order to obtain a greener and more sustainable product, companies should follow the 5R approach. This approach can be integrated into the development phase or later, when consumers already own the product.

Table 1: Greener Products: The 5 Rs

Waste 5Rs	PRE-CONSUMER	POST-CONSUMER
REPAIR	x	\checkmark
RECONDITIONING	x	\checkmark
RE-USE	x	\checkmark
RECYCLING	\checkmark	\checkmark
RE-MANUFACTURE	x	\checkmark

Source. Charter M., Greener Marketing: A Responsible Approach to Business, Routledge Taylor & Francis Group, London, 2017, p.149

Repair: the life of a product can be extended by repairing one or more parts. Repair may represent anything from a short-term to long-term life extension for the product. Reconditioning: it can be an option when a product is about to fail due to several contributory factors. It involves a complete overhaul of the product to replace worn parts. Reconditioning is a medium-term to long-term life extension for the product.

Re-use: Many products can be re-used, for instance, milk bottles. It may also be possible to design and build products, able of being used more than once, such as stronger plastic bags, although the full environmental costs for their disposal should be considered. Recycling: It is the process of collecting and sorting used materials, which are then re-processed and turned back into useable raw materials. Many materials are already being recycled, such as paper, glass and some metals. One of the problems faced by companies who try to ensure that their products are recyclable is that the recycling facilities are often poorly developed. One strategy may be for companies to sponsor recycling collection schemes. Re-manufacture: This is the process of producing new products from used ones. The product is reworked so as to mend and replace the worn parts. Often a certain amount of virgin material is used to restore the product to its original form, according to some performance criteria (Munda, Giuseppe; Matarazzo, Agata, 2019). Unfortunately, a majority of people believe that green marketing refers solely to the promotion or advertising of products with environmental characteristics. Terms like Phosphate Free, Recyclable, Refillable, Ozone Friendly, and Environmentally Friendly are some of the things consumers most often associate with green marketing. While these terms are green marketing claims, in general green marketing is a much broader concept, that can be applied to consumer goods, industrial goods and even services (Charter M. 2017). The Life Cycle Approach (LCA) described by Jacquelyn A. Ottman in her book "The Newest Rules of Green Marketing" helped to use the proper description for a better communication without misdirection.



Figure 1: The Necessary Green Life Cycle Approach

Source. Ottman J.A. The Newest Rules of Green Marketing, Routledge, London, 2017, p 254

Figure 2: The Ecolabel Logo



Figure 3: Mobius Cycle



During the recent years, these words have been used improperly, so a growing number of international institutions and organizations have become promoters of a correct information environment. The efforts of these bodies have led to a set of standards, aimed at defining the characteristics and requirements that the information should possess to be correct. The International Standard Organization with the group of ISO 14020:2000, defines three kind of ecological labels. The ISO 14024 identify the first group of eco-labels, voluntary and based on a multi-criteria system that considers the entire life cycle of the product, that should be certified by an independent body. This includes the European ECOLABEL quality mark. (ISO 14024:2018 environmental labels and declarations - type I environmental labelling - principles and procedures.)

Then the ISO 14021 identify the second group of eco-labels those, based on self-environmental declarations by producers, importers or distributors of products, without the involvement of an independent certification body, i.e. "recyclable", "compostable", etc. Finally, the ISO 14025 identify the third and the last group of ecological labels, whose statements are based on established parameters and containing a quantification of the environmental impacts associated with the life cycle of the product, calculated through an LCA system. They shall be subject to independent control and presented in a clear and comparable form. i.e. "Environmental Product Declarations -EPD". The EPD is a document providing objective, comparable and credible information on the environmental performance of products and services. Such information shall be for information purposes only and shall not include any assessment method, preference criteria or minimum levels to be met by the environmental performance. Moreover, the EPD uses Life Cycle Assessment, applied in accordance of ISO 14040, as a methodology for identifying and quantifying environmental impacts. It is also applicable to all products or services, regardless of their use or positioning in the production chain; in addition, a classification into well-defined groups shall be made so that comparisons can be made between functionally equivalent products or services can be compared. This Ecolabel is verified and validated by an independent body that ensures the credibility and veracity of the information contained in the LCA study and the statement (Salomone R, Clasadonte M T, Proto M, Raggi A, Arzoumanidis I, Ioppolo G, et al 2012)

Material and Method: Sustainable Development Tools

Corporate Social Responsibility, also known as CSR, corporate awareness and corporate citizenship, is the integration of socially beneficial programs and practices in the model and culture of a corporation business. CSR aims to increase long-term profits for online and offline businesses allowing them to become more efficient and attract positive attention to their efforts (Giunta F., Leanza A., Matarazzo A., Di Silvestro A., Gigli C., Lombardo E. 2018; https://www.bigcommerce.com).

The adoption of CSM by companies is the first key point to achieve a good green marketing approach. The CSR concept was developed for the first time during the Brundtland report and lately resumed during the United Nations Conference on Sustainable Development (UNCSD). A strong support was given by Herman Daly, university professor, who identified three conditions related to CSR:

- The utilization rate of renewable resources must not be exceeding its regeneration rate;
- The release of pollutants and waste into the environment must not exceed the carrying capacity of the environment itself;
- The stock of non-renewable resources must remain constant over time (https://anteritalia.org).

As mentioned above, the CSR is an integration of programs; to achieve and execute these programs there are several useful tools to attain a correct sustainable development. Voluntary Instruments: based on cooperation between public and economic actors, these can be concluded at the community, national or regional level and can take the form of unilateral commitments by private economic subjects (Albonetti S2002; http://www.umbertosantucci.it). Management systems and environmental audit are part of those instruments such as EMAS and ISO 14001, which must evaluate the performances of private institutions (D'Incognito V 1998; Milazzo P., Sgandurra M.,

Matarazzo A., Grassia L., Bertino A. 2017). IPP – Integrated Product Policies: this is the most advanced environmental policy available today in the international field, aiming at continuously improving the environmental performance of products (Sumaedia S. Yarmen M 2014; Strotmann C. Göbel C. Friedrich S. Kreyenschmidt J. Ritter G. Teitscheid P. 2017)

The IPP Voluntary tools are:

- EPD Environmental Product Declaration: document that provides objective, comparable and credible information on the environmental performances of the product. It aims to allow at comparisons between products or services performing identical functions (Skaar C. Mgerholm Fet A)
- LCA Life Cycle Assessment: the evaluation of the life cycle of products and services related to the consumption of raw materials and the consequent potential environmental impacts (Ingrao C., Matarazzo A., Tricase C., Clasadonte M T, Huisingh D. 2015; Binaghi L. Del Borghi M. Gallo M 2007; Ingrao C., Selvaggi R., Valentia F., Matarazzo A., Pecorino B., Arcidiacono C. 2019);
- EUROPEAN ECO-LABEL: a tool developed by the European Community for industrial consumer products. The labelled products that show the European Commission logo are processed according to EU standards by following specific environmental performance criteria (Lavalle S., Plouffe S. 2004; Matarazzo A, Clasadonte M T, Lo Giudice A 2015; Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel; https://ec.europa.eu/);
- GPP Green Public Procurement: Purchase by the Public Administration of products with reduced environmental impact, with the double aim of inducing companies to produce goods with better environmental performance and to be an example for all consumers, directing them towards eco-friendly productions sustainable by the other (A.R.P.A.V. 2001).

Until now, the concept of organic quality and standards have been described, but what are the correlations with the concept of green and its use? As recalled before, an organic product must contain the 95% of organic ingredients and processed following the principles. A "green" product is the one that is not harmful to people and environment, made up from recycled materials and made by components recyclable in their turn. A green product has also less impact on the environment throughout its life cycle. This includes its manufacture, transportation, use and end of life. However, unlike the "organic" claim, the "green" designation is not regulated. The best way to understand if one product is green is to look for a logo, in particular the Eco- Logo, a program developed by the Organisation for Economic Co-operation and Development that certifies a degree of biodegradability of the product from the 60% or more. This program, however, is voluntary and not common.

Another difference is that there is no such thing as a 100% green product, since every product will have some degree of impact on the environment (such as with raw materials and energy for its manufacture, transportation, packaging, etc.). On the other hand, a product may well be 100% organic. In other words, an organic product is green, but a green product is not necessarily organic (http://sanimag.sanimarc.com).

Food Packaging

Packaging used for food is often different from non-food product or industrial packaging. Packaging for food has to be compatible with the food product packed inside, and food standards and regulations must be met. For instance, the migration of harmful substances from packaging material in direct contact with food must be avoided. Thus, materials used for food packaging, handling and storage must be chosen accordingly (Dhar. R., Kasterine A., Charbonneau J., McKee A., Reynolds J., Domeisen N. et al 2012).

- Sustainable packaging for organic food is characterized by the following criteria:
- Beneficial, safe and healthy for individuals and communities throughout its life cycle;
- Meets market criteria for performance and cost;
- Sourced in a responsible way;
- Sourced, manufactured, transported and tested for its intended use;
- Maximizes the use of renewable or recycled materials wherever possible;
- Manufactured using clean production techniques and best practices;
- Designed to minimize the need for materials and energy;
- Can be recovered and recycled effectively.

The environmental impact can depend on the numbers of intermediaries from production to market. In large distribution, three different levels of packaging are used (Figure 4):

Figure 4: Levels of Packaging



The environmental impact of the packaging lifecycle is one of the most important factors taken into account when dealing with organic food. The environmental implications are as follows (Dhar. R., Kasterine A., Charbonneau J., McKee A., Reynolds J., Domeisen N. et al 2012):

- The use of finite, non-renewable resources, such as oil;
- The use of natural resources, such as trees and water;
- Energy use, such as in manufacture and transport;
- Emissions to air, such as gases which contribute to climate change;
- Discharges into water, which can be toxic to plants and animals;
- The creation of hazardous waste by-products including ash and leachate;
- Extractive industries and landfill sites which affect natural habitats;
- Transport, pollution and littering which hit the natural amenity value of landscapes.



Figure 5: Simplified Packaging Life Cycle

Source. C. Brookes and K. Vrolijk; Soil Association 2006

Analysing the Product Life Cycle is possible to bump into options to minimalize the environmental impact. For this purpose, as regard to the primary package, producers may decide to reduce the amount of material used for the production of the package by making boxes thinner and lighter. With respect to the secondary and tertiary packages, producers can use boxes or containers made up by easy-recyclable materials or already made up by those (Villari et al. 2020; Spadaro et al., 2020). They can also decide to use materials obtained by green energy instead of those obtained by fossils resources, moreover avoiding plastic when technically not necessary

"Green" and "Organic" are two roads that go parallels until they meet. When it happens, the result is a final product healthy for human beings and safe for the environment. These two concepts are extremely important for consumers and they have to be clearly defined and not confused. On a financial level, it is important to highlight that a reduction in the raw material involved in the life cycle of a product can be often considered a saving in the production process for the company. Being eco-friendly allows companies to double their grow up: firstly, for the involvement demonstrated to the public in order to get a better reputation. Secondly, from an economic point of view, because savings mean a higher profit rate and the adoption of green standards allows the company to be more proactive preventing future costs derived by future compulsory adjustment. Green marketing helps more in the first opportunity for growth, using all the good practices carried on by the company. Thanks to the advertising that highlight them properly and makes them appreciated by consumers, companies can appear green as they are, and increase their position in all their market segments.

Experimental Part: Presentation of the Study

This part describes what criteria customers take into consideration when buying food, in particular by comparing customers living in two similar cities located in different geographical areas. The survey was conducted in the area of Catania as regard to Italy, and in Tarragona as concerned to Spain. First the two cities are described and compared. Then the method employed is shortly described, the survey results are matched and compared. The Mediterranean area has always been characterized by a strong predisposition to innovation, but with a continuous look to tradition. This area has been the object of conquests, discoveries, traditions and culture handed down over the

centuries. Catania, located in the south of Italy and Tarragona, located in the north-east of Spain, are two provinces with many common characteristics, but different from some point of view. The comparison between Catania and Tarragona is not accidental, resulting as a combination between the cultural and geographical characteristics of the area in which they arise. The people living in both cities have the same Mediterranean diet; they assume significant quantity of carbohydrates, so due to their main usual dishes, such as "Paella" regarding Tarragona and "Arancini" as regard to Catania. Another matching point concerning typical food is the use of snails that are commonly prepared and eaten in both cities. It is clear that those two cities, although located in two different part of Europe, are more similar than is possible to think, due to their history and the common roman culture roots. From February to June of the 2019, people's opinions were collected and compared to each other. Habits of Tarragona and Catania have a lot of matching points. People who were interviewed in Tarragona often expressed similar opinion to those living in Catania. Due to these collected results, an interesting comparison was made, achieving important conclusions that are presented in this section.

Tarragona

Tarragona is one of the most active and dynamic cities of the east part of Spain. The city counts 130.000 habitants and is located exactly in the autonomous community of Catalonia. Tarragona is the capital city of the homonym province. The city could have begun as an Iberian town called Kesse or Kosse, named for the Iberian tribe of the region, the Cossetans, although the identification of Tarragona with Kesse is not certain (Busch S.O 2001). William Smith suggests, in his letters, that the Phoenicians, who called it Tarchon, which means "citadel", possibly founded the city. This name was probably derived from its location on a high rock above the sea; whence we find it characterised as Arce Potens Tarraco. It was situated on the river Francolí, on a bay of the Mediterranean, between the Pyrenees and the river Ebro.

During the Roman Republic, the city was fortified and much enlarged as a Roman colony and converted into a fortress and arsenal against the Carthaginians. The city was first named Colonia Iulia Urbs Triumphalis Tarraco and was the capital of the province of Hispania Citerior. Later, it became the capital of the province named after it, Hispania Tarraconensis, in the Roman Empire. After the disappearance of the Western Roman Empire, it was captured first by the Vandals and then by the Visigoths. During the Catalan revolt, Tarragon was captured by Catalan insurgents with French support in 1641, but it was retaken by Spanish troops in 1644. It was captured by allied Portuguese, Dutch, and British troops in 1705 during the War of the Spanish Succession and remained in their hands until Treaty of Utrecht in 1713. During the war, the Catalans supported the unsuccessful claim of Archduke Charles, Duke of Teschen against the victorious Bourbon Duke of Anjou, became Philip V of Spain. He signed the Nueva Planta decrees, which abolished the Crown of Aragon and all remaining Catalan institutions and prohibited the administrative use of Catalan language on 16 January 1716.

During the Peninsular War, in the first siege of Tarragona from the 1811, the Army of Aragon of the First French Empire laid siege to a Spanish garrison. During the Spanish Civil War, Tarragona was in the hands of the Second Spanish Republic until captured by Franco's Nationalist troops on 15 January 1939 during the Catalonia Offensive (Arbulo R., Joaquìn, Mar R., Beltràn-Caballero A., Gris F. 2018).

Catania

Catania is one of the main cities of Sicily as well as the centre of the same name metropolitan area, the most densely populated of the island with its 310,000 inhabitants. The city stands on the east coast of the island and the origin of its name is uncertain: according to the Greek historian Plutarch, its name comes from the Sicilian katane. Historically, the near Naxos colonists, making it a Greek commercial colony until the fifth century BC, founded the city in 729 BC. Later, the city was conquered by the tyrant of Syracuse, Gerone I who deported the inhabitants, transferring them to the city of Lentils, replaced with 10,000 new settlers, part Syracusan and part Greek. After the tyrant death, the new settlers were driven away to the southern side of Etna and the ancient citizens were could return to their city. Under Dionysius I of Syracuse, Catania was recaptured and its population was reduced to slavery and colonized by the mercenaries of Campania. Subsequently, the city reborn thanks to the fertile volcanic soil and its high agricultural yield. Under the Roman age, Catania was part of the Roman province of Sicily as a "decuman civitas". Many buildings, such as the Roman Theatre, the Amphitheatre and the Baths are proof of wellbeing of the city during the Roman Empire. On the contrary, during the Byzantine and Arab domination, Catania lost its importance and was downgraded by other Sicilian cities such as Syracuse and Palermo. It returned to the limelight as a commercial and maritime centre only under the Normans, but the earthquake of 1169 with 15,000 dead people and the devastation caused by the Emperor Hohenstaufen Henry VI in 1194 made the city fall into oblivion.

With the foundation in 1434 of the University of Catania, the oldest in Sicily and one of the oldest in Italy, and with the settlement of Aragonese, the famous Spanish family, in the city, Catania had the beginning of a development. It became the capital of the Kingdom of Sicily and one of the most important cities of Southern Italy. Then due to the plague of 1576 the wealth and development of the city was restrained. Later, in 1669 a gigantic lava eruption destroyed the western part of the city and finally in 1693 a strong earthquake destroyed what remained of Catania. Reconstruction in the eighteenth century, based on the plans of Giovanni Battista Vaccarini, allowed Catania to emerge from the ruins in his actual appearance. Although the lava stone used for the reconstruction of the buildings seems often gloomy, it contrasts with the pulsating life of the city full of many young people, students and tourists who move through the city streets under the beautiful sun.

Results and Discussion

The survey was aimed at analysing the way costumers purchase in the areas of Tarragona and Catania. Web forms have been used to collect survey data. They have been chosen because of their flexibility and their easy management in order to easily make comparisons and to show the differences between the two citizens answers as best as possible. Moreover, people nowadays spend most of their time using mobile or connected devices. A web form is the easiest way to reach people attention; paper-based forms indirectly affect the perception of analysis. During the survey, different kind of ways to answer questions were used such as: multiple choices answer, scale value answer and open answer. The structured survey has the goal to direct the subject from general questions to the specific goal of the survey in itself. Scale value system has been used because of its easy use. By using this method people have to decide between to opposite concepts, using a scale value.

Open questions that have been asked were direct and with low risk of misunderstanding. The results were quite homogeneous in all the answers. Thanks to the approach that has been used the cross comparisons was easily performed and displayed in order to have a picture as clear as possible. The population considered was heterogeneous, in fact the survey has been conducted without any limits to all the population to analyse different behaviours. The survey was designed to know the type of shops visited by costumers, their attitude to avoid plastic packaging and their thoughts about the usefulness of those. Moreover, people were asked about their preference with respect to seasonal food and how much they care about choosing those or not. Additionaly, the survey has analysed how the influence of brand, price, quality and familiarity of the product are able to influence the process of purchasing food products. Finally, the organic logo has been shown to people and it has been asked if they knew something about it and if they were able to describe its meaning. The study has allowed to understand how marketing is important and how people react to the presence of a green certification such as the organic label.

The survey has been conducted throughout a heterogeneous population, composed of people of different ages in order to obtain and compare different kind of results. Both, Tarragona and Catania, has a prevalence of young people population; this helped us to better understand the new generation attitude and allowed us to make forecast.

Shops

Figure 6: Population of Catania



Figure 7: Population of Tarragona



The first question asked to the interviewee was about the shops where they usually buy food products. This question was relevant to understand the level of attention given to purchase process of food products. Moreover, it is a useful data also to understand the relationship between the store fidelity of consumer, across different age ranges.





As the Chart 3 shows, people prefer to go shopping to the nearest available supermarket and this shows that people do not like going around buying products. Results that are more interesting appear when comparing age ranges of the population with the supermarket preferences.



Figure 9: Age Ranges and Preferences of Tarragona Population

As charts 4 and 5 show, people in almost all age range prefer the nearest or the specific (and favourite) supermarket. As regard the specific trends of Tarragona population of the individual preferences, is possible to see that the frequency of BIO supermarket arises from the third class (31-40) to the last one (60+), while the same value is very low in the first two. The specific and the nearest supermarket are the preferred ones, even if the last one decrees with increasing age classes. Discounts values are stable almost in all age ranges, with a small percentage decrease on them. Speaking of specific trends of Catania, it is possible to see how the main values registered are in favour of specific and nearest supermarket. People of the first two age classes prefer the nearest supermarkets, while for the specific supermarket, the main percentage registered is from the third class, the highest one, to the last one. The Discount markets values are holding steady here too, even if their total percentage is lower than the value found in Tarragona. As concern the Bio supermarket values, the chart 5 shows an irregular increasing trend, stopped by the 51-60 age class. It is interesting to notice how Bio supermarket trends roughly speaking in both cities increase

with the age of population. The main difference between the two cities is the total value of Bio supermarket users that is globally higher in Tarragona than in Catania.



Figure 10: Age Ranges and Preferences of Catania Population





Figure 11: How Much People Care About Avoiding Plastic

Chart 6 shows how much people care about avoiding all type of plastic while shopping for food products. Nowadays it is not easy to avoid plastic packages, because of the standards of security and hygiene required for food factories. Sometimes some factories exceed the use of plastic, using it even if not necessary. Therefore, for this reason, this question aims to understand if consumers do not care about those "habits" of the factories or do something to avoid the consumption of plastic. While the population of Tarragona seems divided almost equally among the three options given in the survey, Catania appears in an evident negative situation. It is possible, in fact, to see how only the 10% of the population has declared that they are actively doing something to avoid plastic while shopping food products that is the opposite of the situation prospected analysing Tarragona population, which declared to be active to avoid plastic use, and with its 40% represents the highest ratio registered. The situation of one of the main provinces in Sicily is tempered only

by the higher ratio of people who sometimes try to avoid plastic, that is 10% higher than those who has declared to do nothing.

The questionnaire asked to people who positively answered to last question, how they act to avoid plastic. The answers, for both cities taken into analysis, were almost equivalent. The main solution found by consumers is represented by re-usable bags that replace the plastic bag given by the cashier. This trend has been increasing since the European directive 2015/720 has been issued. In fact, all the member states had to adopt the directive in their own law system in order to reach the reduction of plastic consumption as concern shop bags (https://www.ilsole24ore.com).

Other consumers said that, in order to avoid plastic when buying food, they prefer those food products that have a paper or cardboard packaging. Someone else said to prefer in glass products instead of traditional packaging made up by mixed material that make the recycle process more difficult. Only a small percentage said that in order to avoid the use of plastic they prefer to go in different shops to buy certain foods that are not present in the supermarket where they usually go. This is something that may let think over. Supermarkets nowadays are divided into sections and provide consumers with all kinds of food, from fresh to frozen, in order to meet as better as possible all consumers tastes. However, this is only the first face of the coin; the second is represented by the supermarket strategy aimed at holding and retaining consumers to let them spend as much as possible time and money inside stores. The revolution of markets starts in 1950, in particular in the 1957 with the birth of the first Supermarket, the consumer got used to be familiar with the concept of "All in one place" that starts with supermarkets but spread out to the well-known mall and shopping centre concepts. Before this time, consumers who wanted to buy different products were forced to move from one place to another, a habit that in the twentieth century is not considered at all.

Packing Relevance

Subsequently the population of the two cities was asked how useful packaging is, to understand if the previous results were motivated or not.



Figure 12: Utility Perception of Packaging

The chart 7 shows the importance given by consumers to plastic packages. It is possible to see the two cities having a different perception shared by the same percentage only in the first part of the line chart. They both have the same perception of usefulness of plastic packaging. Therefore, the trend confirms what the population previously stated. As for Catania, the importance of plastic is quite important, in fact, as previously seen, in graph 6, the population of Catania seems more

attached to the use of plastic and reluctant to avoid it. The population of Tarragona, unlike Catania, here confirms the previous trend by declaring a low importance of plastic packaging in food products. Now it is important to understand who is right between the two. According to the British Plastics Federation (BPF), plastic has been chosen because it is resistant to impacts; it also has the function of protecting products free of contamination and is characterized by a low weight and is durable over time, allowing transport. Other two characteristics that make plastic ways more suitable than other materials are the versatility; in fact, it can be shaped and can fit any kind of products, and can be recycled. Unlikely what the common opinion could think, "food waste has at least ten times the environmental impact of packaging waste and that's before taking account of the impact of methane from decayed food" this is what the Advisory Committee on Packaging have declared. Sub sequentially to the previous question regarding the usefulness of plastic packaging, it was asked how consumers would appreciate shops that eliminate packaging for food selling process. The results are quite significant.



Figure 13: Should Shops Eliminate Packaging While Selling Food Products?

Once we understood why and how plastic packaging is used, the results showed by the chart 8 are considerable; in fact, people believed that removing plastic in supermarket food products is very useful. Here the results of the two population considered are nearly aligned.

In Italy, during the 2019, markets with no packaging system have been opened. But those are not so common, because not every kind of products is suitable to be sold, with no packaging. For the reason mentioned above, moreover it is a difficult solution to be practiced by people who cannot or do not want to shop very often or buy large quantities of product, enough for several days. In any case this entails having at home many reusable containers, solution however hardly practicable since the tendency is to live in apartments of smaller and smaller size. Packaging, among other things, also has the task of providing information on the products: it contains expiration date, composition, nutritional information and origin of the ingredients, all information that consumers increasingly want to know and that the European authorities are still obliged to make public. Another aspect to take into account, especially in this context, is the power of brand; in 99% of times, the packaging is the better place for messages communication or for other marketing techniques. The packaging of product is the way that companies have to make the difference when consumers have to choose one product rather than (<u>http://www.businessdictionary.com</u>).

Brand and Quality Perception

The survey continues analysing how important are quality-price ratio and brand for those consumers who purchase food products. The quality-price ratio is an index of money value in terms of utility derived from every sum of money spent, and takes into consideration not only the purchase price, but also the efficiency and effectiveness of the purchase. That ratio is given by the personal perception of the thing bought by the consumer and its utility. The price could seem high or low depending on the point of view one sees it: if there is a cheaper competitor product that seems to have the same quality, or if the perceived quality justify buying a more expensive product.

Figure 14: Consideration of Quality-Price Ratio When Consumers Shop Food Products



Chart 9 shows what already has been described as quality-price ratio. In particular it highlights a common situation in both the considered populations, the priority is set on the price. Even if the favourite product is present, a lower price is always taken into account. The second factor previously mention is the brand; it has been asked how it can influence the preference of the food products consumers.



Figure 15: Consideration of the Brand When Consumers Shop Food Products

The trend displayed by the chart 10 shows a proof of what has been said. Even with different percentage the two considered population, I shows how the brand is useful to create a reference point, but only in few cases is fundamental for final purchase decision. In both, Tarragona and Catania, the most voted range is the middle one, that stands for a preference for the branded product sold with the same price than another that seems have the same product features

Organic foods are related to such organoleptic feature that are closely related to the field in which the product had been cultivated, and from which was processed to obtain the final product. It is clear that some organic products are not available all the periods of the year. For this reason, the survey, before asking the meaning of the organic food label and its description, has asked the population how they select seasonal products and if it is important for them in which period they are sold. Charts 11 and 12 show a very common aspect of both populations. Even if they are careful about avoiding plastics and try to be eco-friendly, when speaking about seasonal food consumption there is a high carelessness. In fact, 50% of people from both Tarragona and Catania are characterized by a non-care about the seasonality of the food product, but they buy regardless of this factor.

Figure 16: Importance Given to Seasonal Food Products From Catania Population



Figure 17: Importance Given to Seasonal Food Products From Tarragona Population



- consumer always chose seasonal food product and for those who are not available at the moment chose "kilomentro 0"
- consumer always chose seasonal food product and for those who are not available at the moment chose products that stand out BIO label
- consumer tries to chose seasonal products, but not always succed
- consumer does not mind about seasonal products neither about labels

Label Relevance

The survey finally investigates about the awareness and the meaning of the organic label that represent one of the main objectives of the survey in itself.



Figure 18: Importance That Consumers Give to Organic Label

As it is possible to see from Chart 13 displays a well-nigh correlation between the two analysed cities. In fact, for the most part of the population considered, the organic label is important and it is kept into consideration when consumers shop food products. Because of its recent adoption, the charts are characterised by opposite peak founded in the opposite ends ("bypolarism"). How it is clear to notice, there are a large number of subjects who think that the organic label is not important and another number of subjects who consider it relevant and way more relevant, enough to let it become a fundamental requirement to complete the purchase.

After having asked about the relevance of the organic label on products, people have been asked to describe the meaning of the label mentioned before. The answer of the two population are reported globally because of their content; in fact, both the population analysed reported almost the same results. The opinion is divided between those who think that this means only the absence of GMOs, and those who thought the products were grown without pesticides and dangerous substances. In general, it is possible to say that the opinions of the population taken into analysis is correct, but only in part. The organic standard is not only the absence of GMOs and pesticides but is a truly complex set of rules and standards that combined give the result of a certificated organic food. Marketing play a strategic role, in the conviction of the ideas commonly shared through the population considered. The use of colours and the logo design are fundamental part of the consumer perception process. The elements used across all the logo are the base of the unconscious process that let consumers think about the idea of healthy and eco sustainability. Another critical factor is the position of the label on packaging; the label in fact is always on the front of the pack for those consumers who want to buy green products, but who are less careful with respect to the specific nutrition values or the origin of ingredients. For those that are more interested to this information, the logo is located on the back near the expiration date.

Companies who really know their consumers and know the target who are referred to, can choose one or the other available option. Companies who adopt the organic standards should pay more attention to the position of the organic logo. In some cases, a complete redesign of packaging is extremely recommended in order to highlight the most important features of a product, and in particular the organic logo. The first error companies have to avoid in these cases is to focus only on the immediate costs that they have to face, while ignoring the advantages they will obtain in long term. As the survey showed, organic certification is a relevant feature, and as such, it has to been well showed and highlighted.

Conclusion

The survey has demonstrated how the data displayed from Tarragona and Catania were, despite their different geographic position and features, very similar, and sometimes they may be overlapped. This has a strong impact as concern the segmentation and targeting process of marketing, because the results have shown how a marketing technique can be applied in different contexts that could seem unrelated or different. Furthermore, the results of the survey have shown how the perception of BIO and Organic product can make the difference across the shopping process of consumers; actually, when facing different products, they tend to choose the one who has the organic label on it instead of the one who does not. The age appeared has a factor to consider while speaking of bio products. People who are older, and presumably with higher incomes, have more time for shopping and are less afraid to go in Bio supermarket or to choose bio products, often characterized by higher prices compared to the ones who not completely respect organic food standard.

The survey even showed that displaying the organic food standard is a guarantee of a further safety, for both humans and environment, and induce consumers buying these kinds of products. Green Marketing strategies applied to food products can make the difference. Food sector has always been one of the most competitive one. Green marketing tools help companies to differentiate their product line and to attract different customers. The use of green marketing is considered by consumers as a critical purchase factor.

The Organic Certification combined with a good marketing path allow companies to attract more clients. Companies should follow the European guidelines about organic food. First to offer a better-quality product that can be sold at a higher price increasing the profit margin. Secondly because a greener production approach can rise the company's value reaching a higher competitive differential. Quality standard certification, especially nowadays, assumed fundamental importance. Companies that have already adopted standards were mostly forecasting the next compulsory regulation. Those companies had more time to amortize costs. Companies that have to suddenly adopt compulsory standards, most of the times lose their competitive advantage, while facing production path redesign and reacting to the changed environment. The meaning of organic product has been understood in different way from the two population considered in the analysis. Companies who wants to take more advantages from their product should spend their efforts into awareness campaign. Conscious consumers can make different choice while purchasing. They will look for the main features of food to buy, and then they will orient their shop according to their convinced preferences about the quality of the food. The interviewed population was a heterogeneous sample of the citizens, and it is not possible to clearly state if their provenience had influenced or not the results of the analysis. The most important factor influencing the results was the age of people; in fact, the older the people, the higher their will to buy green product. As the survey has demonstrated, consumer's behaviours was often very similar to those imagined. Companies with an international product distribution can benefit from information concerning the most frequent consumer homogeneous conduct, applying a feasible standardized approach that allows companies to better coordinate different operational tools. Green marketing and in general green standards of high quality allow also companies to increase their competitive niche advantage and to create different needs that once created can be directly satisfied by companies themselves.

References

- A.R.P.A.V., "*A proposito di...Agenda 21 Locale*" Area Ricerca e Informazione: Dipartimento per il Sistema Informativo e l'Educazione Ambientale, (2001), pag.5.
- Albonetti S., Dispense e appunti di certificazione ambientale nell'ambito del Master di I livello in «Tecnologie per la gestione dei rifiuti» (P.O.R. Regione Emilia Romagna ob.3 Mis. C3 Formazione superior», Rif. O.I. 2002 0066/SC3, FSE 2002/2006 approvato con delibera del Consiglio Direttivo del Consorzio Symposium del 13 Settembre 2002). Università di Bologna Polo didattico-scientifico di Rimini, (2003).
- Arbulo R., Joaquin Mar R., Beltrán-Caballero A., Gris F., Hereus de Tarraco, Tarragona Patrimoni mundial. Una nova visiò, Arola Editors, Tarragona, (2018), pp. 175-215.
- Binaghi L., Del Borghi M., Gallo M. "The Application of the Environmental Product Declaration to Waste Disposal in a Sanitary Landfill", Int J Life Cycle Assessment, (2007), pag.41.
- Busch S.O., "Medieval Mediterranean Ports: The Catalan and Tuscan Coasts, 1100 to 1235", BRILL, (2001), Pag.53.
- Charter M., Greener Marketing: A Responsible Approach to Business, Routledge Taylor & francis Group, London, (2017), pp.148-150.

- Council Regulation (EC) No 834/2007 Article no.1 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91. (2007)
- D'Incognito V, "Guida allo Sviluppo dei Sistemi di Gestione Ambientale Norma ISO 14001", Franco Angeli, Milan, (1998), pag. 156.
- Dhar. R., Kasterine A., Charbonneau J., McKee A., Reynolds J., Domeisen N., Droste I., Piskolti Caldwell E., Aeroe A., "Packaging For Organic Foods" in Interntional Trade Center, Geneva, (2012) pag. 1.
- Ginsberg J.M., Bloom P.N., Choosing the Right Green Marketing Strategy, "Mit Sloan Management Review", Fall (2004) p.81-83
- Giunta F., Leanza A., Matarazzo A., Di Silvestro A., Gigli C., Lombardo E. (2018), Use Of Corporate Environmental Tools In The Perspective Of Industrial Symbiosis. Procedia Environmental Science, Engineering And Management, n. 5 (2), pp. 85-92, ISSN: 2392-9545;
- Ingrao C., Matarazzo A., Tricase C., Clasadonte M T, Huisingh D. (2015). Life Cycle Assessment for Highlighting Environmental Hotspots in Sicilian Peach Production Systems. Journal Of Cleaner Production, vol. 92, p. 109-120, ISSN: 0959-6526;
- ISO 14024:2018 environmental labels and declarations type I environmental labelling principles and procedures (2018)
- Lavalle S, Plouffe S., "The Ecolabel and Sustainable Development" in The International Journal of Life Cycle Assessment, (2004), pag 349.
- Matarazzo A, Clasadonte M T, Lo Giudice A (2015). Implementation Of Guidelines For Eco-Labelling In The Agri-Food Smes: The Sicilian Pistachio Sector. Procedia Environmental Science, Engineering And Management, vol. 2, p. 73-84, ISSN: 2392-9537
- Matarazzo A., Clasadonte M. T., Ingrao C., Zerbo A. (2013). Criteria Interaction Modelling in the Framework of LCA Analysis. International Journal Of Engineering Research And ApplicationS, vol. 3, p. 523-530, ISSN: 2248-9622
- Milazzo P., Sgandurra M., Matarazzo A., Grassia L., Bertino A. (2017), The New Iso 14001:2015 Standard As A Strategic Application Of Life Cycle Thinking. Procedia Environmental Science, Engineering And Management, vol. 4, p. 119-126, ISSN: 2392-9537;
- Milazzo P., Sgandurra M., Matarazzo A., Grassia L., Bertino A. (2017), The New Iso 14001:2015 Standard As A Strategic Application Of Life Cycle Thinking, in "Procedia Environmental Science, Engineering And Management", vol. 4, p. 119-126.
- Munda, Giuseppe; Matarazzo, Agata, (2019), On the Impossibility of Using "the Correct" Cost-Benefit Aggregation Rule, in "Journal of Economic Studies", vol:47, (5), ISSN: 0144-3585.
- Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel (Text with EEA relevance), (2009).
- Salomone R, Clasadonte M T, Proto M, Raggi A, Arzoumanidis I, Ioppolo G, Lo Giudice A, Malandrino O, Matarazzo A, Petti L, Saija G, Supino S, Zamagni A (2012), Improving Life Cycle Management (LCM) tools for the food industry: a framework of Product-Oriented Environmental Management System (POEMS). In: Securing a sustainable future: Integrating science, policy and people. p. 294, Berlin, 20-24 MAY 2012;
- Skaar C., Mgerholm Fet A., "Accountability in the Value Chain: From Environmental Product Declaration (EPD) to CSR Product Declaration" in Wiley Online Library, (2012), Pag 231.
- Spadaro G., Nicotra A., Iurato S., Matarazzo A., Mannino M., (2020), Environmental management strategies in smart Sicilian food and technology chains, in "Procedia Environmental Science, Engineering And Management", n. 7 (2), pp.185-193.
- Strotmann C., Göbel C., Friedrich S., Kreyenschmidt J., Ritter G., Teitscheid P.in "A Participatory Approach to Minimizing Food Wastein the Food Industry—A Manual for Managers" in MDPI, 5 January (2017), pp. 3-4.
- Sumaedia S., Yarmen M., "The Effectiveness of ISO 9001 Implementation in Food Manufacturing Companies: A Proposed Measurement Instrument" in International Symposium on Food and Agro-biodiversity ISFA2014, (2014), pag 440.
- Trandafilovic, Igor & Manić, Momčilo & Blagojević, Aleksandra, History of Green Marketing: The Concept and Development, in 7th "International Symposium on Natural Resource Management", Zaječar, Serbia, (2017) pag.262.
- Villari E.R., Mertoli F., Tripi G., Matarazzo A., Albertini E., (2020), Innovative tools of smart agriculture to protect the supply chain of Sicilian blood orange PGI, in "Procedia Environmental Science, Engineering And ManagemenT ", n.7 (2), pp. 175-184.