Francesinha: A Research into Its Cultural Value.

Manuel T. Fernandes
CAAM – Corporate Academy for Advanced Management (by Gestão Total)
E-mail: mtf@gestaototal.com

ABSTRACT

This paper will present the case of a food recipe, "the *francesinha*", that went beyond being a simple individual cultural recipe to become a regional cultural product in a country, Portugal.A given detailed historical progress helps to understand such phenomenon, that is about seventy years old. The paper aims at understanding how the process of innovation, in its cultural process dimensions, transformed a simple recipe into a very well identified cultural product and what were the cultural factors that contribute the most to it. An empirical research was conducted to identify the impact of the introduction of the recipe in different geographic areas of the country and how this has changed the population behavior towards the delicacy, in some different segments of consumers, such as age and gender. The findings from the research indicate that the recipe is seen and understood by consumers much more as a cultural element, mainly defined by attitudes and behaviors among those who share a language, a historic period and a geographic location, than as a practical and functional element oflife.

Keywords: Cultural value, value creation, cultural innovation, value, product value.

I. INTRODUCTION

The *francesinha*is a well-known recipe and dish served in many restaurants in Portugal. The product was, firstly, introduced in Porto by therestaurant A Regaleira and, steadily, spread over many other restaurants in the city and, later, in the region and the country, following a progressive process of cultural adoption my consumers.

This process was defined by different events in different times, as it will illustrated later, which characterized the adoption of the product,potentially typifying different behaviors, attitudes and cultural comprehensions in different consumer segments.Apart from some existing historic and folk narratives of the Portuguese gastronomy, recipes and dishes (Baião, Carvalho & Lopes, 2013; Braga, 2014; Gomes, 2016;Guerreiro, 2018), there is close to none information about *francesinha* and how it was created and disseminated in the market and, consequently, there is either no information about the adoption process by consumers and how they viewed and felt the product at the time or how they do now.

This study aims at understanding how consumers, who had triedto eat a *francesinha* at least once, behave in relation to the product, what type of attitudes and culturalunderstanding they have developed towards it and what all that brings to the understanding of cultural value and the cultural innovation process.

A survey was performed using an internet platform, where 156 respondents answered a questionnaire with 12 questions.The results indicate that some consumer segments have different behaviors and attitudes towards the product, but there is a common cultural understanding of the delicacy. These might undercover a need for a further understanding of the cultural phenomenon attached to other new innovative products.

II. LITERATURE REVIEW

2.1 The value and culture concepts

a) Understanding value:

Generally, value is understood as expressing the worth of something. A closer look into existing literature can reveal different types of value, as Jensen (2005) has identified: (i) economic value – or value as exchange; (ii) use value – or value as utility; (iii) cultural value – or value as meaning and sign; and, (iv) perception value – or value as experience. The economic value is the effort or sacrifice someone has to provide in other to obtain a thing - a product (good, service or event), normally represented by a certain amount of currency or time. The use value is what someone obtains as benefit from a thing, usually represented by functions and the performance that the thing delivers. The cultural value is what a thing represents or signals collectively to a specific group of people or consumers, inducing a common behaviour on those. Finally, the perception value is what a thing represents to an individual (person), based on past personal experience or acquired knowledge.

Cross-disciplinary research supports those findings. To Smith (1776) any "good" had two different meanings, one expressing the utility of the same particular object, "value in use", and the other, the power that the possession of the object conveys to purchase other goods, "value in exchange". Aristotle (350B.C.E) was the first to differentiate between a use value and an exchange value of goods. According to Kopytoff (1986), this is what defines a "commodity": "*an item with use value that also has exchange value*" (p. 64). Value is, due to the vast usage of the concept, highly polysemous in the conceptual realm, and needs to be contextualized (Boztepe, 2007).

The indicated four types of value, in the singular, match the two possible dimensions where value can exist: tangible and intangible (Fernandes, 2012). The use value and the economic value fit into the tangible dimension of value, while the cultural value and the perception value match the intangible dimension of value.

Despite many researches in the field of value and value creation, (Fernández & Bonillo, 2007; Grönroos, 2008; Vargo &Lusch, 2008; Wu & Chang, 2016; Holmqvist et.al, 2020), exploring the different ways how value can be created in products and services,the value perception or understanding,*per se,*depends very much of the context, including the culturalcontext (Akaka, Vargo &Schau, 2015), whichleaves a need to fully understand how cultural value, in particular, induces consumers to buy and consumegoods (products or services) based on that unique criterium.

b) Understanding culture:

For anthropologists and other behavioral scientists, culture is the full range of learned human behavior patterns. The term was first used in this way by the pioneer English Anthropologist Edward B. Tylor (1871). Tylor said that culture is "*that complex whole which includes knowledge, belief, art, law, morals, custom, and any other capabilities and habits acquired by man as a member of society.*" Cultures are complexes of learned behavior patterns and perceptions**.**

According to Hofstede (1994) culture is "*the collective programming of the mind which distinguishes the members of one category of people from another".* Culture in this sense is a system of collectively held values. To Schein (2004) culture is *"the deeper level of basic assumptions and beliefs that are shared by members of an organization, that operate unconsciously and define in a basic 'taken for granted' fashion an organization's view of its self and its environment".* This looks more like an organization's inside view of culture. We must even consider that, in accordance with the "spiral dynamics" concept: - in dealing with others, people reflect their own life conditions, which are bundled into "memes" – aggregation elements of cultural influence, attitudes, ways of doing things, etc. (Aguilar-Millan, 2005).

Culture is, therefore, the human-made part of the environment (Herskovits, 1955), and it can be divided into objective culture (eg. roads, buildings, and tools) and subjective culture (eg. beliefs, attitudes, norms, values, role definitions) (Triandis, 1996).

It is widely agreed that culture consists of "shared" elements (Shweder&LeVine, 1984) that provide the standards for perceiving, believing, evaluating, communicating, and acting (I understand the last two as behavioural forms) among those who share a language, a historic period and a geographic location (Triandis, op. sit.). This last criterium is of special relevance for the current study. The shared elements are transmitted from one generation to the next with modifications, encompassing unexamined assumptions and standard operation procedures that reflect "what was worked" at one point in history of a culture group (ibid.).

We may understand culture as "a set of attitude patterns of a population towards a certain subject, expressed in an intangible or tangible (value) form, reflected in general and consistent/systematic behaviour that can be transferred to or make use of objects" (Fernandes, 2014). We must remember that the intangible value form relates to everything, output or not of an event or action, which cannot be exchanged (transacted against a compensation) as such and, therefore, it is not measurable and quantifiable inside close boundaries for most people, while tangible value form relates to every single thing or object, output of an action or event, such as products (goods or services) that can be exchanged, therefore measurable and quantifiable inside close boundaries for most people.

One can find many researches in existing literature on the study of the impact of culture and cultural behaviors at the products and services buying time (Yau, 1988; Ladhari et.al, 2011), or buying food (Bagozzi et.al, 2000; Anderson, 2004).Roden (2003) defines food as an important part of culture, linking the present to the past, identifying and reflecting people's lives.Branzi (2007) relies on the concept that "objects are not only objects" or tools, and we added food for the purpose of this study, but "devices for symbolic and cultural mediation".

2.2 Value and innovation

For the purpose of this study, we focus only on two aspects of the wide subject: value and innovation. Some communal work has been developed on the concept of cultural innovation. According to wiki.answers.com discussion panel, *"cultural innovations are internal changes that depend (and are limited) upon the recombination of already existing elements in culture. They can occur independently in different times and places, however not all lead to change in culture. They occur more frequently in technologically complex societies than in less developed ones."* This is more of a general society view that is also of interest to this paper.

Cultural innovation may be seen under two different perspectives: (1) as the creation of a collective common adopted behaviour based on an idea with no materialization in any physical product (good or service) [e.g. part of the population start using long-hair, speaking a new dialect, start following specific custom or start grouping around some spiritual beliefs); and, (2) as the creation of a collective common adopted behaviour through the utilization of a product (good or service) that contribute**s** to creating a preference, a meaning and a way of being and acting in a large portion of a population or of a region (e.g. people creating new rules to regulate peoples' behaviours supported by a judging system, creating Internet social networks that allow users to create social/cultural ties, creating new music styles supported on the utilization of specific new musical instruments (eg. Jazz, Hip Hop), developing new fashion styles through the creation of specific cloths (eg. T-shirts and miniskirt), inducing certain life styles through the utilization of certain new products (eg.walkman, toaster, microwave, tattooing equipment), or still, creating a certain painting style or technique which has originated a different painting style). Thus, we may define cultural innovation as an "effectively adopted or changed collective behaviour in a group of people" (Fernandes, ibid.). Culture is intangible.

Cultural innovation creates intangible value (cultural value and perception value) that cannot be measured in a quantitative form, but can be felt and lived in a qualitative manner.

To frame out our research, regarding cultural innovation, we need to define a culture scope for our applied observation and discussion. In these terms, we consider that our discussion is set inside a time and cultural frame that is known as postmodernism movement or epoch. This also reduces all of our considerations to the western society context from which observations were made.

Postmodernism has become popular at the turn of the twentieth century, substituting Modernism as the dominant culture. The Modernism movement was all about rationality, discovering the limits of human intelligence and improving the individual, taking this to the next level. As opposed to the previous movement, Romanticism, in modernism science is king and rules. Where Romanticism previously dictated that man should go back to nature, to creation and fight for individual liberty, modernism imposed that only through science and rationality shall the human being progress.

In opposition, the Postmodernism movement stands for a current of thinking and a set of values as well as ways of seeing the world, which values, beliefs and categories spread around from politics to literature, culture, art, etc., and dramatically changes the modern world. As far as aesthetics go, the new postmodern approach encourages self-expression, personal development and experimentation. It takes the rational out of art and encourages feeling and experience. The new aesthetic repudiates "the rational conceptualization of sense experience as a prelude to formal representation, narration and interpretation" (Drolet, 2003, p. 8).

Modernism has created a world where everything is scientific, technologic and rational. Postmodernism points out that the world isn't merely scientific, it's also about aesthetics, art, language etc. In the modern era, according to the dichotomy production/consumption, the producer was the creator of value – a desirable status, while the consumer was the destroyer of such value, thus creating an image of a social pariah, whereas Postmodernism sees everyone as consumers first, and then as producers. This paradox is resolved by making everyone a consumer and a producer (of value through the act of consumption) in turn (Firat&Venkatesh, 1995). Postmodernism creates a shift from the core values of modernism. While the later promoted economy, science and technology, Postmodernism is more of a cultural movement. It promotes "ideas of culture, language, aesthetics, narratives, symbolic modes, and literary expressions" (ibid., p. 243).

Modernism created a set of beliefs and rules that boxed the world and offered it to the people, being its main message: this is the world, this is how you live; while Postmodernism encourages diversity, meaning that: there isn't just one world - each person creates their own frame of mind, their own boundaries and their own interpretations. In modern times, the product was bought for its utility, whereas in postmodern times what is bought is the meaning (image, sign, status, experience, relations, acceptance, importance). Objectivism has been replaced by subjectivism. Debord (1995, p.26) refers to "the principle of commodity fetishism" which consists of the "domination of society by things whose qualities are at the same time perceptible and imperceptible by the senses". As George Ritzer says in his introduction to Baudrillards's "The Consumer Society", "commodities are no longer defined by their use, but rather by what they signify. And what they signify is defined not by what they do, but by their relationship to the entire system of commodities and signs" (Baudrillard, 1998, p. 7). The postmodern world is all about image. As technology advanced, people are communicating mainly through images. They see the world as presented on TV and other media and they buy their commodities because of an image they create about themselves, as well as for the image advertisers create for them.

Coming from that rational, it is accepted that consumption determines many consumers' values and experiences regarding life and being. As McCracken (1986, 71) states, "Usually, cultural meaning is drawn from a culturally constituted world and transferred to a consumer good. Then the meaning is drawn from the object and transferred to an individual consumer.

In other words, cultural meaning is located in three places: the culturally constituted world, the consumer good, and the individual consumer, and moves in a trajectory at two points of transfer: world to good and good to individual".

The consumption comes to be seen as a language, a "system of exchange", and as "a process of classification and social differentiation" (Baudrillard, op. sit., p. 7). This takes us to a stage that living in a commodity driven society is that all the objects need to be acknowledged and exchanged for their value, producing them is not enough. The market is definitely such a place for that purpose. The commodity has turned "the whole planet into a single world market" (Debord, 1995, p. 27). The postmodern market is beyond monetary. It takes its fuel from satisfying the needs of the consumer, which, as previously said, go beyond utility but are undoubtedly present. It is true that most of them are fabricated by advertisers and marketers, but they are still very much real to the consumer and they need to be fully satisfied.

Despite this framing, there is still needed to understand how a product develops cultural value that is adopted by different segments of the consumers in a specific market and how it is perceived by the same consumers.

III. THE FRANCESINHA HISTORY

3.1 The creation

The *francesinha* is a well-known sandwich in Portugal, mainly demanded in the northern region of the country. Pop culture and some recorded information in media point to the "croque-monsieur" as the remote origin of the delicacy. The Croque-Monsieur is a grilled sandwich with ham and cheese covered with béchamel, which becomes a "Madame" when a fried egg is placed on top of it, being the *francesinha* a much more elaborated derivation of the French snack.

Daniel David da Silva, born in the Porto region, introduced the recipe in Portugal in the year of 1952. He was, before that, an emigrant in Belgium and France, where, working as a bartender and cook, came in personal contact with Jorge Abrantes.The last loved so much da Silva's version of the French original recipe that invited the former to return to Porto and be his partner in his restaurant A Regaleira.

Daniel da Silva became very well known in a short period of time as a consequence of his experiments and inventions in the kitchen, where he took the inspirational "croque-madame", "croque-monsieur" and "welsh rarebit sauce" into a new dimension, by adding some extra ingredients (Teixeira, 2010). The *francesinha* became to what is still today, and according to AOL Travel website, one of the 10 best sandwiches in the world, a 2.0 croque-monsieur "on steroids": grilled pork, *linguiça* (smoke cured pork sausage), and sausage, between two slabs of bread, covered my melted cheese and immersed in a spicy beer and tomato sauce, often topped with a fried egg and surrounded by chips (Garcia, 2012).

David da Silva named this new snack "*francesinha*", because it reminded him of the French women who, he used to say to clients and friend, were *hot and spicy* as no other women in the world, especially in contrast with the sulkiness of Portuguese women. This tribute to the French women became a symbol; first of Porto and later of the north of Portugal, as the original recipe turned into different versions, like in Povoa do Varzim (ScotDir.com).

We can say that, in technological terms, the innovative product was the result of a process of *adaptation/adoption* of existing knowledge developed by others, doing some "imitation" of existing products (goods or services) attributes or processes. The developing process of this type of innovation is synthetic, engineering-based, applying or combining existing knowledge in new ways (know how), based upon problem solving capabilities and customized production, therefore being inductive, and supported by interactive learning with customers and suppliers, producing partially codified knowledge and strong tacit components which are very context-specific (Fernandes, 2014).

The easiness of copying the original and the short time needed to learn how to produce the recipe may has helped the dissemination of it through many restaurants and bars in the region.

3.2 The cultural development

In the early times of *francesinha*, it was essentially used as a snack, served after hours when groups of friends gathered to have a bite to eat late at night. Initially, only young men used to eat *francesinhas*, as older men where more conservative in their food choices, and women who dared to try it would get a bad reputation. According to tradition, spices induce changes in behavior, and it would be seen as a bad behavior if a woman would be seen eating a "spicy" *francesinha* in public. Recent studies indicate that, despite spices may have some effect on men's endogenous testosterone, there is no prove of similar effect on women (Bègue et al, 2015).

The initial spread of *francesinha* to other places around Porto gave the delicacy a regional cultural meaning. Perhaps due to the character of the *francesinha*, seen as heavy food, more adequate to be eaten in cold weather, it remained in the preferences of the people of the north of Portugal for some decades. A normal *francesinha* is calculated to have between 793,89 Kcal and 3305,32 KJ of energy, and 127 mg of cholesterol (Campos, 2015) and 1300 Kcal and 5439 KJ of energy, and 239 mg of cholesterol (fatsecret). That fact gave the recipe a clear meaning that led to the declaration of its regionalism.

Today, the *francesinha* is more of a full meal, served in most restaurants and bars, in many different formats and recipes, even at the gourmet level, mainly in the Porto and north of Portugal, but also in the south of the country. The dish fits mainly in the segment of fast food, competing directly with pizzas and hamburgers, targeting the younger segment of the consumer market. Some restaurants and bars have done consecutive attempts to take it to other segments of the upper consumer market. Its cultural meaning led to the creation of the "*Confraria da Francesinha*" - Brotherwood of *Francesinha* (TSF) to preserve its original recipe and disseminate and promote it as a cultural product. In the same way, the municipality of Porto and other cities in the north of Portugal, and even Lisbon for that purpose, promote annual gastronomic festivals dedicated to the recipe, normally covered by the media and heavily disseminated in the social media, and visited by many *francesinha* lovers.

The fame of *francesinha* has crossed borders and it appears in many websites as one of the top sandwiches in the world. Tourism agents and officers tell international tourists to try the delicacy if they visit Porto or the north of Portugal. Many national and international websites refer to lists of the most preferred restaurants and provide indications about recipes and their value for money.

The *francesinha* became part of the regional culture, almost at the same level of other very old and traditional regional recipes and products, being one of the words that are recognized as meaning the city of Porto (FEP, 2011; Moreira, 2010). We may say that the *francesinha* is part of a cultural innovation process, as it has impacted the intangible dimension of society, inducing new behaviors in a segment of the population. The impact of this type of innovation is manifested at the personal (individual) level, reflected in a moderate and slow capability for vast individual adoption. New knowledge, resulting in new attitudes, forces new behaviors at the individual level. Common social behaviors (e.g. drivers' fairness on the roads), learning patterns (e.g. desire to learn cooking techniques), and life styles (e.g. jogging using an iPod) are outcomes of this type of cultural innovation, named as "gnosil" - from ancient greek *gnosis*, investigation, knowledge (Fernandes, 2014). The *francesinha* seems to fit-in this type of innovation. It is not yet a major preference to a large part of the local population, like barbequed sardines are to most of the Portuguese population, but it has a niche in the market that stays loyal to the product.

3.3 The dissemination of the recipe

The *francesinha* needed a long period of time to become culturally relevant. From its initial positioning of a snack, mainly eaten by young men when gathering after late night cultural and sports activities, to a current positioning of a real main meal to many locals and tourists in Portugal,

Recognized as a traditional and cultural product, it passed approximately fifty years. Along this period of time, the product had some ups and downs, like after the revolution of April 1974, until the time of entering the food habits of the regional population and being introduced to tourists as a novelty, around the year 2000.

The initial cultural prejudice, putting women away from eating the product, reduced the scope of potential consumers for the innovative delicacy. However, from the 1950's to the 2000's, mainly after 1974, Portugal went through a slow but lasting economic, social and educational growth and development, which brought many women to universities, to higher working ranking positions and top education levels, and also to a more open society without prejudice against women's behaviors. The *francesinha* became the fast food meal of many students and of many young working people, independently of the gender. As they became older, they carried that legacy with them and they also passed that to their children and to others of their age. It is plosive to say that a very large portion of the urban population in the north of Portugal under the age of sixty has eaten a *francesinha* at least once in their lives. The *francesinha* is still a preferred delicacy of younger generations, but many other people refer their habit of eating it frequently (Pereira, 2011).

This long and slow process of adoption of this once innovative product is typically due to the type of cultural innovation involved. As previously mentioned, cultural innovation can be seen "as the creation of a [new] collective common adopted behavior", supported or caused, or not, by the use of a product, that will lead to a new "effectively adopted or changed collective behavior in a group of people". In some particular cases, the behavior change is initiated due to the slow vanishing of old stereotypes through the adoption of new knowledge, and how this new knowledge can be applied in our day-to-day lives. New knowledge, resulting in new attitudes, forces new "adapted" behaviors in some small pockets of the population. This study aims at identify and understand what are the major attitudes and behaviors,among the population of different regions of a country, that contributed the most to that cultural innovation and, consequent, cultural value of the product now a days.

IV. THE RESEARCH

4.1 The objective and target of the research.

The concept that cultural value – or value as meaning and sign (Jensen, 2005), can be applied to any product, and that cultural value is what a thing (product) represents or signals collectively to a specific group of people or consumers, inducing a common behaviour on those, takes one to the realization that culture consists of "shared" elements (Shweder&LeVine, 1984) that provide the standards for perceiving, believing, evaluating, communicating, and acting (we understand the last two as behavioural forms) among those who share a language, a historic period and a geographic location (Triandis, 1996).

The objective of the study was to achieve a better understanding of consumers behaviors, attitudes and cultural comprehension towards *francesinha*, in the scope of the national effective consumer population, testing how the above cultural behaviors are present among consumers of *francesinha*, contributing to the creation of a collective common adopted behaviour through the utilization of a product (good or service) that contribute**s** to creating a preference, a meaning and a way of being and acting in a large portion of a population or of a region.

Respondents were asked to answer the questionnaire, only if they had eaten a *francesinha*, at least once. A questionnaire was created and made available on the internet, being disseminated among social platforms, private networks and about 180 gastronomic brotherhoods in the country.One hundred and fifty-six answers were collected, being twenty-sixfrom gastronomic brotherhoods.

4.2 The method

The questionnaire was divided in four segments: (i) respondents' data – demographic and geographic information; (ii) behavior – first time has eaten a *francesinha* and current habits regarding eating the recipe; (iii) attitude – reasons to eat the recipe; (iv) culture – the meaning of *francesinha* to respondents.

The questionnaire had 12 questions, with one only option to be answered, except for the cultural questions which allowed two options.

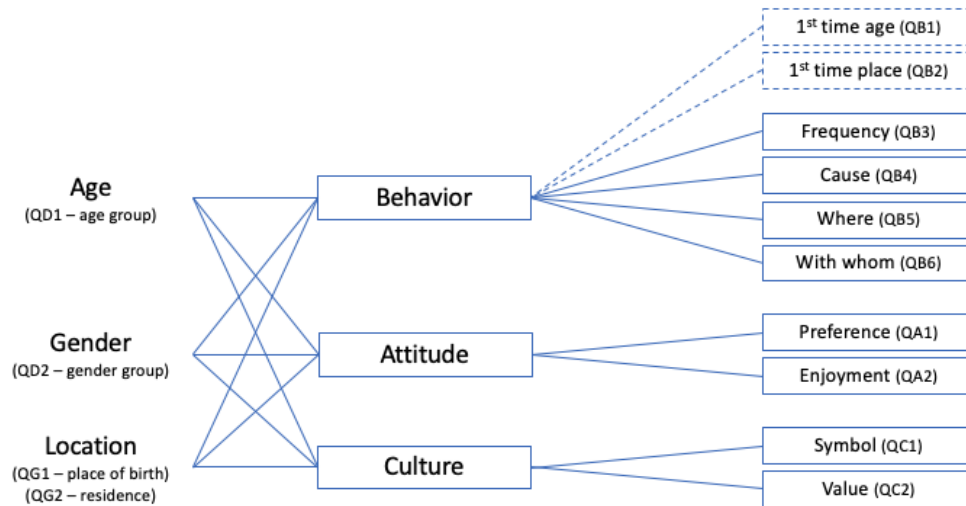The frame of the study is represented in fig.1

Figure 1

For the analytical/statistics method, counts and percentages were used to represent the categorical variables (Gun, Gupta, & Dasgupta, 1968; Agresti, 2007). Chi square test of association was carried out to test the association between the different factors in the study. For the classes with expected frequency less than 5, the class was merged with one or more of the adjacent classes to so as to make the theoretical frequency in the combined class greater than or equal to 5. As the response variables were categorical, either binomial or multicategory logistic models were built depending on the number of categories of the dependent variable. Independent variables with p- value of less than 0.05 was considered to have significant effect on the dependent variable. The odds ratio was generated and used for interpretation of the model variables. To identify any trend between the factors chosen on double answers counts and percentages were generated.

V. RESULTS AND FINDINGS

In this study,the 156 respondents are of age more than 21years and are from four regions(Great Porto, Center, North and South). We are interested in understanding how people perceive *francesinha*and how they have experienced different behavioral, attitudinal and cultural influence from the product, independently of the regions where they were born and live, theirage and gender.

Note 1: Respondents from "Madeira and Azores" and from "overseas" are merged with "South Region".
Note 2: In ( ) the number of respondents corresponding to the percentage shown.

5.1. Study of current ages of respondents (QD1) in relation to current behaviors

a) To test if the current ages of respondents (QD1) and the frequency of eating the dish(QB3) are associated.

Frequency of eating the dish			
Current age of respondents	Never + Occasionally/ exceptionally	Once or more per month	Once or more per year
21 to 30 years old	5.8% (9)	5.8% (9)	9.6% (15)
31 to 40 years old	6.4% (10)	4.5% (7)	7.1% (11)
41 to 50 years old	12.8% (20)	1.9% (3)	12.2% (19)
51 to 60 years old + 61 or over	19.9% (31)	6.4% (10)	4.5% (7)

Table 1

Note: "once or more per week" merged with "once or more per month".Option "never" is merged with "occasionally/ exceptionally" to adjust for smaller cell frequencies.Age group 61 or over merged with age group 51-60.

p-value<0.05 indicates association between current ages of respondents (QD1) and the frequency of eating the dish(QB3). (output 1)

b) Is there any significant difference among the current ages of respondents (QD1) in relation to reasons to keep the habit of eating the dish (QB4)?

Habit of eating the dish			
Current age of respondents	I like the dish very much, for its quality and palate	I like to experiment different recipes	I rather do not eat anything+ There is no other option to choose from
21 to 30 years old	17.9% (28)	3.2 % (5)	0% (0)
31 to 40 years old	11.5% (18)	5.8% (9)	0.6% (1)
41 to 50 years old	17.3% (27)	8.3% (13)	1.3% (2)
51 to 60 years old	10.9% (17)	8.3% (13)	5.1% (8)
61 or over	3.2 % (5)	3.2 % (5)	3.2% (5)

Table 2

Note:

To adjust for small cell frequencies the options "I rather do not eat anything" and "there is no other option to choose from" were merged.

For all age groups, the first preference is quality and palate. Older people like to experiment different recipes more than the younger ones.

The p-value < 0.05, therefore we can conclude that there is significant association between current ages of respondents (QD1) and reasons to keep the habit of eating the dish (QB4).(output 2)

c) Is there any significant difference among the current ages of respondents (QD1) in relation to preferred place to having the dish (QB5)?

Preferred place of having dish						
Current age of respondents	Friends' house	Gastrono-mic festival	In my house/clo-se relative	In no place at all	Other relative's house	Restauran t/bar
21 to 30 years old	0% (0)	0% (0)	1.3% (2)	0% (0)	0% (0)	19.9% (31)
31 to 40 years old	0% (0)	0% (0)	1.9% (3)	0% (0)	0.6% (1)	15.4%

						(24)
41 to 50 years old	0% (0)	0% (0)	1.3% (2)	0.6% (1)	0% (0)	25.0% (39)
51 to 60 years old	0.6% (1)	0.6% (1)	1.3% (2)	1.9% (3)	0% (0)	19.9% (31)
61 or over	0% (0)	0.6% (1)	0% (0)	2.6% (4)	0.6% (1)	5.8% (9)

Table 3

The preferred place of having the dish is restaurant/bar for all the age groups.

d) To test if there is any association between the current ages of respondents (QD1) and ways of disseminating the dish among others (QB6)?

Ways of disseminating the dish among others			
Current age of respondent	I don't refer the dish	I use to refer/advise the dish to others	I use to take friends out to eat+ I invite people to eat the dish at my house
21 to 30 years old	1.3% (2)	8.3% (13)	11.5% (18)
31 to 40 years old	4.5% (7)	8.3% (13)	5.1% (8)
41 to 50 years old	11.5% (18)	7.7% (12)	7.6% (12)
51 to 60 years old	9.6% (15)	8.3% (13)	6.4% (10)
61 or over	4.5% (7)	3.8% (6)	1,3% (2)

Table 4

Note: Option "I invite people to eat the dish at my house" and "I use to take friends out to eat "have been merged for adjusting the cell frequencies.

The higher age groups don't refer the dish as much as compared to the respondents of the lower age group.There is association between the current ages of respondents (QD1) and ways of disseminating the dish among others (QB6) as p-value is <0.05.(output 3)

5.2. Study of current geographic area of residence of respondents (QD2) in relation to current behaviors

a) Is there any associationbetween the current geographic area of residence of respondents (QG2) and frequency of eating the dish (QB3)?

Frequency of eating the dish			
Geographic area Of Residence	Never + Occasionally/ exceptionally	Once or more per month	Once or more per year
Great Porto	4.5% (7)	10.9% (17)	10.9% (17)
North Region	8.3% (13)	3.2 % (5)	6.4% (10)
Centre Region	19.9% (31)	3.2 % (5)	12.2% (19)
South Region	12.2% (19)	1.3% (2)	7.1% (11)

Table 5

Note: Option "never" is merged with "occasionally/ exceptionally" to adjust for smaller cell frequencies.

The p-value for the chi-square test is <0.05, therefore there is association between geographic area of location and frequency of eating the dish.(output 4)

b) Is there any association among current geographic area of residence of respondents (QG2) and reason to keep the habit of eating the dish (QB4)?

Keep the habit of eating the dish			
Geographic area of Residence	I like the dish very much, for its quality and palate	I like to experiment different recipes	I rather do not eat anything + There is no other option to choose from
Great Porto	21.8% (34)	3.8% (6)	0.6% (1)
North Region	11.5% (18)	5.1% (8)	1.3% (2)
Centre Region	18.6% (29)	10.9% (17)	5.8% (9)
South Region	9.0% (14)	9.0% (14)	2.6% (4)

Table 6

Note: To adjust for small cell frequencies the options "I rather do not eat anything" and "there is no other option to choose from" were mergedtogether.

P-value < 0.05 suggests there is an association between the geographic area of residence and the reason to keep the habit of eating the dish.(output 5)

c) Is there any association among the current geographic area of residence of respondents (QG2) and preferred place to having the dish (QB5)?

Preferred place of having dish						
Geographic area of Residence	Friends' house	Gastronomic festival	In my house/ closerelative	In no place at all	Otherrelative's house	Restaurant/ bar
Great Porto	0% (0)	0% (0)	1.9% (3)	0% (0)	0% (0)	21.8% (34)
North Region	0% (0)	0% (0)	1.3% (2)	0% (0)	0.6% (1)	15.4% (24)
Centre Region	0.6% (1)	0.6% (1)	1.9% (3)	4.5% (7)	0% (0)	27.6% (43)
South Region	0% (0)	0% (0)	0.6% (1)	0.6% (1)	0.6% (1)	18.6% (29)

Table 7

Across all regions preferred place of having the dish is restaurant/ bar.

d) Is there any association between the current geographic area of residence of respondents (QG2) and ways of disseminating the dish among others (QB6)?

Ways of disseminating the dish among others			
Geographic area of Residence	I don't refer the dish	I use to refer/advise the dish to others	I invite people to eat the dish at my house+ I use to take friends out to eat
Great Porto	3.8% (6)	8.3% (13)	14.1% (22)
North Region	3.2 % (5)	9.0% (14)	5.8% (9)
Centre Region	16.0% (25)	10.9% (17)	8.3% (13)
South Region	8.3% (13)	8.3% (13)	3.8 % (6)

Table 8

Note: Option "I invite people to eat the dish at my house" and "I use to take friends out to eat"

were merged to adjust for small cell frequency.

Respondents from south and center are more likely not to refer the dish.

The ways of disseminating the dish among others differ significantly across the geographic area of residence (p-value <0.05)(output 6).

5.3. Study of current ages of respondents (QD1) and current geographic area of residence of respondents (QD2) in relation to current attitudes.

To study how different age ranges (culture absorbed by age levels) (QD1) and residence locations (local cultural influence) (QG2) correlate to different attitudes (QA1 + QA2)

Reasons to have the dish frequently (QA1)					
Current age of respondent (QD1)	Influence of the group I belong (friends and others	Personal preference for the dish(recipe)	The dish is a local specialty (restaurant specialty)	There is no other preferential option	Tradition related to local or season (social habit)
21 to 30 years old	2.6% (4)	12.2% (19)	3.2 % (5)	0% (0)	3.2 % (5)
31 to 40 years old	0.6% (1)	10.3% (16)	2.6% (4)	0.6% (1)	3.8% (6)
41 to 50 years old	1.3% (2)	8.3% (13)	9.6% (15)	1.3% (2)	6.4% (10)
51 to 60 years old	0.6% (1)	9.6% (15)	7.1% (11)	3.8% (6)	2.6% (4)
61 or over	0.6% (1)	2.6% (4)	2.6% (4)	4.5% (7)	0% (0)

Table 9

Reasons to have dish frequently (QA1)					
Geographic area of Residence (QG2)	Influence of the group I belong (friends and others)	Personal preference for the dish(recipe)	The dish is a local specialty (restaurant specialty	There is no other preferential option	Tradition related to local or season (social habit)
Great Porto	3.2 % (5)	17.3% (27)	4.5% (7)	0% (0)	1.3% (2)
North Region	0.6% (1)	5.8% (9)	6.4% (10)	1.3% (2)	3.8% (6)
Centre Region	0.6% (1)	12.2% (19)	7.7% (12)	5.8% (9)	9.0% (14)
South Region	1.3% (2)	7.7% (12)	6.4% (10)	3.2% (5)	1.9% (3)

Table 10

Since many of the cell frequencies in Table 9 and Table 10 are less than 5, reasons for having the dish was regrouped as:

Local Specialty and tradition: The dish is a local specialty (restaurant specialty)+ Tradition related to local or season(social habit)

Personal preference for the dish(recipe)

Other Reasons: Influence of the group I belong(friends and others) + There is no other preferentialoption

Reasons to have the dish frequently (QA1)			
Current age of respondent (QD1)	Personal Preference (PP)	Local Specialty and Traditional (LT)	Other reasons (OR)
21 to 30 years old (GR1)	12.2% (19)	6.4% (10)	2.6% (4)
31 to 40 years old (GR2)	10.3% (16)	6.4% (10)	1.3% (2)
41 to 50 years old (GR3)	8.3% (13)	16.0% (25)	2.6% (4)
51 to 60 years old (GR4)	9.6% (15)	9.6% (15)	5.1% (8)
61 or over (GR5)	2.6% (4)	2.6% (4)	4.5% (7)

Table 11

60% of the respondents in the age group 41-50(GR3) have the dish frequently as it is a Local specialty and a traditional dish.Pearson's Chi –Square test was carried out to see if there was any association between present age of the respondents and the reasons to have the dish frequently.

The p-value of the chi square test was< 0.05,therefore there is association between the present age of the respondents and the reasons to have the dish frequently. (refer output 7)

Reasons to have the dish frequently (QA1)			
Geographic area of Residence (QG2)	Personal Preference (PP)	Local Specialty and Traditional (LT)	Other reasons (OR)
Great Porto (GP)	17.3% (27)	5.8% (9)	3.2 % (5)
North Region (NR)	5.8% (9)	10.3% (16)	1.9% (3)
Centre Region (CR)	12.2% (19)	16.7% (26)	6.4% (10)
South Region (SR)	7.7% (12)	8.3% (13)	4.5% (7)

Table 12

More people from Centre, North and South have the dish frequently because it means local specialty and tradition to them while more people from Great Porto have the dish because of personal preference.

Pearson's Chi –Square test was carried out to check if there was any association between Geographic area of residence of the respondents and the reasons to have the dish frequently.

p-value <0.05 suggest there is association between the geographic area of residence of the respondents and the reasons to have the dish frequently. (Refer output 8)

A multicategory logit model was built to analyze the effect of the Present age (QD1) and Geographic area of residence (QG2) of respondents (explanatory variables) on reasons of having the dish frequently(QA1) (response variable) since the response variable has more than two categories.

Reference Groups for the model:
LT- for dependent variable

GR3- for age group
GP- for geographical region
} Independent variables

The following are the regression equations:

$$\log\left(\frac{\pi_{PP}}{\pi_{LT}}\right) = 0.2489 + 1.243(\textbf{GR1}) + 1.2981(\textbf{GR2}) + 0.6195(GR4) + 0.5982(GR5) - 1.153(\textbf{CR})$$
$$- 1.8189(\textbf{NR}) - 0.7698(SR) \dots\dots\dots eq\ 1$$
$$\log\left(\frac{\pi_{OR}}{\pi_{LT}}\right) = -1.7264 + 1.1388(GR1) + 0.5949(GR2) + 1.2306(GR4) + 2.4909(\textbf{GR5})$$
$$- 0.2013(CR) - 0.9883(NR) + 0.2115(SR) \dots\dots\dots\dots eq2$$

Where,

$$\pi_i = \text{response probabilities for the i}^{th} \text{ category}$$

Note: The levels GR1,GR2, CR and NR are the only significant levels in eq1 and GR5 is significant in eq2. (Refer output 9)

Interpretation:

Lower age groups (21-30 and 31-40) have the dish frequently because of personal preference as compared to the reference age group (41-50) ...(eq1)

People from Centre and North region take the food mainly because of local and traditional reasons as compared to the people of Great Porto… (eq1)

From eq. 2, people of age group 61 and above have the dish frequently for others reasons as compared to those in the people in age group 41-50

Reason to enjoy the dish (QA2)				
Current age of respondent (QD1)	The recipe and dish making (ingredients, palate and presentation)	The associated tradition to the consumption of the dish (tradition and social habit)	The local where I eat the dish	None of the above options
21 to 30 years old	16.0% (25)	3.8% (6)	1.3% (2)	0% (0)
31 to 40 years old	12.8% (20)	1.9% (3)	0% (0)	3.2 % (5)
41 to 50 years old	17.3% (27)	5.1% (8)	0.6% (1)	3.8% (6)
51 to 60 years old	11.5% (18)	4.5% (7)	0.6% (1)	7.7% (12)
61 or over	5.8% (9)	0.6% (1)	0% (0)	3.2 % (5)

Table 13

Reason to enjoy the dish(QA2)				
Geographic area of Residence (QG2)	The recipe and dish making (ingredients, palate and presentation)	The associated tradition to the consumption of the dish (tradition and social habit)	The local where I eat the dish	None of the above options
Great Porto	21.8% (34)	3.8% (6)	0% (0)	0.6% (1)
North Region	10.9% (17)	2.6% (4)	1.3% (2)	3.2 % (5)
Centre Region	18.6% (29)	6.4% (10)	1.3% (2)	9.0% (14)
South Region	12.2% (19)	3.2 % (5)	0% (0)	5.1% (8)

Table 14

14

To adjust for small cell frequencies, the options of Reasons to enjoy the dish was regrouped into two groups. As recipe was the main preference (63.46%), this group was retained. "The local where I eat the dish" had only 4 responses and "none of the above options" 28. They could not be clubbed together under a common head. Therefore "Not recipe "was created which included all the other three options.

Recipe:The recipe and dish making (ingredients, palate and presentation)
Not Recipe: The associated tradition to the consumption of the dish (tradition and social habit+
the local where I eat the dish + none of the above options)

Reasons to enjoy the dish (QA2)		
Current age of respondent (QD1)	Recipe	Not Recipe
21 to 30 years old(GR1)	16.0% (25)	5.1% (8)
31 to 40 years old (GR2)	12.8% (20)	5.1% (8)
41 to 50 years old (GR3)	17.3% (27)	9.6% (15)
51 to 60 years old (GR4)	11.5% (18)	12.8% (20)
61 or over (GR5)	5.8% (9)	3.8% (6)

Table 15

Across all ages, the"recipe" seems to be the main reason to enjoy the dish except in ages 51-60, where little more than 50%(52.6%) fall in the "not recipe" category.

The p-value for Chi-Square test > 0.05, thus the reason for enjoying the dish and age groups are not associated. (Output 10)

Reasons to enjoy the dish (QA2)		
Geographic area of Residence(QG2)	Recipe	Not Recipe
Great Porto (GP)	21.8% (34)	4.5% (7)
North Region(NR)	10.9% (17)	7.1% (11)
Centre Region (CR)	18.6% (29)	16.7% (26)
South Region(SR)	12.2% (19)	8.3% (13)

Table 16

82.9% of the respondents from Great Porto enjoy the dish because of the recipe of the dish. A Chi-square test has p-value <0.05, thus the geographic area of residence and reasons to enjoy the dish are associated. (output 11).

Binomial Logistic Regression was used toanalyze the effect of the "present age" (QD1) and "geographic area of residence" (QG2) of respondents (explanatory variables) on reasons to enjoy the dishfrequently(QA2) (response variable).

The response variable Y =**1** for recipe
                                =**0** for not recipe

Reference Group:
GR4 – for Age group
GP – for geographic region

The binary logistic model:

$$\log\left(\frac{p}{1-p}\right) = 0.8781 + 1.0867(\textbf{GR1}) + 1.0036(\text{GR2}) + 0.8120(\text{GR3}) + 0.4991(\text{GR5}) - 1.387(\textbf{CR})$$
$$- 1.2546(\textbf{NR}) - 1.0279(\text{SR})$$

Where p is the probability of Y=1
(Refer output 12)

Interpretation:

The significant levels are **GR1**, **CR** and **NR.** (output 6)

For each region, the odds of choosing "recipe" increases 2.96 times in GR1 as compared to the odds in GR4 (reference group).

Whereas, for each age group, the odds of choosing "recipe" decreases 0.25 times in CR and 0.28 times in NR as compared to the odds in GP.

5.4. Study of current ages of respondents (QD1) and current geographic area of residence of respondents (QD2) in relation to cultural factors.

To understand how different age ranges (culture absorbed by age levels) (QD1) and residence locations (local cultural influence) (QD2) correlate to different cultural factors (QC1 + QC2).

What francesinha mainly mean to consumers (QC1)				
Current age of respondent (QD1)	An (easy and quick) form of feeding (to cook or find available)	A special dish (recipe, cooking and palate, different of other gastronomic options)	A geographic region (Great Porto and North Region)	A season/context tradition (youth, group of friends, social event)
21 to 30 years old(GR1)	0% (0)	3.8% (6)	9.0% (14)	8.3% (13)
31 to 40 years old (GR2)	0% (0)	4.5% (7)	10.3% (16)	3.2 % (5)
41 to 50 years old(GR3)	1.3% (2)	2.6% (4)	21.2% (33)	1.9% (3)
51 to 60 years old(GR4)	2.6% (4)	3.8% (6)	14.7% (23)	3.2% (5)
61 or over (GR5)	0.6% (1)	1.9% (3)	6.4% (10)	0.6% (1)

Table 17

What francesinha mainly mean to consumers (QC1)				
Geographic area of Residence (QG2)	An (easy and quick) form of feeding (to cook or find available)	A special dish (recipe, cooking and palate, different of other gastronomic options)	A geographic region (Great Porto and North Region)	A season/context tradition (youth, group of friends, social event)
Great Porto (GP)	0% (0)	5.1% (8)	16.0% (25)	5.1% (8)
North Region (NR)	0% (0)	4.5% (7)	8.3% (13)	5.1% (8)
Centre Region (CR)	2.6% (4)	3.2 % (5)	24.4% (38)	5.1% (8)
South Region (SR)	1.9% (3)	3.8% (6)	12.8% (20)	1.9% (3)

Table 18

Across all ages and regions, the meaning of francesinha signifies a geographic region (Great Porto and North region).

On same lines, for further analysis, to adjust for small cell frequencies, the options "an (easy and quick) form of feeding (to cook or find available)" and "a special dish (recipe, cooking and palate, different of other gastronomic options)" have been merged and renamed" Special dish easy to cook or find".

What francesinha mainly mean to consumers (QC1)			
Current age of respondent (QD1)	Special dish easy to cook or find (easysp)	A geographic region (Great Porto and North Region) (georeg)	A season/context tradition (youth, group of friends, social event)(seatrad)
21 to 30 years old(GR1)	3.8% (6)	9.0% (14)	8.3% (13)
31 to 40 years old (GR2)	4.5% (7)	10.3% (16)	3.2 % (5)
41 to 50 years old(GR3)	3.8% (6)	21.2% (33)	1.9% (3)
51 to 60 years old(GR4)	6.4% (10)	14.7% (23)	3.2 % (5)
61 or over (GR5)	2.6% (4)	6.4% (10)	0.6% (1)

Table 19

The p-value is <0.05 for the chi-square test suggesting association between the age of respondents and what francesinha means to them. (output 13)

What francesinha mainly mean to consumers (QC1)			
Geographic area of Residence (QG2)	Special dish easy to cook or find (easysp)	A geographic region (Great Porto and North Region) (georeg)	A season/context tradition (youth, group of friends, social event) (seatrad)
Great Porto(GP)	5.1% (8)	16.0% (25)	5.1% (8)
North Region(NR)	4.5% (7)	8.3% (13)	5.1% (8)
Centre Region(CR)	5.8% (9)	24.4% (38)	5.1% (8)
South Region(SR)	5.8% (9)	12.8% (20)	1.9% (3)

Table 20

A chi-square test gave a p-value > 0.05, there exists no association in the geographic area of residence and what francesinha mainly mean to consumers. (output 14)

A multicategory logit model was built to analyze the effect of the Present age (QD1) and Geographic area of residence (QG2) of respondents (explanatory variables) on what francesinha mainly mean to consumers(QC1) (response variable).

Reference Groups for the model:
georeg – for the dependent variable
GR1, CR – for independent variables

Among the independent variables, no level of geographic area of residence is significant.(Refer output 15).

Therefore, we exclude geographic area of residence from the model and build a model with only "Current age group of the respondents" as independent variable.

Reference Groups for the new model:
georeg – for the dependent variable
GR1– for independent variable

The following are the regression equations:

$$\log\left(\frac{\pi_{\text{seatrad}}}{\pi_{\text{georeg}}}\right) = -0.07411 - 1.0890(GR2) - 2.3238(\textbf{GR3}) - 1.4519(\textbf{GR4})$$
$$- 2.2285(\textbf{GR5}) \ldots \ldots \ldots \text{eq 3}$$

$$\log\left(\frac{\pi_{\text{easysp}}}{\pi_{\text{georeg}}}\right) = -0.8473 + 0.0206(GR2) - 0.8575(GR3) + 0.0144(GR4)$$
$$- 0.069(GR5) \ldots \ldots \ldots \ldots \text{eq4}$$

Where,

$$\pi_i = \text{response probabilities for the i}^{\text{th}}\text{ category}$$

Note: The levels GR3,GR4 and GR5 are the significant levels in eq3. (Refer output 16)

Interpretation:

        The negative coefficients of GR3,GR4,GR5 signifies that for these groups francesinhasymbolizes a geographical region rather than season/tradition when compared to GR1.

        That is to say the higher age group feel francesinha means a geographic region as compared to lower age groups (from eq1)

        No level is significant for eq4.i.eNo significant difference among the levels of age when compared with the reference age groupwhen francesinha is taken as easy and special dish.

Francesinha mainly valued by consumers (QC2)				
Current age of respondent (QD1)	A dish for special occasions (tradition)	A dish to have among friends	A special delicacy	Easy to cook and find in restaurants /bars
21 to 30 years old (GR1)	0% (0)	3.8% (6)	17.3% (27)	0% (0)
31 to 40 years old (GR2)	1.3% (2)	1.3% (2)	14.7% (23)	0.6% (1)
41 to 50 years old (GR3)	2.6% (4)	3.8% (6)	19.9% (31)	0.6% (1)
51 to 60 years old (GR4)	0.6% (1)	1.9% (3)	18.6% (29)	3.2 % (5)
61 or over (GR5)	1.3% (2)	0% (0)	7.1% (11)	1.3% (2)

Table 21

Francesinha mainly valued by consumers (QC2)				
Geographic area of Residence(QC2)	A dish for special occasions (tradition)	A dish to have among friends	A special delicacy	Easy to cook and findin restaurants/bars
Great Porto(GP)	1.3% (2)	1.3% (2)	23.1% (36)	0.6% (1)

North Region(NR)	0.6% (1)	1.9% (3)	14.7% (23)	0.6% (1)
Centre Region(CR)	3.2 % (5)	3.8% (6)	25.0% (39)	3.2 % (5)
South Region(SR)	0.6% (1)	3.8% (6)	14.7% (23)	1.3% (2)

Table 22

From Table 21 and Table 22 we can infer that across different ages and across different geographical region,francesinha is mainly valued by consumers because it is considered as "A special delicacy".

For establishing any association between the age of the respondents and geographic region and the reason for valuing francesinha we regroup the choices as "Special delicacy" and "Other reasons" (A dish for special occasions (tradition)+ A dish to have among friends+ Easy to cook and find in restaurants/bars).

Francesinha mainly valued by consumers (QC2)		
Current age of respondent(QD1)	Special Delicacy	Other reasons
21 to 30 years old(GR1)	17.3% (27)	3.8% (6)
31 to 40 years old (GR2)	14.7% (23)	3.2 % (5)
41 to 50 years old(GR3)	19.9% (31)	7.1% (11)
51 to 60 years old(GR4)	18.6% (29)	5.8% (9)
61 or over (GR5)	7.1% (11)	2.6% (4)

Table 23

A chi-square test gives a p-value >0.05 suggesting no association between the age group of the respondents and the reason for valuing francesinha. (output 17).

Francesinha mainly valued by consumers (QC2)		
Geographic area of Residence (QG2)	Special Delicacy	Other reasons
Great Porto(GP)	23.1% (36)	3.2 % (5)
North Region(NR)	14.7% (23)	3.2 % (5)
Centre Region(CR)	25.0% (39)	10.3% (16)
South Region(SR)	14.7% (23)	5.8% (9)

Table 24

For the above table the p-value of the chi-square statistics is >0.05. Therefore there is no association between geographic area of residence and reason to value francesinha . (output 18)

We can say that francesinha is mainly valued as "special delicacy" by the consumers of all age group and geographic area.

5.5. Study of gender of respondents (QD2) in relation to current behaviors, attitudes and cultural factors.

Understand possible relationships between gender and current behaviors, attitudes andcultural view of francesinha.

63.6% respondents are male and the remaining 36.5 % are females. To study if there is any difference between how males and females perceive francesinha.

First francesinha was at (QB2)					
Gender	Friend's House	Gastronomic festival	In my house/close relatives	Other relative's house	Restaurant/bar
Female	1.3% (2)	0% (0)	3.8% (6)	1.9% (3)	29.5% (46)
Male	1.9% (3)	0.6% (1)	2.6% (4)	0% (0)	58.3% (91)

Table 25

80.7% females and 91.9% males had their first francesinha at the restaurant/bar.

Frequency of eating the dish(QB3)				
Gender	Never	Occasionally/ exceptionally	Once or more per month	Once or more per year
Female	2.6% (4)	16.0% (25)	5.1% (8)	12.8% (20)
Male	2.6% (4)	23.7% (37)	13.5% (21)	23.7% (37)

Table 26

A p-value >0.05 suggests that there is no association between gender and the frequency of eating the dish.(output 19)

Habit of eating the dish (QB4)			
Gender	I like the dish very much, for its quality and palate	I like to experiment different recipes	I rather do not eat anything + There is no other option to choose from
Female	21.8% (34)	12.2% (19)	2.6% (4)
Male	39.1% (61)	16.7% (26)	7.7% (12)

Table 27

Note: To adjust for small cell frequencies the options "I rather do not eat anything" and "there is no other option to choose from" were merged together.

The quality and palate make the dish attractive for both males and females. P-value >0.05 means there is no significant difference between males and females on habit of eating the dish.(output 20)

Preferred place of having dish (QB5)						
Gender	Friends house	Gastronomic festival	In my house/close relative	In no place at all	Other relative's house	Restaurant /bar
Female	0% (0)	0.6% (1)	2.6% (4)	1.3% (2)	1.3% (2)	30.8% (48)
Male	0.6% (1)	0.6% (1)	3.2 % (5)	3.8% (6)	0% (0)	55.1% (86)

Table 28

Irrespective of gender, the preferred place of having the dish is restaurant/bar.

Ways of disseminating the dish among others (QB6)			
Gender	I don't refer the dish	I use to refer/advise the dish to others	I use to take friends out to eat + I invite people to eat the dish at my house
Female	8.3% (13)	14.1% (22)	14.1% (22)
Male	23.1% (36)	22.4% (35)	17.9% (28)

Table 29

Note: "I invite people to eat the dish at my house" is merged with "I use to take friends out to eat" to adjust for cell frequency.

p-value for a chi square test is >0.05, therefore the ways of disseminating the dish among others do not differ with respect to gender.(output 21)

Reasons to have dish frequently (QA1)					
Gender	Influence of the group I belong (friends and others	Personal preference for the dish (recipe)	The dish is a local specialty (restaurant specialty)	There is no other preferential option	Tradition related to local or season (social habit)
Female	3.8% (6)	14.7% (23)	7.1% (11)	2.6% (4)	8.3% (13)
Male	1.9% (3)	28.2% (44)	17.9% (28)	7.7% (12)	7.7% (12)

Table 30

Personal preference is the most selected reason for having the dish frequently for both the genders. Chi-square test gives a p-value >0.05, reasons to have the dish is independent of gender. (output 22)

Reason to enjoy the dish (QA2)				
Gender	The recipe and dish making (ingredients, palate and presentation)	The associated tradition to the consumption of the dish (tradition and social habit)	The local where I eat the dish	None of the above options
Female	21.8% (34)	7.7% (12)	1.9% (3)	5.1% (8)
Male	41.7% (65)	8.3% (13)	0.6% (1)	12.8% (20)

Table 31

The recipe of the dish is the main reason for the consumers to enjoy the dish, be it male or female. While 20.2% of male respondents have other reasons of enjoying the dish.

P-value >0.05 suggest independence between gender and reasons to enjoy the dish. (output 23)

What francesinha mainly mean to consumers (QC1)				
Gender	An (easy and quick) form of feeding (to cook or find available)	A special dish (recipe, cooking and palate, different of other gastronomic options)	A geographic region (Great Porto and North Region)	A season/context tradition (youth, group of friends, social event)
Female	0.6% (1)	5.8% (9)	21.8% (34)	8.3% (13)
Male	3.8% (6)	10.9% (17)	39.7% (62)	9.0% (14)

Table 32

Francesinha mainly symbolizes a geographic region for both males and females. P-value for chi-square test is >0.05, thus no association between gender and what francesinha mainly mean to customers.(output 24)

Francesinha mainly valued by consumers (QC2)

Gender	A dish to have among friends	A special delicacy	A dish for special occasions (tradition) + Easy to cook and find in restaurants/bars
Female	3.8% (6)	28.8% (45)	3.8% (6)
Male	7.1% (11)	48.7% (76)	7.7% (12)

Table 33

Note: "A dish for special occasions and "easy to cook and find in restaurants and bars" were merged together to adjust for cell frequencies.

78.9% of females and76.8% of males value francesinha as a special delicacy. A p-value >0.05 suggests no association between gender and the reason francesinha is mainly valued.(output 25).

5.6. To identify any trend between the factors chosen on double answers.

QC1. Francesinha means/signs (Symbol)

QC1. option 1	QC1. option 2	COUNT
A region (geographic/demographic) (96)	A tradition (seasonal/contextual)	19.8% (19)
	One (easy) form of feeding	0% (0)
	A special dish (with quality)	47.9% (46)
A tradition (seasonal/contextual) (27)	A region (geographic/demographic)	0% (0)
	One (easy) form of feeding	0% (0)
	A special dish (with quality)	48.2% (13)
One (easy) form of feeding (7)	A region (geographic/demographic)	0% (0)
	A tradition (seasonal/contextual)	0% (0)
	A special dish (with quality)	0% (0)
A special dish (with quality) (26)	A region (geographic/demographic)	0% (0)
	A tradition (seasonal/contextual)	0% (0)
	One (easy) form of feeding	0% (0)

Table 34

Note: Out of 156 respondents, 78 have not answered option 2 for QC1. Values in () in column 1 denote the number of respondents who have chosen the particular option1.

61.5 % of the respondents say francesinha symbolizes a region (geographic/demographic). Out of these 96 respondents 46 of them, which is 47.9%, say francesinha is described as a region and a special dish (with quality). 19.7% of 96 respondents describe francesinha as a region and a tradition(seasonal/contextual).

27 respondents say francesinhasymbolizesatradition (seasonal/contextual). Out of these 27, (almost 50%) of them think it is a special dish (with quality) as well.

Thus, francesinha is best described as a region (geographic/demographic) together with a special dish (with quality).

QC2. Francesinha is valued because

QC2. option 1	QC2. option 2	COUNT
A special delicacy (with quality) (121)	Easy to prepare	5.8% (7)
	A dish used among friends	42.2% (51)
	A dish for special occasions	15.7% (19)
A dish used among friends (17)	A special delicacy (with quality)	0% (0)
	Easy to prepare	0% (0)
	A dish for special occasions	11.8% (2)
A dish for special occasions (9)	A special delicacy (with quality)	0% (0)
	Easy to prepare	0% (0)
	A dish used among friends	0% (0)
Easy to prepare (9)	A special delicacy (with quality)	0% (0)
	A dish used among friends	0% (0)
	A dish for special occasions	0% (0)

Table 35

Note: Out of 156 respondents, 77 have not answered option 2 for QC2.
Values in () in column 1 denote the number of respondents who have chosen the particular option1.

Francesinha is primarily valued as a special delicacy (with quality) (77.5%). Out of 121 respondents who say francesinha is a special delicacy, 24.1% say it is also a dish used among friends (social habit) and 15.7% value it as a dish for special occasions(tradition).

5.7. To validate cultural preferences against Triandis theory.

As we have seen before, culture consists of "shared" elements that provide the standards for perceiving, believing, evaluating, communicatingand acting among those who share a language, a historic period and a geographic location (Triandis, 1996).Among those factors, we have confirmed the importance of the geographic location to support the cultural value of *francesinha.*

Furthermore, grouping all answers in questions QC1 and QC2 and establishing the relationships between the four options in each question and the cultural factors enumerated by Triandis (op.sit.), we come to the outcomes shown in table 35.As we can observe, the only option in each question that is not related to culture, but to use, is the less preferred, far from all the others.

Cultural factors (Triandis, 1996)	**THE MEANING OF FRANCESINHA TO ME**		
	QC1. IT SYMBOLIZES	**%**	**Total**
Related to a geographic region	A region (geographic/demographic)	41.0%%	96
Related to a historic period	A tradition (seasonal/contextual)	19.7%%	46
Related to use (not cultural)	One (easy) form of feeding	2.6%%	6
Related to a language (comprehension)	A special dish (with quality)	36.8%%	86
	QC2. IT IS VALUED BECAUSE	**%**	**Total**
Related to a geographic region	A special delicacy (with quality)	51.7%%	122
Related to use (not cultural)	Easy to prepare	6.8%%	16
Related to a language (comprehension)	A dish used among friends	28.8%%	68
Related to a historic period	A dish for special ocasions	12.7%%	30

Table 36

Above all, the answers related to the region connected culturally to the *francesinha* are in large majority in both questions. As any non-empirical observation in the North Region and Porto might indicate, *francesinha* is seen by consumers as something very local to those geographic areas. That explains, somehow, the very slow dissemination of the product in the other regions.

VI. LIMITATIONS AND CONCLUSIONS

The study only covered consumers who had, at least, eaten a *francesinha* once. That condition, imposed to the respondents, shortens the amplitude of the scope, leaving outside consumers who never had eaten a *francesinha* but have knowledge of it and might reflect some type of cultural opinion.

The size of the respondents' sample was not still large enough to test all possible outcomes, based on the questions that where indicative of different behaviors and attitudes.

There is no knowledge of the percentage of *francesinha*frequent consumers among the population by geographic and demographic segments, which leaves any projection to be made impossible.

The study didn't includerespondents from foreign tourists, not allowing to have an idea as the cultural factors endogenous to the local, regional and national consumers might affect the preference and cultural understanding of the former.

The outputs of the study might make us conclude that, regarding the consumption of *francesinha* in Portugal, behavior is related to age and location, not to gender – preferences vary among age groups and consumers locations, being Porto Region more influenced; attitude is related to age and location, not to gender – preferences vary among age groups and consumers locations, being Porto Region more particular; cultures is not related to age, location and gender – there is a common national cultural understanding regarding the subject.

The first two general outcomes, behavior and attitude,might come as an apparent consequence of the different adoptions and disseminations of the recipe in the different segments that were studied. The third general outcome, cultural understanding, might be the result of many different factors, potentially as a result of a common communicationcontent by media to all segments. This needs to be subjected to further research.

From the general and individual outcomes of this study, we have indications that innovative foodis a vehicle for change in population behavior, attitude and cultural understanding.

References:

Agresti, Alan (2007), "An Introduction to Categorical Data Analysis", second edition, Wiley publications

Aguilar-Millan, S. (2005). Profiling small businesses using Spiral Dynamics. Strategy Magazine, 5, 21-24.

Akaka, M. A., Vargo, S. L., &Schau, H. J. (2015). The context of experience. Journal of Services Management, 26(2), 206-223.

Anderson, E.N. (2004). Everyone Eats: understanding food and culture. New York: New York University Press.

Aristotle (350 B.C.E). Politics (translated by Benjamin Jowett).[online] Available: http://classics.mit.edu//Aristotle/politics.html (June 21, 2015).

Baião, A.V., Carvalho, S. &Lopes, M. (2013). A Migração dos Sabores. Moura: Comoiprel, Cipri.

Bargozzi, R.P., Wong, N., Abe, S. &Bergami, M. (2000). Cultural and Situational Contigencies and Theory of Reasoned Action: Application to Fast Food Restaurant Consumption. Journal of Consumer Pshychology, 9(2), 97-106.

Baudrillard, J. (1998). The Consumer Society. London: Sage Publications Ltd.

Bègue, L., Bricout, V., Boudesseul, J., Shankland, E. & Duke, A. A. (2015). Some like it hot: Testosterone predicts laboratory eating behavior of spicy food. Physiology & Behavior 139, 375-377.

Boztepe, S. (2007). User Value: Competing Theories and Models. International Journal of Design, 1(29), 55-63.

Braga, I.D. (2014). Da dietética à gastronomia regional portuguesa: um caso de estudo. ArtCultura, 28(16). 129-142.

Branzi, A. (2007). Capireil design, GiuntiEditore.

Campos, M. A. C. (2015). Adequação nutricional de pratos típicos portugueses servidos em estabelecimentos de restauração da região do Minho e Douro Litoral, Dissertação/relatório de candidatura ao grau de Mestre. Faculdade de Ciências da Nutrição e Alimentação da Universidade do Porto.

Debord, G. (1995), The Society of the Spectacle. New York: Zone Books.

Drolet, M. (2003), The Postmodernism Reader: Foundational Texts. New York: Routledge.

Fatsecret. "Francesinha". [Online] Available: http://www.fatsecret.pt/calorias-nutrição/genérico/francesinha. (March 22, 2016).

FEP – Faculdade de Economia da Universidade do Porto. "Estudo de Mercado sobre a atractividade das caves do Vinho do Porto". (2011). AEVP.

Fernandes, M. (2012). Value Construct towards Innovation. International Journal of Innovation, Management and Technology, 3(1), 10-19.

Fernandes, M.T. (2014). Innovation: Technological and Cultural Construct Model. International Journal of Economics, Finance and Management, 3(7), 351-370.

Fernández, R.S. &Bonillo, M.A.I. (2007). The concept of perceived value: a systematic review of the research. Marketing Theory, 7, 427-451.

Firat, A. F. & Venkatesh, A. (1995), Liberatory Postmodernism and the Reenchantment of Consumption. Journal of Consumer Research. 22(3), 240-242.

Garcia, P. C. (2012). "Francesinha: 'little frenchies' or a 2.0 sandwich from Porto", Portugal Daily View, 31 January.

Gomes, J.P. (2016). Cooking "à Portuguesa" with Lucas Rigaud. Portuguese foodidentity in the Cozinheiro Moderno. Revista da História da Sociedade e da Cultura, 16, 243-270.

Grönroos, C. (2008). Service logic revisited: who creates value? And who co-creates? European Business Review, 20, 298–314.

Guerreiro, F.J.B. (2018). A Portuguese Kitchen, for sure: "Culinária Portuguesa" by António Maria Oliveira Bello. RevistaTrilhas da História. 8(15), 221-236.

Gun, A.M, Gupta, M.K. &Dasgupta, B. (1968), Fundamentals ofStatistics, Vol. 1., Sage.

Herskovits, M. J. (1955), Cultural Anthropology. New York: Knopf.

Hofstede, G. (1994). The Business on International Business is Culture. International Business Review, 3(1), 1-14.

Holmqvist, J. Visconti, L.M., Grönroos, C. Guais, B. &Kessous, A. (2020). Understanding the value process: Value creation in a luxury service context. Journal of Business Research, 120, 114-126.

Jensen, per A. (2005). Value Concepts and Value based Collaboration in Building Projects. Proceedings of the CIBW096 Architectural Management, Technical University of Denmark, Lyngby, pp.3-10.

Kopytoff, I. (1986). The cultural biography of things: Commoditization as process. in: The Social Life of Things, Appadurai, A. ed.. Cambridge: Cambridge University Press, 64-94.

Ladhari, R., Pons, F., Bressolles, G. &Zins, M. (2011). Cultural and personal values: How they influence perceived service quality. Journal of Business Research, 64, 951-957.

McCracken, G. (1986). Culture and Consumption: A Theoretical Account of the Structure: A Theoretical Account of the Structure and Movement of the Cultural Meaning of Consumer Goods, Journal of Consumer Research, 13(1), 71-84.

Moreira, P. (2010). "Gestão de Marcas Cidade: O caso da marca Porto Turismo", tese mestrado. FEP – Faculdade de Economia da Universidade do Porto.

Pereira, A.M. "A minha francesinha é melhor do que a tua?". (2011). http://fugas.publico.pt/RestaurantesEBares/284923_a-minha-francesinha-e-melhor-do-que-a-tua. Accessed 29 March 2016.

Roden, C. (2003). Local Food and Culture. In WTO (Ed.), Local Food & Tourism International Conference (pp. 9-14). Madrid: WTO

Schein, E. H. (2004). Organizational Culture and Leadership. New York: John Wiley & Sons.

Scotdir.com. The History of Portuguese Francesinha. [online] Available: http://scotdir.com/food-and-drink-2/the-history-of-portuguese-francesinha. (March 3, 2016).

Shweder, R. and LeVine, R.A. (1984). Culture Theory: essays on mind, self, and emotions. Cambridge: Cambridge University Press.

Smith, A. (1776). An Inquiry into the Nature and Causes of the Wealth of Nations. [online] Available https://www.ibiblio.org/ml/libri/s/SmithA_WealthNations_p.pdf, (December 21, 2019).

Teixeira, A. (2010) "Francesinha nasceu para as mulheres" (Francesinha wascreated for women). DN – Diário de Notícias, 20 November.

Triandis, H. (1996). ThePsycologicalMeasurementof Cultural Syndromes. AmericanPsychology, 51(4), 407-415.

TSF. "Confraria da Francesinha nasce hoje". [online] Available: http://www.tsf.pt/arquivo/2000/vida/interior/confraria-da-francesinha-nasce-hoje-854309.html (3 March3, 2016).

Tylor, E.B. (1871). Primitive Culture: Research into Development of Mythology, Philosophy, Religion, Art, and Custom. London: John Murray.

Vargo, S. L., &Lusch, R. F. (2008). Service-dominant logic: continuing the evolution. Journal of the Academy of Marketing Science, 36(1), 1–10.

Yau, O. (1988). Chinese Cultural Values: Their Dimensions and Marketing Implications. European Journal of Marketing, 22(5), 44-57.

Wiki.answers.com. What is Cultural Innovation?. [online] Available https://www.answers.com/Q/What_is_cultural_innovation. (March 3, 2016)

Wu, S.I. & Chang, H.L. (2016). The Model of Relationship between the Perceived Values and the Purchase Behaviors toward Innovative Products. Journal of Management and Strategy, 7(2), 31-45.