

**WHAT ARE THE WALLOON
CONSUMER'S MAIN BARRIERS
AND MOTIVATIONS WITH
RESPECT TO THE BULK
BUYING OF FOOD PRODUCTS
(EXCLUDING FRESH FRUIT
AND VEGETABLES)?**

Jury:
Promoter:
Zelal ATES
Readers:
Anne-Christine CADIAT
Marta LARA-QUINTANILLA

Dissertation by
Carole LOUIS
For a Master's degree in
Management Sciences with
specialization in Marketing &
Strategic intelligence
Academic year 2016/2017

ACKNOWLEDGEMENTS

First, I would like to thank Dr Zelal Ates for having accepted to follow my work as a promoter. I am deeply grateful for the support and the judicious advices you have provided me throughout the redaction of my dissertation. I am also extremely thankful for the confidence you have placed in me during the entire thesis.

I would also like to thank Dr Matthia Simone Sorrentino for having taken the time to read my paper.

A very big thank you to the twenty participants of the qualitative research who have kindly taken the time to receive me at their houses and answer without any reservation to all my in-depth questions. Your help in conducting this study has been inestimable.

I would like to extend this thank you to all the experts who have accepted to participate in the exploratory research.

Finally, I would like to warmly thank my family and friends for their constant support and encouragement.

LIST OF FIGURES

Figure 1: the bulk buying's literature review	- 3-
Figure 2: the bulk buyers' health matrix	-53-
Figure 3: the bulk buyers' green matrix	-53-
Figure 4: the ecological motivation.....	-55-
Figure 5: the nutritional motivation	-56-
Figure 6: the power and control motivation	-57-
Figure 7: the rational motivation.....	-58-
Figure 8: the security barrier	-60-
Figure 9: the convenience barrier.....	-60-
Figure 10: the food waste barrier	-61-
Figure 11: sources assembled by word similarity	-62-

Table of contents

INTRODUCTION.....	- 1 -
Thesis structure.....	- 3 -
PART I: LITERATURE REVIEW	- 6 -
1.1. Chapter 1: the influencing factors of the consumers' food store choice	- 6 -
1.1.1. The model of consumers' decision-making process regarding a store choice:...	- 6 -
1.1.2. Internal factors:	- 7 -
1.1.3. External factors:	- 8 -
1.2. Chapter 2: the roles, benefits and disadvantages of food packaging.....	- 10 -
1.2.1. The roles of food packaging and its benefits for the consumers:.....	- 10 -
1.2.2. The disadvantages of food packaging for the consumers:	- 14 -
1.3. Chapter 3: the risks associated with the food purchase	- 16 -
1.3.1. The risks related to the purchase of food products:	- 16 -
1.3.2. The importance of these risks for the consumers:	- 16 -
1.3.3. The contagion theory:.....	- 17 -
1.4. Chapter 4: the influencing factors of green consumerism	- 20 -
1.4.1. Internal factors:	- 22 -
1.4.2. External factors:	- 24 -
1.4.3. Situational factors:.....	- 24 -
1.5. Chapter 5: the barriers and drivers of the alternative consumption patterns	- 25 -
1.5.1. The access-based and collaborative consumptions:	- 25 -
1.5.2. Consumers' barriers and driving factors with respect to the access-based and collaborative consumptions:.....	- 27 -
PART II: RESEARCH DESIGN	- 30 -
2.1. Phase 1: the bulk distribution market exploration	- 30 -
2.1.1. The observational study	- 30 -
2.1.2. The personal interviews with experts.....	- 31 -
2.2 Phase 2: the qualitative exploratory market research	- 31 -
2.2.1. The method.....	- 31 -
2.2.2. The questionnaire	- 32 -
2.2.3. The sample	- 32 -
2.2.4. The implementation.....	- 33 -
2.2.5. The analysis technique	- 33 -
PART III: THE RESULTS OF THE QUALITATIVE RESEARCH.....	- 34 -

3.1. Which influencing factors differentiate consumers who buy food in bulk from those who do not (excluding fresh fruit and vegetables)?	34 -
3.1.1. The health interest	34 -
3.1.2. The environmental interest	38 -
3.1.3. The mistrust	41 -
3.2. What are the respondents' main motivations to buy food products in bulk (excluding fresh fruit and vegetables)?	44 -
3.2.1. The ecological motive	44 -
3.2.2. The nutritional orientation	45 -
3.2.3. The control and power taking	46 -
3.2.4. Rational reasons	47 -
3.3. What are the respondents' main barriers to buy food products in bulk (excluding fresh fruit and vegetables)?	49 -
3.3.1. The bulk buyers' barriers	49 -
3.3.2. The non-bulk buyers' barriers	51 -
PART IV: DISCUSSION AND HYPOTHESES	52 -
4.1. The differentiation between bulk and non-bulk buyers:	52 -
4.1.1. The bulk buying's influencing factors	52 -
4.1.2. The health interest	52 -
4.1.3. The environmental interest	53 -
4.1.4. The mistrust	54 -
4.2. The bulk buyers' main motivations:	55 -
4.2.1. The ecological motive	55 -
4.2.2. The nutritional orientation	55 -
4.2.3. The control and power taking	56 -
4.2.4. Rational reasons	57 -
4.3. The respondents' main barriers concerning food bulk buying:	59 -
4.3.1. The bulk buyers' barriers	59 -
4.3.2. The non-bulk buyers' barriers	61 -
4.4. A potential segmentation for bulk buyers:	62 -
CONCLUSION, LIMITATIONS AND RECOMMENDATIONS	64 -
Conclusion	64 -
Limitations	66 -
Recommendations	67 -
BIBLIOGRAPHY	I
APPENDICES	XV

Appendix 1- Synthesis of the potential influencing factors that have to be tested through the exploratory qualitative market research	XV
Appendix 2– List of the visited bulk stores and interviewed experts.....	XIX
Appendix 3- Summary of the observational research and experts interviews	XX
Appendix 4- The interview guide	XXVIII
Appendix 5- List of the respondents who don't buy food in bulk.....	XXXV
Appendix 6- List of the respondents who buy food in bulk	XXXVI
Appendix 7: Some interesting graphs of the Nvivo analysis.....	XXXVII
EXECUTIVE SUMMARY	

INTRODUCTION

Every day our dustbins are filled with food waste. Our environment suffocates under the weight of packaging waste. Our wallets get empty too quickly. Furthermore, our health is daily threatened by pesticides and toxic substances coming from packagings found in our food. Our current model of food consumption appears to have reached its limit and must renew itself urgently. It would risk imploding otherwise.

Some believe to have found the solution to all these issues and maybe the tomorrow's distribution model too. It is called the food bulk sale, "a selling distribution system that consists in proposing the sale of not pre-packaged food products, that the consumers can buy by weight (or volume for liquids) according to their needs, and that are packaged at the place of sale, either in a simplified packaging provided by the store or in a container brought by the customer. The bulk selling includes the sale in self-service systems as well as sale systems of cutting (rays of butchery, fishery, cheese dairy...)." (ADEME, 2012, p.11)

This renewed ancient practice has recently become a fully-fledged distribution channel once more. As strange as this may seem at first sight, this is actually not so surprising. The food bulk sale meets, indeed, various important underlying trends for today's consumers: finding an alternative to traditional supermarkets; regaining power over one's diet; living a real shopping experience (via the sensory marketing); giving meaning and power to one's purchases (*consum'actor*); recreating social links and local employment; caring about the environment; paying the right price; limiting food waste... Moreover, the bulk sale not only meets the consumers' growing socio-cultural desires, but also answers positively to many economic, environmental and political opportunities and threats of its environment.

That is why initiatives have been multiplying for some years all over Europe. Most notably, our French neighbours have been converting many organic stores to bulk selling and have been creating more and more zero waste grocery stores (one opening per week in 2015)¹. There is such an infatuation that this new way of selling has recently found itself a place in the French wide retail sector². In France, bulk selling has become a complementary service offered by most

¹ Chauvenière, F. (26 July 2016). *La consigne revient!*. Retrieved from <http://www.franceinfo.fr>

² Between 500 and 600 French supermarkets propose a bulk offering. Flosino F. (29 July 2016). *Vente en vrac de produits alimentaires : bonne idée ?*. Retrieved from <https://www.lesechos-etudes.fr>

of the traditional supermarkets³, the organic supermarkets' new commercial asset⁴ and the exclusive activity of new alternative supermarkets⁵.

In Belgium, this distribution mode has appeared later and more timidly, but it is growing at a sustained pace since 2014 (opening of the first 100% bulk store in Antwerp)⁶. Over two years, three additional zero waste stores have emerged (two in Wallonia) and many grocery stores proposing mostly bulk selling have been created. Many existing stores have also been converted to this practice, by increasing the space dedicated to the bulk sale. Over two years, the offering of bulk food products has considerably expanded in Wallonia, and this channel of distribution is still in its very early stages! Our region should indeed not escape this trend, as highlighted by the growing number of young entrepreneurs wishing to enter this niche market (supported for instance by One Group or Challenge)⁷ and by those who are just about to open their own point of sale (Ekivrac, Uni, O'Sillo, L'Entre-Pot,...).

However, the Belgian wide retail sector remains reluctant to adopt this practice and the number of stores offering a varied food assortment in bulk is still minimal in Wallonia. Furthermore, even if this distribution channel attracts more and more consumers, their number still remains marginal. Why? This seems to suggest that if the benefits of bulk sale are many, its disadvantages may be even more abundant. Many doubts have led me to ask myself: what are the Walloon consumers' main barriers and motivations with respect to the bulk buying of food products (excluding fresh fruit and vegetables)?

In quest for answers, I went through the academic literature related to food bulk buying, both in French and in English. However, my readings did not enable me to find a satisfactory answer to my research question. My unsuccessful research makes me think that there is no, or very little, in-depth literature regarding the purchase or sale of food products in bulk⁸. This gap in

³ Carrefour and Auchan propose their own bulk assortment, Leclerc and Super U have developed partnerships with brands that sell in bulk and the other French retailers have all at least one test store where they offer a bulk supply (ADEME,2012).

⁴ Biocoop, Naturalia, Bio' C Bon, ...

⁵ The French franchise network of 100% bulk store 'Day by Day', 30 stores in 2016, 100 foreseen in 2018. (Lavabre, S. (29 July 2016). *Faut-il s'emballer pour le vrac* ?. Retrieved from <http://www.lsa-conso.fr/>)

⁶ Theunis, L. (13 May 2016). *Quatre magasins pas comme les autres*. Retrieved from <http://www.lesoir.be>

⁷ Bertrand, A. (2016). *La création d'entreprises dans l'alimentaire durable tendance forte de 2015*. Retrieved from <http://www.groupeone.be> and words collected from Pauline Louis from Challenge.

⁸ As far as I am concerned, the literature related to bulk selling or buying is limited to a thesis on food wastage that briefly mentions the subject (1 page) and to a report published by the ADEME in 2012 (*La vente en vrac_ pratiques et perceptives*), enriched by Brussels Environment and ERU in 2015 (*Vivres en vrac*). These reports have not a scientific nature, they just present the situation, the initiatives, the practical implementation as well as the strengths and weaknesses of bulk selling in France (and afterwards in Brussels).

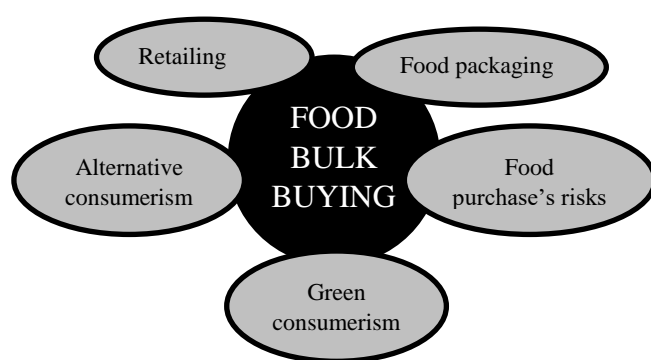
the academic literature and my personal interest for this subject have motivated me to explore the bulk selling market, choosing it as a topic to develop in this thesis.

Thesis structure

The first part of the present dissertation is dedicated to a literature review relating to the bulk buying of food products, aiming at taking notes of consumers' barriers and motivations, identified in previous studies already, with respect to this practice.

Nevertheless, because of the lack of academic resources addressing this topic, this first step requires the investigation of food bulk buying under several dimensions. This analysis will allow to carry out a gathering of themes presenting a close relationship with the subject, as well as a deep scientific database.

The literature review of this paper will therefore bring different topics together, each finding its place in the bulk buying of food products: the retailing, the food packaging, the risks linked to the food purchase, the green consumerism and the alternative consumerism.



The purpose of this literature overview is to study the interactions between each of these themes and bulk buying. These ones will be, consequently, analysed in a non-exhaustive way, within the limits of their application to bulk distribution.

Figure 1: the bulk buying's literature review

The first chapter of this literature review is dedicated to retailing. It will have as its principal objective the understanding of consumers' store choice process. This research aims at defining the factors which influence consumers' decisions. These factors will be considered as potential obstacles or motivations for consumers to enter a food store that offers bulk products.

The second chapter will be useful to identify the role of food packaging for the consumers as well as the benefits and disadvantages that it brings to them. Food packaging being absent in bulk buying, this chapter will allow to transpose the positive aspects of packaging into potential barriers to this practice, and its negative facets into possible motivations.

The third chapter will focus on the risks perceived by the consumers during the purchase of food. Buying in bulk food products deprived of their packaging could impact these risks' nature

and importance. Analysing this subject will allow to highlight potential significant obstacles for consumers regarding the bulk buying of food.

The fourth chapter is dedicated to green consumerism. It will aim at describing the profile of consumers presenting green buying and consumption behaviours. This will identify the elements influencing the adoption of these conducts. Highlighting these influencing factors will be useful to better understand the consumers' potential obstacles and motivations for bulk buying, a practice gathering all the characteristics of green consumerism.

The fifth and last chapter of the literature research will study the alternative consumerism and will have as its objective the identification of the consumers' barriers and drivers regarding the access-based and the collaborative consumptions. These ones will find resonance in the bulk buying of food products, given since this distribution model also proposes the use of these alternative consumption models to its clients.

In line with the research thesis regulations of the University, you will find the links between this dissertation and ethical and sustainable dimensions in the fourth and fifth chapters of its literature review. As discussed with my tutor, we agreed not to include an additional chapter since my research has both ethical and sustainable dimensions. Indeed, this research aims at identifying the key drivers that could encourage an enhanced adoption of food bulk buying in Wallonia allowing, hence, to remove useless polluting packaging as well as to stimulate the local economy.

The second part of this dissertation will compare the potential and theoretical barriers and motivations for buying bulk food, with the actual reality.

First, this comparison will be done, by means of a qualitative exploratory research of the bulk distribution market. This will be carried out based on personal researches, an observational study and interviews conducted with ten experts of this sector (managers of stores proposing the bulk buying of food products in Wallonia).

The goal of this first step will be to better understand the market, the act of bulk buying and the main characteristics of stores offering this practice. This will offer a first insight on the advantages and disadvantages of the food bulk purchasing.

A qualitative research will be then carried out to bring more accurate answers to the research question of this thesis: "what are the Walloon consumers' main barriers and motivations with respect to the bulk buying of food products (excluding fresh fruit and vegetables)?"'. This

research will take the shape of an in-depth interview, conducted with twenty Walloon consumers, buyers and non-buyers of food in bulk. Through the application of a systematic content analysis (with the Nvivo software), this second step will allow to get a better understanding and to identify the consumers' barriers and motivations with respect to the bulk buying of food products in depth.

The third and last part of this dissertation will be devoted to a summary of the qualitative research results, a conclusion, as well as a list of recommendations. This last part will offer to bulk stores' managers a segmentation of the individuals purchasing in bulk based on their key motivation in comparison to this practice, as well as the describing of their profile. Moreover, some possible solutions will be provided that could allow them to exploit and/or remove the Walloon consumers' main drivers and barriers vis-à-vis food bulk buying, depending on the customer segment they target.

PART I: LITERATURE REVIEW ⁹

1.1. CHAPTER 1: THE INFLUENCING FACTORS OF THE CONSUMERS' FOOD STORE CHOICE

Consumer's behaviour refers to “all the thoughts, feelings and actions that an individual has or takes before, during and after the purchase of any product, service or idea” (Manali, 2015, p.280). The exploration of this concept allows to understand the consumer's purchase under all its dimensions: what, why, how, when and where.

Through the study of the consumers' buying behaviour, the choice of a particular point of sale appears more complicated than it could seem. It is indeed the result of 1) the consumers' rational decision-making process which is itself influenced by 2) internal (personal and psychological) factors and 3) external elements (Al-Salamin and Al-Hassan, 2016). The objective of this first chapter is, then, to examine the retailing literature in order to better understand these influencing variables.

1.1.1. The model of consumers' decision-making process regarding a store choice:

It exists in the literature a general model of the individuals' store choice, adopted by many authors and somewhat adapted by each of them. The linear model of Engel (Engel, Blackwell and Miniard, 2005) describes this process in five steps:

- the recognition of a consumption problem;
- the evaluation of the different options of available choices;
- the formation of a system of preferences (the choice of a point of sale)
- the adoption of a behaviour (the visit of a point of sale).

It should be noted that the learning (the store visit's consequences) will influence the client's future behaviour and loyalty to the point of sale (Ettis, Sellami and Toukabri, 2014). It is a fundamental choice criterion.

However, these five steps will be also influenced by different factors (Filser, 1994). By applying the POS paradigm¹⁰ to the store choice process, it is possible to determine the causes of this phenomenon. This theoretical model considers the characteristics of the individual and the product, as well as the situational variables, in order to explain the consumers' store choice.

⁹ A synthesis of all the influencing factors discovered through the literature overview is available in appendix 1.

¹⁰ The paradigm POS (person-object-situation) developed by several authors (Belk, 1975; Bloch and Richins, 1983) affirms that “to determine the causes of a phenomenon it's necessary to consider the characteristics of the studied object, the characteristics of the individual and the situational characteristics.” (Heitz-Spahn, 2013, p.5)

1.1.2. Internal factors:

1.1.2.1. The individual characteristics

The individual variables included in most of the researches relative to the choice of a distribution canal or store can be split into two main categories: the socio-demographic indicators and the psychological characteristics (Ettis et al, 2014; Heitz-Spahn, 2013).

The socio-demographic indicators often studied to understand the consumers' store choice are: age, gender, revenue and socio-professional category (Ettis et al, 2014). In some cases, we also find the household size, place of residence and education level (Konus, Verhoef and Neslin, 2008).

The psychological characteristics of consumers are considered as highly significant in determining their store and food choice (Chandon and Etilé, 2010; Ettis et al, 2014). These variables vary across the different researches. Some of them, however, recur more in the retailing literature, such as the *attitudes* including the perceived attractiveness of the sale atmosphere, the perceived risks (temporal, financial, physical and social) linked to the store attributes, the loyalty towards brands or stores and the pleasure linked to the shopping act. The *values* include: the need of information about the products, the need of price comparison (Noble, Griffith and Weinberger, 2005), the interest for one's health (Chandon and Etilé, 2010) and the ecological and societal values (Al-Salamini and Al-Hassan, 2016). Likewise, we find *personality-traits* such as the search for variety, the conscience of the price, the search for convenience, the consumer's impulsiveness, the price sensitivity, the temporal pressure sensitivity, and the motivation to conform to social norms (Ettis et al, 2014; Konus et al, 2008; Mitchell and Harris, 2005).

In addition to these psychological and socio-demographic characteristics, certain authors highlight the importance of individual shopping motivations as explanatory factors of the store choice (Kaufman-Scaborough and Lindquist, 2002; Konus et al, 2008;). These ones consist of utilitarian and hedonistic motivations.

By reuniting different studies, it is possible to highlight three main shopping motivations that recur in the literature: the practical orientation, the recreational orientation and the social interactions (Heitz-Spahn, 2013). Each of these motives will have a variable impact on the consumer's point of sale choice (Filser, Des Garets and Paché, 2001).

The retailing literature highlights some shopping motivations such as the supply motive, the economic goals, the shopping patterns, staying informed (practical orientation); the social contacts, being integrated in a group (social interaction); the research for self-assertion and symbolic meaning, changing one's mind, breaking the daily routine, being sensory stimulated (recreational orientation) (Balasubramanian, Raghunathan, and Mahajan, 2005).

1.1.3. External factors:

1.1.3.1. The situational variables

It is recognized that the situation influences the store choice made by consumers (Belk, 1974; Heitz-Spahn, 2013; Nicholson and Vanheems, 2008). Situational variables can be defined as: “All the factors particular to a place and a period of observation that are not derived from personal knowledge or reactions to stimuli and that have a systematic and demonstrable effect on the consumer's usual behaviour.” (Belk, 1974, p.157). Belk (1975) has defined five situational factors for every situation:

- ❖ The physical environment: the visual characteristics of the situation (e.g.: decorations, lighting, music, smell, colours).
- ❖ The social environment: the presence or absence of other persons in the studied context.
- ❖ The time perspective: the moment of purchase or the time available to perform an acquisition.
- ❖ The definition of the roles: the objectives pursued by the individual in the location.
- ❖ The previous states unique to the individual that have consequences, for instance, on his/her level of anxiety, mood or health.

1.1.3.2. The nature of the product

The nature of the product has a remarkable role on the importance of the purchase for the consumers. Therefore, it impacts their involvement level with respect to the shopping act (Bloch and Richins, 1983) and affects their store choice (Filser et al 2001; Poncin, 2008).

In addition to the POS paradigm, it is also possible to understand the consumers' point of sale choice from the stores attributes point of view (Mitchell and Harris, 2005). The own characteristics of a food store can therefore also be added to the explanatory factors of the store selection (Cliquet, Fady and Basset, 2002).

1.1.3.3. The store characteristics: (Chandon and Etilé, 2010; Monroe and Gultinan,1975)

- the localisation and the accessibility;
- the assortment: the choice, the novelties, the availability, the product traceability;
- the arrangement of the products and the store organisation;
- the nutritional, sanitary and gustatory quality;
- the price;
- the promotions and advertising;
- the atmosphere;
- the information;
- the packaging and the brands;
- the sale force: welcoming moment, friendliness, availability, vendors' competences, quality of the advices, advantages offered to loyal clients;
- the services: exchange or refunding, home delivery, opening hours;
- the shopping convenience: modernity, shopping entertainment, practicality;
- the communication and store image;
- the store values: moral values and the economic performance of the company.

1.2. CHAPTER 2: THE ROLES, BENEFITS AND DISADVANTAGES OF FOOD PACKAGING¹¹

Buying food products is a complex process which involves many factors, both sensory and non-sensory. In our contemporary mass consumption society, sensory elements alone are not sufficient to meet the consumers' requirements regarding food anymore (Eldesouky, Pulido and Mesias, 2015). Non-sensory factors such as packaging, brand or information have also become determining factors in the food buyers' decision (Eldesouky et al, 2015; Jaeger, 2006). They allow to take into account the invisible, tasteless and odourless components of food products in the purchase choice (Canu, Cochoy and Séguy, 2006).

Throughout the years, food packaging has won in power and presence. Because of its intensive use as a marketing tool, the consumers have been raised to encounter a food product first and foremost with its package. Food packaging has become, for the buyers, a product's key element throughout its entire life cycle. It can, indeed, influence its choice and purchase as well as its use, consumption, taste and value perception (Wansink and Park, 2002).

Nevertheless, in bulk distribution, packaging, brand and labels have generally disappeared from the stores shelves completely. This absence of packaging and labelling around the food product has certainly an impact on the consumers' intention to purchase in bulk. That is the reason why this second chapter is dedicated to a literature review about the 1) roles, benefits and 2) disadvantages of food packaging from the consumers' viewpoint. This analysis will lead to a better understanding of some potential barriers and motivations to buy food products in bulk.

1.2.1. The roles of food packaging and its benefits for the consumers:

In their scientific paper about food packaging Marsh and Bugusu (2007) summarize in a skilful manner the food packaging's main roles based on a deep literature review. In their publication, Kotler and Keller (2012) stress the benefits of packaging for the consumers. This following paragraph brings these authors together in order to highlight the importance of food packaging from the buyers' viewpoint.

The roles of food packaging for the consumers are multiple as well as their benefits, here there are the principal ones:

¹¹ In the context of this thesis, the term food packaging is related to the primary food packaging, which is directly connected to the food and the consumer. On the contrary, it is not linked to the secondary or tertiary packaging which are used to assist the distribution of large quantities of goods (present both in traditional retailing and in bulk selling) (ADEME, 2012).

✓ **The protection:**

The food packaging's main function is protecting the product from its environment (Arvanitoyannis and Kasaveti, 2008). Packaging provides protection to food from outside influences: chemical (compositional changes caused by exposure to gases, moisture or light), biological (contamination by micro-organisms) and physical (shock and vibration encountered during the transportation). Furthermore, packaging can also protect the consumer from various potential dangers (children being exposed to toxic products, confusion between dangerous products, physical injuries caused by a broken glass container...).

✓ **The containment and food waste reduction:**

Packaging plays an important role in the food waste prevention throughout all the supply chain. It limits the potential causes of this issue, such as the poor preservation of the products in store, during the transport and at home. Optimized packaging is indeed a part of the solution to tackle food waste (Aspalter, 2014). However, several organizations (ADEME, 2012; Mpagalile, 2013) tend not to fully agree with this statement given that packaging, by imposing a certain quantity of product and an expiry date, can lead to buy more than needed or to throw non-expired food. Furthermore, it would increase the spoilage of some products (e.g.: pre-packaged fruits and vegetables in plastic containers). Packaging could therefore cause more food waste at home too.

✓ **The marketing and information:**

Packaging as the “silent salesman” in self-service stores is a strategic marketing tool (Ford, Crawford and Gerard, 2012). Packagings are also a privileged medium to communicate compulsory (product identification, nutritional value, ingredients list, net weight and manufacturer information) and important information (cooking instructions, brand identification, price) to consumers. Furthermore, labels identify the product, grade it and offer a kind of guarantee to consumers. They also describe the product in all its dimensions (who, where, when and how (usage instructions)). Packaging is therefore seen by consumers as a preferential source of information, satisfying their need of reliable details about the product composition, creating consumers' confidence and making a product's favourable overall impression. As concerns for health and nutrition issues increase, consumers tend to appreciate even more the information provided by the packaging (Coulson, 2000). They take it into account when they are evaluating the different alternatives at the point of purchase (Shine, O'Reilly and O'Sullivan, 1997). Labels of food packaging can indeed increase the consumers'

purchase intention (Carneiro, Minim, Deliza and Leao, 2015) and their appreciation of the product (Meillon, Urbano, Guillot and Schlich, 2010). However, objective studies also demonstrate that consumers rarely use labels to make their food choice. This is due to a lack of involvement, time, knowledge, understanding and confidence vis-a-vis nutritional information (Van Dam and Van Trijp, 2007).

✓ **Traceability:**

Packaging allows to improve the supply management, to ease the tracing back and therefore to offer a greater guarantee of food safety and quality. It also allows to differentiate food products with similar or undetectable characteristics. In this way, packaging is for consumers a medium to identify brands. This represents for them a significant benefit given that a brand endorses several functions: the identification of the product source, the assignment of responsibility to the producer as well as the reduction of the risks and search costs linked to the product purchase. Brand is also an important signal of product quality, a pact with the producer and a symbolic device for the buyers (Keller, 2013).

✓ **Convenience:**

Packaging offers to purchasers an ease of access, transport and consumption. The innovations in food packaging (resealability, micro-weavability, ect...) allow a reduction of both the effort and the time required to prepare food. The packaging convenience features offer to its product an added-value and a competitive advantage. Hence, packaging represents for consumers a medium to facilitate the purchase (handling and transportation) and to create positive after buying experiences, as it assists them at home in the product storage and preparation. Convenience is an important benefit for consumers, as evidenced by, the pre-packaged vegetables' rapid growth (20% annually), despite their cost (four to five times more expensive), for instance. Consumers justify buying these products for their freshness, ease of convenience and practicality (Pagani, Vittuari and Falasconi, 2015).

✓ **Other functions:**

- A symbolic device: packaging is “a “badge” that enables the elements of the brand image to be transferred to the user through public display of the packaging” (Ford et al, 2012, p.340). Consumers are willing to pay a little more for the appearance and the prestige of better packages that reflect and communicate to others who they think or aspire to be (Keller, 2013).

- An opportunity of innovation: constant marginal innovations in packaging respond to the consumers' desire for novelty. This satisfies their interest and curiosity. A radical innovative packaging can, for its part, bring relevant functional benefits that facilitate the consumers' daily life.
- An important part of the customer-based brand equity: packaging is extremely important to build the consumer-brand relationship. For Keller (1993) this is no less than its main role. The packaging's design features can indeed be more important than the name to identify a brand (Schlackmann and Chittenden, 1986). For example, children build relationships with branded cereals from their interaction with packaging (McNeal and Ji, 2003).

What makes food packaging more important for the consumers than other containers?

Food packaging is different from packagings ... It is more than a simple container surrounding the product because it plays also an active role in the food quality and consumption. "Food packaging is an active container that does more than just protecting, storing and transporting food" (Berry, 2000, p30). It has indeed the power of increasing the food shelf-life and even the quality and the taste of the product itself. By improving packaging, it is indeed possible to remove the added substances needed to conserve food (salt, additives...) and to maintain the viability of bio-active ingredients. In addition, specific food packagings have contributed in the creation of new food categories. They have changed the way of consuming certain products and facilitated food preparation (Marsh and Bugusu, 2007).

Consequently, by bringing a more convenient and qualitative food, packaging has become nowadays particularly important for most of the consumers. It responds to a current increasing food buyers' demand for more safety, higher freshness and quality preservation, longer product shelf-life, greater convenience, and ready-to-eat food products (Arvanitoyannis and Kasaveti, 2008; Cagri, Ustunol and Ryser, 2004; Doyle, 1996).

1.2.2. The disadvantages of food packaging for the consumers:

☒ The environmental damage:

Food industry has the largest demand of plastic packaging (Arvanitoyannis and Kasaveti, 2008), which represents the largest application of plastic production. This plastic production is expected to account for 20% of the total oil consumption within 20 years (MacArthur, 2016), and food packaging will be partly responsible for that. Through its production and its after-use treatment, food packaging has a significant impact on the global warming that threatens our planet in the long term. Moreover, food packaging is responsible for a direct environmental pollution, such as the creation of the eighth continent called Pacific Ocean Garbage Patch, caused by the eight million tonnes of plastics that leak into the ocean each year (MacArthur, 2016). Consumers are aware of the food packaging's environmental impact given that they spontaneously associate this word mostly with the adjectives "use of too much material" and "bad for the environment" (WRAP, 2013). Most of the surveyed consumers (81%) believe that food packaging is a major environmental problem and 57% thinks it is an unnecessary waste. However, despite the consumers' increasing environmental consciousness, environment still plays a secondary role in their food purchasing decisions (Arvanitoyannis and Kasaveti, 2008).

☒ The health negative consequences:

It is henceforth admitted that many food packaging materials and containers contain a complex blend of chemical substances which are likely to migrate into food (European Food Safety Authority, 2015). Food plastic packaging is particularly blamed for its endocrine-disrupting properties that are triggered, for instance, by bisphenol A and diethylhexylphthalate (Halden, 2010). But, plastic is not the only material that poses health risks; virgin or recycled cardboard packaging presents also carcinogenic substances (toxic mineral oil) that can be found subsequently in the food product itself (Foodwatch, 2016). Consumers have become suspicious vis-à-vis food packaging as they pay more and more attention to their health. They have an increasing wish for safe packaging materials (Tharanathan, 2003) and express a particular concern and dislike towards plastic packaging (Eldesouky et al, 2015).

☒ The cost:

For the food products category, the cost of packaging represents around a third of the product price (ADEME, 2012). To this amount, it can be added the cost of the budget devoted to the marketing and the support of the brand. Even if a reduced price is not consumers' most insistent

demand regarding packaging, its cost remains an important concern for the surveyed consumers as far as their food purchases are concerned (Doyle, 1996; Mainieri, Barnett, Oskamp, Unipan. and Valdero, 1997).

☒ The lack of proximity with the product:

Packaging erases the possibility to taste the food at the time of purchase, except by referring to its indirect assessment and scriptural composition (Canu et al, 2006). Packaging creates indeed a barrier that keeps the consumers away from the food. But, proximity is an element that increases the consumers' purchase experience satisfaction and a major risk reducer in the purchase of food products (Bories, Pichon and Laborde, 2015). In their survey, these authors have discovered that 13% of the consumers need to touch and smell the vegetables before buying because this reassures them on their quality. This research for proximity is also supported by the wish of many consumers for highly transparent packaging materials which enable the product visibility (Eldesouky et al, 2015).

☒ The reduction of the perceived naturalness:

Food packaging reduces the perception of naturalness because it is seen as an additive with non-natural properties in contact with food (Labbe, Pineau and Martin, 2013). The labels of food packaging are also a factor that reduces the food products' perceived naturalness because it assumes a processing of the food ('reduced' or 'enriched' in...). Yet, consumers who see food as less natural have, consequently, a higher perception of the nutritional risk linked to the food purchase (long term side effects of unhealthy processed food) (Laporte, Michel and Rieunier, 2015).

☒ The imposed quantity:

Food packaging adjusts the food proportion based on marketing and logistic considerations. However, this imposed quantity generates an irritation among consumers who express an increasing desire for adequate packaging sizes (Eldesouky et al 2015; Johansson et al, 2012).

☒ The disposable waste:

Buying packaged food generates kilos of disposable waste that must be stored, sorted and thrown away. This represents significant physical, temporal and financial costs for consumers (Bruxelles Environnement and ERU, 2015).

1.3. CHAPTER 3: THE RISKS ASSOCIATED WITH THE FOOD PURCHASE

Although food is a convenience good, with a low level of involvement, its buying is not without risk for the consumers. Indeed, a risk can be perceived by the individual at each time that a goal associated with the food purchase is susceptible to be unachieved (Mitchell, 1998).

Consequently, this third chapter aims at identifying 1) the different risks linked to the purchase of food products and 2) the importance of these risks for the consumers. This analysis will allow the highlighting and the better understanding of potential barriers for the consumers to buy food in bulk.

1.3.1. The risks related to the purchase of food products:

The objectives linked to the purchase of food are multiple; the associated food risk has therefore also a multidimensional character (Brunel, 2002):

- The performance risk: the food product doesn't meet the supposed functions and the qualitative expectations.
- The financial risk: the loss of money caused by a food product that does not meet the qualitative requirements as it should have done or that could have been bought cheaper.
- The temporal risk: the time lost in getting an unsatisfactory food product and/or the additional time required to obtain compensation.
- The physical risk: the food product could get the consumers sick in the short term or put the consumers' health at risk in the long term.
- The psychological risk: the disappointment, frustration or shame faced with a food product whose result is dissatisfying. This hazard is related to a negative change in the image that the consumers have of themselves.
- The psychosocial risk: the food product purchase could impact the consumers' social status. This risk is related to a negative change of the consumers' image in their environment.
- The societal risk: the negative consequences that the food product purchase could generate on the society and/or the environment.

1.3.2. The importance of these risks for the consumers:

Every individual has its own tolerance for each of these risks, but the physical risk is recognized by many authors as dominating in the context of food safety, because of the incorporation principle highlighted by Fischler (1990, p.209) (Aurier and Sirieix, 2009; Bergadaà and Urien,

2006; Fischler, 2001; Yeung and Morris, 2001). This physical risk associated with the buying of food is split into two dimensions: the health risk in the short term (related to poisoning; e.g.: contamination by chemicals substances) and the nutritional risk in the long term (due to side effects of food; e.g.: diabetes, obesity...) (Aurier and Sirieix, 2009; Ello-Martin, Ledikwz and Rolls, 2005).

1.3.2.1. The importance of the health risk for the consumers:

The health risk associated with food is nowadays more easily manageable. This feeling of control reduces the consumers' perception of the short-term physical risk (Slovic, 1987). Within the scope of bulk distribution, the degree of importance of this risk could however be totally questioned. Indeed, in bulk buying the packaging around the product is absent and its function of food protection disappears. This feature of bulk distribution increases, in fact, the likelihood for the food of being contaminated by the external environment (especially for fresh and dairy food, high in water and fats) (ADEME, 2012; Bruxelles Environnement and ERU, 2015).

1.3.2.2. The importance of the nutritional risk for the consumers:

In our modern society, the physical risk linked to food has objectively decreased, however its perception has changed and intensified. The consumers' fear regarding food has migrated from a health risk to a more nutritional risk (Fischler, 2001; Laporte et al, 2015). This swing can be explained by the numerous food scandals and crises, the food industry's technological progress and the increasing perceived complexity of the food chain. Consequently, the consumers don't recognize the modern food products anymore. They perceive a growing distance with food which makes the assessment of food safety increasingly difficult for them (Ding, Veeman and Adamowicz, 2013). Moreover, the consequences of the nutritional risk are rather unknown, less controllable and remote in time; generating then more anxiety (Pichon, 2006; Slovic and Peters, 2006). All these factors have resulted in a growth of the consumers' concern with respect to the long term physical risk of modern food (Nadège, 2004; Bories et al, 2015).

1.3.3. The contagion theory:

The removal of the packaging in bulk distribution leads also to a closer proximity between the product and any other customer or object. This intensified food product vulnerability could generate among consumers a fear of irrational contamination. This irrational contamination concern is related to the concept of contagion theory.

1.3.3.1. The contagion theory:

The contagion law states that “When a source (either a person or an object) is in physical contact with a target (a person or an object), the source passes some or even all of its properties to the target that is touched” (Morales and Fitzsimons, 2007, p.273). Therefore, this theory suggests that the properties of a source can be transmitted to a target through a physical contact, leading the individual to perceive the target product as contaminated. The individual has well assimilated that “the qualities of an object are contagious and transferable” (Mishra, 2009, p.75). This contagion belief is driven by an underlying feeling: disgust. Disgust is defined as “a revulsion at the prospect of (oral) incorporation of an offensive substance” (Rozin and Fallon, 1987, p.23). This feeling leads the individual to immediately adopt a distancing behaviour in order to move away from the disgust-eliciting object (Morales, Wu and Fitzsimons, 2012).

Two studies have deeply explored this phenomenon. The research of Argo, Dahl and Morales (2006) has investigated the contagion theory on non-harmful products (t-shirts previously touched by other shoppers). Morales and Fitzsimons (2007) have, thereafter, extended this study to consumable (cookies, cereals) and non-consumable (laundry, notebook paper) packaged goods (in a close setting with other disgusting goods).

1.3.3.2. The characteristics of the contagion phenomenon:

- Consumers don't need to see the product touched by others to observe a perceived contamination, **any simple cue** in the retail environment suggesting this **gesture is sufficient** (Argo et al, 2006; Morales and Fitzsimons, 2007). Contamination coming from an **incidental contact** also leads consumers to devalue the touched products (Kotler et al, 1985).
- **The proximity of contact and the number of contact source** increase the perceived product contamination (Argo et al, 2006).
- Consumers perceive contamination even when **products are protected by a packaging. Transparent containers** increase even more this phenomenon because consumers can visualize the contact (Morales and Fitzsimons, 2007).
- Once the product has been in contact with a contaminating source, the properties of the source are considered to be **permanently transferred** to the product, even when the source is removed (Rozin and Nemeroff, 2002; Morales and Fitzsimons, 2007).
- Product contamination perception appears even when the contact is brief and the consumer under '**cognitive load**' (Morales and Fitzsimons, 2007).

1.3.3.3. The consequences of the contagion phenomenon:

When consumers receive the signal that the product has previously been touched by other shoppers or a disgusting object, they **evaluate it as less favourable** and their **intentions of purchasing it decrease** (Argo et al, 2006; Morales and Fitzsimons, 2007). This also **impacts their purchase choice**, resulting in a change of brand preferences in case of contamination. These meaningful changes in the consumers' evaluation and responses **persist across time and may influence their future choice** (Morales and Fitzsimons, 2007).

1.3.3.4. Conclusion:

Although consumers appreciate touching the products when shopping in order to evaluate their quality and reduce the perceived risks, several researches on the contagion theory reveal that consumers have a lower evaluation of and an aversion to products touched by another person or a disgusting product. This phenomenon is so powerful that it can occur even when the contact is only incidental, implied and brief, the consumer under cognitive load and the product non-consumable. Moreover, these studies have demonstrated that a product can be perceived as contaminated as soon as a visual physical contact appears, even if an actual microbial contamination can objectively not occur. The consumers' perceived contamination is therefore a non-rational belief but which has actual, strong and long-lasting effects on their current and future product evaluation, choice and intention to purchase.

Given that in the framework of food bulk buying the proximity of physical contacts (with other shoppers or products) is increased (unpackaged goods), that their visualization is total (food products can quickly become soiled or dirty with repeated handlings) and that they can generate an actual physical contamination (microbial); it is reasonable to believe that the contagion theory can be applied to this distribution model.

1.4. CHAPTER 4: THE INFLUENCING FACTORS OF GREEN CONSUMERISM

Green marketing

Green-marketing has appeared in the 70's with the aim to go hand in hand with an emerging and increasing environmental concern (Kirgiz, 2016). For a long time, green marketing was reduced to its ecological dimension and defined as “all the activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs or wants occurs, with minimal detrimental impact on the natural environment” (Polonsky and Mintu-Wimsatt, 1994, cited in Cheah and Phau, 2005, p.39).

Nowadays, green marketing is rather perceived in a broader manner and integrated into the framework of corporate social responsibility (Wymer and Polonsky, 2015): “a process through which a company decides voluntary, for diverse motives, to contribute to the well-fare of the society” (Harrison, 2003 cited in Legendre, 2007, p.16).

Green marketing has become more and more close to ethical and social marketing, aimed at designing, promoting, pricing and distributing sustainable products and behaviours. It is henceforth viewed rather as “the holistic management process responsible for identifying, anticipating and satisfying the requirements of customers and society in a profitable and sustainable way” (Peattie, 1995 cited in Kärnä, Hansen and Juslin, 2001, p.849).

Green marketing within the framework of the bulk distribution

Green marketing is undeniably present in food bulk buying given that this purchasing model has got as main principle the adoption of sustainable practices at economic, social and environmental levels. The food bulk distribution reaches for the reduction of the food consumption's negative environmental impacts (by reducing the amount of disposable packaging and – potentially- the amount of food waste). However, it also aims at generating a positive effect on the local economy (by creating local jobs and supporting local producers) as well as on the social environment (by giving priority to social contacts and bringing a neighbourhood back to life through the opening of local grocery stores) (ADEME, 2012; Bruxelles Environment and ERU, 2015).

Green consumerism

A green buying behaviour not only includes the purchase of environment friendly products, but also embraces the buying of fair trade and/or locally sourced products (Do Paço, Alves, Shiel and Filho, 2014). It is a consumption model that takes into consideration several issues including the animal protection or the respect of the environment and the workers (Connolly and Shaw, 2007). Green consumerism can therefore be viewed as the action of buying and consuming in an ethical, sustainable and environmentally responsible way.

The attitude-behaviour gap

“Consumers have become increasingly aware of and concerned with, the importance of the environmental protection” (Park and Lee, 2014, p.572). Today's consumers are characterized by a rising consciousness towards diverse ethical and social concerns such as the environment, the working conditions and the animal protection (Lecompte and Valette-Florence, 2006).

However, only few of these environmentally and socially concerned consumers are putting these concerns into practice (Majláth, 2008). Indeed, although during the last decade, more and more consumers have begun to integrate social and environmental aspects into their lifestyle choices, while changing their consumption habits (Do Paço et al, 2014), the large majority of them is not “willing to sacrifice their needs and desires just to be 'green' or socially responsible” (Ginsberg and Bloom, 2004, cited in Wymer and Polonsky, 2015, p.248).

This gap between green awareness, intention and actual behaviour is well identified in the literature. It demonstrates that among the large number of consumers who express their environmental awareness and concern, as well as their intention to act consequently, the majority of them is willing to adopt a green behaviour only if it doesn't require too much sacrifices in their lifestyle (Laroche, Bergeron, and Barbaro-Forleo, 2001). In Belgium, for instance, despite the public awareness of the social and environmental negative impacts caused by the use of pesticides, only 9% of Belgian households buy fresh organic products at least once a week (Annet and Beaudelot, 2015).

This incoherence illustrates that in spite of their good intentions, the adoption of a responsible conduct is still difficult for consumers. Subsequently, this fourth chapter has for purpose to examine the profile of the individuals who succeed in doing this, in order to highlight the factors influencing the consumers in the adoption of green buying and consumption behaviours.

Green consumers' profile: what motivate them to adopt a green behaviour?

Ottman (1992, p.3) defines green consumers as “individuals looking to protect themselves and their world through the power of their purchasing decisions”. It is about a person who takes into account social and environmental aspects in his/her purchasing and consumption behaviours (Rodhain, 2013).

It is possible to describe these consumers who act, purchase and consume with the aim of influencing positively the society, on the basis of different variables. Because “There is a significant relationship between demographic characteristics, cognitive psychology, personality and attitude and activities that help to protect the environment” (Delafröoz, Taleghani and Nouri, 2014, p.2). Psychological and social factors have, however, a greater predictive power regarding the consumers' green behaviour than demographic variables (Laroche et al, 2001; Kirgiz, 2016; Majláth, 2008; Rupinderkaur, 2016).

The different elements affecting the consumers' green behaviour can be classified in three categories: 1) internal (knowledge, attitude, awareness, involvement), 2) external (education, media, family, culture) and 3) situational factors (economic reward and legislation) (Larsson and Khan, 2011).

1.4.1. Internal factors:

1.4.1.1. Demographic variables: Although these factors have a lower predictive power and their impact is sometimes controversial, many studies have proven that some of them exert a significant influence on the consumers' green behaviour (Laroche et al, 2001). Especially gender (Mayekar and Sankaranarayanan, 2014) and education level (Boztepe, 2012; Kirgiz, 2016). Income, age, marital status and household structure have also deservedly been considered by several authors (Laroche et al, 2001; Park and Lee, 2014; Rupinderkaur, 2016; Zaiem, 2005).

1.4.1.2. Psychological variables: beliefs, values, personality and attitudes are particularly good predictors of a green behaviour adoption (Park and Lee, 2014).

❖ Environmental concern:

“The consumer's worry for the environment is linked to a rational behaviour of preserving the ecosystem” (Zaiem, 2005, p.77). This environmental concern is built, among others, on the basis of the consumers' environmental knowledge and awareness (Paraschos, 2015); their

ecological sensitivity (Zaiem, 2005) as well as the perceived threats to their health (Larsson and Khan, 2011).

The environmental knowledge is “the degree of knowledge towards ecological issues” (Zaiem, 2005, p.78). The environmental awareness is “the degree of consciousness of the influence of the individual's decisions on the environment” (Paraschos, 2015, p.218). These two variables are particularly determining in the adoption of a green behaviour (Delafrouz et al, 2014).

❖ **Ethical concern:**

The consumers’ knowledge of the issues that threaten society and their awareness of the consequences of their conduct are fundamental factors for them to be ethically concerned and to behave in a green way (Schlegelmilch, Bohlen and Diamantopoulos, 1996). The individual's ethical worry is also formed based on their sensitivity to corporate social responsibility or ethical issues (Legendre, 2007).

❖ **Values:**

The most studied values in the researches related to green behaviour are the interest for the preservation of the planet, the animal life and one’s personal health, the collectivism versus the individualism, the altruism versus the egoism, the security versus the enjoyment and the hedonism versus the utilitarianism (Boztepe, 2012; Cheah and Phau, 2005; Kirgiz, 2016; Laroche et al, 2001; Mayekar and Sankaranarayanan, 2014; Park and Lee, 2014; Rodhain, 2013). These values are important guiding lines in consumer's lives. The health, animal and environmental interests as well as the collectivism, altruism and security stimulate the adoption of a green behaviour.

❖ **Personality-traits:**

Specific individuals’ traits can influence the consumers’ willingness to adopt a green behaviour. Certain distinctive personality features are evidenced by the green consumerism literature: the consumers’ short/long-term view (the focus of the consumer's thinking influences their priorities and the efforts they are willing to undertake for the environment) (Majláth, 2008; Wymer and Polonsky, 2015), the price sensitivity (given the proven negative relationship between price and green behaviour, the price premium of green alternatives represents a dominant barrier to act) (Legendre, 2007; Rupinderkaur, 2016), the green marketing sensitivity (the influence of green advertising can be especially powerful to incite to the adoption of a green conduct) (Delafrouz et al, 2014), the importance of social status (a green behaviour can promote the individuals’ social reputation or on the contrary make consumers losing their social consumption status) (Park and Lee, 2014; Rodhain, 2013) and the weight of habits (this favours or restrains the possible lifestyle change) (Larsson and Khan, 2011).

❖ **Attitude:**

Many researchers have demonstrated a direct relationship between certain consumers' particular attitudes and their willingness to endorse a green behaviour. These studies have highlighted the importance of the perception degree of: consumer effectiveness (the belief that the individual can influence the problem's outcome); inconvenience of the green behaviour (perceived costs and benefits of the green action); personal importance of the green behaviour (pro-environmental/ethical attitude, degree of involvement); environmental/ethical problem seriousness; personal responsibility towards environmental/ethical issues (Cheah and Phau, 2005; Laroche et al, 2001; Larsson and Khan, 2011; Legendre, 2007; Majláth, 2008; Rodhain, 2013).

Nevertheless, the authors who have studied the impact of several psychological variables recognize that the perceived inconvenience of the green behaviour and the perceived consumer effectiveness are the dominant factors of influence (Majláth, 2008; Rainbolt, Onozada and McFadden, 2012).

1.4.2. External factors:

Social variables: socio-cultural conditions (social norms, culture, peer and media influence)

Socio-cultural conditions are powerful elements to incite the consumers to adopt a green behaviour. They create subjective and social norms that guide or constraint the human conduct through a pressure to reach conformity and a fear of social disapproval (Cialdini and Golstein, 2004). These norms have a forcing power on the individuals even if they are not convinced by the advantages that a specific behaviour has (Majláth, 2008). This sociocultural influence on the green behaviour adoption is highlighted in the researches of several authors (Cheah and Phau, 2005; Kirgiz, 2016; Larsson and Khan, 2011; Majláth, 2008; Mayekar and Sankaranarayanan, 2014; Rainbolt et al, 2012; Yang, Huang, Kuo and Lin, 2014).

1.4.3. Situational factors:

Economic reward and legislation: the scope of the measures taken by the government or a company to stimulate the protection of the environment and the well-being of the society has an impact on the consumers' adoption of a green behaviour, whether this happens in a voluntary or compulsory way (Larsson and Khan, 2011).

1.5. CHAPTER 5: THE BARRIERS AND DRIVERS OF THE ALTERNATIVE CONSUMPTION PATTERNS

The food bulk distribution is a sustainable business model that promotes circular economy among its clients. “Circular economy is an alternative model based on longevity, renewability, reuse, repair, upgrade, refurbishment, capacity sharing, and dematerialization, that decouples growth from scarce resource use” (Accenture, 2014, p.4). Instead of producing things from virgin resources, this model transfers existing products between users and transforms used products into new ones.

Bulk buying is part of this circular school of thought given that consumers are encouraged to make use of their own reusable containers for each of their purchases in order to replace short-lived polluting food packaging. In addition, the bulk distribution also offers to the buyers the possibility to take part in alternative patterns of consumption. These business models, based on circular flows of products and materials in the consumption phase can be distinguished in two types: the access-based consumption and the collaborative consumption (Edbring, Lehner and Oksana, 2015).

This last chapter is devoted to 1) the application of these models within the framework of bulk distribution and 2) a literature review about the consumers' barriers and motivations with respect to the access-based and collaborative consumptions. This analysis aims at shading light into barriers and drivers that could affect the consumers' intention to buy food products in bulk by way of these two circular consumption models.

1.5.1. The access-based and collaborative consumptions:

1.5.1.1 The access-based consumption:

The access-based consumption is also called “product system service”. Instead of buying the ownership of the product, the consumer only purchases its use or its functions (Briceno and Stagl, 2006). The access-based consumption consists therefore in renting, leasing or hiring products, without owning them. In this alternative model, the consumption of resources in the using phase is replaced by the renting of the product as a service (Edbring et al, 2015). It is hence a transaction where no transfer of ownership takes place (Bardhi and Eckhardt, 2012).

Within the framework of bulk buying:

Many bulk stores offer or make compulsory a service of returnable bottles and jars for liquid or dairy food products (ADEME, 2012). This system of containers with deposit is a form of access-based consumption: the bottle is not purchased but rented for a short-term period in

exchange of a monetary compensation and must be returned to the shop in order to be reintroduced in the circuit (washed and reused by other clients).

The system of consigned bottles and jars is part of the circular economy because it allows the reuse of raw material and the extension of the containers' life cycle. It is a product service system: the distributor does not sell the bottle; he sells only its use, that is to say the transport of the food product in a clean, safe and hygienic way (Jean Bouteille, 2014).

1.5.1.2. The collaborative consumption

“Sharing economy”, “collaborative consumption” and “peer-to-peer economy” are synonymous terms used by different authors to describe “a phenomenon of sharing between individuals which prioritizes utilization and accessibility over ownership” (Cheng, 2016, p.61). Regardless of the word chosen, the emphasis is put on the sharing and the collaboration between people to meet some of their needs. Consequently, in this alternative business model, the consumption of resources in the use phase is replaced by the sharing, bartering, swapping, lending, trading, renting and gifting of goods (Botsman and Rogers, 2010). Individuals share their under-utilized resources among each other in exchange of monetised or non-monetised compensations (Edbring et al, 2015; Gruszka, 2016; Richardson, 2015). The collaborative consumption has taken an increasingly important place in our society because this phenomenon offers “enormous potential for price advantages, environmental sustainability, convenience, new consumption experiences and social interactions” (Kathan, Matzler and Veider, 2016, p.664).

Within the framework of bulk selling:

Many bulk stores propose to their customers to set up a system of jar sharing (ADEME, 2012). This exchange takes place between the distributor and the client (B2C) or between the customers of a same store (C2C): at the entrance of the store, clean reusable jars are made available to customers who would have forgotten their own containers in order to allow them to carry out their food purchases in bulk. In most of the cases, this collaborative consumption system is free and unregulated. There is no monetary compensation required and returning the jars is a voluntary act, although desired. This sharing of containers falls within the scope of circular economy, since it encourages the exchange of jars among individuals or with the distributor in order to reuse raw materials and avoid the usage of polluting transit packagings.

1.5.2. Consumers' barriers and driving factors with respect to the access-based and collaborative consumptions:

Several researches have been useful to develop a summary of the consumers' barriers and motivations, identified in previous studies already, in relation to these two consumption models.

The papers on the access-based consumption that have been used present different research topics: the summary of the existing literature review (Edbring et al, 2015), the study of the willingness of participation (Lawson, Gleim, Perren, and Hwang, 2016) as well as the driving factors and barriers vis-à-vis the renting of home furniture and products (Edbring et al, 2015).

The researches relative to the collaborative consumption that have been used also deal with various thematics: the summary of the existing literature review (Edbring et al, 2015), the highlighting of the motivations to join LETS (local exchange trading systems) (Briceno and Stagl, 2006) and the study of the general willingness of participation (Botsman and Rogers, 2010), the option choice for transportation and accommodation (Bazzi and Beindenbach, 2016), the satisfaction and likelihood of reuse for car and accommodation sharing (Mohlmann, 2015), the willingness of participation for car (Kara, 2016), accommodation (Tussyadiah and Pesonen, 2016) as well as home furniture and products sharing (Edbring et al, 2015).

Summary of the literature review:

1. Access-based consumption

Drivers	Barriers
<ul style="list-style-type: none">- economic reasons- environmental reasons- flexibility- guaranteed access- ease of access- relationship with the provider- previous experience- status consumption- product trial- product variety seeking	<ul style="list-style-type: none">- hygiene- health and safety issues- unfamiliarity with the concept- economic obstacles- product or brand loyalty- lack of trust towards the provider or service functions- materialism- anxiety- environmental obstacles- rental schemes and rules- difficulty of cost comparison

2. Collaborative consumption

Drivers	Barriers
<ul style="list-style-type: none"> - financial appeal: cost savings - environmental considerations - social appeal (community building and belonging, political reasons, socializing, lifestyle change, support of the local economy...) - utility, convenience - ease of use - practical for seldom-used products - familiarity with the service - skills/ideas development, learning from others - need for experience 	<ul style="list-style-type: none"> - hygiene - doubts on efficacy - fear of product unavailability - complexity, pre-usage effort - unwillingness to commit oneself and feeling responsible - lack of familiarity with the concept - lack of trust towards others, the technology or the company - security concerns - materialism - costs

The driving factors and barriers highlighted in this literature overview provide teaching material for potential similarities within the scope of bulk distribution. Most notably, two studies could be transposed to the bulk buying business model:

First of all, the research of Briceno and Stagl (2006) on the driving factors for participation in the LETS¹² given that the collaboration within packaged-free stores (mainly local grocery stores) occurs mostly between clients living close to each other.

The motivations for taking part in LETS are mainly related to the individuals' wish for community, sustainability, convenience and cost savings.

Then, the study of Edbring, Lehner and Oksana (2015) about the motivations and barriers regarding the renting and sharing of home furniture and tools; given that jars and bottles leased or exchanged in bulk stores are also kitchen utensils.

¹² "LETS are systems of exchange among people in a community where members can offer any service or product they are able and willing to provide and purchase other goods and services offered in the community" (Briceno and Stagl, 2006, p.1545).

The main driving factors for renting these products are the flexibility as well as the economic and environmental benefits. When these products are shared, the consumers are also motivated by optimizing under-utilized goods and accessing to a community (nb: the product trial seems not relevant within the scope of bulk distribution considering all the bottles or jars rented are always identical).

The principal barriers to rent home furniture and products are: hygiene concerns, the rental long-term cost and the unfamiliarity with the concept. When these goods are shared, the fear of unavailability, the perceived complexity as well as the lack of spontaneity and flexibility are added to this list (nb: the materialism and environmental negative impact seem not relevant for the bulk distribution given the nature of the product (a cheap disposable good) and the objectively demonstrated environmental benefit of the circular economy).

PART II: RESEARCH DESIGN

The second part of the present thesis consists in a practical market research concerning the bulk buying. Since this problem is rather ambiguous, the practice not well defined and the related scientific literature limited, this market research will be an exploratory one.

Its objectives will be the development of hypotheses regarding the Walloon consumers' main barriers and motivations with respect to the bulk buying of food products as well as the isolation of key variables and customer profiles for further examinations (Sarstedt and Mooi, 2014).

This exploratory market research will be split into two phases:

- An exploration of the market through an observational study and interviews with experts.
- A qualitative market research by means of in-depth interviews with consumers.

The first phase of this practical research is therefore dedicated to the observation of what happens while the second one is devoted to understanding why this happens.

2.1. Phase 1: the bulk distribution market exploration

This initial research will offer a better description and understanding of the bulk buying act, the characteristics of stores offering this practice as well as the consumers' behavior in relation to this mode of distribution.

This preliminary phase of the exploratory research on bulk buying will help to better master the subject, to establish priorities and to prepare the following phase: key questions and topics that have to be asked to and covered by consumers during the qualitative research (Boubakri and Zaiem, 2016). This will be carried out by means of 1.1) an observational study and 1.2) personal interviews with experts.

2.1.1. THE OBSERVATIONAL STUDY

The observational study has been shaped as a “mystery shopping”. I have visited several stores selling food products in bulk, analysed their attributes and then observed the bulk shoppers' behaviour as it occurs in its real environment. I have taken notes of my observations and comments. The stores observed were chosen based on their location and assortment in order to have a diversified sample. The list of these stores is available in appendix 2.

This study has been useful to understand how bulk buying works, to identify the differences of this practice compared to the traditional distribution and to observe how consumers adapt accordingly their buying behaviour.

2.1.2. THE PERSONAL INTERVIEWS WITH EXPERTS

The personal interviews have been realized by telephone and email on a one to one basis. These interviews were carried out by following a short list of questions based on the interesting discoveries and doubts identified during the observational study. The respondents are experts of the bulk distribution, that is to say, managers of grocery stores that possess a bulk buying department or shelf. This exploratory technique has been preferred to others because “expert interview is one of the most important qualitative data collection and research methods” (Paramonovs and Ijevleva, 2016, p.100). This tool is widely used in field research as a pilot study aimed at obtaining preliminary data that will be helpful for the preparation of the following qualitative or quantitative studies (Kvale and Brinkmann, 2009).

This second exploration of the bulk distribution market has been very useful to identify common characteristics between different kinds of bulk stores as well as the bulk buying’s key features. The list and the contact details of the ten interviewed experts are available in appendix 2.

This first phase of this dissertation’s exploratory research has enabled to highlight the main advantages and disadvantages of the bulk buying of food products in comparison with the traditional food shopping; from the experts’, clients’ and my point of view. All these discoveries and observations are gathered in appendix 3.

2.2 Phase 2: the qualitative exploratory market research

This second phase of the exploratory market research is directly related to the core of this thesis research, aimed at gaining a qualitative understanding of the food buyers' main underlying reasons to purchase food in bulk.

Qualitative research is an investigative technique that is widely used in the research fields of food and ecological behaviours as well as risks perception (Laporte et al, 2015; Boubakri and Zaiem, 2016). This method is useful to understand the respondents' attitudes and experiences but also to discover their motives behind a decision (Vinten, 1994).

2.2.1. THE METHOD

The technique chosen to carry out this qualitative research is the in-depth interview. Because of its flexibility and interactivity, it allows to study the consumers' opinion more thoroughly than via a quantitative survey (Konaté and Sidibé, 2006). Consequently, the in-depth interview allows to deeply understand and to learn more about the individual's viewpoint, personal experiences and vision in relation to a given subject (Baribeau and Royer, 2012).

This in-depth interview will be non-directive, that is to say, conducted without following a precise sequence of questions. This method aims at giving to the respondent the opportunity to freely and spontaneously explain his/her main motivations and barriers to buy food products in bulk. During this conversation, me as interviewer will only have the role to ask introductory open-ended questions and a series of 'why' after each interesting statement expressed by the consumer in order to probe as deeply as possible his/her thoughts (Schlackmann and Chittenden, 1986). Moreover, the structure of the interview will be flexible in order to facilitate the interactions with the respondent and to extend the quantity of information in his/her responses.

An interview guide has also been prepared upstream, in order to conduct the meeting more effectively. In the case the respondent gets lost or starts giving too short, elusive or concise answers, some questions from the interview guide will be addressed in order to obtain a complete information covering most of the topics identified during the literature review.

2.2.2. THE QUESTIONNAIRE

The interview guide questions cover the points which can help to get an idea of the respondent's barriers and motivations to buy food in bulk.

The questions that could be addressed are related to the various topics of the literature review associated with bulk buying: the factors influencing the store choice and the adoption of a green behaviour, the risk associated with the food purchase, the advantages and disadvantages of packaging as well as the barriers and drivers regarding the alternative consumerism. Pertinent questions relating to food bulk buying, identified during the first phase of the exploratory research, have also been inserted in this questionnaire. The questions that will be asked are mainly open-ended in order to obtain from respondents less biased answers and with richer insights (Sarstedt and Mooi, 2014). The entire in-depth interview guide is available in the appendix 4.

2.2.3. THE SAMPLE

Given its qualitative nature, the sample used in this study will consist of a small number of non-representative cases. This dissertation's main purpose being the development of an initial understanding that could be afterwards deepened through a quantitative market research.

"In qualitative research, it is in fact acknowledged that the quality of the sample is less related to its size and representativeness than to the fact that it produces new information" (Lincoln and Guba, 1985, cited in Baribeau and Royer, 2012, p.35). Consequently, to increase the richness

of the information produced, the sample of the in-depth interview has been chosen in such a way as to maximize the variation of its answers (Sandelowski, 1995). The respondents are shoppers of different: ages (from 21 to 85 years old), genders (3 men and 17 women), Walloon localities, family compositions (1 to 8 people), levels of education, professions and economic constraints - the name and the demographic indicators of these respondents are available in appendix 5 and 6 -. In order to obtain more diverse information, the interviewed consumers are both bulk buyers and non-bulk buyers.

The sample size of this qualitative investigation has been afterwards determined on the basis of the information saturation principle. “The point at which new data collected and analysed no longer bring additional insights to the research questions” (Mack et al, 2005, p.5).

2.2.4. THE IMPLEMENTATION

The in-depth interviews were conducted in French, over a period of two months (from March to April 2017). They took place at the respondents' residences in order to put them at ease facing questions and topics that could sometimes be sensitive (Laporte et al, 2015). The answers of each interviewee have been recorded in order to be easily transcribed afterwards. The length of each interview varies from 30 to 45minutes. Each respondent has given his/her oral consent.

2.2.5. THE ANALYSIS TECHNIQUE

The content analysis of the twenty in-depth interviews has been carried out by applying a transversal analysis by “floating attention” (Ayache and Dumez, 2011). This one has revealed common thematics on which the positions of the two interviewees' groups were at first sight totally or partly opposed: health, ecology and mistrust.

These three topics have afterwards guided the systematic content analysis which has been realized by means of the Nvivo software. With the aim at conducting the Nvivo study properly, the nodes and the coding have been defined by following the guidelines of the thematic analysis provided by Braun and Clarke (2006).

PART III: THE RESULTS OF THE QUALITATIVE RESEARCH¹³

3.1. Which influencing factors differentiate consumers who buy food in bulk from those who do not (excluding fresh fruit and vegetables)?

An analysis of the different variables - identified in the literature review - influencing the individuals' food store choice has been carried out. It reveals that most of the interviewed consumers adopt close purchasing and consumption behaviors with respect to packaged food. In addition, they all present very different demographic characteristics. This heterogeneity of the consumers buying in bulk is also underlined by the interrogated experts.

Thus, this analysis highlights only a key factor that differentiates bulk from non-bulk consumers: their psychological characteristics, and more precisely, their values and personality traits. Two values are systematically more common and noteworthy in the bulk buyers' responses than in the non-bulk ones: their interest for one's health and their ecological values. Furthermore, most of them share a common personality trait that is rarely found in non-bulk buyers' utterances: the mistrust and the associated need of control.

These three topics immediately arouse the interest of individuals buying in bulk. All of them acknowledge being interested, or even very interested, in their health and/or the environment. They also admit having doubts or even a severe mistrust towards the food industry. Moreover, these three thematics are also addressed in an indirect and more unconscious way while these respondents justify their actions or opinions. Indeed, their views can be similar or different from the ones of the other interviewees. Nevertheless, the explanation they provide to justify their position is, in most of the cases, linked to one of the three identified topics.

3.1.1. THE HEALTH INTEREST

The interest for one's health

The individuals purchasing food in bulk express a high interest for their health. « *Health is VERY important for me, yes!* » (Annick). « *Healthy eating is important I think ...for my mental well-being...otherwise, I would have the feeling to neglect my body*» (Dominique).

Furthermore, the attention that these consumers have for their health is visible both in a direct and in an indirect way. Indeed, their health concern can also be found in the justifications they provide for different topics on which they agree with non-bulk buyers. Here there are some examples:

¹³ The most interesting graphs of the Nvivo analysis are presented in appendix 7.

For instance, the bulk buyers consuming local food aim at obtaining the guarantee of a compliance with strict pesticides regulations. Purchasing locally is perceived, first, as a medium to avoid endangering their health. On the contrary, it is the taste and the better quality of these products that encourage the other respondents to adopt this buying behavior.

Similar justifications are expressed with regards to organic food purchasing. The consumption of these products allows bulk buyers to avoid pesticides and consequently to protect their health. The very few average consumers who buy organic products, instead, justify this choice with taste and quality arguments. « *It is firstly for my health, and moreover, I think that consuming organic products is also better for the planet* » (Carine). « *I won't buy a product with a reduced environmental footprint if it is not safe for my health!* » (Françoise).

Another example illustrates the health concern of these consumers. If on one hand the totality of the interviewees cooks by themselves and buys very few ready-to-eat meals, bulk buyers adopt this behavior for health motives mostly, rather than for benefiting from a greater taste as the other respondents. « *Cooking to eventually have an unhealthy meal... this doesn't interest me!* » (Annick).

Finally, when, half of them mentions their tolerance for microbes, this is linked to a health goal once again. « *I tell myself "we need to have antibody anyway" because otherwise...a few microbes...this doesn't hurt!* » (Annette). « *I am not afraid of bacteria or things like that! I think that we also need to be immunized!* » (Françoise). « *I tell myself 'Oh my god we need microbes' (...) now we don't have enough microbes in our body, yet, it would appear that they are useful to fight against diseases!* » (Isabelle).

The food labels

This bulk buyers' concern for their health translates into a daily quest for nutritional information. Almost all of them read labels of the processed food they buy for the first time with the aim of judging its nutritional quality (ingredients, additives, organic certification...). « *To know where the product comes from, what are its ingredients, what are its benefits for health...* » (Pauline). « *When we look a bit to the additives, the adjuvants, the sweeteners that are added to food...we realize that they are slowly poisoning us!* » (Marie).

On the other hand, none of the other consumers does this! « *I do not pay attention to what there is inside of food...even if I know that there are plenty of things that are not very good for our health, but...* » (Eloise). « *I don't look at what is written on the product, because I will not go*

further in knowing exactly what this or that additive is... » (Laurent). « No, this doesn't interest me...anyhow, labels are written too small for me! » (Léon).

The nutritional information

Bulk buyers have also got a deep, or even very extensive, nutritional knowledge. For almost half of them, health is an actual pastime. This is why they have all subscribed to magazines on this topic. « *I am passionate about this subject!* » (Françoise). « *I like immersing myself in all that is linked to health...there are so many magazines on this topic nowadays! (...) I have been interested in health issues for years now!* » (Annette). One respondent has even followed nutrithérapie lessons. « *I have taken lessons too! So, I am quite informed about this subject!* » (Carine).

Most of the ordinary consumers instead have a relatively limited nutritional knowledge. « *Globally, I know what is good or bad for health, without going into further details* » (Robin). « *I am not interested in all this information (...) I find it useless and it would drive me crazy!* » (Marinette).

The link between nutrition and health

The bulk buyers' interest for their health could be explained by the absolutely obvious link they see between food and health. « *Health and food are, for me, practically the same thing!* » (Pauline). « *Yes, clearly, the link between food and health is there! There is no doubt for me!* » (Véronique). For all of them, it is proven that nutrition has consequences on health; while only one ordinary respondent shows the same certainty. All the other ones think that this link is only potential. « *I think that food can probably play a role on health...* » (Laurent). « *Honestly...I don't know!* » (Léon).

The nutritional risk

For the individuals who buy in bulk, the consequences of food on health are both in the short and long term. In the long run, for most of them, serious diseases, such as cancer, can be the result of food. « *I think that our children will develop diseases we have escaped (...) they will accumulate in their body too many bad substances... and at one point their body will give up!* » (Françoise). « *Food is like engine oil, if we give a bad oil to the engine...after a certain time, the engine will become soiled and won't function properly anymore!* » (Marie).

In the short term, they also perceive the direct impacts of food on their health. « *We can feel it! And if we listen to our body, we realize that food is something that must bring good things to*

the body and if we eat in a healthy way, it does! » (Isabelle). « If for instance someone is gluten intolerant and then changes his diet, it is in the short term that he will feel better! » (Justine). Consequently, healthy eating is a behavior they adopt with the aim of protecting their health in the short and long term. « For me the goals are having good energy in the short term and avoiding problems of diabetes, polyarthritis, cancer and things like that in the long term » (Annick). « One says 'your food will be your medicine'! So, it is very important to eat healthy food to be in a good health! » (Pauline).

On the contrary, most of the other respondents only identify long term consequences of food on health, these ones being mainly the result of an excess of unhealthy food products. *« There are certain food products that make us fat... coke, fries... If we eat them too regularly and really too much... » (Cindy). « It is all this « junk food »... if we abuse of it, it can lead to long term diseases » (Robin)). « I think that there is no link! Well, for obesity, maybe... but there are people who eat healthy and even so catch a cancer! » (Sabine). Only one average respondent thinks that cancer can be associated with food.*

Furthermore, most of the bulk buyers actually dread the dangers of pesticides for their health. On the other side, the majority of the other interviewees is aware of the pesticides' potential risks, but they also think that washing fruit and vegetables or having a low consumption of these products is enough to be shielded. *« We know that pesticides are not good for us, but this is not the first thing we look at... we are not very cautious! » (Laurent). « I don't buy organic food, because I can wash a courgetti and this has the same effect on pesticides! » (Lydie).*

Food behavior

Subsequently, considering their fear for the risks engendered by food, the bulk buyers' interest for health translates in their food purchasing and consumption behaviors. *« Yes, I am very careful about my daily diet... » (Justine). « I make the effort to opt for whole rice, because I will not lie to you, white rice is better! But I eat the whole one for my health! » (Françoise).*

On the other hand, most of the other interviewees make few efforts to try preserving their health by means of food. *« I have to admit that I do the lazy girl! I should pay more attention to what I eat, there is no doubt! » (Marinette). « I will anyway choose the product that I prefer from a gustatory viewpoint, even if it is perhaps bad for health ... » (Eloise). « I try, I try to pay attention to my health... but not enough, not enough! » (Myriam).*

3.1.2. THE ENVIRONMENTAL INTEREST

The ecological sensibility

Most of the consumers purchasing in bulk express spontaneously their ecological sensibility. Nevertheless, this environmental interest varies depending on the respondents. For more than half of them, it is very high. « *Ah yes, clearly, and I try to raise awareness among the others!* » (Pauline). « *Yes, I am very green so...* » (Isabelle). « *We are not yet a zero-waste family, but almost! (laugh) It's our objective...* » (Carine). However, for several bulk buyers, this concern is more moderated. « *Ecology is not my first motivation!* » (Françoise). « *I am not extremely environmentalist, surely not...but when I have the opportunity to be green, I seize it!* » (Dominique). « *No, I have not necessarily ecological values...* » (Justine).

In comparison, only two ordinary consumers highlight a strong ecological sensibility. « *Obviously, environment is something important!* » (Cindy). « *Environment is very important for me! Very! It is part of the education!* » (Sabine). Most of these interviewees have got moderated, or rather low, ecological values. « *I am surely not an ecology addict...* » (Delphine). « *We have ecological values...but certainly not enough! It's clear that we could make more efforts!* » (Myriam).

Furthermore, the importance of bulk buyers' ecological values is found, once more, in the justifications they provide on topics for which their opinions are close from other respondents' replies. Here there are some examples:

For instance, almost all of them consume also organic food because of its respect for the environment « *I purchase almost exclusively organic products, as much as for my health than for the planet* » (Carine); more than for its taste, in contrast with other respondents. « *Organic food has even a better taste! Even my five years old daughter says it!* » (Delphine).

Likewise, their interest for local products is particularly linked to the reduced environmental weight this type of food has. « *We talk about pollution and things like that...it is a bit stupid to buy food that has travelled kilometers while we have food products here!* » (Isabelle). « *It's also for the environment, I always say that I don't want that the products I buy travel more than me...and I don't travel far away, so...(laugh)* » (Véronique). On the other hand, this environmental argument is rarely highlighted by non-bulk buyers to justify their local consumption.

Moreover, the bulk buyers who throw few food to the waste bin adopt this behavior for ecological as well as economic sensibility « *I tell myself « this food has required energy to be*

produced » (...) It is difficult for me to waste food! » (Annick); while others avoid food waste above all to not « *pour one's money down the drain* ». The same scheme is repeated with respect to the system of returnable containers: ecological and economic motives on one hand versus practical or economic motives on the other hand.

In addition, even if most of the interviewees find that over-packaging of food products represents a useless waste that should be reduced, only four ordinary respondents would be ready to give up their usual products for less packaged substitutes. On the contrary, the number of bulk buyers supporting this option is far higher (if and only if the product is organic (all) or lactose-free (Justine)). Moreover, the two bulk buyers who refuse this substitute justify their choice by including an ecological concern. « *For my children, I would take the snacks individually packaged...otherwise, at the end, I will have to throw some of them into the waste bin!* » (Dominique). Most of the ordinary consumers, instead, acknowledge that other criteria (price, brand, taste) have more importance than the environmental footprint of the packaging in their food product choice.

Finally, few ordinary respondents buy fruit and vegetables in bulk with the aim of reducing the amount of plastic packaging. Purchasing these unpackaged products allows them, firstly, to get a more suitable quantity for their consumption and/or to choose fruit and vegetables according to their quality or ripening. While bulk buyers find within this purchasing way an ecological motive before any convenience advantage!

The environmental knowledge

The interviewees' degree of knowledge towards ecological issues is variable. For the large majority of them, global warming is something real whose consequences are already visible. This environmental problem affects them deeply « *Earth is so beautiful and we are ruining it! It is sad to see that!* » (Annick). « *When we see the president of the US doubting about this phenomenon...this scares me... a lot!* » (Marie). What incites them to question themselves and/or to act « *Me, I want to protect the planet, so, I don't want that my consumption leads to industrial processes that don't respect it* » (Véronique).

On the contrary, only half of the ordinary consumers thinks that global warming is real; moreover, only one of them is able to visualize its short-term consequences! For the rest of these respondents, global warming is not an actual danger « *I don't know, I have some doubts...the scientists' projections aren't always correct!* » (Léon). « *For me it is more a*

natural phenomenon...this doesn't really affect me» (Robin). « If it's real? We will see about that...I have some doubts» (Myriam).

The environmental awareness

The consciousness degree of their decisions' influence on the environment is higher among bulk buyers than among others. This awareness is even more important for people with strong ecological values. They acknowledge that ecological disasters are indirectly the result of their own acts and are ready to assume their part of responsibility. *« I buy in bulk, for instance, because products are less packaged allowing the reduction of our environmental impact! » (Isabelle). « Acting in an environment friendly way, it is also taking one's responsibilities » (Pauline).* The other respondents, instead, have difficulties in realizing the environmental impact of their consumption. *« I have never asked myself the question...but now that you ask me...I tell myself that this is quite a problem for the environment...» (Lydie).*

Consequently, for most of the bulk buyers, consumer is the first actor that can change things and should act in favor of the environment. *« The consumers ! Because "buying, it is voting" so...» (Carine). « I think that we should rather work to change things by ourselves » (Dominique). « Everybody should take its own responsibilities and act at its small scale» (Marie).*

In contrast, more than half of the other interviewees think that the state and companies should take actions first! *« It is, above all, the politicians that must act! We can act daily through small gestures, but it is first them that can act! » (Sabine). « One asks to the citizens to pay attention to the environment, but the enterprises make little effort...while they are certainly the biggest polluters! » (Laurent).*

The consumer's perceived effectiveness

The belief that the individual can influence the problem's outcome is more present among bulk buyers than among ordinary consumers. For most of them, their environment friendly actions have repercussions on a global scale. *« I am a fan of 'small streams that make big rivers'. I am maybe only a small water drop in the river, but I really care about it! (laugh) » (Véronique). « Like in the tale, I am the small hummingbird that brings its water drop to extinguish the fire» (Carine).*

On the other hand, only a small number of non-bulk buyers share this opinion. Four of them think even that their actions have almost no impact on the environment. *« I don't have the*

feeling...to contribute a lot! » (Eloise). « I have mostly the impression that what I do is useless! » (Robin); in comparison, only one bulk buyer has some doubts about her green actions' positive consequences « I think that this has a small impact...but everyone should do the same in order to generate a big impact! » (Justine).

Green behavior

Although all the interviewees carry out the basic ecological gestures (e.g.: sorting and recycling waste, limiting one's water and electricity consumptions, favoring local fruit and vegetables,...) , only the most sensitive consumers to the above mentioned influencing factors adopt a much more inconvenient green behavior daily (e.g.: buying almost exclusively organic food, limiting packagings, making home-made cleaning products and cosmetics, adopting a reasonable consumption, using ecological dry toilets,...).

Moreover, the goal pursued by the latter is to be in line with their life philosophy « *It would be difficult for me to behave differently... for me, for my own convictions » (Annick). « I have strong ecological values and in my daily life I feel rather in line with my life philosophy! » (Marie); while for the other interviewees the objective sought is rather economic or nonexistent (a behavior that has become mindless through the habits, obligations or education).*

3.1.3. THE MISTRUST

The mistrust feeling

Apart from two respondents, all the other bulk buyers confess having strong doubts or even a severe distrust towards the food industry. « *No, I have no confidence, no! We can sum it up like this! (laugh) Neither in food industry nor in food regulations nor in food sanitary controls» (Véronique). « Oh yes, absolutely, I am suspicious vis-à-vis the food industry! » (Isabelle). « In a certain way, yes, I distrust a bit the food industry...I have doubts about what is sold on the market ... » (Carine).*

The situation is completely reversed for the other interviewees, only two of them admit having the same suspicion vis-à-vis processed food. « *I have more and more distrust! » (Delphine). « We are completely duped! They are selling us products that lack of quality! (...) they always want to sell more! And they don't care about the consumer! » (Sabine). Most of them, however, only question themselves or are rather unconcerned by this subject. « *We are continuously bombarded with « it's harmful, it's harmful »...we begin to ask ourselves some questions...»**

(Léon). « *Boh...it's not really a concern for me!* » (Laurent). « *I don't really ask myself this kind of question...* » (Lydie).

The mistrust regarding the ingredients of the processed food

Most bulk buyers are very suspicious with respect to the processed products' composition. « *I have the impression that we are poisoning ourselves more than everything else!* » (Annette). « *My god, what is inside this food?* » (Isabelle). « *There is all that you read on the label and...all that is not written on it...but inside in fact!* » (Marie).

It is, first and foremost, because of their lack of confidence in modern food that these consumers reject ready-to-eat meals. « *I don't buy these products because we have, precisely, no control of what is inside!* » (Carine). « *I buy very few processed food...because...too much sugar, too much salt...and again, and I can't control what I eat* » (Françoise). Conversely, most of the other respondents avoid these products mostly because of their taste. « *This is not worth a good home-made paella!* » (Marinette). « *After a certain time...it is disgusting!* » (Robin).

Consequently, bulk buyers prefer cooking by themselves because it enables them to know all the ingredients that compose the product. This food control seems essential for them. « *In this way, I know what I put inside my meal!* » (Annick). « *At least, we know what we have in the plate! Moreover, we can put the ingredients that we prefer!* » (Pauline). Most of the ordinary consumers, instead, cook by themselves firstly with the aim of savoring an inimitable “home-made” taste.

The suspicion towards the goals pursued by the food companies

The majority of bulk buyers is suspicious towards the big food companies' objectives. They have the feeling to not being taken into consideration by them. In comparison, only one ordinary consumer shares this concern. « *I distrust...because I know that business and money always dominate and that the temptation of making money prevails over the consumer's protection ...* » (Annick). « *We have believed naively that there was a commission to defend the consumer...but it is not true!* » (Marie). « *I think that agro-food companies have their profit as an objective rather than my health...* » (Véronique).

The mistrust vis-à-vis globalization and « made-in » labels

Several consumers buying food in bulk have also heavy doubts regarding foreign food products that they judge as not perfectly safe, because less controlled. « *For example, I distrust Spanish strawberries...I never buy them!* » (Annette, Dominique). « *We can't know the real traceability*

of products anymore. Their packagings are altered, because as soon as a product is refined in one country, it can be labelled as a « made in » product of this other country! I find this disgusting! » (Marie).

Therefore, bulk buyers prefer consuming local food. *« I won't buy products from Spain that are pulverized...I will choose local and organic food because it respects stricter safety standards... » (Isabelle). « I think that the closer a product is, the more we can control how it is made... » (Carine).* In contrast, the few ordinary respondents who buy these products highlight especially their superior taste and quality. *« I go there because it is where it is the best » (Léon). « My butcher has good products...without being unaffordable » (Delphine).*

The suspicion towards the organic certification

Three bulk buyers mistrust even the organic certification and seem a bit powerless facing an issue for which they can't find a suitable solution. *« I distrust particularly this organic trend, because behind all of this, there could be scams...I don't know...I tell myself sometimes "Is it the good choice to buy organic food? Is it really organic?" » (Annick). « More and more people consume organic food...how can they deliver more and more products while respecting the organic standards? This leaves me with questions (...) But what can do the consumer apart from trusting them? » (Françoise).*

The distrust towards marketing

Half of the bulk buyers is also suspicious with respect to promotions and tastings as well as, more globally, all the marketing actions. This is the main reason that diverts them from promotions. *« For me, advertising is simply another medium to rip off the consumers (...) in this case...I have heavy doubts...the product must certainly not be good! (...) tastings are also a medium to catch the customer... » (Marie). « I always say: "when one needs to promote a product...that is because potentially...it is shit" (laugh)! » (Véronique).* On the other side, the ordinary consumers who are not interested in marketing actions simply judge them useless.

3.2. What are the respondents' main motivations to buy food products in bulk (excluding fresh fruit and vegetables)?

The factors that encourage the interviewed bulk buyers to adopt this purchasing behavior could be classified into four categories: 1) the ecological motive, 2) the nutritional orientation, 3) the control and power taking and 4) rational reasons.

3.2.1. THE ECOLOGICAL MOTIVE

As a predictable result, buying food in bulk is, for all the respondents, driven by ecological reasons. This ecological purpose being, however, a primary or secondary motivation depending on the individual... Indeed, even if only two of them are used to purchase bulk food with reusable containers, this practice is however seen by all as a more environment friendly way to buy. « *It is rather the ecological approach that incites me to buy in bulk...yes, for the waste that we have after the purchases...* » (Dominique). « *It is rather in this sense...for the environmental aspect that I make my choice for bulk products* » (Pauline).

Bulk buying presents, according to them, ecological advantages because it allows to replace polluting plastic packaging by more environment friendly paper containers, as well as to suppress overpackaging. « *There is no overpackaging and I find this very interesting!* » (Annette). « *This allows to buy organic food without a ton of packagings! Because, effectively, organic food is always more packaged...so that is the reason why I try to find organic products in bulk...* » (Véronique).

Therefore, for most of the interviewees, purchasing food in bulk constitutes the solution to resolve the environmental issues caused by packaging waste. «*It is really THE solution... to have less waste, less packagings* » (Annick). « *I buy in bulk notably to avoid having things that are pre-packaged in containers! This allows to resolve the packaging problem (...) it is a means to have less waste* » (Carine).

In addition, some respondents see in bulk buying the medium to reduce their food waste, because it offers the possibility to buy a perfectly suitable quantity for their consumption. « *For the products I am the only one to eat at home, it is really interesting...because we don't have to store them uselessly and to throw them after they expired* » (Dominique). « *Goat cheese, for instance, no one else than me eats it at home, so I can ask the merchant to cut the slice I want...this enables me to avoid food waste and to vary more often my cheese consumption* » (Françoise). Food waste constituting, for them, an environmental problematic, the purchase in bulk represents consequently a more environment friendly way to consume.

3.2.2. THE NUTRITIONAL ORIENTATION

Another key factor incites a part of the interviewed consumers in buying food in bulk: the superior nutritional quality that this purchasing system offers. Indeed, for six respondents, bulk buying constitutes the best medium to have access to a food product nutritionally more qualitative because of its higher freshness and naturality or also its particular properties.

Half of the interviewees explain that the purchase of bulk food allows them to consume fresher products because their stock rotation becomes quicker. The food freshness is essential for these people, because it is the guarantee of a higher nutritional quality, bringing benefits to health. « *For dried fruit, I don't like to take them in large quantities too much in advance, because they go quickly rancid, so in bulk, I take my « right » quantity (...) for the freshness (...) it is also why I prefer buying in bulk...* » (Annette). « *In bulk, if there are fresh food products, I will only take the quantity I need, because I try to buy the fresher possible (...) because the fresher the food, the more it is rich in nutriments and alkaline* » (Annick).

Furthermore, several respondents are encouraged to purchase food in bulk with the aim of finding more qualitative or very specific food that is not sold pre-packaged. These consumers look for these products because of their health benefits. « *They have in their bulk assortment, notably, products that they don't propose packaged....so I have to say that I also buy food in bulk to diversify my alimentation sources (...) here is my motivation!* » (Françoise). « *Quality is also often better among bulk food products than among pre-packaged ones (...) the quality dimension also plays a role in my choice for bulk food products...* » (Pauline).

Finally, all the respondents looking for a better nutritional quality see in bulk buying the means to access to food products as natural as possible. Indeed, food sold unpackaged looks for them less chemical or processed than its packaged equivalent. « *Instinctively, I tell myself that food is better for health when it comes directly to the consumer without passing through packaging companies and things like that! (..) I think that bulk food has a better quality in any cases...that there are less conservatives and chemical stuffs (...) it looks like artisan products...more than olives in containers, for example, that seem more chemical...* » (Pauline). « *I think that it is the bulk concept in itself that attracts me ...I don't know... it brings me closer to my harvester instinct (laugh)! Food seems also more natural: from the producer to the consumer... (...) we have a more direct link with the raw product anyway...* » (Marie). « *In bulk, we have the impression to buy a product more...authentic! As if the producer filled directly the container with his almonds...even if he certainly comes rather with big sacks (laugh)!* » (Françoise).

3.2.3. THE CONTROL AND POWER TAKING

A third motivation for the purchase in bulk emerges from interviewed consumers' responses: the control and power taking over their consumption. Indeed, half of them confesses searching in bulk buying a feeling of control or security and/or an impression of liberty and autonomy.

All these respondents explain that purchasing unpackaged food allows them to be closer to the product and/or the producer. This proximity gives them the possibility to control the product quality by themselves by means of their five senses. This immediate and personal control offers them, subsequently, a greater confidence in the proposed products. *« I tell myself that when I buy bulk products, the path up to the producer is shorter than for products in supermarkets (...) I have therefore the feeling to help the producers and to know where the products I put in my plate come from! »* (Pauline). *« When I buy in bulk, « food has a face » as the slogan of 'Nature et Progrès' says (laugh)...it is still another confidence »* (Isabelle). *« I can see directly the product through the container (...) this is important...I think that if the container was opaque, I would not dare, I would ask myself 'what does this cover up?' »* (Françoise).

Furthermore, four consumers confess that buying food in bulk allows them to be at the top of their consumption. By serving themselves and buying the right food quantity only, they become autonomous in their purchasing act once again and regain their freedom of choice. *« Packaging is not imposed to us, the quantity is not imposed to us...if I want to take four almonds, I only take four almonds, if I want to take one kg, I take one kg... this is a big advantage of bulk buying. »* (Françoise). *« In bulk, we really decide the quantity that we want and I find this important! This is seductive...to be able to choose... 'I only need this ...so I only take this'! (...) I like being able to control! I am a consumer, not an 'over-consumer'! »* (Marie). *« If we only like ginger we can only take ginger, this is another advantage... Because with packaged dried fruit, they often put several kinds together...they make mixes that I don't like »* (Pauline).

Finally, bulk buying seduces these same consumers because it allows avoiding brands, packaging, promotions and marketing. They have, consequently, the feeling to not being manipulated by food companies. Adopting this purchasing behavior is even, for two of them, a real militant act, made in opposition to globalized and profit-obsessed food companies they don't want to be supporters of. *« Precisely, when I buy in bulk there is no brand! And I prefer this, because behind brands there are food companies which do all the opposite of what I agree with (...) If I had the possibility to buy exclusively local food and without any brand, this would be a dream come true (laugh)!! »* (Carine). *« Packaging is another medium to attract the consumer in all its naivety...and I think that, my husband and myself, we are a bit rebels with*

respect to this manipulation! We don't want this, so... this is also an additional reason to buy in bulk! (...) And bulk buying also allows to escape from all this globalization that infuriates me ... » (Marie).

3.2.4. RATIONAL REASONS

Finally, a last driving factors group stands out from interviewees' answers: the rational motivations category. Bulk buying is, indeed, perceived by many interrogated consumers as a purchasing way offering both practical and economic advantages.

Several respondents highlight, for instance, that purchasing a small food quantity allows them to taste a product more easily. *« To be able to choose one's quantity, I find this really nice! Sometimes there are things that we are not sure to like, so we can take only a small quantity to taste it... » (Pauline).* *« We take the quantity that we want...and it is important the quantity that we can take! (...) I can take, for example, 4 almonds to taste... this doesn't cause any problem! (...) it also allows to change more often! » (Françoise).*

In addition, this « customized » food purchase enables one of the respondents to satisfy an immediate appetite while following her desires. In this way, bulk buying facilitates her impulsive purchases. *« In Brussels, I buy in bulk every day because I rarely bring something to eat with me, so I enter the shop to directly purchase some food to eat (...) This also enables me to buy a different food product each day according to my desires! » (Justine).*

For some interviewees, purchasing a small quantity makes their food stock management even easier. *« If I buy cereals in bulk I know that I will eat them all quickly! So, that means that I don't have to think about the expiry date! I don't store...what I buy, I eat it » (Justine).* *« What I buy in bulk, I consume it progressively, so it never lies around! I eat it very quickly so the expiry date doesn't matter anymore! » (Annette).*

On the contrary, most of the respondents explain that buying large quantities in bulk allows them to facilitate the storage of dry products they consume regularly. *« What I like in bulk buying, is the fact that if I need 200gr, I only take 200gr! I really dose the quantity that suits me! So, this is interesting! (...) If it is food that can be stored during a long time, like rice or pasta, I will rather make my food reserve» (Annick).* *«In the supermarket, I can buy small containers of 500 gr of dry food! I love that! I can only hold on two days with this! So, I have found a food market where I can buy one or two kg of almonds in one big sack. » (Véronique).*

Finally, bulk buying makes the interviewed consumers' everyday life easier given that this purchasing system allows them to reduce the quantity of disposable waste they must store, sort and throw. Therefore, reducing or suppressing plastic packaging offers them a gain of place, efforts and time. « *It is by convenience in fact... because in comparison with packaged purchases, we don't have the cardboard, we only have one bag...which sometimes is even too much (...) and then for everything...to not have to go to the recycling park and so on...* » (Dominique). « *In bulk, products are not proposed in a mountain of packagings! Because when I buy at the supermarket food for eight people, I have the courgettes packaged by two, the peppers packaged by three, the celery packaged alone...this is rather tiresome!* » (Véronique).

Furthermore, purchasing in bulk presents for the interviewees another rational advantage: the reduced cost of food products sold. Indeed, even if price is not the bulk buyers' first choice criterion, many of them underline the bulk purchasing's financial interest. According to most of them, the absence of packaging around food would also lead to the disappearance of its cost. « *Bulk food is, anyway, relatively less expensive in comparison with other packaged products (...) I think that there is a difference of ten to fifteen percent...* » (Annette). « *Bulk buying, is: the packaging and the reduced cost. Because packaging products in small quantities has inevitably a cost! In small organic stores, the price of small packagings are really expensive, while when we buy the same food products in bulk, it is really cheaper !!* » (Isabelle).

Nevertheless, one respondent highlights that bulk food is not always cheaper, because the products sold are usually organic or local and therefore initially more expensive than traditional prepackaged food. « *I have noticed that food in bulk is less expensive...well... not for all the products, but for some of them! (...) But it's true that in the end, the products sold at Farm are more expensive, because these ones are really specific, while the products sold at Colruyt are really cheaper! So, I visit these two shops to balance my food budget!* » (Justine). This observation is confirmed by the interviewed experts who underline that bulk products are not always less expensive, given that this distribution model requires important investments and maintenance costs, that can have repercussions on these products' selling price. Therefore, the bulk buying's economic advantage reported by many interviewees could be simply a subjective feeling of making a good deal although if this is not necessarily the reality. « *I have never compared prices, but I think that it is more expensive to buy packaged food, because there is a container and the packaging process to pay...* » (Pauline). « *Humm... it is maybe an illusion, because I don't check each time, but, for me, it would be logical that food remains less expensive in bulk given there is neither packaging nor packaging process...* » (Marie).

3.3. What are the respondents' main barriers to buy food products in bulk (excluding fresh fruit and vegetables)?

3.3.1. THE BULK BUYERS' BARRIERS

Although bulk buyers are seduced by the 'unpackaged purchase' concept, none of them does the entirety of their purchases in this way. Indeed, some factors discourage them in the frequency or the number of food products they buy in bulk. Most notably, the lack of security, convenience and food preservation that the removal of packaging involves.

1.3.1.1. Security:

Half of the interviewees has some doubts on bulk products that hold them back from completely adopting this practice. They find that the bulk buying system induces a reduced security vis-à-vis the proposed food, owing to a lack of information and guarantees about the products sold unpackaged.

The whole of these respondents finds that the information relative to bulk products is insufficient. They regret the lack of accurate information about the producers as well as the absence of some essential indications, such as the ingredients list or expiry date. « *For all the bulk products...there is certainly a supplier...but they don't display clearly its name...I find that it lacks of information about the producer...it would be interesting to know the circuit made by the product!* » (Pauline). « *At Biocap, there is not really information on the producers within the bulk department (...) I don't know...it would be interesting to have a picture, a small testimony...* » (Françoise). « *The expiry date is not written and I find this too bad (...) because sometimes, I ask myself on bulk products such as dry apricots or figs 'what is the expiry date of this food?' (...) there is no information neither on the origin nor on the product's ingredients! This is essential and it is missing!* » (Annick).

Three of them also express doubts regarding the quality of bulk products. They highlight that they have no real guarantee about this food traceability, given the information is written on the containers by the store itself. « *I already buy in bulk and would be ready to go further but only if one offers me a product guarantee! There is still work to motivate retailers to propose us products on which we will not have doubts!* » (Françoise). « *They write that food is organic...but we can't verify! They could put anything and everything in a bulk container! But we can't check...* » (Annette).

1.3.1.2. The lack of convenience

Another barrier to unpackaged purchasing appears in the bulk buyers' responses: the lack of convenience. The large majority of them acknowledges, indeed, that bulk buying requires additional temporal and organizational efforts. « *It takes me more time...obviously! We don't have the practical side of the packaging (...) the plastic or even the paper packaging is practical, it's undeniable!* » (Annick). « *Bulk buying is less easy than picking quickly a packaged product on the shelf! We have to be organized, to think to our containers, what we need and in which quantity (...) 'will I have enough?'...this requires more thought* » (Isabelle).

Moreover, most of these consumers are reluctant to the idea of buying bulk food with their own containers, because of the physical and organizational difficulties this would cause. « *For reusable containers and glass jars...it's more complicated! We need to anticipate, foresee...and also transport them!* » (Carine). « *I don't really have enough space in my bag to put them in...Moreover, I would have to transport them all day long with me, so...this would be complicated...I buy in bulk to consume food day to day and thereafter I take the train, so it is especially by convenience that I don't take my own containers* » (Justine).

Furthermore, more than half of the interviewees judge that the bulk buying system is not really practical. « *With the spatula, I don't know what people do...but there is food everywhere on the floor!* » (Françoise). « *I find that sometimes bulk containers serve too much and too quickly....and we say to ourselves: "oh shit...too late!" This is also a problem!* » (Annick).

Two respondents add that the bulk buying system lacks of practicality concerning the evaluation of the quantity to buy and price to pay. « *Sometimes in bulk, the problem is that we don't have the notion of the quantity that we have to take, so it's maybe the most complicated thing! We tend to say to ourselves 'I will take a bit more' and then we come back home and realize that we have taken too much!* » (Isabelle). « *To control the price of bulk products we need a scale, because we have to evaluate the food product's weight in advance to know at the end what will be its price* » (Justine).

1.3.1.3. The food waste

A third obstacle for bulk buying is expressed by four respondents. These ones admit not buying certain food products unpackaged because of their lack of preservation and the food waste that this could cause. « *There are, however, some food products that I prefer purchasing packaged in order to avoid throwing them once they have become soft...* » (Dominique). « *I wouldn't buy*

wine in bulk because, often, I buy a bottle without being sure to drink it in the following days or weeks...so I have some doubts about the preservation time of wine in bulk! » (Pauline).

3.3.2. THE NON-BULK BUYERS' BARRIERS

The interrogated ordinary consumers have never tried bulk buying for other food products than fresh fruit and vegetables. They only have vaguely heard something about this concept and their interest for this purchasing practice varies. In most of the cases, we can notice that the respondents who present the highest interest for bulk buying are also the ones who have a particular concern for their health or the environment. Nevertheless, even if at first sight they seem quite seduced by unpackaged buying, many disadvantages quickly cross their mind. These ones being especially linked to the lack of convenience identified by bulk buyers themselves.

Astonishingly, individuals who do not purchase in bulk do not seem, apparently, to be held back by a food contamination dread. Indeed, non-bulk buyers do not express more reservations with respect to the unpackaged fruit and vegetables' hygiene than bulk buyers. However, the latter distinguish themselves from ordinary consumers by generally not trying to justify their indifference facing others' non-hygienic behaviors (touching fruit and vegetables). While, most of the non-bulk buyers explain instantly that they always wash their fruit and vegetables to avoid any hygienic issue. Moreover, half of bulk buyers dares evoking the words 'microbe' or 'bacterium' and even highlighting their necessity in our daily life « *I am not an 'anti-microbe' (laugh)! » (Véronique). «I don't feel easily disgusted...no problem...we need some bacteria (laugh)! » (Dominique). «I am not afraid of bacteria or things like that! I think that we also need to be immunized » (Françoise); in contrast, only one average consumer dares this.*

PART IV: DISCUSSION AND HYPOTHESES

4.1. The differentiation between bulk and non-bulk buyers:

4.1.1. THE BULK BUYING'S INFLUENCING FACTORS

Based on the interviewees' responses analysis, it seems possible to formulate the hypothesis that the variables encouraging the purchase of food in bulk would not be of a situational or demographic type. Neither they would be linked to the product sought nor their shopping motives. Rather they would be of psychological nature. Indeed, it is not the bulk buyers' behaviors that differentiate them from others, but rather the values and personality traits that guide them. These thematics, namely the perceived risks (Chandon et al, 2010; Ettis et al, 2004), the interest for one's health (Chandon et al, 2010) and the ecological values (Al-Salamin et al, 2016) have already been recognized by some authors as influencing factors of the individuals' food store choice. Moreover, several researches (Laroche et al, 2001; Kirgiz, 2016; Majláth, 2008; Rupinderkaur, 2016) have demonstrated that the psychological factors have the greatest predictive power regarding the consumers' green behavior, which can be associated to bulk buying.

H1: the consumers' psychological characteristics, and most notably their values and personality traits, would incite them to buy food in bulk.

4.1.2. THE HEALTH INTEREST

Consumers buying food in bulk tend to adopt healthier buying and consumption behaviors. They try to get informed about the nutrition features and read labels in order to be able to judge the nutritional quality of food products. This quest for a healthy diet would be the direct result of the obvious link they see between food and health. Therefore, eating healthy food would allow them to benefit from a better well-being in the short term, but also to protect themselves from the processed food long term consequences.

The ordinary consumers think they are able to manage food potential negative consequences by limiting « junk food » products. While bulk buyers dread the food impacts on their health that they consider rather unknown, uncontrollable and remote in time (Pichon, 2006; Slovic and Peters, 2006). Hence, consumers buying in bulk would be more sensitive to the nutritional risk highlighted in the literature review (Bories et al, 2005; Fischler, 2001; Laporte et al, 2015; Nadège, 2004). This one proves to be for them the dominant risk linked to food purchase.

H2: consumers' high interest for their health and their increased perception of the nutritional risk would incite them to buy food products in bulk.

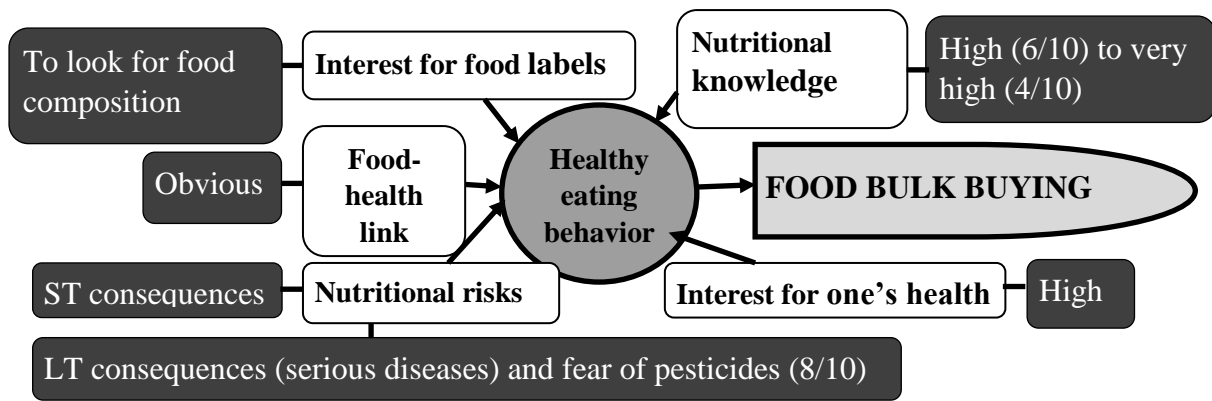


Figure 2: the bulk buyers' health matrix

4.1.3. THE ENVIRONMENTAL INTEREST

Consumers who purchase bulk food products tend to adopt a greener behavior daily, with the aim of being in line with their life philosophy. As identified in the literature review, different influencing factors can explain the adoption of such behavior. Their ecological sensibility (Zaiem, 2005), their knowledge towards environmental issues (Zaiem, 2005) and the emotions caused by their short-term consequences (Laroche et al, 2001; Legendre, 2007). In addition, these individuals would behave in a greener way as they seem more aware of their consumption behavior's consequences on the environment (Paraschos Maniatis, 2015). Thus, they would be ready to act and would not drop their responsibility on the State or companies. Moreover, they would be encouraged to pursue their environment friendly gestures given their high perception of their positive impact on the global environment (Majlath, 2008; Rainbolt et al, 2012).

H3: consumers' ecological sensibility, environmental knowledge and awareness, as well as their higher perceived effectiveness would encourage them to buy food products in bulk.

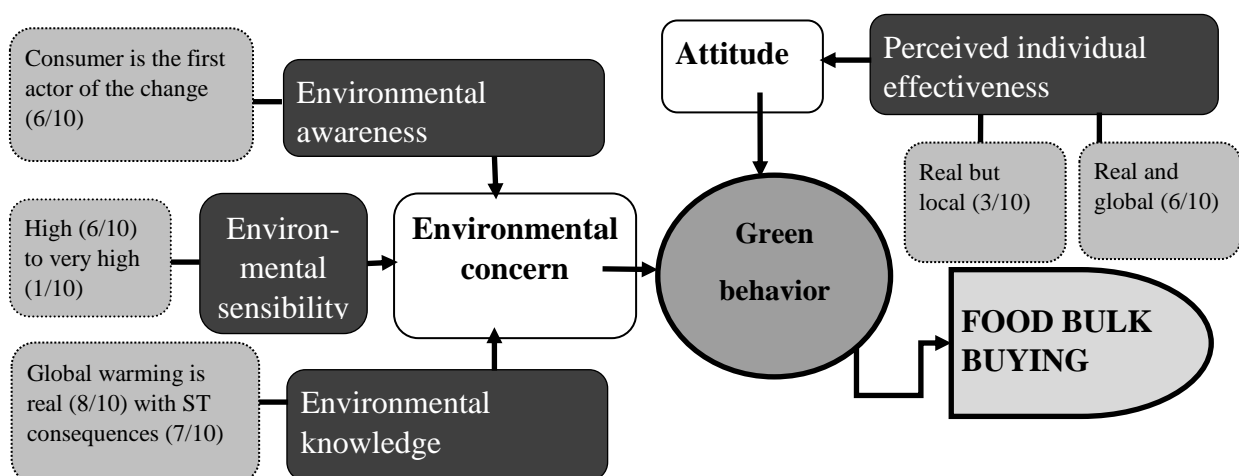


Figure 3: the bulk buyers' green matrix

4.1.4. THE MISTRUST

Individuals buying food in bulk seem particularly suspicious towards the food industry. They have not only doubts regarding the available food products, but also vis-à-vis the objectives pursued, as well as the tools used to achieve these ones. For some of the bulk buyers this uncertainty persists even for food certified as local and/or organic. This distrust feeling among bulk buyers could be explained by the research of Ding, Veeman and Adamowicz (2013). It demonstrates, in fact, that consumers lose confidence in food because they do not recognize modern food products anymore and feel, therefore, not able to assess their nutritional quality.

H4: consumers' enhanced mistrust towards the food industry would incite them to buy food in bulk.

4.2. The bulk buyers' main motivations:

4.2.1. THE ECOLOGICAL MOTIVE

All the interviewed consumers see in food bulk buying an ecological motive. Purchasing unpackaged food, in fact, reduces the amount of the plastic packaging produced. Hence, this practice solves the main problem that respondents associate with packaging: its damaging environmental footprint weight. The packaging's environmental consequences are well-known (Arvanitoyannis, 2007; MacArthur, 2016) and they seem to be a major concern for consumers nowadays (WRAP, 2013).

In addition, by making the choice of a suitable food quantity possible, bulk buying gives an answer to a second environmental problematic associated with packaging: its imposed inappropriate proportion that leads to useless food waste. This food waste issue, which is linked to packaging, has already been highlighted by researches of organizations such as the FAO (2013) and the ADEME (2012).

H5: an ecological motivation: consumers would be encouraged to buy food in bulk with the aim of reducing plastic packaging and food waste.

Consumers' ecological motivation to purchase food in bulk would be most probably linked to their environmental interest, that has been mentioned in the previous point. It is indeed possible to notice that people who have expressed an increased ecological interest and who behave in a greener way, are also the ones who see in bulk buying, first and foremost, ecological advantages.

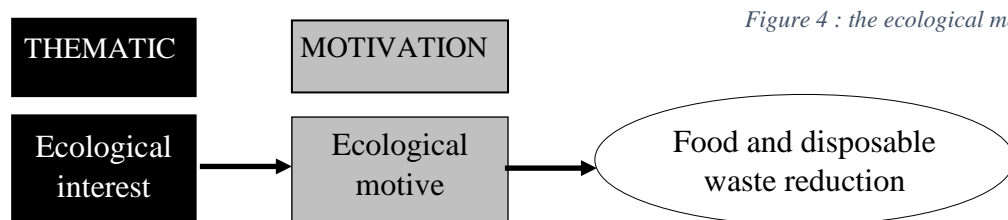


Figure 4 : the ecological motivation

4.2.2. THE NUTRITIONAL ORIENTATION

A part of the respondents sees in food bulk buying a second motivation too: the superior nutritional quality offered by this specific purchasing system. This practice allows buyers to access specific items as well as to renew more regularly their products with the aim of benefiting from a higher freshness.

In addition, the unpackaged food buying offers to the interviewed consumers an impression of higher naturality. This observation is in line with the researches carried out by Labbe et al (2013) and Rozin and Fallon (2005). They demonstrate that packaging reduces the naturalness perception, because it is seen as an additive with non-natural properties entering in contact with food. Consequently, the purchase of food in bulk brings a response to an additional problematic of the packaging: the food product's naturalness reduction that it creates. Furthermore, Laporte, Michel and Rieunier (2015) have proven that consumers who perceive food as less natural have a greater perception of the nutritional risk. Hence, the bulk buyers' search for naturality would potentially be associated with the need to reassure themselves about this long term physical risk judged as important.

H6: a nutritional motivation: consumers would be encouraged to buy food in bulk to benefit from a fresher, more qualitative and natural food and aiming at reducing their nutritional risk perception and taking care of their health.

This quest for an increased nutritional quality would, presumably, be linked to the previously developed health thematic. We can remark, indeed, that the highly health concerned consumers are also those who see in bulk buying nutritional benefits.

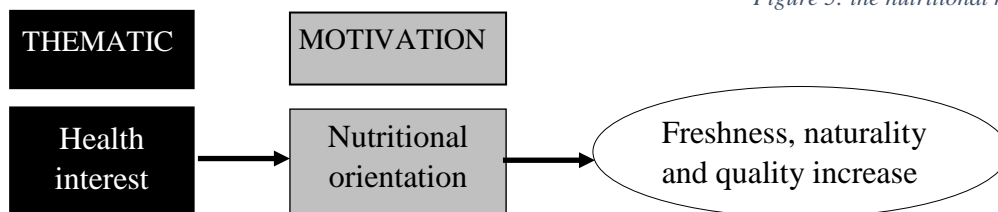


Figure 5: the nutritional motivation

4.2.3. THE CONTROL AND POWER TAKING

A third motivation to the food purchase in bulk appears in the responses of almost half of the interviewed consumers: the control and power taking that unpackaged food allows. By offering the possibility to be in contact with food and to choose their own quantity, this practice enables the purchasers to regain control and power over their consumption.

The possibility of food control that is offered by bulk buying can be associated with one of the main disadvantages of packaging: the lack of proximity with the product. Food packaging creates a barrier between food and consumers (Canu, 2006), preventing them to reassure themselves of the potential risks linked to food (Bories et al, 2015). Thus, the proximity offered

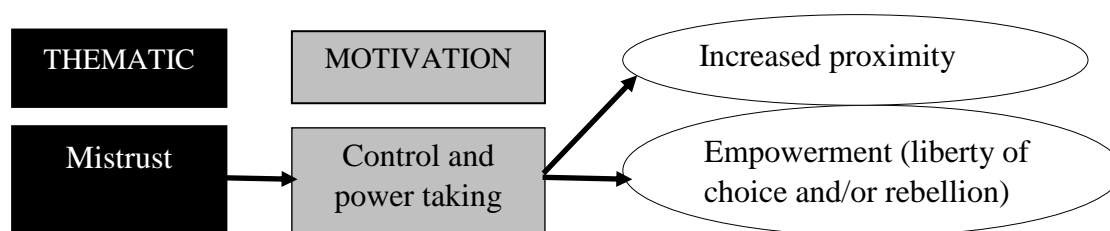
by the purchase in bulk would constitute, for consumers, the medium to reduce the mistrust they have for processed food.

On the other hand, the freedom of choosing the right food quantity afforded by bulk buying brings a response to an additional packaging's problematic: the proportion that it imposes. Studies confirm the consumers' irritation for imposed food quantities and their increasing desire for more adequate packaging sizes (Eldesouky, 2015; Johansson, 2012). In addition, bulk buying represents also, for two consumers, a means to "fight" marketing and the food industry given that this purchasing system makes brands, packaging, promotion and advertising disappear. Therefore, choosing one's own food quantity as well as escaping marketing and retailing would represent for consumers a chance to gain power.

H7: a motivation of control and power taking: consumers would be encouraged to buy food in bulk to control and choose food by themselves, while aiming at reassuring themselves and regaining power over their consumption.

The desire for both control and power expressed by four respondents would be, apparently, ensued from the previously developed mistrust thematic. Indeed, we can observe that the interviewees who have shown an enhanced suspicion regarding commercialized food products as well as a reject for the food industry are also the ones who see in bulk buying a way to calm themselves down, break free or revolt.

Figure 6: the control and power motivation



4.2.4. RATIONAL REASONS

A last motivation encourages respondents to purchase food in bulk: the rational advantages offered by this system.

Bulk buying, by allowing a customizable food quantity, offers practical benefits to consumers (an easier food tasting, impulsive purchase, stock management and storage). Moreover, by limiting the amount of plastic packaging, this practice also brings to many respondents more after-purchase convenience. This bulk buying's asset corresponds to a disadvantage of

packaging: the disposable waste that it causes; representing significant physical, temporal and financial costs for the consumers (Bruxelles environnement and ERU, 2015).

In addition, purchasing food in bulk is perceived by most of the respondents as a more economically advantageous practice. The economic attractiveness of bulk buying is linked to a major food packaging's disadvantage: its cost. Indeed, two studies (Doyle, 1996; Mainieri et al, 1997) underline that regardless of consumers' sensitivity to food prices, packaging's cost remains an important concern for them. Thus, consumers would see in food bulk buying objective actual benefits: an increased consumption convenience as well as a reduced cost.

H8: a rational motivation: consumers would be encouraged to buy food in bulk with the aim of facilitating their food consumption as well as reducing its cost.

This rational motivation would, a priori, be associated with none of the three topics that differentiate bulk buyers from ordinary ones. Consequently, these bulk buying's driving factors could potentially seduce all the consumers, bulk and non-bulk buyers.

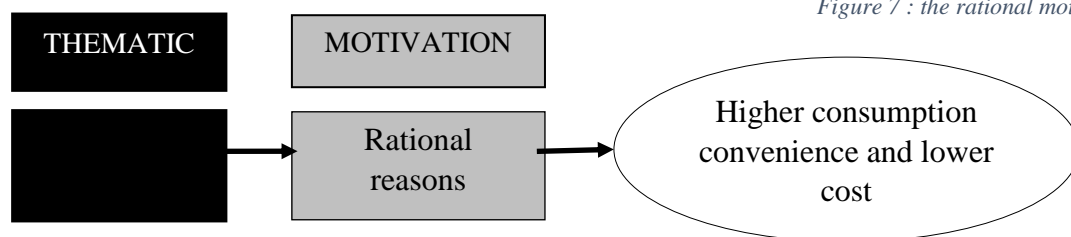


Figure 7 : the rational motivation

4.3. The respondents' main barriers concerning food bulk buying:

4.3.1. THE BULK BUYERS' BARRIERS

4.3.1.1. Security

However, there is a factor which discourages half of the respondents to buy food in bulk: the lack of security caused by this purchasing system. Unpackaged food reduces, indeed, the information and the guarantees about the product that consumers are used to have.

This lack of data on bulk food is associated with an asset of packaging: the information that it provides. This one remains, in the consumers' eyes, as a preferential means to satisfy their need of reliable details about the food product composition (Kotler and Keller, 2012). In addition, Coulson's research (2000) demonstrates that consumers worried about health appreciate the food packaging's information, since it gives them confidence.

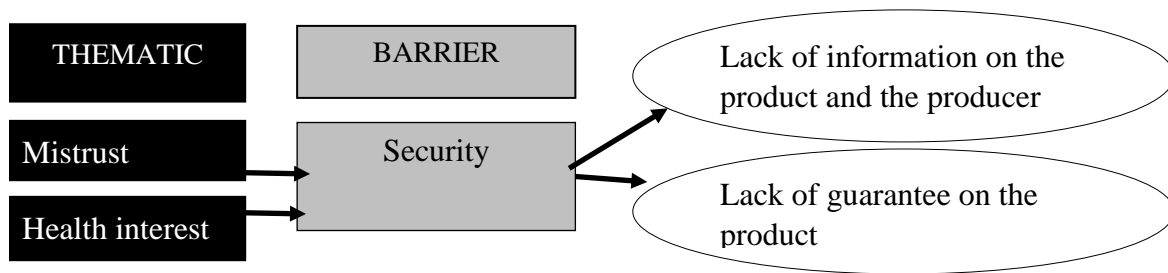
Food sold in bulk lacks also of guarantees concerning the product quality. Similarly, it is difficult to assess the veracity of the information provided. This bulk buying's inconvenient is linked to another advantage of food packaging: the traceability of the product enabled by this one. This accurate tracking of food offers to consumers a greater guarantee of food safety and quality (Kotler and Keller, 2012), allowing a reduction of the risks linked to food products (Keller, 2013).

Bulk buyers, who are particularly concerned by their health as well as interested in food labels, would miss useful nutritional information and guarantees about food products deprived of their packaging. Hence, this lack of security would discourage consumers to buy in bulk.

H9: a barrier of security: consumers would be discouraged to buy food in bulk because of a lack of information and security.

This security barrier would, apparently, be associated with the consumers' enhanced health interest and their strong mistrust towards the food industry, above mentioned. We can indeed observe in the interviewees' responses a link between this bulk buying's limit and these two topics.

Figure 8: the security barrier



4.3.1.2. The lack of convenience

Another barrier to unpackaged purchasing is also reported by almost all the bulk buyers: the lack of convenience of this practice. Bulk buying requires additional temporal, physical and organizational efforts; before (thinking about one's containers and the needed food quantity), during (using the system, as well as evaluating the price and the quantity) and after the food purchasing (transporting the containers).

These bulk buying disadvantages correspond to an essential asset of packaging: its practicality. It offers an ease of purchase and transport which is particularly appreciated by consumers (Kotler and Keller, 2012; Pagani et al, 2015). Hence, consumers would not consider carrying out the entirety of their food purchases in bulk, and even less with their own containers, because this would require them more efforts.

H10: a barrier of convenience: consumers would be discouraged to buy food in bulk owing to the required additional physical, temporal and organizational efforts.

This obstacle of convenience would, a priori, be associated with none of the previously developed thematics. Therefore, this one could be shared by the all the consumers, bulk and non-bulk buyers.

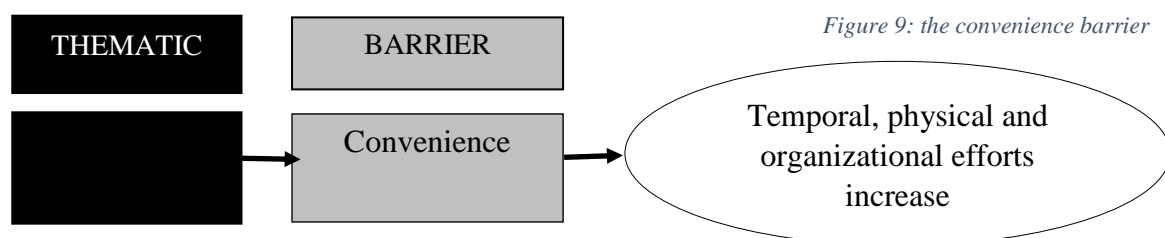


Figure 9: the convenience barrier

4.3.1.3. The food waste

A final barrier to bulk buying is denounced by some consumers: the food waste that unpackaged food products generate. This inconvenient of bulk food is linked to a pragmatic packaging's advantage: its ability to protect and preserve the products. It is, indeed, recognized that these

abilities allow the packaging to protect food from its surrounding environment (Arvanitoyannis et al,2007) and constitute, therefore, a means to tackle food waste (Aspalter, 2014). Thus, some products would not be bought unpackaged by consumers owing to the risk of food waste that they would induce.

H11: an ecological barrier: consumers would be discouraged to buy food in bulk owing to the food waste that could result from it.

This barrier to the purchase of unpackaged goods would, presumably, derive from the previously mentioned bulk buyers' high ecological interest: food waste is in fact perceived by many of them as an ecological issue.

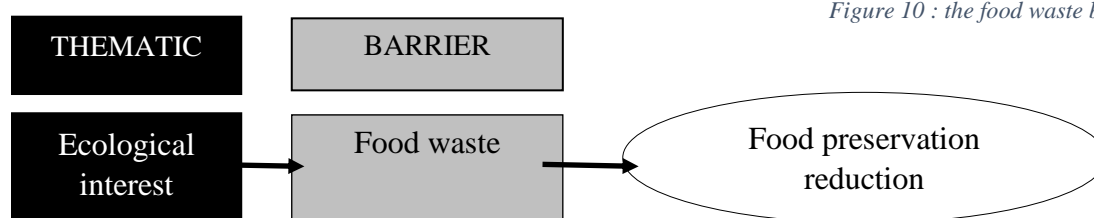


Figure 10 : the food waste barrier

4.3.2. THE NON-BULK BUYERS' BARRIERS

As previously assumed, ordinary consumers' responses confirm that their main barrier to food bulk buying is of practical nature. It would be this practice's lack of convenience that would, mostly, discourage them from adopting it.

Furthermore, the "unpackaged purchase" leads to a closer proximity between food and any other customer or object, which could generate a greater fear of irrational contamination among consumers. This bulk buying's inconvenient seems to be experienced by non-bulk buyers. A proof of this experience is their greater need to justify themselves vis-a-vis unhygienic practices as well as their lower propensity to impulsively express the word 'microbe'. We could, therefore, suppose that non-bulk buyers would be more subject than bulk ones to the contagion theory, developed in the literature review (Frazer, 1959; Mishra, 2009). Several studies have, indeed, proven that consumers have an aversion to purchase products that they judge contaminated because of a physical contact with another person or some disgusting products (Argo et al, 2006; Morales et al, 2007).

H12: a barrier of contagion: consumers would be discouraged to buy food in bulk owing to a fear of irrational contamination.

4.4. A potential segmentation for bulk buyers:

A cluster analysis carried out with the help of the Nvivo software allows to segment the consumers who purchase food in bulk into five homogeneous groups, based on the similarity of words they have pronounced during the interview.

This segmentation seems to be in line with the different bulk buying's motivations expressed by these respondents. Indeed, we notice that the two interviewees of each cluster systematically identify in bulk buying the identical benefits and have the same motivation for this practice. As a result, it would be possible to consider four consumer segments in accordance with their first and leading motivation to purchase unpackaged food.

H13: there would exist four bulk buyer segments based on their main motivation to purchase food in bulk.

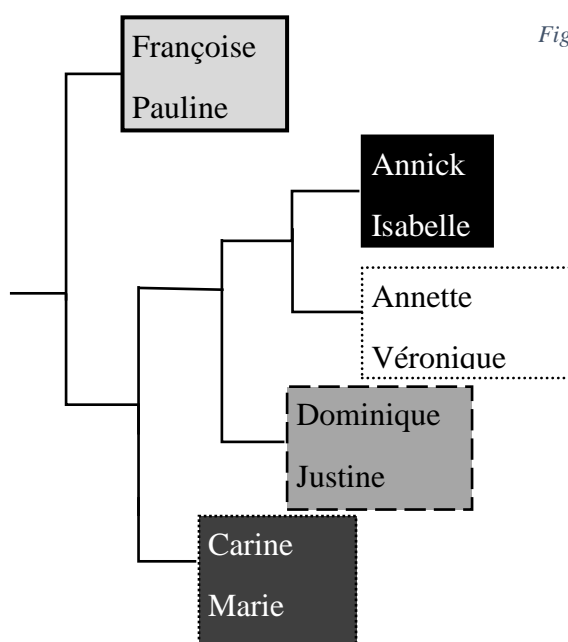


Figure 11: sources assembled by word similarity

The first segment, composed by Annick and Isabelle, could be named as “the ecological consumers” and be associated with the bulk buying’s “ecological motive”. We identify in these consumers’ responses a green behavior which is consistent with their high ecological values. These two respondents appear also very concerned with and affected by environmental issues. Thus, it would seem realistic to think that their main motivation to buy food in bulk would be ecological, namely, reducing their environmental footprint through a decrease of their disposable and food waste.

The second cluster, composed by Annette and Veronique, could be labelled as “the health concerned consumers” and associated with the bulk buying’s benefit of “nutritional quality”. It

is possible to perceive through these consumers' statements a very high interest for their health as well as the care they bring to it daily. We could, therefore, formulate the assumption that the first factor that would incite these individuals to buy food in bulk would be its superior nutritional quality. Thus, unpackaged purchasing would allow them to benefit from food they judge better for their health owing to its increased freshness, naturality and quality.

The third segment, made of Dominique and Justine, could be called as “the rational consumers” and associated with the bulk buying's “rational reasons”. These two individuals are the respondents who have expressed moderated interests for their health and the environment as well as slight mistrust feelings. Hence, it would be possible to consider that these consumers would be encouraged to buy food in bulk mainly for rational motives, such as a greater convenience in their food consumption as well as a reduced cost of this one.

The fourth and last cluster, composed by Carine and Marie, could be named as “the worried consumers” and associated with the bulk buying's possibility of “control and power taking”. In the responses of these consumers we can detect the highest feelings of mistrust and exasperation towards the food industry. It would, therefore, be possible to consider that these individuals would buy food in bulk firstly because of a security need. They would see in this practice the medium to control food by themselves and therefore to be reassured. Moreover, they would probably search in bulk buying a means to regain power over their consumption and oppose themselves to the food industry.

An additional cluster, made of Pauline and Françoise, appears in the cluster analysis results provided by Nvivo. Through a close study of their answers, we can remark that both of them share multiple interests and several motivations vis-à-vis food bulk buying. Thus, Françoise seems highly worried by her health and appears to have low confidence in the food industry. Therefore, she would probably search in bulk purchasing both a higher “nutritional quality” and a stronger “control and power taking”. As far as Pauline is concerned, she has expressed high worries both for her health and the environment. It would, thus, be possible to assume that she would be encouraged to buy food in bulk as much as for “ecological motives” than for these products' “nutritional quality”.

CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

Conclusion

This thesis aimed at finding an answer to the following question: “what are the Walloon consumer’s main barriers and motivations with respect to the bulk buying of food products (excluding fresh fruit and vegetables)?”

Drawing on a multidisciplinary literature review, ten interviews with experts and twenty in-depth interviews with consumers, this paper provides a helpful contribution to the identification of the key factors able to answer to the initial research question.

From an academic viewpoint:

This dissertation’s literature review reunites different topics, each finding its place in the bulk buying of food: the elements influencing the consumers in their food store choice and in the adoption of a green behavior, the advantages and disadvantages of food packaging and the alternative consumption for the consumers as well as the risks they perceive in comparison to the food purchase. It results in the discovery of variables that could potentially encourage or discourage consumers in the adoption of this practice. These variables are presented as thirteen hypotheses. Considering the lack of academic resources addressing the food bulk buying’s topic, this thesis allows to set the first stones of a new research thematic.

The exploratory qualitative research of this thesis, conducted through in-depth interviews with twenty Walloon consumers, identifies a key factor which differentiates consumers who purchase in bulk from those who do not: their psychological characteristics. This reinforces the interest of prior researches that demonstrate this variable’s importance within the framework of bulk food buying (Al-Salamin and Al-Hassan, 2016; Boztepe, 2012; Chandon and Etilé, 2010; Cheah and Phau, 2005; Delafrooz et al, 2014; Ettis et al, 2004; Heitz-Spahn, 2013; Kirgiz, 2016; Laroche et al, 2001; Larsson and Khan, 2011; Legendre, 2007; Majláth, 2008; Park and Lee, 2014; Rodhain, 2013; Rupinderkaur, 2016; Wymer and Polonsky, 2015). Two values and one personality trait seem, indeed, particularly significant to distinguish bulk from non-bulk buyers: their interest for the environment and health, as well as their distrust towards the food industry.

The study of these three thematics allows, then, to attest or to identify new variables influencing the consumers’ ecological and eating behaviors, as well as their mistrust feeling.

Hence, it is possible to bring an additional evidence for the important role played by several key elements- identified in previous researches- in influencing consumers’ green behavior: the

environmental awareness, knowledge and sensibility (Delafróoz et al, 2014; Mayekar and Paraschos, 2015; Sankaranarayanan, 2014; Zaiem, 2005), as well as the self-perceived effectiveness (Laroche et al, 2001; Larsson and Khan, 2011; Majláth, 2008; Rodhain, 2013).

Moreover, the research relative to consumers' health interest reveals a potential model of variables that can impact the adoption of a healthy eating behavior: the interest for one's health and food labels, the nutritional knowledge, the importance of the health-food link and the nutritional risks' perception.

Finally, this study allows to draw a parallel between the consumers' distrust towards the food industry and their greater perception of the nutritional risk, therefore rejoining, the recent researches on this topic (Bories et al, 2015; Ding et al, 2013; Fischler, 2001; Laporte et al, 2015; Nadège, 2004; Pichon, 2006; Slovic and Peters, 2006).

The present qualitative research also allows to consider the main obstacles and motivations for food bulk buying derived from the three discovered psychological variables.

In this way, *the environmental interest* would incite to buy food in bulk because of the decrease of packaging waste that this environment friendly practice allows. Nevertheless, the purchase of unpackaged food could increase as well as reduce food waste, this issue, then, would represent both an ecological barrier and a motivation with respect to food bulk buying.

On the other hand, *the health interest* would influence the unpackaged food purchase because of the superior nutritional quality of these products, which are judged as more natural and fresh. However, this very same concern for health could entail a barrier to bulk food buying because of a lack of immediate nutritional information about these food products that prevents the evaluation of their potential health consequences.

Finally, *the mistrust* towards the food industry and the enhanced nutritional risks' perception would incite to buy food in bulk with the aim of personally controlling and choosing food products. In addition, this way of buying would allow to go against the food industry and its practices by escaping marketing, promotions and brands. Nevertheless, this same suspicion would also create an obstacle for unpackaged food purchasing because of the lack of security in comparison to food without traceability and quality guarantees.

Furthermore, this dissertation also allows to suppose that the contagion theory has got an actual influence on the bulk food purchase. Indeed, this fear of an irrational contamination, that is recognized by several authors (Argo et al, 2006; Mishra, 2009; Morales and Fitzsimons, 2007;

Rozin and Nemeroff, 2002), seems to constitute, for ordinary consumers, an obstacle to buy food products deprived of packaging.

From a managerial viewpoint:

Beyond the influencing thematics and the related barriers and motivations, this paper highlights rational discouraging (convenience lack) and driving factors (consumption ease and reduced cost) for food bulk buying. These ones could encourage as well as dissuade consumers from adopting this practice, since they do not come out of the three identified influencing variables.

Finally, this qualitative research provides a segmentation of the consumers purchasing food in bulk based on their principal motivation for choosing this practice. This segmentation reveals four homogeneous bulk buyer segments which are sufficiently distinct from each other to allow the development of marketing strategies adapted to each of them.

Limitations

Given the exploratory nature of this study, it presents some limitations.

First, even if both samples of this qualitative investigation include consumers with a wide range of various demographic and psychological characteristics, these samples are made up of a small number of participants that have been not randomly chosen. Moreover, this study is limited in terms of gender, given that the bulk buyers' sample consists of 100 percent of females, while in the non-bulk buyers' sample, only thirty percent is made up of males. However, this limitation should be put into perspective, because a recent study reveals that, in 2015, French women are still those in charge of buying food at home in 85 percent of the cases.¹⁴

In addition, the sample of a qualitative research is not meant to be representative of a population (Bryman, 2008); hence, this in-depth interview study remains significant in the objective that it pursues. Nevertheless, this restricts the scope of its findings (Bryman, 2008) since they cannot be extended to a wider population with the same certainty degree than a quantitative analysis (Atieno, 2009).

¹⁴ Ebrard, F. (2015). Ménages et décisions d'achat. *Le bulletin de l'ilec Institut de liaisons et d'études des industries de consommation*, 450, 1-8. URL : <http://www.prodimarques.com/dossiers-thematiques/bulletin-ilec/2015/Ilec-450.pdf>

It should also be noted that this research's discoveries on the contagion theory have to be cautiously treated. Indeed, this theory can hardly be tested through an in-depth interview as it is an irrational mental process that consumers could not be aware of. Besides, the interviewees could present a wish for social desirability that would consequently skew their answers on this topic (Sarstedt and Mooi, 2014).

In the light of the limitations of the present exploratory qualitative research, its findings should only be considered as inputs for further research (Malhotra and Dash, 2011). Therefore, the results of this dissertation consist in preliminary hypotheses that would require further quantitative verifications.

Recommendations

From an academic viewpoint:

A quantitative research, made on a representative sample, would be necessary to assess the reliability, validity and generalizability of the key findings of this interview study (Sharan, 1995).

The potentially healthy eating behavior model and the thirteen hypotheses resulting from this dissertation could be helpful to researchers. They could be used as a foundation in the development of further quantitative studies on the bulk buying's topic. Most notably, an observational study would be very appropriated to verify the foreseen hypothesis concerning the contagion theory. Observing consumers' behavior as it occurs in the real environment would deliver richer and less skewed findings (Sarstedt and Mooi, 2014).

From a managerial viewpoint:

The observational study and the ten experts interviews reveal that stores proposing food in bulk mostly point out the ecological interest of this practice through their sale atmosphere and communication. They target, then, the "ecological" consumers, while disregarding the other bulk buyer segments which were identified in the present study.

Nevertheless, in the light of this thesis, it seems to be in the best interests of these stores to care about the motivations and obstacles of the three other segments. This would allow them not only to gain more clients, but also to increase the satisfaction of their current customers who do not perceive the bulk buying's ecological advantage as the dominant motivation for adopting it. However, the new consumers acquisition could not be performed without bringing some improvements to this purchasing system.

In this way, while aiming at attracting the “health concerned” individuals, these stores’ managers could also highlight the nutritional and qualitative aspects of bulk food. The perceived naturalness of these products could be reinforced by selling them inside of containers made from natural materials, such as wood and glass. Moreover, the food freshness could be underlined via a noticeable indication of the products’ on-sale and optimal consumption dates. The development of a mobile app providing the customer with a freshness tracking of the food he/she buys in bulk could also constitute an additional incentive. Lastly, a rigorous selection and the offer of nutritionally rich bulk food products, could also, encourage health concerned consumers to “convert” to this purchasing way.

Nevertheless, in order to erase the consumers’ doubts with respect to food sold unpackaged, it seems mandatory to deliver a complete nutritional information. This could be done through a sign or a QR code carrying all the necessary information (ingredients, expiry date, certifications...) as well as health benefits of the bulk food product.

Then, with the goal of inciting the “worried” consumers to buy food in bulk, stores offering these products should reinforce the feeling of proximity with the producer. Presenting the producers in a transparent and personalized way, by placing, for instance, their pictures and testimonials on the containers, would, presumably, reassure these consumers.

Once more, making all the information relative to bulk food available seems to be a necessary requirement to reduce the insecurity perceived by these consumers. A QR code could inform the suspicious clients about the product’s origin, circuit, producer and guarantees. Furthermore, it would be interesting that the bulk stores’ managers collectively support the implementation of a control over the quality and the traceability of their products. It could be carried out by an independent body, such as the AFSCA. This attestation of conformity and veracity would certainly give to consumers more confidence in bulk food.

Finally, in order to encourage the “rational” and ordinary consumers to adopt food bulk buying, it appears essential to reduce the inconvenient side of this purchasing system, requiring more temporal, physical and organizational efforts. Stores selling bulk food products could propose to their clients a delivery service to have these products pre-weighed and packaged in paper bags or returnable containers directly at their houses. This would make the food bulk purchase almost as convenient as the packaged products’ traditional home delivery service. The returnable containers’ service presenting, for most of the interviewees, only disadvantages of transport and organization, could, therefore, constitute an interesting alternative. Moreover, it

would be possible to envisage optimized returnable containers that would prolong the bulk food preservation and, hence, reduce the food waste that this purchasing way can cause. Lastly, delivering bulk food at home, would allow, a priori, to remove the irrational fear of contamination which is perceived by ordinary consumers.

Food bulk buying requires another consumption approach and more efforts. But it offers also the opportunity to reconcile health, ecology and local economy. By bringing to this thousand-years-old practice the solutions and tools of our time, it seems possible to reduce its main disadvantages and to give it a real opportunity of expansion and long-term sustainability.

BIBLIOGRAPHY

- Accenture, 2014, *Circular advantage: innovative business models and technologies to create value in a world without limits to growth*. Retrieved from <https://www.accenture.com/>
- Agence de De l'Environnement et de la Maîtrise de l'Energie and Mes Courses pour la Planète (2012). *La vente en vrac pratiques et perspectives*. Retrieved from <http://www.ademe.fr/>
- Al-Salamin, H. and Al-Hassan, E. (2016). The impact of pricing on consumer buying behavior in Saudi Arabia: Al-Hassa case study. *European Journal of Business and Management*, 8 (12), 62-73. Retrieved from <https://www.researchgate.net/>
- Annet, S. and Beudelot, A. (2015). *Les chiffres du Bio 2015*. Rapport mai 2016 Conférence de presse Semaine BIO. Retrieved from: <http://www.biowallonie.com/>
- Argo, J. J., Dahl, D.W. and Morales, A. C. (2006). Consumer Contamination: How Consumers React to Products Touched by Others. *Journal of Marketing April*, 70, 81-94. URL: <http://www.sauder.ubc.ca/Faculty/Divisions/Marketing/~media/Files/Faculty>
- Arvanitoyannis, I. S. and Kasaveti, A. (2008). Consumer attitude to food packaging and the market for environmentally compatible products. In Chiellini Emo (Ed), *Environmentally compatible food packaging* (161-181). England: Woodhead Publishing Limited and CRC Press LLC. Retrieved from <http://vchsc.ajums.ac.ir/>.
- Atieno, O. P. (2009). An analysis of the strengths and limitation of qualitative and quantitative research paradigms. *Problems of education in the 21st century*, 13, 13-18. URL: http://www.scientiasocialis.lt/pec/files/pdf/Atieno_Vol.13.pdf
- Aurier, P. and Sirieix, L. (2009). *Marketing des produits agroalimentaires*. Paris : Dunod.
- Aspalter, K. (2014). How Packaging Contributes to Food Waste Prevention. *Denkstatt GmbH and ARA AG Study*. Retrieved from <http://www.denkstatt.at/>
- Ayache, M. and Dumez, H. (2011). Le codage dans la recherche qualitative : une nouvelle perspective?. *Le Libellio d'Aegis, CRG Polytechnique*, 7(2), 33-46. URL : <https://hal.archives-ouvertes.fr/hal-00657490>
- Balasubramanian, S., Raghunathan, R. and Mahajan, V. (2005). Consumers in a multichannel environment: product utility, process utility and channel choice. *Journal of Interactive Marketing*, 19 (2), 12-30. doi:10.1002/dir.20032

- Bardhi, F. and Eckhardt, G.M. (2012). Access-based consumption: the case of car sharing. *Journal of Consumer Research*, 39(4),881-898. doi :10.1086/666376
- Baribeau, C. and Royer, C. (2012). L'entretien individuel en recherche qualitative : usages et modes de présentation. *Revue des sciences de l'éducation*, 38 (1),23-45. doi: 10.7202/1016748ar
- Bazzi, N. and Beindenbach, G. (2016). *The sharing economy and Web 2.0: a consumer perspective*. Master thesis, Umea School of Business and Economics, Umea. URL: <http://www.diva-portal.org/smash/get/diva2:940356/FULLTEXT01.pdf>
- Bergadaà, M. and Urien, B. (2006). Le risque alimentaire perçu comme risque vital de consommation: émergences, adaptation et gestion. *Revue Française de Gestion*, 32(162),127–144. doi: 10.3166/rfg.162.127-144
- Belk, R. W. (1974). Application and analysis of the behavioral differential inventory for assessing situational effects in buyer behavior. *Advances in Consumer Research*, 1, 370-380. Retrieved from <http://acrwebsite.org/>
- Belk, R. W. (1975). Situational variables and consumer behavior. *Journal of Consumer Research*, 2, 157-164. DOI: 10.1086/208627.
- Berry, D. (2000). Packaging's Role. *Dairy Food Journal Augustus*, 101(8),30-32. Retrieved from <http://proquest.libguides.com/>
- Bloch, P. and Richins, M. L. (1983). A theoretical model for the study of product importance perceptions. *Journal of Marketing*, 47 (3),69-81. doi: 10.2307/1251198
- Bories, D., Pichon, P. and Laborde, C. (2015). Proximity and the reduction of perceived risk when purchasing vegetables: from theoretical interest to the proposal of a new dimension of proximity. *14th International Marketing Trends Conference, Paris, France*. Retrieved from <http://www.researchgate.net/>
- Botsman, R. and Rogers, R. (2010). *What's mine is yours: The rise of collaborative consumption*. New York : Harper Business.
- Boubakri, W. B. and Zaiem, I. (2016). Factors determining food health risks and impacts on the purchasing intention: the case of farmed fish. *International Business and Management*, 12 (1),33-43. doi:10.3968/8144

- Boztepe, A. (2012). Green marketing and its impact on consumer buying behavior. *European Journal of Economic and Political Studies*, 5(1), 5-21. URL: ejeps.com/index.php/ejeps/article/download/83/83
- Braun, V. and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101. doi: 10.1191/1478088706qp063oa
- Briceno, T. and Stagl, S. (2006). The role of social processes for sustainable consumption. *Journal of Cleaner Production*, 14, 1541-1551. doi: 10.1016/j.jclepro.2006.01.027
- Bryman, A. (2008). *Social research methods (3rd ed.)*. Oxford, UK: Oxford University Press.
- Brunel, O. (2002). *Les stratégies d'ajustement au risque alimentaire: Modèle théorique et test empirique*. Thèse de doctorat en Science de Gestion, IAE, Université Lyon 3, Lyon.
- Bruxelles Environnement and Etudes et Recherches Urbaines. (2015). *Vivres en vrac*. Retrieved from <http://www.eru-urbanisme.be>
- Cagri, A., Ustunol, Z. and Ryser, E.T. (2004). Antimicrobial edible films and coatings. *Journal of Food Protection*, 67(4), 833-848. Retrieved from <http://www.ingentaconnect.com/>
- Canu, R., Cochoy, F. and Séguy, L. (2006). *Comment l'emballage nutritionnel retravaille les liens entre le marché et le droit*, 154-180. Retrieved from <https://www.researchgate.net/>
- Carneiro, J. D.S., Minim, V. P. R., Deliza, R. and Leao, F. P. (2015). Labeling effects on consumer intention to purchase for soybean oil. *Food Quality and Preference*, 16(3), 275-282. doi : 10.1016/j.foodqual.2004.05.004
- Chandon, P. and Etilé, F. (2010). Analyse des comportements de consommation alimentaire : l'apport du marketing et des sciences économiques. In : *Les comportements alimentaires. Quels en sont les déterminants ? Quelles actions, pour quels effets ?* 113-124. Retrieved from <http://prodinra.inra.fr/>
- Cheah, I. and Phau, I. (2005). Toward a Framework of Consumers' Willingness to Purchase Environmentally Friendly Products: A Study of Antecedents and Moderator. *ANZMAC 2005 Conference: Social, Not-for-Profit and Political Marketing*, 39-46. URL: http://www.anzmac.org/conference_archive/2005/cd-site/pdfs/14-Social/14-Cheah.pdf
- Cheng, M. (2016). Sharing economy: review and agenda for future research. *International Journal of Hospitality Management*, 57, 60-70. doi: 10.1016/j.ijhm.2016.06.003

- Cialdini, R. B. and Golstein, N.J. (2004). Social influence: compliance and conformity. *Annual Review of Psychology*, 55,591-621. doi: 10.1146/annurev.psych.55.090902.142015
- Cliquet, G., Fady, A. and Basset, G. (2002). *Management de la distribution*. Paris : Editions Dunod.
- Connolly, J. and Shaw, D. (2007). Identifying fair trade in consumption choice. *Journal of Strategic Marketing*, 14 (4), 353-368. doi: 10.1080/09652540600960675
- Coulson, N. S. (2000). An application of the stages of change model to consumer use of food labels. *British Food Journal*, 102 (9),661-668. doi:10.1108/00070700010362031
- Delafrooz, N., Taleghani, M. and Nouri, B. (2014). Effect of green marketing on consumer purchase behavior. *Licensee Bloomsbury Qatar Foundation Journals, QScience Connect 2014:5*. doi: 10.5339/connect.2014.5
- Ding, Y., Veeman, M. and Adamowicz, W.L. (2013). The influence of trust on consumer behavior: an application to recurring food risks in Canada. *Journal of Economic Behavior and Organization*, 92, 214-223. doi: 10.1016/j.jebo.2013.06.009
- Do Paço A., Alves, H., Shiel, C. and Filho W. L. (2014). An analysis of the measurement of the construct “buying behaviour” in green marketing. *Journal of Integrative Environmental Sciences*, 11 (1),55-69. doi: 10.1080/1943815X.2014.894082
- Doyle, M. (1996). *Packaging Strategy: Winning the Consumer* (153-176). Lancaster: Technomic Publishing Co.
- Edbring, E.G., Lehner, M. and Oksana, M. (2015). Exploring consumer attitudes to alternative modes of consumption: motivations and barriers. *Journal of Cleaner Production*, 123,5-15. doi: 10.1016/j.jclepro.2015.10.107
- Eldesouky, A., Pulido, A.F. and Mesias, F.J. (2015). The role of packaging and presentation format in consumers' preferences for food: an application of projective techniques. *Journal of Sensory Studies*, 30 (5), 360-369. doi: 10.1016/j.idairyj.2016.06.011
- Ello-Martin, J. A., Ledikwz, J.H. and Rolls, B. J. (2005). The influence of food portion size and energy density on energy intake: implications for weight management. *The American Journal of Clinical Nutrition*, 82(1),2365-2415. URL: <http://ajcn.nutrition.org/content/82/1/236S.full>

- Engel, J. F., Blackwell, R. D. and Miniard, P. W. (2005). *Consumer behavior 10th Edition*. USA: South-Western Pub.
- Ebrard, F. (2015). Ménages et décisions d'achat. *Le bulletin de l'ilec Institut de liaisons et d'études des industries de consommation*, 450, 1-8.URL : <http://www.prodimarques.com/dossiers-thematiques/bulletin-ilec/2015/Ilec-450.pdf>
- Ettis, S., Sellami, A. and Toukabri, M. (2014). Les déterminants de la fréquentation des points de vente par les consommateurs. *International Journal of Business and Economic Strategy*. Retrieved from <http://ipco-co.com/>
- European Food Safety Authority. (2015). *Substances toxiques dans les aliments*. Retrieved from <http://www.efsa.europa.eu/fr>
- Evrard, Y., Pras, B., Roux, E. and Desmet, P. (2009). *Market : fondements et méthodes des recherches en marketing*. Paris: Dunod.
- Fallon, A. E., Rozin, P., and Pliner, P. (1984). The child's conception of food: the development of food rejection with special reference to disgust and contamination sensitivity. *Child Development*, 55(2), 566-575. doi : 10.2307/1129968
- Filser, M. (1994). *Le comportement du consommateur*. Paris : Dalloz.
- Filser, M., Des Garets, V. and Paché, G. (2001). *La distribution : organisation et stratégie*. Editions EMS Management et société, Collection : les essentiels de la gestion.
- Fischler, C. (1990). *L'homme omnivore*. Paris : Odiles Jacob.
- Fischler, C. (2001). La peur est dans l'assiette. *Revue Française du Marketing* 183/184(3/4), 7–10. URL: <http://search.proquest.com/openview/28e76bb7a53fc3fae8f2945f493d261a/1?pq-origsite=gscholar>
- Foodwatch. (2016). *Des hydrocarbures dans le riz, le couscous, les pâtes, etc.* Retrieved from <https://www.foodwatch.org/fr>
- Ford, A., Crawford, M. and Gerard, H. (2012). The role of packaging for consumer products: understanding the move towards 'plain' tobacco packaging. *Addiction Research and Theory*, 20(4), 339-347. doi: 10.3109/16066359.2011.632700
- Ginsberg, J. and Bloom, P. (2004). Choosing the right green marketing strategy. *Sloan Management Review*, 46(1), 79–84. doi: 40105c2b934cbba0af6d192f49ed9f65

- Gruszka, K. (2016). Framing the collaborative economy: voices of contestation. *Environmental Innovations and Societal Transitions*, WU Vienna University of Economics and Business. doi: 10.1016/j.eist.2016.09.002
- Halden, R.U. (2010). Plastics and Health Risks. *Annual Review of Public Health*, 31,179-194. doi: 10.1146/annurev.publhealth.012809.103714
- Harrison, R. (2003). Corporate social responsibility and the consumer movement. *Consumer Policy Review*, 13(4), 127-131. doi:10735756
- Heitz-Spahn, S. (2013). Cross-channel free-riding consumer behavior in a multichannel environment: an investigation of shopping motives, sociodemographics and product categories. *Journal of Retailing and Consumer Services*, 20(6),570–578. doi: 10.1016/j.jretconser.2013.07.006
- Heitz-Spahn, S. (2013), *Les facteurs explicatifs du choix d'un canal dans un contexte multicanal dans les phases de recherche d'information et d'achat*. ATER IUT Robert Schuman, Université de Strasbourg, Session5-1. Retrieved from <http://leg2.u-bourgogne.fr/>
- Jaeger, S.R. (2006). Non-sensory factors in sensory science research. *Food Quality and Preference*, 17 (1/2), 132–144. doi: 10.1016/j.foodqual.2005.03.004
- Jean Bouteille (2014). *L'economie de demain*. Retrieved from <http://www.jeanbouteille.fr/>
- Johansson, C. et al (2012). Renewable fibers and bio-based materials for packaging applications: a review of recent developments. *Bioresources*, 7(2), 2506-2552. Retrieved from <http://ojs.cnr.ncsu.edu/>
- Kara, L. (2016). *Barriers to involvement in collaborative consumption: a case study of Wibee*. Master thesis in Marketing and strategic intelligence, HEC Liège, Liège. URL: <http://hdl.handle.net/2268.2/1872>
- Kärnä, J., Hansen, E., and Juslin, H. (2001). Social responsibility in environmental marketing planning. *European Journal of Marketing*, 337(5/6), 848-871. doi: 10.1108/03090560310465170
- Kathan, W., Matzler, K. and Veider, V. (2016). *The sharing economy: your business model's friend or foe?*, *Business Horizons*, 59,663-672. doi: 10.1016/j.bushor.2016.06.006

- Kaufman-Scaborough, C. and Lindquist, J. D. (2002). E-shopping in a multiple channel environnement. *The Journal of Consumer Marketing*, 19 (4),333-350. doi: 10.1108/07363760210433645
- Keller, K.L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57(1),1–22. URL: <http://www.jstor.org/stable/1252054>
- Keller, K.L. (2013). *Strategic brand management: Building, measuring and managing brand equity 4th Edition* (30-40). Harlow, England: Pearson Education Limited.
- Kirgiz, A.C. (2016). *Green marketing: a case study of the sub-industry in Turkey*. Basingstoke: Palgrave Macmillan. doi: 10.1057/9781137535894.0009
- Konaté, M. K. and Sidibé, A. (2006). *Extraits de Guides pour la Recherche Qualitative*. Bamako, Mali : Centre d’Appui à la Recherche et à la Formation (CAREF). Retrieved from <http://www.rocare.org>
- Konus, U., Verhoef, P. C. and Neslin, S. A. (2008). Multichannel shopper segments and their covariates. *Journal of Retailing*, 84(4), 398-413. DOI: 10.1016/j.jretai.2008.09.002.
- Kotler, P. and Murali, K. M. (1985). Flawed Products: Consumer Responses and Marketer Strategies. *Journal of Consumer Marketing*, 2 (3),27–36. doi: 10.1108/eb008130
- Kotler, P. and Keller, K.L. (2012). *Marketing management 14th Edition*. United States: Pearson Prentice Hall.
- Kvale, S. and Brinkmann, S. (2009). *Interviews: learning the craft of qualitative research interviewing*. Los Angeles, California: SAGE publication.
- Labbe, D., Pineau, N. and Martin, N. (2013). Food expected naturalness: Impact of visual, tactile and auditory packaging material properties and role of perceptual interactions. *Food Quality and Preferences* 27, 170-178. doi : 10.1016/j.foodqual.2012.06.009
- Laporte, M. (2013). La perception du risque nutritionnel par le consommateur. *Congrès AFM, Association Française de Marketing, La Rochelle France*. Retrieved from <http://www.afm-marketing.org/>
- Laporte, M., Michel, G. and Rieunier, S. (2015). Mieux comprendre les comportements alimentaires grâce au concept de perception du risque nutritionnel. *Recherche et Application en Marketing*, 30 (1), 81-117. doi : 10.1177/0767370114550443

- Laroche, M., Bergeron, J. and Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18 (6), 503-520. Retrieved from <http://www.emerald-library.com/ft>
- Larsson, S. and Khan, M. A. (2011). *A study of factors that influence green purchase*. Master thesis at Umeå School of Business and Economics, Umea. URL: <http://www.diva-portal.org/smash/get/diva2:614312/FULLTEXT02>
- Lawson, S., Gleim, M., Perren, R. and Hwang, J. (2016). Freedom from ownership: an exploration of access-based consumption. *Journal of Business Research*, 69, 2615-2623. doi: 10.1016/j.jbusres.2016.04.021
- Lecompte, A. F. and Valette-Florence, P. (2006). Mieux connaître le consommateur socialement responsable. *Décisions Marketing*, 41, 67-79. URL : <http://www.jstor.org/stable/40593054>
- Legendre, A. (2007). *La consommation socialement responsable : proposition d'une échelle de mesure de ses antécédents et identification de variables explicatives*. Master thesis in marketing at HEC Montréal, Montréal. URL: <http://biblos.hec.ca/biblio/memoires/m2007no178.pdf>
- Lincoln, Y. S. and Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, California: SAGE publication.
- MacArthur Ellen Foundation and Mc Kinsey and Company. (2016). *The new plastics economy: rethinking the future of plastics*. World Economic Forum. Retrieved from <http://www.ellenmacarthurfoundation.org/publications>
- Mack, N., Woodsong, C., Macqueen, K.M., Guest, G. and Namey, E. (2005). *Qualitative Research Methods: a data collector's field guide*. North Carolina, USA: Family Health International. Retrieved from <http://www.fhi.org>
- Mainieri, T., Barnett, E.G., Oskamp, S., Unipan, J.B. and Valdero, T.R. (1997). Green buying: the influence of environmental concern on consumer behavior. *The Journal of Social Psychology*, 137(2), 189-204. doi: 10.1080/00224549709595430
- Majláth, M. (2008). What are the main psychographic differences between persons behave in an environmentally friendly way and those who do not? *THESIS SYNOPSIS Marketing*

Research and Consumer Behaviour Department. URL: http://phd.lib.uni-corvinus.hu/420/2/majlath_melinda_ten.pdf

- Malhotra, N. K., and Dash, S. (2011). *Marketing research: An applied orientation (6th ed.)*. New Delhi: Dorling Kindersley Pvt. Ltd.
- Manali, K. (2015). Consumer buying behavior. *International Journal of Innovation and Scientific Research*, 14 (2), 278–286. Retrieved from <http://www.ijisr.issr-journals.org/>
- Marsh, K. and Bugusu, B. (2007). Food packaging: roles, materials, and environmental issues. *Journal of Food Sciences*, 72(3), 39-55. doi:10.1111/j.1750-3841.2007.00301.x
- Mayekar, M. R. and Sankaranarayanan, K. G. (2014). Segmentation of green consumers. *International Journal of Science and Research*, 3 (10), 1709-1713. Retrieved from <http://www.ijisr.net/>. Paper ID: OCT14713
- McNeal, J.U. and Ji, M.F. (2003). Children's visual memory of packaging. *Journal of Consumer Marketing* 20, 400–427. doi: 10.1108/07363760310489652
- Meillon, S., Urbano, C., Guillot, G. and Schlich, P. (2010). Acceptability of partially dealcoholized wines – Measuring the impact of sensory and information cues on overall liking in real-life settings. *Food Quality and Preference*, 21, 763-773. Retrieved from <http://www.ajevonline.org/>
- Mishra, A. (2009). Influence of contagious versus noncontagious product groupings on consumer preferences. *Journal of consumer research*, 36, 73-82. doi: 10.1086/595716
- Mitchell, V. (1998). A role for consumer risk perceptions in grocery retailing. *British Food Journal*, 100(4), 171-183. doi: 10.1108/00070709810207856
- Mitchell, V. W. and Harris, G. (2005). The importance of consumers' perceived risk in retail strategy. *European Journal of Marketing*, 39 (7/8), 821-837. Retrieved from <https://www.coursehero.com/>
- Mpagalile, J. (2013). Food loss and waste and food packaging: extent, causes and solutions, and the link with developing countries. *FAO Food and Agriculture Organization of the United Nations report*. Retrieved from <http://www.fao.org/ag/ags>

- Mohlmann, M. (2015). Collaborative consumption: determinants of satisfaction and the likelihood of using a sharing economy option again. *Journal of Consumer Behaviour*, 14,193-207. doi: 10.1002/cb.1512
- Monroe, K. B. and Gultinan, J. (1975). A path analytic exploration of retail patronage influence. *Journal of Consumer Research*, 2 (1),19-28. Retrieved from <https://www.researchgate.net/>
- Morales, A. C. and Fitzsimons, G. J. (2007). Product contagion: changing consumer evaluations through physical contact with ‘disgusting’ products. *Journal of Marketing Research*, 44, 272–283.URL: https://faculty.fuqua.duke.edu/~gavan/bio/GJF_articles/contagion_jmr_07.pdf
- Morales, A. C., Wu, E. C. and Fitzsimons, G. (2012). How disgust enhances the effectiveness of fear appeals. *Journal of Marketing Research*, 49(3), 383-393. doi: 10.1509/jmr.07.0364
- Nadège, C. (2004). *Les stratégies de production de la confiance dans le domaine du marché des produits alimentaires*. Thèse d'exercice, Ecole Nationale Vétérinaire de Toulouse - ENVT,116-120. URL : http://oatao.univ-toulouse.fr/2026/1/celdran_2026.pdf
- Nicholson, P. and Vanheems, R. (2008). Orientations d’achat et comportement multicanal du client. *Revue Management et Avenir*, 21,136-156. Retrieved from <http://www.managementetavenir.net/>
- Noble, S.M., Griffith, D.A. and Weinberger, M.G. (2005). Consumer derived utilitarian value and channel utilization in a multi-channel retail context. *Journal of Business Research*, 58, 1643-1651. doi: 10.1016/j.jbusres.2004.10.005
- Ottman, J.A. (1992). Industry's Response to Green Consumerism. *Journal of Business Strategy*, 13(4), 3-7. doi: 10.1108/eb039498
- Pagani, M., Vittuari, M. and Falasconi, L. (2015). Does packaging matter? Energy consumption of pre-packed salads. *British Food Journal*, 117(7),1961-1980. doi: 10.1108/BFJ-10-22014-0348
- Paramonovs, S. and Ijevleva, K. (2016). Expert In-depth Interview on Development and Efficiency of “RIGA International Airport” Reflecting Factors. *Economics and Business*, 28, 98-105. doi: 10.1515/eb-2016-0014

- Paraschos, M. (2015). Investigating factors influencing consumer decision-making while choosing green products. *Journal of Cleaner Production* 132, 215-228. doi: 10.1016/j.jclepro.2015.02.067
- Park, J. S. and Lee, J. (2014). Segmenting green consumers in the United States: implications for green marketing. *Journal of Promotion Management*, 20 (5), 571-589. doi: 10.1080/10496491.2014.946202
- Peattie, K. (1995). *Environmental marketing management-Meeting the green challenge*. London: Pitman Publishing.
- Pichon, P. (2006). *Perception et réduction du risque lors de l'achat de produits alimentaires en grande distribution : facteurs d'influence et rôle de la confiance*. Thèse de doctorat des sciences économiques, Université des Sciences Sociales de Toulouse, Toulouse. URL: <http://publications.ut-capitole.fr/686/1/ThPEPichon.pdf>
- Polonsky, M.J. and Mintu-Wimsatt, A.T. (1994). *Environmental marketing: strategies, practice, theory and research*. New York : The Haworth Press, Inc.
- Poncin, I. (2008). Le comportement multi-canal du consommateur est-il une simple évolution ou constitue-t-il une véritable révolution. *Reflets et Perspective*, 2,43-51. Retrieved from <http://www.cairn.info/>
- Rainbolt, G., Onozada, Y. and McFadden, D.T. (2012). Consumer motivations and buying behavior: the case of local food system movement. *Journal of Food Products Marketing*, 18(5),385-396. doi: 10.1080/10454446.2012.685031
- Richardson, L. (2015). Performing the sharing economy. *Geoforum*, 67, 121-129. doi: 10.1016/j.geoforum.2015.11.004
- Rodhain, A. (2013). « J'aimerais bien, mais j'peux point... » : Exploration des écarts entre attitude et comportement en consommation alternative. *Revue Management et Avenir* 2013/3, 61,50-69. doi :10.3917/mav.061.0050
- Rozin, P.and Fallon, A. E. (1987). A Perspective on Disgust. *Psychological Review*, 94(1), 23–41. doi: 10.1037/0033-295X.94.1.23
- Rozin, P. and Nemeroff, C. (2002). Sympathetic magical thinking: the contagion and similarity 'heuristics'. In Gilovich T., Dale Griffin, D. and Kahneman D. (Eds.). *Heuristics and biases: The psychology of intuitive judgment*. (pp201–216). Cambridge: Cambridge

University Press. URL: http://perso.ens-lyon.fr/jacques.jayez/courses/LogRais/ProbRais/Heuristics_and_Biases.pdf

- Rupinderkaur, Dr. (2016). Green marketing and its impact on consumer buying behavior. *International Conference on Recent innovations in Sciences, Management, Education and Technology, JDC Vidyapeeth, Sirsa, India*, 376-385. URL: <http://data.conferenceworld.in/ICRISMET/P376-385.pdf>
- Sandelowski, M. (1995). Sample size in qualitative research. *Research in Nursing and Health*, 18(2), 179-183. doi:10.1002/nur.4770180211
- Sarstedt, M. and Mooi, E. (2014). *A concise guide to market research: the process, data, and methods using IBM SPSS statistics, second edition*. Springer Texts in Business and Economics.
- Schlackmann, W. and Chittenden, D. (1986). Packaging research. In R.M. Worchester and J. Spradley, J.P. (1979). *The ethnographic interview*. Orlando, Florida: Harcourt, Brace, Jovanovich College Publishers. Downham (Eds.), Consumer Market Research Handbook (513–536). Amsterdam: Elsevier science.
- Schlegelmilch, B. B., Bohlen, G. M. and Diamantopoulos, A. (1996). The Link Between Green Purchasing Decisions and Measures of Environmental Consciousness. *European Journal of Marketing*, 30 (5), 35-55. doi: 10.1.1.457.8846
- Sharan, B. M. (1995). What can you tell from an N of 1? Issues of validity and reliability in qualitative research. *PAACE Journal of lifelong learning*, 4, pp. 51-60. URL: <https://www.iup.edu/assets/0/347/349/4951/4977/10245/BA91CF95-79A7-4972-8C89-73AD68675BD3.pdf>
- Shine, A., O' Reilly, S. and O' Sullivan K. (1997). Consumer use of nutrition label. *British Food Journal*, 99 (8), 290-296. doi: 10.1108/00070709710188390
- Slovic, P. (1987). Perception of risk. *Science*, 236, 280-285. URL: <http://heatherlench.com/wp-content/uploads/2008/07/slovic.pdf>
- Slovic, P. and Peters, E. (2006). Risk perception and affect. *Current Directions in Psychological Science*, 15(6), 322–325. URL: <https://pdfs.semanticscholar.org/1f8e/da951d2ba1b49c278427200b0a6754340bee.pdf>

- Tharanathan, R.N. (2003). Biodegradable films and composite coatings: past, present and future. *Trends Food Sciences and Technology*, 14, 71-78. doi: 10.1016/S0924-2244(02)00280-7
- Tussyadiah, I.P. and Pesonen, J. (2016). Drivers and barriers of peer-to-peer accommodation stay: an exploratory study with American and Finnish travellers. *Current Issues in Tourism*. doi: 10.1080/13683500.2016.1141180
- Van Dam, Y.K. and Van Trijp, H.C.M. (2007). *Branding and labelling of food products. In Understanding consumers of food products (153-180)*. England: Woodhead Publishing Limited and CRC Press LLC.
- Vinten, G. (1994). Participant observation: A model for organizational investigation. *Journal of Managerial Psychology*, 9(2), 30-38. doi: 10.1108/02683949410059299
- Wansink, B. and Park, S. (2002). Sensory Suggestiveness and Labelling: Do soy Labels Bias Taste?. *Journal of sensory studies*, 17, 483-491. Retrieved from <http://foodpsychology.cornell.edu/>
- WRAP (2013). *Consumer Attitudes to Food Waste and Food Packaging: A qualitative and quantitative investigation into consumer attitudes to, and behaviour around, food waste and food packaging, which will inform action to help further reduce household food waste*. doi: 978-1-84405-465-7
- Wymer, W. and Polonsky, M. J. (2015). The Limitations and Potentialities of Green Marketing. *Journal of Nonprofit and Public Sector Marketing*, 27(3), 239-262. doi: 10.1080/10495142.2015.1053341
- Yang, W.-G., Huang, Y.-F., Kuo, C.-H. and Lin, J.H. (2014). Using Kano's Model and Green Marketing Viewpoint to Investigate the Customer Demand of Organic Specialty Store in Taiwan. *Journal of Information and Optimization Sciences*, 35 (1), 25-45. doi: 10.1080/02522667.2013.867725
- Yeung, R. M. W. and Morris, J. (2001). Food safety risk: consumer perception and purchase behaviour. *British Food Journal*, 103(3), 170-187. URL: https://www.researchgate.net/profile/Ruth_Yeung/publication/235253814_Food_safety_risk-Consumer_perception_and_purchase_behavior/links/553dee290cf2c415bb0f816d.pdf.

Zaiem, I. (2005). Le comportement écologique du consommateur. Modélisation des relations et déterminants. *La Revue des Sciences de Gestion*, 4 (214-215), 75-88. doi: 10.3917/rsg.214.0075

APPENDICES

APPENDIX 1- SYNTHESIS OF THE POTENTIAL INFLUENCING FACTORS THAT HAVE TO BE TESTED THROUGH THE EXPLORATORY QUALITATIVE MARKET RESEARCH

1) RETAILING: THE FACTORS INFLUENCING THE STORE CHOICE PROCESS

INDIVIDUAL CHARACTERISTICS

Socio-demographic indicators: age, gender, revenue, socio-professional category, household size, place of residence, education level.

Psychological characteristics:

Attitudes: attractiveness of the sale atmosphere, loyalty to brands or stores, pleasure linked to the shopping act, perceived risks linked to the store attributes.

Values: need of information about the products, the need of price comparison, interest for one's health, ecological and societal values.

Personality-traits: search for variety, conscience of the price, price sensitivity, temporal pressure sensitivity, search for convenience, impulsiveness, conformity to social norms.

Shopping motivations:

Utilitarian: practical orientation: supply motive, economic goals, shopping patterns, staying informed

Hedonistic: recreational orientation: research of self-assertion, research of symbolic meaning, changing one's mind, breaking the daily routine, being sensory stimulated; social interaction: social contacts, being integrated in a group

SITUATIONAL VARIABLES

- The physical environment
- The time perspective
- The previous states unique to the individual

- The social environment
- The definition of the roles

NATURE OF THE PRODUCT

2) THE RISKS ASSOCIATED WITH FOOD PURCHASE

- ❖ The performance risk
- ❖ The financial risk
- ❖ The temporal risk
- ❖ The physical risk:
 - short term: health risk (rational contamination)
 - short term: contagion theory (irrational contamination)
 - long term: nutritional risk
- ❖ The psychological risk
- ❖ The psychosocial risk
- ❖ The societal risk

3) PACKAGING: ITS ROLE, BENEFITS AND DISADVANTAGES

Roles and benefits for the consumer	Disadvantages for the consumer
<ul style="list-style-type: none">✓ Protection✓ Containment and food waste reduction✓ Marketing and information => source of information✓ Traceability => brand identification✓ Convenience => purchase easiness and positive after buying experiences✓ Tamper indication✓ Other functions => symbolic device, source of innovation, important element of brand equity <p>=> more convenient and qualitative food</p>	<ul style="list-style-type: none">☒ Environmental damages☒ Negative health consequences☒ Cost☒ Proximity reduction☒ Perceived naturalness reduction☒ Imposed quantity☒ Disposable waste

4) ALTERNATIVE CONSUMPTION MODELS: BARRIERS AND DRIVERS

Access-based consumption

Drivers	Barriers
<ul style="list-style-type: none">- Economic reasons- Environmental reasons- Flexibility- Guaranteed access- Ease of access- Relationship with the provider- Previous experience- Status consumption- Product trial- Product variety seeking	<ul style="list-style-type: none">- Hygiene- Health and safety issues- Unfamiliarity with the concept- Economic obstacles- Product or brand loyalty- Lack of trust towards the provider or service functions- Materialism- Anxiety- Environmental obstacles- Rental schemes and rules- Difficulty of cost comparison

Collaborative consumption

Drivers	Barriers
<ul style="list-style-type: none">- Financial appeal: cost savings- Environmental considerations- Social appeal (community building and belonging, political reasons, socializing, lifestyle change, support of the local economy...)- Utility, convenience- Ease of use- Practical for seldom-used products- Familiarity with the service- Skills/ideas development, learning from others- Need for experience	<ul style="list-style-type: none">- Hygiene- Doubts on efficacy- Fear of product unavailability- Complexity, pre-usage effort- Unwillingness to commit oneself and feeling responsible- Lack of familiarity with the concept- Lack of trust towards others, the technology or the company- Security concerns- Materialism- Costs

5) GREEN CONSUMERISM: FACTORS INFLUENCING GREEN BEHAVIOR

Internal factors

- **Environmental/ethical concern:** environmental/ethical knowledge, environmental/ethical awareness, ecological/ethical sensitivity, perceived threats to personal health
- **Demographic variables:** gender, education level + (income, marital status, age, children at home)
- **Psycho-graphic variables:**

Values: the interest for the environment, the animal life and one's personal health; the altruism / egoism; the collectivism/ individualism; security/ enjoyment; utilitarianism/ hedonism; environmental values

Personality traits: long term/ short term view; price sensitivity; green marketing sensitivity; weight of habits; importance of social status

Attitude (the degree of perceived):

- Consumer effectiveness
- Inconvenience of the green behaviour (benefits/ costs of the act)
- Personal importance of the green behaviour (commitment)
- Environmental problem seriousness
- Personal responsibility towards the environmental/ ethical issue
- Consumption status; positive self-image

External Factors: sociocultural conditions (social norms, culture, peer and media influence)

Situational Factors: economic reward and legislation

APPENDIX 2– LIST OF THE VISITED BULK STORES AND INTERVIEWED EXPERTS

The visited bulk stores :

Store	Localization
Biocap	Libramont
Al Binete	Liège
Epices et tout	Arlon
Belgomarkt	Ixelles
La petite constance	Tournai
L’entre-pot	Liège
Chyl	Ixelles

The interviewed experts (managers of bulk stores):

Store	Name	Contact details	Localization
Epices et tout	Eric Herman	epicesettoutarlon@gmail.com	Arlon
Alimenterre	Muriel Germain	010/45 08 32	Wavre
Biocap	Martine Baré	081/20 13 48	Namur
Ektivrac	Géraud Strens	info@ektivrac.com	Braine-le-Comte
Al Binète	Patric Leveaux	0497 62 28 41	Rocourt
Epicerie du Nord	Pauline Vanroy	04 380 83 33	Liège
Belgomarkt	Melanie Mikiels	0476 77 83 40	Ixelles
Relais du Triporteur	Dominique Stassart	041 08 85 48	Watermael- Boitsfort
La petite Constance	Constance Vander Maren	069 85 90 12	Tournai
Le Temps des Cerises	Micheline Halleux	04/ 252 07 00	Liège

APPENDIX 3- SUMMARY OF THE OBSERVATIONAL RESEARCH AND EXPERTS INTERVIEWS

Summary of the bulk buying practice's key characteristics as well as the main attributes shared by most of the bulk shops (observed and surveyed).

Store attribute	Advantage of the bulk buying	Disadvantage of the bulk buying
Localization and accessibility	- An ease of access: small bulk stores are usually located in the city centres and big ones in city suburbs.	- Only a limited number of stores sells food products in bulk in Wallonia.
Assortment	<ul style="list-style-type: none"> - Some specific food products are only available in bulk. - The diversification of the bulk assortment (strong increase of the number of references especially for dry food). - The bulk assortment puts usually the emphasis on food novelties, innovations and specialties from small local producers. - The bulk assortment is very adaptive to food trends, seasons or customers' demands. - The system of returnable containers makes possible the sale of dairy products in bulk. - The system of automatic containers makes possible the sale of all kinds of bulk liquid products (oil, wine, yoghurt honey,...). 	<ul style="list-style-type: none"> - Some food product families remain inaccessible to bulk buying (frozen food products, national brands). - Some food product families are rarely proposed in bulk (meat, liquid and dairy food products, jams,..).
Nutritional quality	- Bulk stores tend to sell high qualitative food: natural, organic and/or local.	- Without packaging, bulk food is threatened by higher risks of product degradation and loss of nutritional

	<ul style="list-style-type: none"> - Food products sold in bulk are usually pre-selected by the store based on rigorous criteria (origin, nutritional composition,...) - The new bulk systems (hoppers and automatic containers) guarantee an optimum hygiene, quality and stock rotation that preserve all the product's nutriments. 	quality.
Sanitary quality	<ul style="list-style-type: none"> - Health risks for bulk or pre-packaged dry products are equivalent (high stability due to the absence of water inside). - The bulk stores interviewed have a rigorous sanitary procedure for their shelves' management. - Returnable containers are subject to a strict sanitary procedure. - Hoppers offer sufficient hygienic conditions and can prevent the intrusion of pest. - Automatic bulk containers prevent health risks (no possible product contamination or confusion, greater autonomy of cold maintenance). - Bulk stores' managers can monitor directly and continuously the food product evolution in the shelves. - The sanitary quality of fresh food can be assessed at the first sight, by the consumer's five senses. - No public health problem linked to the bulk buying of food products has 	<ul style="list-style-type: none"> - The packaging has a protective function; in its absence, the likelihood of food contamination is multiplying what increases the health risks. - Bulk food products high in water or fats (fresh food, meat, dairy and liquid food products) present a higher risk of contamination (bacterial or by oxidation) and can potentially cause health risks. - Organic and natural food products without preservative are more sensitive to the risk of contamination and have a shorter shelf life. - The absence of specific regulation around bulk selling increases the likelihood of sanitary risks.

	yet been reported.	
Gustatory quality	<ul style="list-style-type: none"> - The freshness and the gustatory quality of the food are preserved if the bulk store has a high stock rotation (few references and/or high sales) and/or good conservation conditions. - The rigorous pre-selection carried out by most of the bulk stores guarantees food products with better gustatory qualities. - The automatic containers guarantee the same gustatory conservation as what the conditioning can offer. 	<ul style="list-style-type: none"> - The freshness and the gustatory quality of the food are reduced if the bulk store has a low stock rotation (too many references and/or low sales) and/or poor conservation conditions. - There are higher risks of degradation of the product gustatory characteristics if it remains too long on the shelf or is improperly manipulated (e.g.: biscuit soft or broken).
Price	<p>Bulk stores tend to offer:</p> <ul style="list-style-type: none"> - Cheaper prices (between 10 and 45%) than the pre-packaged products => Very competitive prices on traditional food. - Reduced prices on organic products (-20/30%) => The most competitive prices on organic products. - Attractive prices on “pharmafood” products. - prices particularly interesting for unusual quantities of food. 	<ul style="list-style-type: none"> - Bulk products can be only 7% cheaper in certain stores that take a higher margin on their price in order to offset the extra cost of this distribution channel. - High qualitative bulk products are more expensive than low-cost pre-packaged products (+30%). - There is an additional price to pay for lending returnable containers or purchasing transit packaging.
Promotions and advertising	There is often a presence on social media and in magazines for trendy concept stores selling in bulk, but usually no promotions.	There is usually an absence of advertising and promotion for traditional and small bulk stores.
Atmosphere	- Food bulk stores are usually minimalist and bare places (absence	- The shelves and departments of a food bulk store can quickly become

	<p>of promotions, advertising, strong music or light) that play on the nostalgia, the nature or the ecology.</p> <ul style="list-style-type: none"> - Bulk stores make use of the sensory marketing that plays on the five senses. - They are a place of meeting and exchanges allowing to create a “socialization” of the daily food shopping. 	<p>dirty if they are not well maintained and washed continuously; creating an unpleasant sale atmosphere.</p>
Information	<ul style="list-style-type: none"> - The bulk stores usually display on the containers the information related to the: product (composition, origin, allergens, temperature, expiration date...) hygiene (date of cleaning and refilling of the container) traceability (batch number, date of reception, date of sale). price in many bulk stores this information is updated, printed and displayed every day. - It is compulsory for the bulk stores to conserve a workbook with the data sheets and the labels of all the products sold. This one has to be made available to the customer on his request. - Many bulk stores provide credible and unusual information about the producer(name, face, story, locating). 	<ul style="list-style-type: none"> - The information relative to the bulk food products are only written on the store’s containers. The extent and the accuracy of these information depend on the bulk store. - The absence of the packaging generates a lack of the: mandatory information (ingredients, use-by date, product name) useful information (cooking times, recipes, nutritional intake,...) marketing information (labels, claims, sales pitches,...) on the product itself.

	<ul style="list-style-type: none"> - In bulk stores only the useful information relative to the food products are displayed what makes the reading of labels easier. 	
Packaging and Brand	<ul style="list-style-type: none"> - Bulk buying makes disappeared the packaging as well as all of its disadvantages. - The disappearance of brands in bulk distribution is not inevitable. It could be an opportunity for a brand to become more visible, attractive and unique. 	<ul style="list-style-type: none"> - Bulk buying makes disappeared the packaging but also all its useful functions and advantages. - Bulk food products sold are mostly unbranded. - Without brands and packaging, bulk stores lose a support of communication and seduction.
Force-staff	<p>Bulk stores surveyed employ a force-staff with:</p> <ul style="list-style-type: none"> - an experience, knowledge and interest in healthy food. - an availability and ability to provide information (nutritional and practical), personal advices (product benefits, recipes ideas), education, support and assistance vis-a-vis the bulk system. - Bulk selling favours the interactions with the store employees and the creation of a relationships between the customer and the merchant. 	<ul style="list-style-type: none"> - The bulk selling requires a force-staff with a deep knowledge of the products and enough time to care to the customer. Without a dedicated staff this practice is undermined.
Services	<p>Many bulk stores offer:</p> <ul style="list-style-type: none"> - the assistance of an employee to receive personal advices or to be served (in up-scale bulk stores). - a customized offering (an assortment of food products suitable 	<p>The service in the bulk distribution is not the same as in the pre-packaged distribution: the client must usually do everything by himself, the information and support could be insufficient...</p>

	<p>for a special diet or health problems)</p> <p>-the possibility to ask for the introduction of a new product in the food assortment.</p>	
Shopping convenience	<p>Food shopping in bulk offers:</p> <ul style="list-style-type: none"> - The possibility to choose the quantity bought. - The freedom to serve oneself. - An ease of product choice: 1-2 products by reference and a limited assortment range. - An ease of products comparison: search time and costs reduction. - An ease of product evaluation: pre-selection by the store (organic, natural or local) + quick readability of the information. - An ease and quickness of use by means of the automatic containers and hoppers - The availability of paper bags or returnable containers in case of the client would have forgotten his own containers. 	<p>Food shopping in bulk requires more time and efforts from the customer to:</p> <ul style="list-style-type: none"> - tare the containers before shopping and to weigh them after. - to fill by himself the containers with food. - to note by himself on his container all the information related to the food product. <p>Some bulk systems can be complicated to use if:</p> <ul style="list-style-type: none"> -the position is not ergonomic; -there is a too fast product flow rate from bulk containers (for fine products such as sugar or liquids); - the products stick together in trays (for sugary products such as honey cereals). <p>what can generate losses, dirtiness and accidents.</p>
Communication and store image	<p>The bulk store tends to</p> <ul style="list-style-type: none"> - differentiate itself from the competition on the food market. - have an image of authenticity and proximity. It is usually seen as an ecological, social and sustainable alternative to conventional retailers. - communicate on: its charter of 	<ul style="list-style-type: none"> - The multiplication of stores practising bulk selling in Wallonia, within a short time period, has decreased the potential of marketing buzz and the interest of the press. - Bulk stores loose the support of the brands in their communication.

	<p>values, its sustainable corporate responsibility, the defence of the price and quality.</p> <ul style="list-style-type: none"> - benefit at its launch from a marketing buzz, press releases and free advertising. - reinvent the communication with its customers. 	
Store values		
Ecological	<p>All the bulk stores surveyed have for objective to raise awareness among the population about over-packaging and food waste as well as to be part of the solution to overcome these issues.</p>	<p>The overall environmental benefits of the bulk selling have never been scientifically demonstrated. (ADEME, 2012, Bruxelles Environnement and ERU, 2015)</p>
<i>Disposable waste reduction</i>	<p>Removing the primary and secondary packaging and replacing them by transit packaging or reusable containers allows a reduction of:</p> <ul style="list-style-type: none"> -the packaging weight; -the energy and the resources consumption; -the greenhouse emissions associated. <p>thanks to the avoidance of the packaging production, recycling and destruction.</p>	<p>“No life-cycle analysis study guarantees that the reduction of the primary packaging is not offset by higher other negative impacts for the environment (an increase of: transport, other secondary packaging, maintenance, food waste, loss of products...)” (ADEME, 2012)</p>
<i>Food waste reduction</i>	<ul style="list-style-type: none"> - Buying only the necessary and sufficient quantity can reduce food waste. - By a judicious choice of the assortment, food products and bulk 	<ul style="list-style-type: none"> - Buying in bulk generates more product losses in the store (due to repetitive handling or dropping) - The lack of protection and the absence of information about food

	<p>systems, the losses of food in the store can be easily reduced.</p> <p>- Certain food packagings would cause shorter shelf lives and more food waste (e.g.: pre-wrapped fruits in plastic).</p>	<p>preservation would not promote the conservation of bulk products at home.</p>
Social	<p>- Participation in and revitalization of the local economy through:</p> <ul style="list-style-type: none"> • Partnerships with and the support of local producers (in the store conception, in the product assortment,...) • the hiring of a local workforce (higher in number than in the traditional distribution) <p>- Providing to its employees a more rewarding job (more varied and with greater contacts than in traditional retail).</p> <p>- Making organic and healthy food available to everyone (thanks to prices equivalent to non-organic pre-packaged products).</p>	

APPENDIX 4- THE INTERVIEW GUIDE

INTRODUCTION

Hello, I would first like to thank you for taking the time to receive me today at your home... My name is Carole Louis, I am a student in management sciences with specialization in marketing at the University of Liège. I carry out this interview as part of my master thesis having the bulk distribution as topic. More precisely, the purpose of my thesis is to identify the barriers and motivations of Walloon consumers with respect to the purchase of food products in bulk.

This interview should take about an hour. Do you allow me to recorder our conversation? It will be, in this way, easier for me to transcribe this interview thereafter without losing the details of your answers ...

Your answers and remarks will of course remain anonymous and confidential. Please, feel comfortable, and keep in mind that there is no right or wrong answer. All that interests me is your opinion, your personal experience and the sincerity of your comments.

Before we begin, do you have any questions regarding the interview that will follow?

If you want more information about the use of this interview or if you have any questions or comments afterwards, I will leave my contact details with you so that you can easily get in touch with me.... Very well, let's start...

Questionnaire 1: non-bulk buyers

QUESTIONS

Ice-breaking question:

- First, have you ever done food shopping?

Very well, so you will be able to help me! :)

- Are you the person responsible for food buying within your household?

Question by thematic:

1) retailing (based on store attributes)

- In which store do you usually do your food shopping? Are you loyal to a particular store? Why?
- Do you visit several stores to carry out the entirety of your food purchases? Why?
- How many times a week do you make your food shopping? Do you prefer filling a big shopping trolley once a week or making several small refuelling food purchases? Why?
- For how many people do you make usually your food shopping?

Location:

- Do you favour a food store close to your home or workplace? Why?

Assortment:

- Does the assortment's specificity impact your choice of food store?
- Do you usually buy certain food items in a store and others in a different point of sale?

Organization of the store:

- When you shop in a food store that you do not know, what is your feeling? Why? Do you feel lost or do you quickly adapt yourself?

Atmosphere:

- Does the store atmosphere influence your food store choice? Why?
- Do you have different feelings when you are doing your food purchases at Delhaize or Carrefour, where there is music, lights or heat; or at Colruyt or Aldi? How is it important to you?

Shopping convenience:

- How important is food purchasing for you? Are you enjoying it or is it a chore for you?
- Why? What gives you this pleasure?
- Why? What is unpleasant in food shopping?
- Do you take your time to look at the store's shelves during your food shopping or are you trying to make your shopping rather quickly? Why? [Example: when there is a tasting in store do you stop to test the new product? Why? Do you take time to feel and compare the quality of fruits and vegetables before choosing them?]

Information:

- What information are you expecting to find in a food store during your shopping? How important is it to you? Why?
- Are you asking additional information to the store's employees during your food shopping? Why?
- Would you put in your shopping trolley a food product if its origin, price or expiry date was not indicated? Why?

Sales force staff:

- Do you visit a food store especially to be served by its employees? Why?
- Is the presence of a sale force staff in a food store an added value for you? Why?

Price:

- Do you compare the food products' prices between different stores before doing your shopping? Why? Does this lead you to go to the store offering the lowest price? Why?

Promotions:

- Are you sensitive to promotions made by food stores/brands? [Implementation: Do you usually read the promotion prospectus or do you directly throw them away?]
- When a store offers on a food product the promotion '2 + 1 free', do you give in to the temptation? Do you have the feeling to make a good deal? Why?

2) Packaging and brands

- What are the main advantages of food packaging for you? Why?
- What are the main disadvantages of food packaging for you? Why?

Projection technique (sentence completion, word association): A food product without packaging would be a product... / Food packaging is...

- Do you think that overpackaging exist for food products? Facing two similar food products would you take the less packaged one? Why?
- What is your attachment to food brands? Do you have a favourite orange juice or cheese brand?
- If this brand was not available in store, how would you feel? Why? What would be your reaction? Why?

3) Risks associated with the purchase of food products:

Short-term physical risk (health risk):

- Have you ever consumed fresh products that have passed the expiry date? Is it something usual for you? Is it the same for dry products [pasta type, rice, lentil, tin]? Why?
- Are you scared of food scandals? [contextualization: Have you stopped or reduced your beef consumption during the mad cow crisis?]
- Have you ever experienced food poisoning?

Long-term physical risk (nutritional risk):

- Do you have concerns about the industrial agriculture's processed food products? Which ones? Why?
- Do you regularly buy processed products or prepared meals? Why?

[Contextualization: During the scandal of horse meat in lasagne, how did you feel? Has this had an impact on your consumption of prepared meals? Why?]

- Do you read the labels to know the nutritional composition of food products? Would you put back a food product on the shelf, if its ingredients list is too long, incomprehensible or filled with additives (E...)? Why?
- Do you think that there is a link between food and health?

- Do you think that eating can have consequences on your health? Why?

Risk of contamination:

- When you see other customers touching the fruits and vegetables that you are likely to buy afterwards, how do you feel? What is your reaction? Why?

4) Green consumerism:

- Do you think you are a committed/green consumer? Why?
- What do you do in your daily life in favour of the environment? Why do you make these gestures?
- Do you consider the environmental impact of your purchases during your food shopping? Why?
- Do you buy organic food? At which frequency (once a week/ a month) and in which quantity (less or more than 50% of your shopping trolley)? Why?
- Do you buy food from local producers? At which frequency (once a week/ a month) and in which quantity (less or more than 50% of your shopping trolley)? Why?
- Do you think that the global warming is real? To what extent is this concern important for you?
- Do you feel that your actions in favor of the environment have a positive impact? Why?
- Who could be the main actor of change? [For example: state, business, consumers, NGOs]

5) Collaborative consumerism:

- Have you ever used the deposit system for beer bottles? What do you think about it? What are its main advantages? Why? What are its disadvantages? Why?
- Contextualization: It remains sandwiches ordered for the noon meeting in the office, everyone decides to take one back for home in order to avoid food waste, unfortunately you have nothing to pack yours. Your colleague, that you do not know very well, proposes to lend you a sandwich box or to give you aluminium paper, what do you choose? Why?

Questionnaire 2: bulk buyers

ADDITIONAL QUESTIONS

Ice-breaking question: First, have you ever done food shopping in bulk?

Questions by thematic:

The bulk food shopping habits:

- Do you usually buy food products in bulk?
- In which bulk store do you usually do your food shopping? Why this one?

The location :

- Can you easily find a bulk store close to your home or workplace?
- Does this encourage or discourage you from purchasing food in bulk? Why ?

The bulk assortment :

- Which products do you usually buy in a bulk store? Why buying these products unpackaged?
- Do you find all the food products of your shopping list in your bulk store? If not, what is your reaction or your feeling? Why?

The organization of the bulk store:

- Do you remember the first time you have entered a bulk store? What has been your feeling? Why?
- Have you quickly adapted yourself to the bulk system? Why?

The atmosphere:

- What sensations or impressions do you feel inside a bulk food store? Why?
- Do you feel differently when you are doing your food purchases at the supermarket or at the bulk store? Why? How important is it to you?

Food shopping convenience:

- Do you find that buying food products in bulk is more or less convenient than purchasing them pre-packaged? Why?

Information+ health risks associated with food:

- Are you satisfied with the information you receive in bulk stores? How important is it to you? Why?

Risks associated with food:*Short-term physical risk (health risk):*

- Do you always write on your own container the expiry date of bulk food provided by the store? Why?
- Do you think that the health risk (the risk of food contamination) is greater in bulk distribution than in traditional sale? Why?

Contamination risk:

- Do you think that purchasing food products in bulk is less hygienic than buying them packaged? Why?

Long-term physical risk (nutritional risk):

- Do you usually read the information provided by the bulk store in order to know the nutritional composition of food products? Why?

The food price level:

- Do you buy food products in bulk to save money? Do you think that the prices charged by a bulk store are unbeatable? Why?

Circular consumerism:

- If you have forgotten your own containers, would you be ready to use the ones washed and made available by the store in order to carry out your food purchases in bulk? Why?

DEMOGRAPHIC INDICATORSDetails of the respondent:

May I ask you some personal information in order to better define your profile?

- What is your first name?
- What is your age?
- What is your level of education and your current job?

- What is your place of residence?
- What is the structure of your household? How many children do you have?
- What is the monthly income of your household? Between 1500 and 2500 € / 2500 and 3500 € or beyond?
- What is the budget of your food shopping for a week? Less than 100 €; Between 100-200 €; More than 200 €

CONCLUSION

I think you have deeply answered all of my questions. If you have nothing to add, the interview can end here... Do you have any questions that you would like to ask me?

Very well... I will analyze the information that you and the other respondents have brought to me and these will be included in my thesis.

I would be happy to send you a copy of this one once completed if you are interested.

Thank you very much for your time and your answers that will help me in an invaluable way!

Good bye.

APPENDIX 5- LIST OF THE RESPONDENTS WHO DON'T BUY FOOD IN BULK

Name	Age	Gender	Household structure	Occupation	Place of residence	Bulk Buying (excluding fruit and vegetables)
Eloise	24	female	1	student	city center	No
Robin	21	male	1	student	city center	No
Lydie	25	female	1	employee	city center	No
Léon	85	male	1	retired	countryside	No
Marinette	53	female	1	employee	countryside	No
Cindy	40	female	3	unemployed	countryside	No
Sabine	65	female	2	retired	countryside	No
Myriam	52	female	8	employee	countryside	No
Delphine	36	female	4	employee	countryside	No
Laurent	27	male	2	employee	countryside	No

APPENDIX 6- LIST OF THE RESPONDENTS WHO BUY FOOD IN BULK

Name	Age	Gender	Household structure	Occupation	Place of residence	Bulk Buying (excluding fruit and vegetables)
Pauline	25	female	2	employee	countryside	Yes
Françoise	51	female	4	employee	countryside	Yes
Annick	46	female	5	employee	countryside	Yes
Marie	56	female	2	independent	countryside	Yes
Dominique	49	female	4	career break	countryside	Yes
Annette	61	female	2	retired	countryside	Yes
Isabelle	52	female	2	employee	countryside	Yes
Justine	22	female	1	student	city center	Yes
Véronique	40	female	8	unemployed	countryside	Yes
Carine	39	female	4	Parental leave	countryside	Yes

APPENDIX 7: SOME INTERESTING GRAPHS OF THE NVIVO ANALYSIS

Thematics for bulk buyers:

		sources	references
THEMATICS		10	197
ECOLOGY		10	60
MISTRUST		10	69
HEALTH		10	68

Thematics for non-bulk buyers:

	sources	references
NON BULK THEMATICS	10	68
ECOLOGY	9	29
HEALTH	9	20
MISTRUST	5	19

Bulk buyers' motivations:

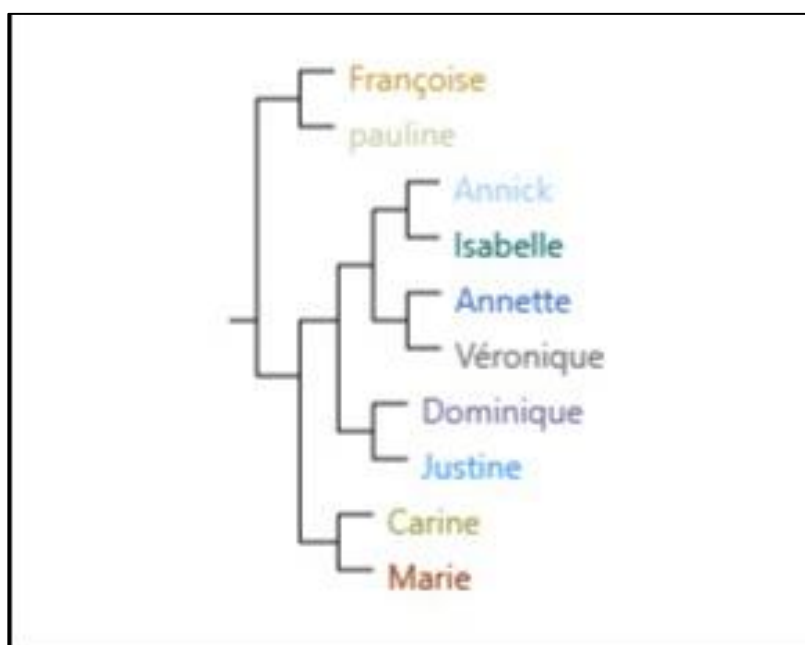


Figure 1: motivation nodes compared by number of coded references

The breakdown of the lack of convenience barrier to bulk buying:



The cluster analysis:



1. The ecological consumers:

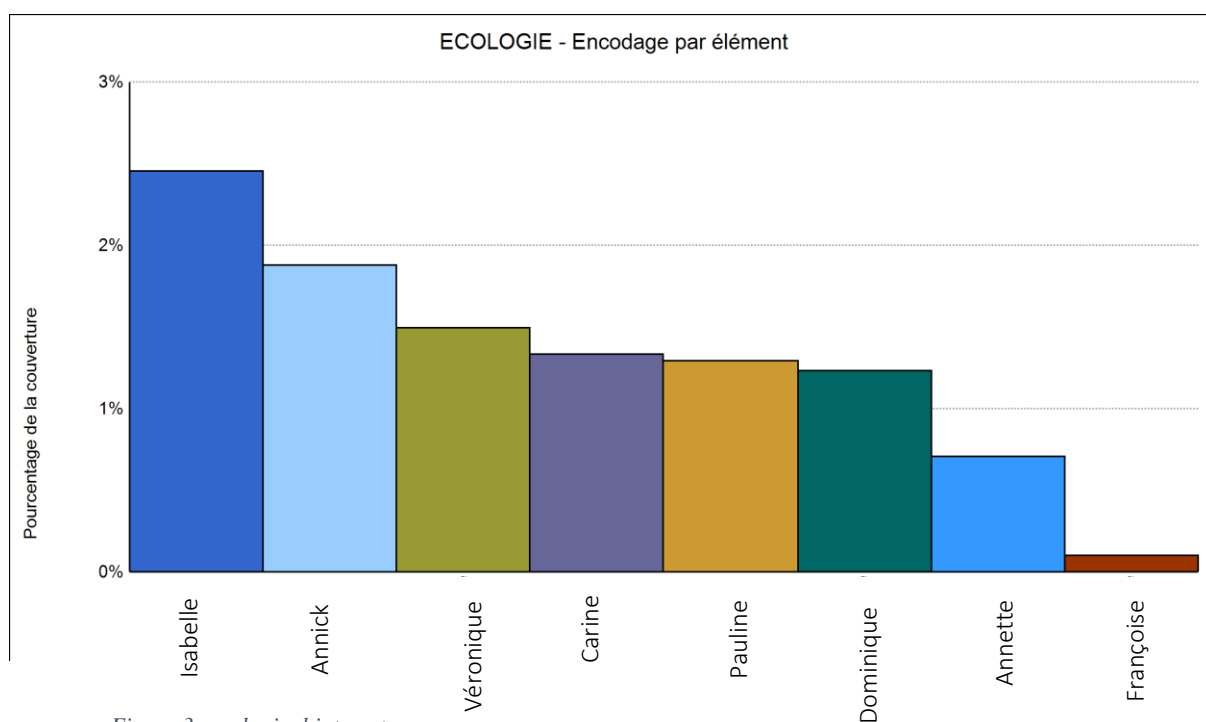


Figure 3: ecological interest

2. The health concerned consumers:

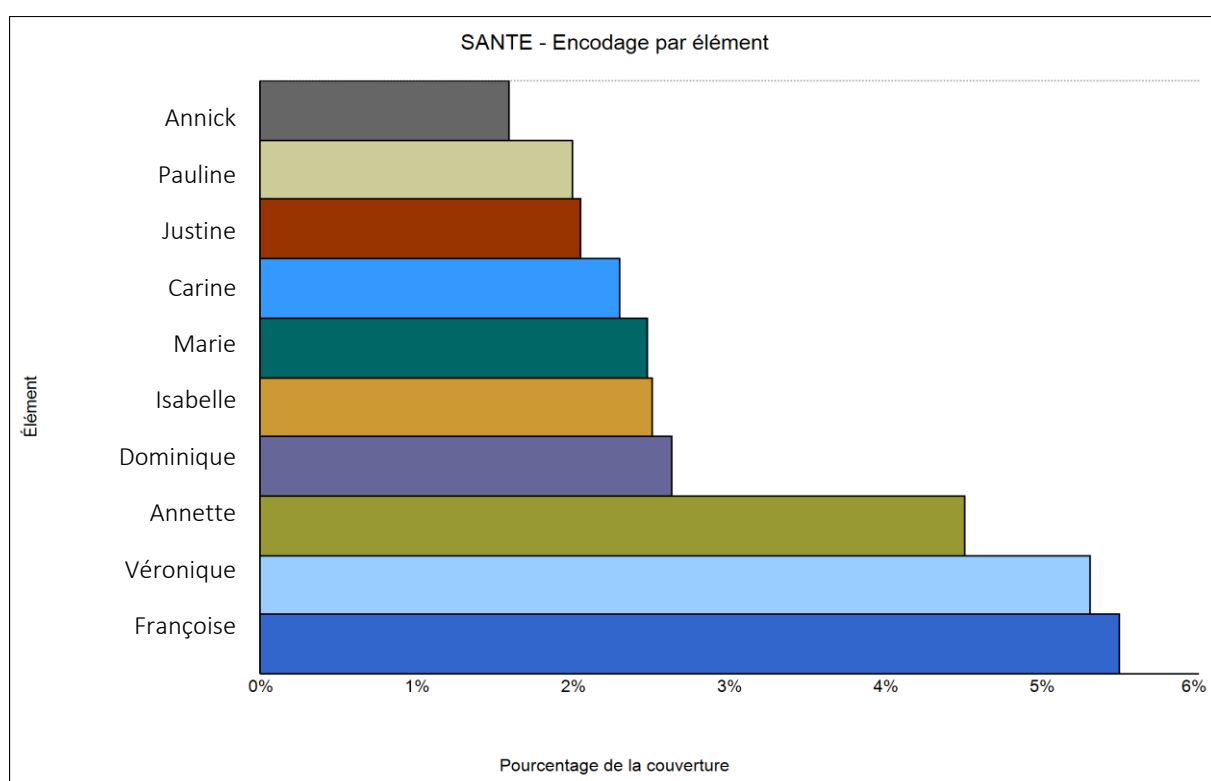


Figure 4 : the health interest

3. The rational consumers :

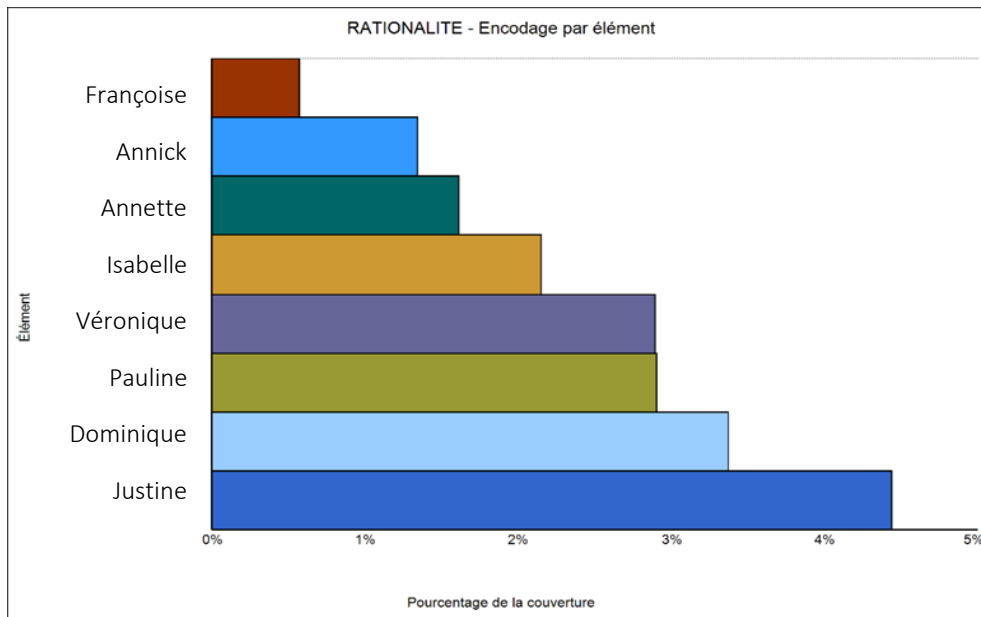


Figure 5 : the rational reasons

4. The worried consumers:

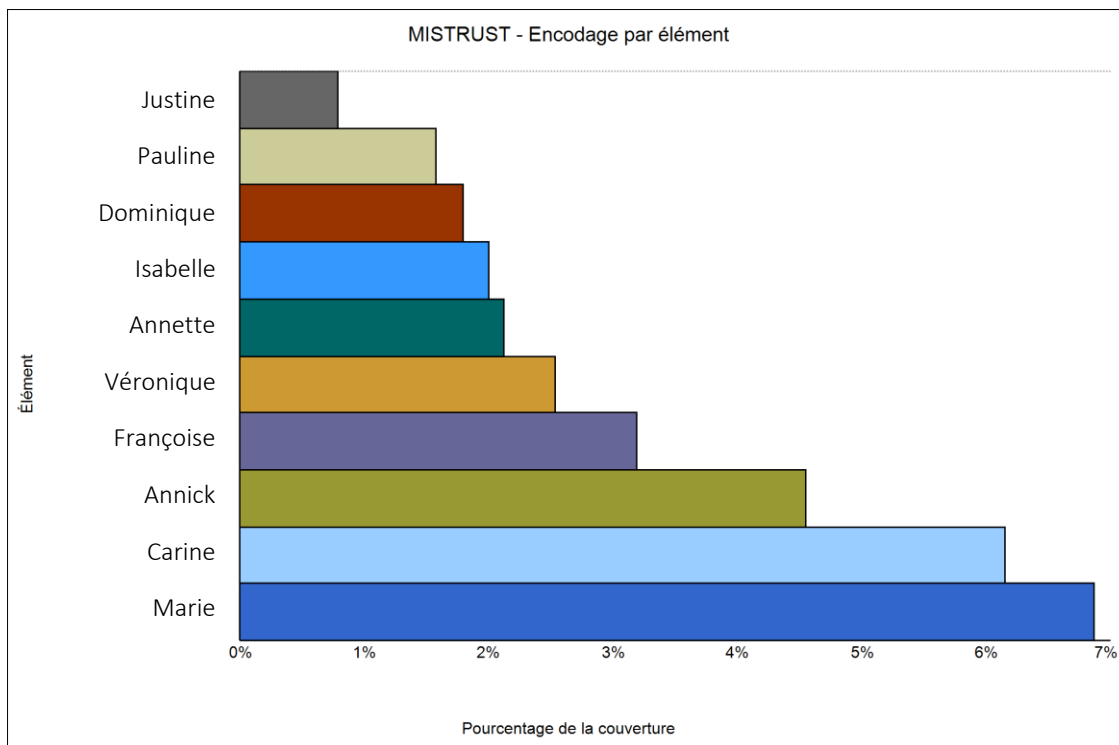


Figure 6: the mistrust towards the food industry

EXECUTIVE SUMMARY

Our planet is facing unprecedented ecological threats and food packagings bear their own share of responsibility (Arvanitoyannis, 2007; MacArthur, 2016). Most of our society's sectors are looking for a greener alternative, that would allow them to reduce their environmental footprint. The food retailing has maybe found its own: the bulk buying. Reducing or suppressing food packaging at the time of purchase seems, indeed, constituting a simple and accessible medium to everyone to behave daily in a more environment friendly way. But what do consumers think about it? In the light of the still marginal number of shops proposing this practice in Wallonia, comparatively to its neighbouring countries, this question sounds pertinent.

Therefore, this thesis aims at identifying the Walloon consumers' main motivations and barriers with respect to the bulk buying of food products, beyond the traditional fresh fruit and vegetables. The final purpose of this paper would be to obtain a qualitative understanding of the underlying reasons inciting individuals to adopt, or not, this purchasing behaviour.

By means of a multidisciplinary literature review, ten interviews to experts and twenty in-depth interviews with consumers, this dissertation allows to envisage the principal factors advocating for or discouraging individuals to buy unpackaged food. It results a key variable that would encourage consumers to buy food in bulk: their psychological characteristics. These ones seem to constitute the source of their main motivations and barriers towards this practice.

The hypotheses issued by this paper bring to the academic literature the initial foundations of a new research thematic. This dissertation also offers to managers a potential bulk buyers' segmentation as well as some recommendations to exploit or remove their motivations and barriers pointed out throughout the present qualitative study.

Keywords: consumer behaviour, food bulk buying, green behaviour, nutritional risk, packaging, food retailing.

