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Teaching of Neuromarketing

**Consumer Innovativeness & Personality Traits:
A Study in the Food and Technology Markets**

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Academic Year 2018/2019

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Introduction

Many strategic decisions companies make are related to product innovation. Innovation is of the utmost importance for the processes, products, services, experiences every organization wants to stage. In order for companies to successfully market their innovations it is necessary to trigger the critical mass needed to spread innovations. Consumer innovators and early adopters are extremely useful to help spreading innovations (Rogers, 1962/1983/1995/2003)¹, furthermore in the modern society most industries have network or information effects and this phenomenon leverages even more the impact of their role. Thus, it is fundamental to have a deeper understanding of the characteristics of the innovators, in general and in the specific market where a company may operate. In this research the focus is on the personality traits of the consumers and their role in altering the domain consumer innovativeness of consumers. The research will give a quick look at the main theories which study the personality traits and will use the personality traits as moderators, to assess if they affect the consumer innovativeness in two different markets with a differential impact. The main aim is not to show that personality traits and consumer innovativeness are linked, this has already been done by the past literature. The true aim is to assess if the personality traits impact consumer innovativeness to a degree depends on the referring class of products or market. When consumers are involved in the purchase decision process of different products, the needs they want to satisfy or goals they want to achieve may depend on the product. Also, the emotions involved might change and this opens the possibilities to researches and to a further persona building by the part of the companies. This would result in more information available to companies and would give them the possibility to implement market segmentation from more several point of view.

¹ Rogers, E. M. (1962/1983/1995/2003). Diffusion of innovations, 1st, 3rd, 4th, and 5th editions. New York: The Free Press.

Literary review

Consumer innovativeness

The importance to understand which consumers are the most likely to accept innovations and therefore to buy new products is a largely known and discussed topic. The consumer innovativeness concept starts spreading with Rogers (1962/1983/1995/2003), thanks to his classification of consumers in innovators, early adopters, early majority, late majority and laggards.

After Roger's works many researches and studies have been made on consumer innovativeness (if interested in a summary of the literature see Bartels & Reinders, 2011)² and many and different are the theoretical conceptualizations³. Three levels have been identified as the steps which compose consumer innovativeness: innate innovativeness, domain-specific innovativeness and innovative behavior.

Innate innovativeness is the first hierarchy level of consumer innovativeness, the most abstract one. We can introduce innate innovativeness as an unobservable trait of an individual which reflects his inherently innovative personality, predisposition and cognitive style⁴. Other studies have called this construct "innovative predisposition"⁵ or "innate innovativeness"⁶. It has been referred as global

² Bartels, J., & Reinders, M. J. (2011). Consumer innovativeness and its correlates: A propositional inventory for future research. *Journal of Business Research*, 64(6), 601–609.

³ Roehrich, G. (2004). Consumer innovativeness: Concepts and measurements. *Journal of Business Research*, 57(6), 671–677.

⁴ Kirton, M. J. (1976). Adoptors and innovators: A description and measure. *Journal of Applied Psychology*, 61, 622–629 (October).
Im, S., Bayus, B. L., & Mason, C. H. (2003). An empirical study of innate consumer innovativeness, personal characteristics, and new-product adoption behavior. *Journal of the Academy of Marketing Science*, 31, 61–73 (Winter).

⁵ Midgley, D. F., & Dowling, G. R. (1993). A longitudinal study of product form innovation: The interaction between predispositions and social messages. *Journal of Consumer Research* 19, 611–625 (March).

⁶ Hirschman, E. C. (1980). Innovativeness, novelty seeking and consumer creativity. *Journal of Consumer Research*, 7, 289–295 (December).

innovativeness, so a kind of predisposition towards innovation that is not related to a specific industry or product, but it is global, general, towards every aspect of life⁷. Therefore, this construct has the same value for every product class⁸ and it can also be defined as a component of the personality of the individual, like a personality trait. Several studies embrace this view and define it as the tendency to change⁹, consumer novelty seeking¹⁰ or “the predisposition to buy new and different products and brands”¹¹. Finally, some studies have faced this construct from a process point of view, so it has been conceptualized as the attitude to open information processing and the receptivity to original stimuli and new experiences¹².

Domain-specific innovativeness is the second level of innovativeness. This construct was proposed by Goldsmith and Hofacker as the innovativeness for a specific product class¹³. This construct investigates the human behavior correlated to innovation in a specific area of interest of a person (Midgley & Dowling, 1993). Besides the domain-specific innovativeness focuses on the attitude of an individual toward a class of products and to his tendency to learn and accept novel products (Goldsmith & Hofacker, 1991; Roehrich, 2004). Mainly the domain-specific innovativeness is now considered a predisposition to move to new goods and brands, in the referring product class, instead of having the same consumption patterns (Steenkamp, Hofstede & Wedel, 1999). Eventually this

⁷ Goldsmith, R. E., & Foxall, G. R. (2003). The measurement of innovativeness. In L. V. Shavinina (Ed.), *The International Handbook on Innovation* (pp. 321–330). Kidlington, Oxford, UK: Elsevier.

⁸ Foxall, G. R. (1988). Consumer innovativeness: Novelty-seeking, creativity, and cognitive style. *Research in Consumer Behavior*, 3, 79–113.

⁹ Hurt, H. T., Joseph, K., & Cook, C. D. (1977). Scale for the measurement of innovativeness. *Human Communication Research*, 4, 58–65 (Fall).

¹⁰ Hirschman, E. C. (1980). Innovativeness, novelty seeking and consumer creativity. *Journal of Consumer Research*, 7, 289–295 (December). Manning, K. C., Bearden, W. O., & Madden, T. J. (1995). Consumer innovativeness and the adoption process. *Journal of Consumer Psychology*, 4(4), 329–345.

¹¹ Steenkamp, J.-B. E. M., ter Hofstede, F., Wedel, M. (1999). A cross-national investigation into the individual and national cultural antecedents of consumer innovativeness. *Journal of Marketing*, 63, 55–69 (April).

¹² Goldsmith, R. E. (1984). Personality characteristics associated with adaption-innovation. *Journal of Psychology*, 117, 159–165 (July).

¹³ Goldsmith, R. E., & Hofacker, C. F. (1991). [Measuring consumer innovativeness. *Journal of the Academy of Marketing Science*, 19, 209–221.](#)

predisposition is not necessarily transferrable to other categories¹⁴. The resulting domain-specific innovativeness of an individual is probably given by the combination of his personal interest in a domain and his global innate attitude to innovate (Midgley & Dowling, 1978; Roehrich, 2004), that we have called innate innovativeness. We can also affirm that this construct is a better predictor of the actual buying behavior of consumers compared to innate innovativeness¹⁵.

The third level of consumer innovativeness is innovative behavior, or actualized innovativeness and it is the lowest element in the hierarchical structure of innovativeness. It has been defined as “The tendency to buy new products more often and more quickly than other people” (Midgley and Dowling, 1978), or “a consumer’s propensity to adopt new products”¹⁶.

With this overview on consumer innovativeness some of the most largely recognized papers have been quoted to give an explanation of the referring construct. For the development of this research it is important to underline its hierarchy on three levels. It is possible to affirm that every time we want to measure the consumer innovativeness of an individual, whether it is about a specific product, a product class or at a global level, the innate consumer innovativeness plays a significant role. The innate consumer innovativeness is related, as it has been said before, to the personality of the consumers. This is a significant element that supports the possibility that different personality traits can have a different impact on consumer innovativeness. Besides there are also researches that highlight the effects of the personality traits on the overall consumer innovativeness. Ahmed’s research tells us that creative and innovative individuals have stable personality characteristics¹⁷. Other studies even suggest that personality traits are the most important element to explain innovative and entrepreneurial behavior¹⁸. There is even much more literature that proves the big

¹⁴ Muzinich, N., Pecotich, A., & Putrevu, S. (2003). A model of the antecedents and consequences of female fashion innovativeness. *Journal of Retailing and Consumer Services*, 10(5), 297–310.

¹⁵ Tanawat Hirunyawipada & Audhesh K. Paswan, (2006) “Consumer innovativeness and perceived risk: implications for high technology product adoption” *Journal of Consumer Marketing* 23/4 182–198

¹⁶ Tellis, G. J., Yin, E., & Bell, S. (2009). Global consumer innovativeness: Cross-country differences and demographic commonalities. *Journal of International Marketing*, 17(2), 1–22.

¹⁷ Ahmed, P. K. (1998). Culture and climate for innovation. *European Journal of Innovation Management*, 1(1), 30–43.

¹⁸ Eastman, J. K., Eastman, K. L., & Tolson, M. A. (2001). The relationship between ethical ideology and ethical behavior intentions: An exploratory look at physicians’ responses to managed care dilemmas. *Journal of Business Ethics*, 31(3), 209–224.

impact that personality traits have on consumer innovativeness¹⁹, for example a Weele's study (2013), positively correlates consumer innovativeness to the personality trait "extraversion".

In the end, this research will use the effect of the personality traits to explain the consumer innovativeness in two specific domains: food and technology. It is true that personality traits have a huge impact on innate innovativeness and consumer innovativeness in general, but as it has been said before, domain-specific innovativeness has high predictive power. This construct changes for each domain, largely depending of the interest of consumers in the domain, so I expect that there will be statistically significant differences in the consumer innovativeness related to the two domains.

Personality traits

Human personality has been largely studied and it has been approached by a wide variety of theoretical perspectives, at different degree of abstraction and breadth²⁰. There are several theories and measures that try to explain a person's personality and psychologists use several tests to assess it. The most used methods can be differentiated in two main groups: objective tests and projective measures. The former relies on individual's personal responses and are relatively free of rater bias, the latter involve using ambiguous stimuli to reveal inner aspects of an individual's personality. The following is a short list of the most used measures²¹:

¹⁹ Buchanan, L. B. (1998). The impact of big five personality characteristics on group cohesion and creative task performance. Kirton, M. J., & De Ciantis, S. M. (1986). Cognitive style and personality: The Kirton adaption-innovation and Cattell's sixteen personality factor inventories. *Personality and Individual Differences*, 7(2), 141–146. Rossberger, R. J. (2014). National personality profiles and innovation: The role of cultural practices. *Creativity and Innovation Management*, 23(3), 331–348. Steel, G. D., Rinne, T., & Fairweather, J. (2011). Personality, nations, and innovation: Relationships between personality traits and national innovation scores. *Cross-Cultural Research*, <http://dx.doi.org/10.1177/1069397111409124> Weele, I. (2013). The effects of CEO's personality traits (Big 5) and a CEO's external network on innovation performance in SMEs.

²⁰ John, O. P., Hampson, S. E., & Goldberg, L. R. (1991). Is there a basic level of personality description? *Journal of Personality and Social Psychology*, 60, 348-361. McAdams, D. P. (1995). What do we know when we know a person? *Journal of Personality*, 63, 365-396.

²¹ <https://courses.lumenlearning.com/boundless-psychology/chapter/assessing-personality/>

1. Objective tests:

- Neo Pi-R, a test designed to measure personality traits in accordance to the five-factor model;
- Minnesota Multiphasic Personality Inventory (MMPI), the most used personality inventory to diagnose personality disorders;
- The 16 PF (Personality Factor), developed from Cattell's theory of 16 personality factor, it is widely used by mental health professionals to diagnose mental disorders and provide insights for the therapy;
- Myers-Briggs Type Indicator, it finds its foundation in Carl Jung's theory of personality and it is one of the most used inventories for non-clinical populations;
- Eysenck Personality Questionnaire, designed according to Eysenck's model of personality.

2. Projective measures:

- Roschach Test, it is used to explore a person's emotional functions and unconscious attitudes;
- Thematic Apperception Test, this test too aims to discover a person's characteristics and emotional functioning.

In exploring personality traits, it is now common knowledge that objective tests tend to be more statistically significant and valid. The main issue related to their use concerns whether respondents give sincere and truthful answers²². Ultimately, after many researches, studies and experiments the literature is converging towards a consensus on a general taxonomy of the personality traits, the "Big Five" dimensions²³. The Big Five taxonomy does not replace the previous studies and taxonomies, instead it can be viewed as a common framework that manages to integrate the different systems of personality description. The Big Five theory aims to describe what have been called the five building blocks of personality. Many searches have found in this conceptualization a

²² <http://psychdr.com/psychtesting.html> <https://courses.lumenlearning.com/boundless-psychology/chapter/assessing-personality/>

²³ Oliver P. John & Sanjay Srivastava, (1999) "The Big-Five Trait Taxonomy: History, Measurement, and Theoretical Perspectives" 5 march.

satisfactory solution that solve negative facets of past works, for example the narrow scope of Eysenck's three-factors theory or the more complicated Cattell's 16 personality factors.

The foundation of the Big Five started to be built when several psychologists began to see the natural language as a source of items for a scientific taxonomy²⁴. This work was guided by the lexical hypothesis, which affirms that the most relevant personality characteristics have been encoded in the language. Therefore, the personality terms contained in the vocabulary of a language provide a vast and finite set of items that are important and useful for people speaking that language in their social interactions²⁵. After the support of many researches and studies the Big Five taxonomy, also known as OCEAN, has been articulated in the following personality factors:

- Openness; usually people who score high on this trait are curious, have multiple interests, can be imaginative, creative and appreciate the arts;
- Conscientiousness; individuals with high scores on this factor are usually thoughtful, have a good self-control, are planful, goal directed and pay attention to deadlines;
- Extraversion; persons with high extraversion scores are usually very social, talkative, emotionally expressive;
- Agreeableness; people who score high on this dimension tend to have prosocial behaviors, they usually are altruist, cooperative and kind;
- Neuroticism; persons with high Neuroticism scores tend to be emotionally unstable, irritable, anxious and subjected to moody swings²⁶.

The works reviewed in the quoted study of Oliver P. John and Sanjay Srivastava (1999) assess that “the Big Five structure provide a replicable representation of the major dimensions of trait description in English”. This construct can generalize reliably across different types of samples and

²⁴ Klages, L. (1926). *The science of character* (Translated 1932). London: Allen and Unwin. Baumgarten, F. (1933). 'Die Charaktereigenschaften'. [The character traits]. In: *Beitraege zur Charakter- und Persoenlichkeitsforschung* (Whole No. 1). A. Francke, Bern, Switzerland. Allport, G. W., & Odbert, H. S. (1936). *Trait-names: A psycho-lexical study*. Psychological Monographs, 47, No. 211.

²⁵ Goldberg, L. R. (1981). Language and individual differences: The search for universals in personality lexicons. In L. Wheeler (Ed.), *Review of personality and social psychology*, (Vol. 2, pp. 141- 165). Beverly Hills, CA: Sage.

²⁶ <https://www.verywellmind.com/the-big-five-personality-dimensions-2795422> <https://positivepsychology.com/big-five-personality-theory/> Oliver P. John & Sanjay Srivastava, (1999) “The Big-Five Trait Taxonomy: History, Measurement, and Theoretical Perspectives” 5 march.

ratars. Important criterion of evaluation for a taxonomy is also the replicability across languages²⁷. Oliver P. John after having analyzed different studies²⁸, affirm that it is replicable across Germanic languages like German and Dutch and this taxonomy is also fairly replicable for other European languages, for example the Italian one which had results similar to Dutch. On top of that, the conclusions of De Raad et al (1999) affirm that the findings in seven languages show that the model is the best working hypothesis of an omnipresent trait structure.

Several studies have also proved the predictive validity of this taxonomy, the model therefore is capable to predict outcomes in people's lives. The experiments have managed to prove this point both on adolescents and on adults²⁹. There are also some studies that show evidence of an impact of the personality traits on the innovative behavior of consumers and on their consumption patterns in the food and technology markets. For example, consumers with high score on the personality trait openness tend to adopt innovative behavior far more than cautious consumers³⁰. Additionally, consumers who score high on conscientiousness tend to have dietary patterns in food consumption while consumers who consume much fiber tend to score higher on openness³¹. Finally, there is also some evidence of the predictive and explanatory ability of the model in the technology market, for

²⁷ John, O. P., Goldberg, L. R., & Angleitner, A. (1984). Better than the alphabet: Taxonomies of Personality-descriptive terms in English, Dutch, and German. In H. Bonarius, G. van Heck, and N. Smid (Eds.), *Personality psychology in Europe: Theoretical and empirical developments* (pp. 83-100). Berwyn: Swets North America Inc.

²⁸ Hofstee, W. K. B., Kiers, H. A., de Raad, B., & Goldberg, L. R. (1997). A comparison of Big-Five structures of personality traits in Dutch, English, and German. *European Journal of Personality*, 11, 15-31. De Raad, B., di Blas, L., & Perugini, M. (1998). Two independently constructed Italian trait taxonomies: Comparisons among Italian and between Italian and Germanic languages. *European Journal of Personality*, 12, 19-41. De Raad, B., Mulder, E., Kloosterman, K., & Hofstee, W. K. (1988). Personality-descriptive verbs. *European Journal of Personality*, 2, 81-96.

²⁹ Robins, R. W., John, O. P., & Caspi, A. (1994). Major dimensions of personality in early adolescence: The Big Five and beyond. In C. F. Halverson, J. A. Kohnstamm, and R. P. Martin (Eds.), *The developing structure of temperament and personality from infancy to adulthood* (pp. 267-291). Hillsdale, NJ: Erlbaum. John, O. P., Caspi, A., Robins, R. W., Moffitt, T. E., & Stouthamer-Loeber, M. (1994). The "Little Five": Exploring the nomological network of the five-factor model of personality in adolescent boys. *Child Development*, 65, 160-178. Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44, 1-26. Mount, M. K., Barrick, M. R., & Stewart, G. L. (1998). Five-Factor Model of personality and performance in jobs involving interpersonal interactions. *Human Performance*, 11, 145-165.

³⁰ Benoy J. & Shailesh J. V. (1984) "Concurrent validity of a measure of innovative cognitive style" *Academy of Marketing Science*, Journal of the Academy of Marketing Science Spring, 1984, Vol. 12, No. 2, 159-175

³¹ L.R. Goldberg, L.A. Strycker / *Personality and Individual Differences* 32 (2002) 49±65

example a study highlights the positive correlation between openness and consumer innovativeness³².

Food & technology markets

The food and technology markets are the chosen domains to assess the moderating effects of the consumer innovativeness in this research. They are both very large market domains, with several innovations and novelties each year and an increasing consumption pattern. Additionally, the characteristics of the products are inherently different.

The food market has been growing for the past ten years and the forecasts say that it should continue doing so in the future³³. Consumers shopping habits are changing and what is asked is often an enhanced shopping experience. Consumers want to have a social, leisure experience and this grants new opportunities and challenges to the market. In the future an increase of online shopping has been foreseen as well. About the desired food offers we have trends that can be defined as global because they are more or less the same in all the globe. International foods and flavors are being searched by consumers, who are willing to experience more and more new cuisines and foreign flavors. Consumers want also to be more connected to the food world and have control on their choices, they want to know even more where the products come from, their specifics, the processes the ingredients have gone through. Consumers tend to be motivated by variety seeking impulse, the will to try new experiences and the fear of missing out. There is also great emphasis on the freshness and the quality of the ingredients. More strictly speaking about innovation, we can affirm that consumers expect innovations³⁴, 63% of them is looking for new products while 56% would like to switch to a new brand and 49% of consumers tell their network about their recently bought products³⁵.

³² Oded Nov & Chen Ye (2008) "Personality and Technology Acceptance: Personal Innovativeness in IT, Openness and Resistance to Change" Proceedings of the 41st Annual Hawaii International Conference on System Sciences (HICSS 2008)

³³ Cushman & Wakefield (2017) "The global food and beverage market"

³⁴ Figiel S. & Kufel J. (2016) "FOOD PRODUCT INNOVATIONS AND THE MAIN CONSUMER TRENDS" Warsaw University of Life Sciences Press, *Oeconomia* 15 (3), 5-14

³⁵ Nielsen (2014). Nielsen Breakthrough Innovation Report – European Edition.

The technology market is expanding too. The global spending for technology has been steadily increasing in the last years, growing of 2,4% between 2015 and 2016 and of 4,6% between 2018 and 2019³⁶. The online spending for technology products is at the third place, after travel and fashion. This data tells us that the online spending for this industry has not followed the overall spending pattern, the main reason lies in the fears of consumers. They often still do not feel safe in purchasing technology products online and the lack of guarantee is a major issue. They feel much more at ease if there is a physical place where they can convey whatever problem there may be and if there is a “real” person whom they can talk to. This problem is particularly evident in the technology market, compared to other product classes, because of the risk that accompany the purchase. For example, in this market there is a consistent performance and financial that hinders innovativeness³⁷ and that can be avoided providing high levels of guarantee and inspiring trust. We can find a successful implementation of these guidelines in Spain, thanks to the excellent guarantee provided by BQ³⁸. About the innovation we can affirm that the pace of innovation has increased. For example, 94% of the respondents of a survey conducted by Accenture said that in their organization the innovation pace has accelerated or significantly accelerated. All this information makes this market together with the food market a very interesting domain for this research.

Hypotheses

The information collected through the literary review allows me to make three hypothesis that I will test during this research:

- H1 “Consumer innovativeness is higher in the bakery segment than in the electronic segment”
- H2 “Lower levels of the personality trait Conscientiousness lead to higher consumer innovativeness in the food market than in the technology market”

³⁶ <https://www.statista.com/statistics/886397/total-tech-spending-worldwide/>

³⁷ Tanawat Hirunyawipada & Audhesh K. Paswan, (2006) “Consumer innovativeness and perceived risk: implications for high technology product adoption” *Journal of Consumer Marketing* 23/4 182–198

³⁸ <https://www.doofinder.com/en/blog/best-selling-products-on-the-internet>

- H3 “The personality trait neuroticism has a bigger influence on the consumer innovativeness in the food market than in the technology market”.

About H1, there are two main elements that suggest us to expect a higher consumer innovativeness in the food market than in the technology market. First of all, the consumer’s perceived risk is far different between the two product classes. In the technology market we have higher social and physical risk that push consumers to look for more information before considering the purchase of a novel product. Besides, there is also higher financial risk which even prevents people from searching related information (Tanawat Hirunyawipada and Audhesh K. Paswan, 2006). This happens because electronic products are averagely more costly by far than bakery products or food products of daily consumption. Furthermore, a tech product lasts longer and it can be used also in social contexts. Other people can see the product and that product can convey an image of its user. These elements make the two product classes have very different risks. The risk has been negatively correlated to consumer innovativeness, thus I expect it to play a significant role in this research. The other element that can suggest a difference in consumer innovativeness between the two markets is one of the main trends of the food market. As already discussed in the previous paragraph, the desire to try new cuisines and novel food offerings has been increasing worldwide. The variety-seeking behavior and the fear of missing out are growing more and more in the occidental countries and they are contributing to make the consumer innovativeness of this market grow.

Concerning H2, we expect that the lower the levels for conscientiousness are the higher the increase in consumer innovativeness will be. Moreover, the increase will be significantly higher in the food market. This happens because high conscientiousness levels are associated to risk avoidance behaviors and this has been seen in different domains (negatively correlated to risk taking behaviors)³⁹. As we have said, adopting novel products has always a degree of risk for the consumers, they are purchasing a product with new functionalities they have no direct experience of. Thus, I expect consumers who score highly on the personality trait conscientiousness to be very cautious even if the inherent risk of the product is not high and so be cautious of both novel electronic products and food offerings. Meanwhile, consumers who score low on this personality

³⁹ Reinout E. de Vries *, Anita de Vries, Jan A. Feij, (2009) “Sensation seeking, risk-taking, and the HEXACO model of personality” Elsevier Personality and Individual Differences 47 536-540

Rick H. Hoyle Michele C. Fejfar Joshua D. Miller, (2000) “Personality and Sexual Risk Taking: A Quantitative Review” Journal of Personality 68:6

trait will tend to be less and less cautious the less the risk is. For this reason, I expect them to be more highly innovative in food offering then in tech offerings.

In the end, we have the third hypothesis. From the data at my disposal I have no information or findings that suggest the personality trait neuroticism to have an effect in the tech market. But there are some studies that affirm its influence on the food consumption⁴⁰. Consumers with anxiety, depression, social fears are the ones who are the most likely to have eating disorders, to not control their eating habits or to engage in high restrained eating practices. I am not sure about what to expect from the impact of this moderator on the consumer innovativeness in the food market, but it is possible to have some differentiated effect.

Methods and materials

Participants

For the research two groups of respondents were needed. The goal is to test the direct effect of two different product classes on consumer innovativeness and the moderating effect of personality traits on this relationship. In order to achieve this result, it was mandatory to have at least two groups of respondents, one per each industry. The responses used for this research are 62 in total, 30 for the group linked to the food market, represented by the bakery segment, and 32 for the group linked to technology market, represented by the earphones segment. All the respondents are between 18 years old and 54 years old. The majority of the respondents for both groups are between 18 years old and 24 years old. The “bakery” group has a slighter younger sample: its percentage of respondents who are between 18 and 24 years old is 60% while the percentage of respondents with the same age in the “earphones” group is 54%. At the same time the respondents who are between 45 and 54 years

⁴⁰ Patrick C.L. Heaven, Kathryn Mulligan, Robyn Merrilees, Teneille Woods, and Yasmeen Fairouz (2001) “Neuroticism and Conscientiousness as Predictors of Emotional, External, and Restrained Eating Behaviors”

old amount to 13% for the “bakery” group and to 16% for the “electronic” group. However, this difference in age between the groups is slight and it does not cause any statistical difference to the groups. Also, the gender distribution between the two groups is very similar. The percentage of male respondents is 59% for the “bakery” group and 57% for the “electronic” group. The overall collected responses were 74, but I had to discard 12 of them. Some responses were not completed, while others have not been deemed valid and reliable for two main reasons. The first reason is that the time spent to answer the questionnaire was far shorter than all the other respondents and it is very unlikely that in that so short time any person could have read with attention the questions and answered in an appropriate way. The second reason was the homogeneity of the answers of the same respondents who took much less time to respond. The patterns of their answers could easily suggest a lack of attention for the task, because the answers close to each other had all the same values. This is why out of 74 responses only 62 have been taken into account.

The respondents have been reached through messaging platforms like WhatsApp and Telegram and they have accessed the survey thanks to an anonymous link. They were clear about the fact that their answers would have been anonymous and that the data were collected and used as aggregate data and no personal info would have been shared with outsiders. The respondents have been chosen at couple, one for each group. The chosen in couple respondents have similar characteristics, such as level of instruction, social extraction, age, study domain or work field. This was done in order to have in each group a sample with similar characteristics so that to minimize the possibility to have extraneous variables that could bias the results of the research.

Questionnaire

First of all, being the sample composed of Italian speakers the questionnaire has been entirely written in Italian. In developing it, the first criterion to follow was the information need. The questionnaire must be able to collect all the information needed for the research. The information needed for both groups are the consumer innovativeness related to the referring market and an evaluation of the personality traits of each respondent.

About the consumer innovativeness I have looked for items with adequate validity and reliability that could measure consumer innovativeness for any market. It is important for a measure of a

construct and furthermore for a construct as the consumer innovativeness, to have a clear, precise and declared degree of abstraction⁴¹. In the reviewed literature we have seen that the global innovativeness, the first hierarchical level of innovativeness, influences the other levels of innovativeness and it is not the best predictor of consuming patterns. Additionally, this construct is extremely difficult to directly assess, and it is usually measured through its manifestations, for example the consumption of novel products. For Pierre Le Louarne (1997) it is particularly interesting a level of abstraction that takes into account the overall products. Here he finds three main manifestations of the innovativeness:

- Variety seeking;
- Autonomy in the innovation process;
- Propensity to take risks while looking for the novelty.

At a narrower level we have the product class, but as also Pierre Le Louarne affirms, the innovativeness in a specific product class is given by other factors and that is the domain specific innovativeness. Thus, in developing a scale that can measure the innovativeness of consumers in every market, as the one that is needed in this research, it is fundamental to take into account the three mentioned above factors. I have preferred to use the scale designed by Pierre Le Louarne. It is a scale that can be used in different markets and domains and it is what is needed for this research. The scale is articulated in 11 items, 3 items are correlated to the variety seeking factor, 4 items are correlated to the “autonomy” factor and finally 4 items are correlated to the last factor. Here you can find two examples of the used items:

- I ask to people who have bought new products their opinion before purchasing those products;
- If I buy a new product, I exclusively buy well-known brands.

You can find all the used items at the figure 1 in the appendix. The original items are displayed by the figure 2.

In order to evaluate the consumer innovativeness related to the two markets, technology and food, the respondents were asked to answer these items taking into account the product shown in the

⁴¹ Pierre Le Louarn. La tendance à innover des consommateurs: analyse conceptuelle et proposition d'une échelle de mesure. *Recherche et Applications en Marketing (French Edition)*, SAGE Publications, 1997, 12 (1), pp.3-19.

picture just before the items. In the “bakery” group the picture was about bakery products while in “earphones” group the picture was about “earphones”. You can find these pictures in the appendix, respectively at the figures 3 and 4.

The second construct to measure is the personality traits. As the literary review suggested, I have used the Big Five construct as a base. After having defined the referring theory, I have proceeded in selecting the most suitable scale to evaluate people’s consumer traits. The most used questionnaires based on the Big Five theories are the following:

- NEO questionnaires, which are the best-validated Big Five measures in the questionnaire tradition;
- Goldberg’s (1992) 100-item TDA, which is the most used measure of single adjectives;
- BFI 44-item, which has been frequently used in research thanks to the 44 short phrases that provide a good context for the answers and are not difficult or too time consuming to process.

The reliabilities of these three measures have been evaluated and compared. The highest alphas (mean of .89) were attributed to the longer TDA scales, followed by BFI (.83) and NEO-FFI (.79) (Oliver P John & Sanjay Srivastava 1999). John and Srivstava have done also other tests, for example they have tested the cross-instrument convergence. The results were that the highest convergence was between BFI and TDA measures. After many tests and literary reviews, they concluded that using the BFI measures in research gives many advantages. Its predictive validity has been shown and proved. It is efficient, it takes less time than the other measures and its items are also easy to understand and give enough details to have accurate answers. It has been defined to be on several core aspects at least as good as the other two measures. Given the nature of my research it is the best option indeed. Thus, I have used this measure to evaluate the personality traits of all the respondents, here you can find two examples of the items of this measure:

- I see myself as someone who is talkative;
- I see myself as someone who can be cold and aloof.

You can find all the used items in the appendix at the figure 5 and the original items at the figure 6 (the language changes).

Procedure

I have started this research looking for data and findings that could guide my search and be a source of inspiration. After having found satisfying data and works concerning the constructs of consumer innovativeness and the personality traits, I have started designing the first questionnaire. I had designed two questionnaires, one per group, using the innovativeness measure and personality trait scale that I have mentioned in the previous paragraph. Before starting the survey reaching all the defined respondents a little test has been run, with a very limited sample. Through a process of trial and error the mistakes, imperfections and not elegant elements of the survey have been corrected. After having run this test, the survey has been sent to the respondents following the aforementioned sampling criteria. Unfortunately, this first try was not successful, the answers were very similar to one another and it seemed to be no relevant difference between the two groups. The main problem was the applied manipulation, in particular the consumer innovativeness evaluation. Instead of projecting the respondents of the two groups in buying process of a specific product, with the help of an image, I had proceeded differently. In one group consumers were asked to take into account the food market, without using any picture. In the other group was asked to not take into account any specific class of product or market. This was very general and likely just the words failed to project people in the event. Thus, another survey was prepared with the two questionnaires I have already described. As in the first try I have done a test with a very limited sample to make sure that there were no issues. After everything seemed alright, I started spreading the survey, reaching the defined respondents via messaging apps like Telegram or WhatsApp. The survey has reached 74 for respondents, 37 for each group. Not all the responses have been used, only the ones that have satisfied the criteria mentioned before. The criteria were mainly three:

- To complete the survey the respondent had to spend a minimum amount of time, 3 minutes (the large majority of the respondents has spent more than 4 minutes);
- The survey had to be completed;
- No evident signs of no seriousness could be accepted (e.g., the same answer for many consecutive questions, this repeated more than once).

One of the main problems concerning the self-reported measures is the possibility that respondents don't pay attention to the answers they give. I am fully aware that is not possible for me to fully

address this issue but at least I can try to limit it. This is why I have selected these three criteria for accepting the responses to take into account for the research. After having received and selected all the answers, I have used the answers of the respondents to calculate their consumer innovativeness in the referring market and their personality traits. Once the five personality traits and the innovativeness has been calculated for each respondent in both groups, the data have been analyzed and the results studied.

Analyses

The collected and prepared data have been processed with SPSS, using the moderation model 1⁴². This model is the most suitable model in case there is an independent variable, a dependent variable and a moderator. The following are the three hypotheses to test:

- H1 Consumer innovativeness is higher in the bakery segment than in the electronic segment;
- H2 Lower levels of the personality trait Conscientiousness lead to higher consumer innovativeness in the bakery market than in the electronic market;
- H3 The personality trait neuroticism has a bigger influence on the consumer innovativeness in the bakery market than in the electronic market.

In order to verify the hypotheses, we have added to the model the market segments as independent variables, the consumer innovativeness as the dependent variable and the personality traits as the moderators of the relation between the independent and the dependent variables. The model has run twice, the only difference between the two analyses is the used moderator. The first time it was the personality trait “Conscientiousness” and the second time it was the personality trait “Neuroticism”. In the first run it has analyzed firstly, the direct effect of the independent variables on the dependent variable. Secondly, the moderation effect of the moderator on this relationship. The same has happened in the second run, with the only difference that the moderator was not the same as before. Finally, also the possible correlation between the two personality traits used as moderators has been analyzed.

⁴² Andrew F. Hayes (2013) “Introduction to Mediation, Moderation and Conditional Process Analysis”

Results

The obtained results can be deemed to be positive. First of all, the two moderators “Conscientiousness” and “Neuroticism” are not correlated. Then we have findings that suggest the hypothesis were right and we do not need to reject them.

H1 “Consumer innovativeness is higher in the bakery segment than in the electronic segment”

To test this hypothesis, I had to look at the direct effect of the independent variables on the dependent variable. The model has run twice and thus it has analyzed twice this effect. The two results have minimal differences that cannot in any way lead to different conclusions or findings, thus I am here reporting only the results of the first run for this hypothesis. You can find the full data in the appendix, at the figure 7. The model has a $p(F=6.2543)=0.0009$ so it is significant. Now we can look at the results. The coefficient of the independent variable effect is -35.1228. The $t=-2.4796$ and the $p=0.0161<0.05$. The interval goes from -63.4764 to -6.7692. The given coefficient and interval (there is no 0) tell us that there is a direct effect of the independent variables on the dependent variable. The p value is less than 0.005, thus we can affirm that this result is significant at 95%.

H2 “Lower levels of the personality trait Conscientiousness lead to higher consumer innovativeness in the food market than in the technology market”

I can take the data to test this hypothesis from the first run of model 1. This is the first model run used for hypothesis one. Thus, the model is significant because p value is less than 0.05 (0.0009). To test the hypothesis, I can first of all confirm that the moderator, in this case it is the personal trait Conscientiousness, has a negative effect on the dependent variable: the coefficient is -0.9956 $t=-2.7886$ and $p=0.0071<0.05$. This means that the direct effect of the moderator on the dependent variable is indeed negative with a significance of 95%. About the moderator effect of the moderator on the relationship between the dependent and independent variables: the coefficient is 0.4184 $t=1.8967$ and $p=0.0629$. Thus, the effect is significant at 90% and there is indeed a moderator effect. Additionally, it is possible to affirm that the moderator effect is significant in the low part of the values of the moderator. The moderator effect is significant for scores high up to 65.1901%. For

further information about the data provided by the model you can have a look at the figure 8 in the appendix.

H3 “The personality trait neuroticism has a bigger influence on the consumer innovativeness in the food market than in the technology market”.

The second run of the model has provided the data useful to confirm this hypothesis. The model has a $p(F=3.1810) = 0.0305$. This p value is inferior to 0.05, so the model is significant. As before the negative direct effect of the moderator on the dependent variable is proved: coefficient is equal to -0.7962, $t=-2.0648$ and $p=0.0434 < 0.05$. Thus, this is significant at 95%. The very interesting data to analyze are the ones referred to the moderation effect of the moderator on the direct effect that the independent variables have on the dependent one. In this case the coefficient is equal to 0.3963, $t=1.6730$ and $p=0.0997$. Thus, the moderation effect is significant at 90%. The moderator has a statistical relevant different effect on the relation between the variables for values up to 48.5772. So, the moderation effect is significant for the lower part of the values, a case similar to the one discussed in the H2 results. If you are interested in more details about this model, you can find the model summary in the appendix at the figure 9.

If you are interested in a graphic representation of the results for H2 and H3, you can have a look at respectively figure 10 and 11.

Discussion

As it has been possible to affirm, given the results of the analyses, all the hypotheses have been confirmed. The average consumer innovativeness between the two markets has been proved to be significantly different. This difference can be mostly explained by two points:

- The recent trends in the food market, which has seen increasing consumers desire for novel products, different cuisines and strong variety seeking behaviors;
- The risk that follows the adoption of innovative electronic products is higher than the risk related to food offerings. Firstly, novel electronic products are usually far more costly, and this leads to a rise in the financial risk. Secondly,

electronic products can be used also in social contexts and their image can affect the way their users are seen by their community. This is called the social risk, so the impact that the adopted product has on the social context of the consumer. Studies have shown that the higher the risk is the lower the consumer innovativeness tends to be.

The cautious attitude of some consumers towards the electronic products is signaled also by the decrease in electronic products purchased online. People want to be reassured that they can gain the best value out of their money and that whatever problem there may be there is a reassuring person they can rely upon. This is why many consumers prefer to go to physical shops and purchase products they already know, from established brands they already trust, asking for information to physical person that are there, next to them, ready to make their doubts dissipate. Meanwhile, on the food side, consumers are looking for experiences, novel stimuli that can entertain them. Consumers are more and more ready to experience novel purchase and delivery processes, opening to the digital interaction and online purchasing of food offerings. What they want to be reassured on is the quality of the ingredients, their origin, their characteristics. Their main concern here is not about status or the received value, but it is related to how safe the used ingredients are, if the production process is in harmony with their beliefs and values, if the product resonates with their view and inspiration. It is becoming an experience, where consumers can take part in a movement, an idea, a fight or a community, simply consuming a product that comes from a specific place or whose ingredients have been processed in a particular way.

There is a difference between the two markets also in the way the personality traits affect consumer innovativeness. Some personality traits do not seem to have a differential effect between the two market, for example the personality trait “openness” leads to an increase in consumer innovativeness independently from the domain of reference. But this research has led to confirm also the second and third hypotheses and therefore to affirm that the personality traits “conscientiousness” and “neuroticism” have differential effects on consumer innovativeness depending on the referring market. In particular, the personality trait “Conscientiousness” has been negatively correlated to consumer innovativeness in both markets. Additionally, for lower values of this personality trait, the increase in consumer innovativeness in the bakery segment has been found to be greater than the increase in consumer innovativeness in the electronic segment. This result fully confirms the hypothesis, but the data show other elements if a more in-depth analysis is done. In fact, the difference of the impact of the personality trait on the consumer innovativeness in the two market is significant only for low values of the personality trait itself. This means that for high

values of the personality trait “Conscientiousness” there is no much difference in the consumer innovativeness between the two market segments. The higher the moderator values are, the less influent the difference is. The difference in the moderating effects ceases to be significant for values in Conscientiousness higher than 65.19. This is very interesting, furthermore when the value of the moderator is around 84.00, we have the same consumer innovativeness for both markets. This basically means that when consumers score high on the personality trait conscientiousness, they tend to have the same, low, consumer innovativeness in both market segments. Taking into account this data and the information processed in the literary review about the risk-avoidance patterns of the individuals who score high on this personality trait, I think that a first hypothesis on the reasons behind this phenomenon can be done. Overly cautious individuals, so individual who have very high score on conscientiousness, tend to make very safe choices independently of the inherent risk of the choice. They want to make sure everything they do has been thought through, that they know what happens next and the effects of their actions. This may lead them to face everything in a scheduled, planned, safe way. Thus, the inherent risk of the novel product has much less impact for them because they want to do safe choices no matter what. Meanwhile, at decreasing levels of this personality trait, consumers tend to be more innovative and risk-taking where the risk is lower. This could explain the obtained results.

Also, the other personality trait, neuroticism, has a differential effect on the consumer innovativeness in the two market segments. The moderating effect is very similar to what it has been possible to see for the conscientiousness personality trait. Going more in-depth, this personality trait seems to not have any influence on the consumer innovativeness in the electronic segment. Differently, the effect it has on the bakery segment is very clear: the lower the values of the personality trait are, the higher the consumer innovativeness is. Similarly to H2, also here there is a significant difference for the lower values of the moderator. There is a significant difference between the consumer innovativeness of the two market segments for values not higher than 48.5772. It was expected that the moderator, in this case, would have some effect in the bakery segment instead of the electronic segment, but it was not possible to clearly foresee the entity of this effect. As it has been discussed in the literary review, there are studies that highlight the impact of neuroticism on eating behaviors. But very little can be found about its influence in other segments. Furthermore, its impact on the consumer innovativeness has been deemed by some studies negative, but usually inferior compared to the other personality traits. The reason for which the impact of neuroticism is so evident in the food market and almost invisible in the technology market, could be found in the role played by the emotions. Neurotic individuals are can be moody, anxious, depressed. They may tend to fear social contexts and norms and disregard them at the same time.

The most important element here is the emotional instability, the fact they tend to have changes of emotions, they tend to feel anxious in social contexts and also, they may tend to fear social interactions. In a context of stress, where people feel to be under pressure, where they feel to be exposed to the judgement of the society, they tend to act in a more scheduled and systematic way. These individuals, in this kind of context, tend to be less open to process new information. This would lead to a lower consumer innovativeness. This is even more true if the purchase environment can be hardly controlled, as the one for bakery products (usually you cannot purchase the desired products from home, in the safety of your walls, you have to go out in a mall or supermarket). Besides, neurotic people can tend to have eating disorders or feel anxious and depressed towards their relationship with the food. When this happens, there can be a similar effect to what has been previously explained and they tend to avoid new stimuli and information that remind them of their bad perceived relationship, or worse that lead them to face that relationship. This may explain the results and so the reasons why consumers who score low on neuroticism tend to be highly innovative, following the trend for the food market, while the consumers who have high values of this moderator tend to be much less innovative. The results show that consumers who have score of 70 on the personality trait neuroticism are as innovative in the food market as in the technology market. This happens even if, as it has already been said, the inherent risk for electronic products is higher than bakery products. In top of that, the two moderators (neuroticism and conscientiousness) are not correlated. This can signify that there is no common factor which cause highly conscious and neurotic consumers to behave in a similar way, considering their innovativeness in these two markets. Therefore, the reasons behind their attitude should be different and this is why I believe that, given the available data, the two suggested hypotheses are the most likely and coherent ones.

My suggestions for the professionals who work in the electronic segment and more generally in the technologic market, is to reassure consumers in any possible way. Their investment in novel options run several risks and the first option to bring them to consider the new offerings is to make the fears and avoidance factors disappear. An example of this is a very effective guarantee program developed by BQ in Spain, which has resulted in an increase of online purchase of electronic products. For the professionals working in the food and bakery markets, my suggestion is to dare. They can dare now, they can try new stuff, they can market novel products, they can show multicultural offerings, the consumers are ready for this. At the same time, it is important to shut down consumers' doubts and suspicions even before they are born: be clear on the origin of the products, explain the process the ingredients have gone through, show certifications if there are, do not pretend if there are not. Another advice is to consider the geographical area where they are marketing the products. This research has not controlled the geographical variable and there may be

differences in the attitude to adopt new food offerings depending on the area. The professionals should look into this too to make sure to do the right choice.

This study highlights once again the importance and the impact of the personality on the adoption of novel products. Furthermore, this research has shown important findings on the different impact personality traits can have on different markets. The professionals must be aware that they can dig in, that they can start in-depth analyses on their referring market to assess the impact of personality traits and develop an ad hoc targeting. While in the electronic segment there are no big differences the personality traits analyzed show to have a significant impact. This may suggest to professionals that they have more ground to dig in to make further target segmentation, identifying more specific persona, creating ad hoc offerings for them.

Limits and future research

Even though the hypotheses have been confirmed and so the research has managed to show some patterns, there are several limitations to this research. First of all, the sample size was not big. Furthermost it was not big at all to assess if two moderators together could have a different effect depending on the referring market. This has likely limited both the number and the significance of the findings.

Another limit of the research lies in the answers of the respondents. There is no way to be sure that the respondents have answered truthfully and paying the due attention. I have not promised them any economic incentive or valuable token. This is also why I could only use 62 out of 74 for responses, as I have explained before. The only try to motivate the respondents has been promising to share with them the results of the research, if they are interested, but I reckon that this is not a good enough solution to the issue.

In addition, also the chosen product classes may be considered a limit. In order to define a clear image for the referring market in the mind of the consumers I have chosen two pictures to represent the related product class. A picture of a pair of earphones, as an electric product and a picture with an ensemble of bakery products, so breads and croissants. I have used the data gathered around these two pictures, for estimating the consumer innovativeness in the electronic market and the bakery market. I cannot exclude that the inherent characteristics of those pictures have biased the results.

Lastly, the sample has been controlled concerning the variables of age and gender, but the geographical diffusion of the sample has not been controlled. This might result in introducing an extraneous variable in the analyses that may have partially biased the results, the geographic origin of the respondents.

I see, though, the potential for future research here. Notwithstanding the several limitations of this research, some interesting findings have come up and there is space for further analyses indeed. It can be interesting and useful to try a similar test with different pictures of products pertaining to the food market and technology market. Another direction to investigate could be adding other domains to the research, for example the real estate market or the journey trip offerings.

Conflict of interest statement

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Appendix

Figure 1

1. Sono il tipo di persona che cercherà almeno una volta un prodotto completamente nuovo
2. Quando sento parlare di un nuovo prodotto approfitto della prima occasione per informarmi di più in merito
3. Quando vedo una nuova marca che è abbastanza diversa dalle marche tradizionali la provo
4. Chiedo l’opinione di chi ha provato nuovi prodotti o nuove marche prima di comprarli*
5. Dò molta importanza a ciò che pensano i miei amici per acquistare un nuovo prodotto*
6. Prima di provare un nuovo prodotto provo a sapere cosa ne pensano i miei amici che già lo posseggono*
7. Credo sia inutile chiedere consiglio a chi ti circonda prima di acquistare un prodotto nuovo
8. Preferirei comprare una marca che compro abitualmente piuttosto che comprare qualcosa di cui non sono sicuro*
9. Se compro un prodotto nuovo compro esclusivamente marche conosciute*
10. Non compro mai qualcosa di cui non ho informazioni, prendendo il rischio di fare un errore*
11. Sono molto prudente riguardo il provare prodotti nuovi o diversi*

*Reversed items.

Figure 2

1. Je suis le genre de personne qui essaierait tout nouveau produit au moins une fois
2. Quand j'entends parler d'un nouveau produit, je profite de la première occasion qui m'est donnée d'en savoir plus à ce sujet
3. Quand je vois une nouvelle marque quelque peu différente des marques habituelles, je l'essaie
4. Je recherche l'avis de ceux qui ont essayé de nouveaux produits ou de Nouvelles marques avant de les acheter*
5. J'attache beaucoup d'importance à l'avis et aux conseils de mesa mis pour l'achat d'un nouveau produit*
6. Avant d'essayer un nouveau produit, j'essaye de savoir ce qu'en pensent les amis qui possèdent ce produit*
7. J'estime qu'il est inutile de demander conseil à son entourage avant d'acheter un nouveau produit
8. Je préférerais choisir une marque que j'achète habituellement plutôt que d'essayer quelque chose dont je ne suis pas sur*
9. Si j'achète un nouveau produit, je n'achète que des marques connues*
10. J n'achète jamais quelque chose dont je ne sais rien en prenant le risque de faire une erreur*
11. Je suis très prudent en ce qui concerne le fait d'essayer des produits nuoveaux ou différents*

*Reversed items.

Figure 3



Figure 4



Figure 5

I see Myself as Someone Who:

- 1) Is talkative
- 2) Tends to find fault with others
- 3) Does a thorough job
- 4) Is depressed, blue
- 5) Is original, comes up with new ideas
- 6) Is reserved
- 7) Is helpful and unselfish with others
- 8) Can be somewhat careless
- 9) Is relaxed, handles stress well
- 10) Is curious about many different things
- 11) Is full of energy
- 12) Starts quarrels with others
- 13) Is a reliable worker
- 14) Can be tense
- 15) Is ingenious, a deep thinker
- 16) Generates a lot of enthusiasm
- 17) Has a forgiving nature
- 18) Tends to be disorganized
- 19) Worries a lot
- 20) Has an active imagination
- 21) Tends to be quiet
- 22) Is generally trusting
- 23) Tends to be lazy
- 24) Is emotionally stable, not easily upset
- 25) Is inventive
- 26) Has an assertive personality
- 27) Can be cold and aloof
- 28) Perseveres until the task is finished
- 29) Can be moody
- 30) Values artistic, aesthetic experiences
- 31) Is sometimes shy, inhibited
- 32) Is considerate and kind to almost everyone
- 33) Does things efficiently
- 34) Remains calm in tense situations
- 35) Prefers work that is routine
- 36) Is outgoing, sociable
- 37) Is sometimes rude to others
- 38) Makes plans and follows through with them
- 39) Gets nervous easily
- 40) Likes to reflect, play with ideas
- 41) Has few artistic interests
- 42) Likes to cooperate with others
- 43) Is easily distracted
- 44) Is sophisticated in art, music, or literature

BFI scale scoring (“R” denotes reverse-scored items):

Extraversion: 1, 6R, 11, 16, 21R, 26, 31R, 36 Agreeableness: 2R, 7, 12R, 17, 22, 27R, 32, 37R, 42 Conscientiousness: 3, 8R, 13, 18R, 23R, 28, 33, 38, 43R Neuroticism: 4, 9R, 14, 19, 24R, 29, 34R, 39 Openness: 5, 10, 15, 20, 25, 30, 35R, 40, 41R, 44

Figure 6

1. E' loquace

2. Tende a trovare difetti negli altri
3. Quando fa un lavoro tende a completarlo con attenzione
4. E' spesso triste o depressa
5. E' originale, spesso ha idee innovative
6. E' riservata
7. Aiuta gli altri e non è egoista
8. Può essere negligente o incurante
9. E' rilassata, riesce bene a gestire lo stress
10. E' curiosa verso una moltitudine di cose
11. E' piena di energia
12. Inizia facilmente liti con altri
13. E' un lavoratore affidabile
14. Può facilmente diventare tesa o nervosa
15. E' ingegnosa, un "deep thinker"
16. Entusiasma e coinvolge
17. Tende a perdonare
18. Tende a essere disorganizzata
19. Si preoccupa molto
20. Ha una fervida immaginazione
21. Tende a essere tranquilla
22. Mediamente si fida degli altri
23. Tende a essere pigra
24. E' emotivamente stabile, si irrita difficilmente
25. Ha inventiva
26. E' assertive
27. Può essere fredda e distaccata
28. Persevera finché non porta a termine ciò che sta facendo
29. Può facilmente avere cambiamenti di umore
30. Dà valore a esperienze artistiche e estetiche
31. E' talvolta timida o inibita
32. E' premurosa e gentile verso quasi tutti
33. Fa le cose in modo efficiente
34. Rimane calma in situazioni difficili
35. Preferisce un lavoro di routine
36. E' estroversa, socievole
37. E' talvolta rude e non gentile verso altre persone
38. Fa piani e li segue nel tempo
39. Si innervosisce facilmente
40. Ama riflettere, le piace giocare con le idee
41. Ha diversi interessi artistici
42. Coopera con gli altri con piacere
43. Si distrae facilmente
44. Si considera bene informata e apprezzatrice di arte, musica o cinema

Figure 7

```

*****
OUTCOME VARIABLE:
Innovati

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .3759      .1413    259.4825    3.1810    3.0000    58.0000    .0305

Model
      coeff      se      t      p      LLCI      ULCI
constant    101.4911    19.3917    5.2337    .0000    62.6742    140.3080
Conditio    -27.5550    11.7202    -2.3511    .0221   -51.0157    -4.0943
Neuro       -.7962     .3856    -2.0648    .0434   -1.5680    -.0243
Int_1       .3963     .2369     1.6730    .0997    -.0779     .8704

```

Figure 8

```

Conditional effect of focal predictor at values of the moderator:
Conscien      Effect      se      t      p      LLCI      ULCI
19.0000    -27.1725    10.1941    -2.6655    .0099   -47.5783   -6.7666
22.7500    -25.6033     9.4331    -2.7142    .0087   -44.4859   -6.7208
26.5000    -24.0342     8.6843    -2.7676    .0076   -41.4177   -6.6506
30.2500    -22.4650     7.9510    -2.8254    .0065   -38.3807   -6.5493
34.0000    -20.8959     7.2380    -2.8870    .0055   -35.3844   -6.4073
37.7500    -19.3267     6.5520    -2.9498    .0046   -32.4420   -6.2115
41.5000    -17.7576     5.9023    -3.0086    .0039   -29.5723   -5.9429
45.2500    -16.1884     5.3022    -3.0531    .0034   -26.8021   -5.5748
49.0000    -14.6193     4.7707    -3.0644    .0033   -24.1690   -5.0695
52.7500    -13.0501     4.3330    -3.0118    .0038   -21.7236   -4.3766
56.5000    -11.4810     4.0198    -2.8561    .0059   -19.5275   -3.4344
60.2500     -9.9118     3.8616    -2.5668    .0129   -17.6416   -2.1820
64.0000     -8.3427     3.8773    -2.1517    .0356   -16.1040    -.5814
65.1901     -7.8447     3.9189    -2.0017    .0500   -15.6893    .0000
67.7500     -6.7735     4.0650    -1.6663    .1010   -14.9105    1.3634
71.5000     -5.2044     4.4027    -1.1821    .2420   -14.0173    3.6086
75.2500     -3.6352     4.8592    -.7481     .4574   -13.3620    6.0916
79.0000     -2.0661     5.4045    -.3823     .7036   -12.8845    8.7524
82.7500     -.4969     6.0146    -.0826     .9344   -12.5365   11.5426
86.5000      1.0722     6.6716     .1607     .8729   -12.2825   14.4270
90.2500      2.6414     7.3630     .3587     .7211   -12.0974   17.3802
94.0000      4.2105     8.0800     .5211     .6043   -11.9635   20.3846

```

Figure 9

Conditional effect of focal predictor at values of the moderator:

Neuro	Effect	se	t	p	LLCI	ULCI
6.0000	-25.1774	10.4015	-2.4205	.0186	-45.9985	-4.3564
9.7500	-23.6915	9.5922	-2.4699	.0165	-42.8925	-4.4904
13.5000	-22.2055	8.7982	-2.5239	.0144	-39.8171	-4.5939
17.2500	-20.7195	8.0239	-2.5822	.0124	-36.7812	-4.6579
21.0000	-19.2335	7.2757	-2.6435	.0105	-33.7974	-4.6696
24.7500	-17.7476	6.5624	-2.7044	.0090	-30.8838	-4.6113
28.5000	-16.2616	5.8969	-2.7576	.0078	-28.0656	-4.4575
32.2500	-14.7756	5.2971	-2.7894	.0071	-25.3790	-4.1722
36.0000	-13.2896	4.7878	-2.7757	.0074	-22.8736	-3.7057
39.7500	-11.8037	4.4005	-2.6823	.0095	-20.6124	-2.9950
43.5000	-10.3177	4.1694	-2.4746	.0163	-18.6638	-1.9716
47.2500	-8.8317	4.1208	-2.1432	.0363	-17.0805	-.5829
48.5772	-8.3058	4.1493	-2.0017	.0500	-16.6116	.0000
51.0000	-7.3457	4.2610	-1.7239	.0900	-15.8751	1.1836
54.7500	-5.8598	4.5726	-1.2815	.2051	-15.0129	3.2934
58.5000	-4.3738	5.0239	-.8706	.3876	-14.4303	5.6827
62.2500	-2.8878	5.5810	-.5174	.6068	-14.0595	8.2839
66.0000	-1.4018	6.2156	-.2255	.8224	-13.8438	11.0401
69.7500	.0841	6.9064	.0122	.9903	-13.7405	13.9088
73.5000	1.5701	7.6380	.2056	.8379	-13.7192	16.8594
77.2500	3.0561	8.3999	.3638	.7173	-13.7584	19.8705
81.0000	4.5420	9.1846	.4945	.6228	-13.8430	22.9271

Figure 10

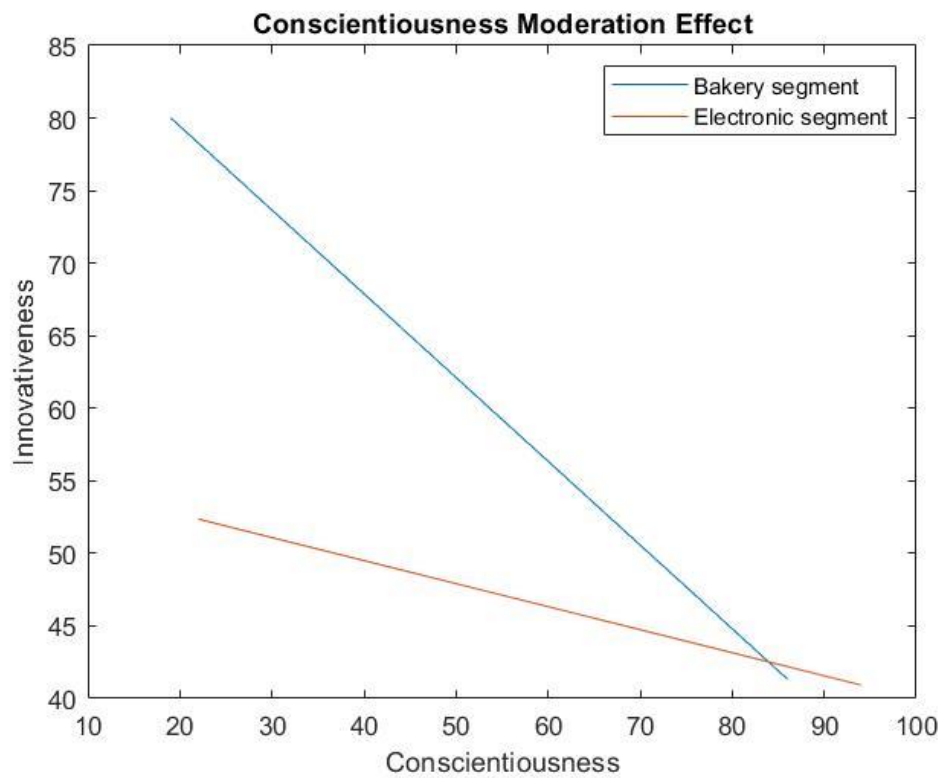
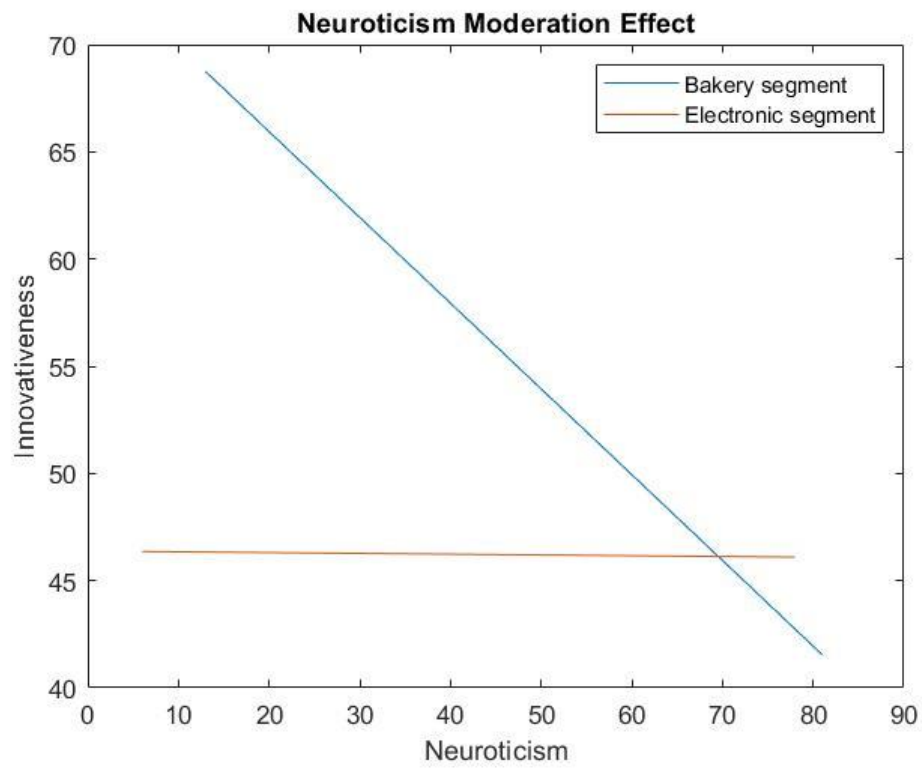


Figure 11



Synthesis

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Introduction

Many strategic decisions companies make are related to product innovation. Innovation is of the utmost importance for the processes, products, services, experiences every organization wants to stage. In order for companies to successfully market their innovations it is necessary to trigger the critical mass needed to spread innovations. Consumer innovators and early adopters are extremely useful to help spreading innovations (Rogers, 1962/1983/1995/2003)⁴³, furthermore in the modern society most industries have network or information effects and this phenomenon leverages even more the impact of their role. Thus, it is fundamental to have a deeper understanding of the characteristics of the innovators, in general and in the specific market where a company may operate. In this research the focus is on the personality traits of the consumers and their role in altering the domain consumer innovativeness of consumers. The research will give a quick look at the main theories which study the personality traits and will use the personality traits as moderators, to assess if they affect the consumer innovativeness in two different markets with a differential impact. The main aim is not to show that personality traits and consumer innovativeness are linked, this has already been done by the past literature. The true aim is to assess if the personality traits impact consumer innovativeness to a degree depends on the referring class of products or market. When consumers are involved in the purchase decision process of different products, the needs they want to satisfy or goals they want to achieve may depend on the product. Also, the emotions involved might change and this opens the possibilities to researches and to a further persona building by the part of the companies. This would result in more information available to companies and would give them the possibility to implement market segmentation from more several point of view.

⁴³ Rogers, E. M. (1962/1983/1995/2003). *Diffusion of innovations*, 1st, 3rd, 4th, and 5th editions. New York: The Free Press.

Hypotheses

The research will test the following hypotheses:

- H1 “Consumer innovativeness is higher in the bakery segment than in the electronic segment”
- H2 “Lower levels of the personality trait Conscientiousness lead to higher consumer innovativeness in the food market than in the technology market”
- H3 “The personality trait neuroticism has a bigger influence on the consumer innovativeness in the food market than in the technology market”.

About H1, there are two main elements that suggest us to expect a higher consumer innovativeness in the food market than in the technology market. First of all, the consumer’s perceived risk is far different between the two product classes. In the technology market we have higher social and physical risk that push consumers to look for more information before considering the purchase of a novel product. Besides, there is also higher financial risk which even prevents people from searching related information (Tanawat Hirunyawipada and Audhesh K. Paswan, 2006). This happens because electronic products are averagely more costly by far than bakery products or food products of daily consumption. Furthermore, a tech product lasts longer, and it can be used also in social contexts. Other people can see the product and that product can convey an image of its user. These elements make the two product classes have very different risks. The risk has been negatively correlated to consumer innovativeness thus I expect it to play a significant role in this research. The other element that can suggest a difference in consumer innovativeness between the two markets is one of the main trends of the food market. As already discussed in the previous paragraph, the desire to try new cuisines and novel food offerings has been increasing worldwide. The variety-seeking behavior and the fear of missing out are growing more and more in the occidental countries and they are contributing to make the consumer innovativeness of this market grow.

Concerning H2, we expect that the lower the levels for conscientiousness are the higher the increase in consumer innovativeness will be. Moreover, the increase will be significantly higher in the food market. This happens because high conscientiousness levels are associated to risk avoidance behaviors, and this has been seen in different domains (negatively correlated to risk taking

behaviors)⁴⁴. As we have said, adopting novel products has always a degree of risk for the consumers, they are purchasing a product with new functionalities they have no direct experience of. Thus, I expect consumers who score highly on the personality trait conscientiousness to be very cautious even if the inherent risk of the product is not high and so be cautious of both novel electronic products and food offerings. Meanwhile, consumers who score low on this personality trait will tend to be less and less cautious the less the risk is. For this reason, I expect them to be more highly innovative in food offering than in tech offerings.

In the end, we have the third hypothesis. From the data at my disposal I have no information or findings that suggest the personality trait neuroticism to have an effect in the tech market. But there are some studies that affirm its influence on the food consumption⁴⁵. Consumers with anxiety, depression, social fears are the ones who are the most likely to have eating disorders, to not control their eating habits or to engage in high restrained eating practices. I am not sure about what to expect from the impact of this moderator on the consumer innovativeness in the food market, but it is possible to have some differentiated effect.

Methods

For the research two groups of respondents were needed. The goal is to test the direct effect of two different product classes on consumer innovativeness and the moderating effect of personality traits on this relationship. In order to achieve this result, it was mandatory to have at least two groups of respondents, one per each industry. The responses used for this research are 62 in total, 30 for the group linked to the food market, represented by the bakery segment, and 32 for the group linked to technology market, represented by the electronic segment. All the respondents are between 18 years old and 54 years old. the gender distribution between the two groups is very similar. The percentage of male respondents is 59% for the “bakery” group and 57% for the “earphones” group. The overall collected responses were 74, but I had to discard 12 of them. The respondents have been reached

⁴⁴ Reinout E. de Vries *, Anita de Vries, Jan A. Feij, (2009) “Sensation seeking, risk-taking, and the HEXACO model of personality” Elsevier Personality and Individual Differences 47 536-540

Rick H. Hoyle Michele C. Fejfar Joshua D. Miller, (2000) “Personality and Sexual Risk Taking: A Quantitative Review” Journal of Personality 68:6

⁴⁵ Patrick C.L. Heaven, Kathryn Mulligan, Robyn Merrilees, Teneille Woods, and Yasmeeen Fairouz (2001) “Neuroticism and Conscientiousness as Predictors of Emotional, External, and Restrained Eating Behaviors”

through messaging platforms like WhatsApp and Telegram and they have accessed the survey thanks to an anonymous link. They were clear about the fact that their answers would have been anonymous and that the data were collected and used as aggregate data and no personal info would have been shared with outsiders. The respondents have been chosen at couple, one for each group. The chosen in couple respondents have similar characteristics, such as level of instruction, social extraction, age, study domain or work field. This was done in order to have in each group a sample with similar characteristics so that to minimize the possibility to have extraneous variables that could bias the results of the research.

In developing the questionnaire, the first criterion to follow is the information need. The information needed for both groups are the consumer innovativeness related to the referring market and an evaluation of the personality traits of each respondent. About the consumer innovativeness I have looked for items with adequate validity and reliability that could measure consumer innovativeness for any market. It is important for a measure of a construct and furthermore for a construct as the consumer innovativeness, to have a clear, precise and declared degree of abstraction⁴⁶. For Pierre Le Louarne (1997) it is particular interesting a level of abstraction that takes into account the overall products. Here he finds three main manifestations of the innovativeness:

- Variety seeking;
- Autonomy in the innovation process;
- Propensity to take risks while looking for the novelty.

In developing a scale that can measure the innovativeness of consumers in every market, as the one that is needed in this research, it is fundamental to take into account the three mentioned above factors. I have preferred to use the scale designed by Pierre Le Louarne. It is a scale that can be used in different markets and domains and it is what is needed for this research. The scale is articulated in 11 items, 3 items are correlated to the variety seeking factor, 4 items are correlated to the “autonomy” factor and finally 4 items are correlated to the last factor. In order to evaluate the consumer innovativeness related to the two markets, technology and food, the respondents were asked to answer these items taking into account the product shown in the picture just before the items. In the “bakery” group the picture was about bakery products while in “earphones” group the picture was about “earphones”.

⁴⁶ Pierre Le Louarn. La tendance à innover des consommateurs: analyse conceptuelle et proposition d'une échelle de mesure. *Recherche et Applications en Marketing (French Edition)*, SAGE Publications, 1997, 12 (1), pp.3-19.

The second construct to measure is the personality traits. As the literary review suggested, I have used the Big Five construct as a base. After having defined the referring theory, I have proceeded in selecting the most suitable scale to evaluate people's consumer traits. After many tests and literary reviews, they concluded that using the BFI measures in research gives many advantages. Its predictive validity has been shown and proved. It is efficient, it takes less time than the other measures and its items are also easy to understand and give enough details to have accurate answers. It has been defined to be on several core aspects at least as good as the other two measures. Given the nature of my research it is the best option indeed. Thus, I have used this measure to evaluate the personality traits of all the respondents.

Analyses

The collected and prepared data have been processed with SPSS, using the moderation model 1⁴⁷. This model is the most suitable model in case there is an independent variable, a dependent variable and a moderator. The following are the three hypotheses to test:

- H1 Consumer innovativeness is higher in the bakery segment than in the electronic segment;
- H2 Lower levels of the personality trait Conscientiousness lead to higher consumer innovativeness in the bakery market than in the electronic market;
- H3 The personality trait neuroticism has a bigger influence on the consumer innovativeness in the bakery market than in the electronic market.

In order to verify the hypotheses, we have added to the model the market segments as independent variables, the consumer innovativeness as the dependent variable and the personality traits as the moderators of the relation between the independent and the dependent variables. The model has run twice, the only difference between the two analyses is the used moderator. The first time it was the personality trait "Conscientiousness" and the second time it was the personality trait "Neuroticism". In the first run it has analyzed firstly, the direct effect of the independent variables on the dependent variable. Secondly, the moderation effect of the moderator on this relationship. The same has happened in the second run, with the only difference that the moderator was not the same as before.

⁴⁷ Andrew F. Hayes (2013) "Introduction to Mediation, Moderation and Conditional Process Analysis"

Finally, also the possible correlation between the two personality traits used as moderators has been analyzed.

Results

The obtained results can be deemed to be positive. First of all, the two moderators “Conscientiousness” and “Neuroticism” are not correlated. Then we have findings that suggest the hypothesis were right and we do not need to reject them.

H1 “Consumer innovativeness is higher in the bakery segment than in the electronic segment”

To test this hypothesis, I had to look at the direct effect of the independent variables on the dependent variable. The model has run twice and thus it has analyzed twice this effect. The two results have minimal differences that cannot in any way lead to different conclusions or findings, thus I am here reporting only the results of the first run for this hypothesis. You can find the full data in the appendix, at the figure 7. The model has a $p(F=6.2543)=0.0009$ so it is significant. Now we can look at the results. The coefficient of the independent variable effect is -35.1228. The $t=-2.4796$ and the $p=0.0161<0.05$. The interval goes from -63.4764 to -6.7692. The given coefficient and interval (there is no 0) tell us that there is a direct effect of the independent variables on the dependent variable. The p value is less than 0.005, thus we can affirm that this result is significant at 95%.

H2 “Lower levels of the personality trait Conscientiousness lead to higher consumer innovativeness in the food market than in the technology market”

I can take the data to test this hypothesis from the first run of model 1. This is the first model run used for hypothesis one. Thus, the model is significant because p value is less than 0.05 (0.0009). To test the hypothesis, I can first of all confirm that the moderator, in this case it is the personal trait Conscientiousness, has a negative effect on the dependent variable: the coefficient is -0.9956 $t=-2.7886$ and $p=0.0071<0.05$. This means that the direct effect of the moderator on the dependent variable is indeed negative with a significance of 95%. About the moderator effect of the moderator on the relationship between the dependent and independent variables: the coefficient is 0.4184

$t=1.8967$ and $p=0.0629$. Thus, the effect is significant at 90% and there is indeed a moderator effect. Additionally, it is possible to affirm that the moderator effect is significant in the low part of the values of the moderator. The moderator effect is significant for scores high up to 65.1901%. For further information about the data provided by the model you can have a look at the figure 8 in the appendix.

H3 “The personality trait neuroticism has a bigger influence on the consumer innovativeness in the food market than in the technology market”.

The second run of the model has provided the data useful to confirm this hypothesis. The model has a $p(F=3.1810) = 0.0305$. This p value is inferior to 0.05, so the model is significant. As before the negative direct effect of the moderator on the dependent variable is proved: coefficient is equal to -0.7962 , $t=-2.0648$ and $p=0.0434<0.05$. Thus, this is significant at 95%. The very interesting data to analyze are the ones referred to the moderation effect of the moderator on the direct effect that the independent variables have on the dependent one. In this case the coefficient is equal to 0.3963 , $t=1.6730$ and $p=0.0997$. Thus, the moderation effect is significant at 90%. The moderator has a statistical relevant different effect on the relation between the variables for values up to 48.5772. So, the moderation effect is significant for the lower part of the values, a case similar to the one discussed in the H2 results. If you are interested in more details about this model, you can find the model summary in the appendix at the figure 9.

If you are interested in a graphic representation of the results for H2 and H3, you can have a look at respectively figure 10 and 11.

Discussion

As it has been possible to affirm, given the results of the analyses, all the hypotheses have been confirmed. The average consumer innovativeness between the two markets has been proved to be significantly different. This difference can be mostly explained by two points:

- The recent trends in the food market, which has seen increasing consumers desire for novel products, different cuisines and strong variety seeking behaviors;

- The risk that follows the adoption of innovative electronic products is higher than the risk related to food offerings. Firstly, novel electronic products are usually far more costly, and this leads to a rise in the financial risk. Secondly, electronic products can be used also in social contexts and their image can affect the way their users are seen by their community. This is called the social risk, so the impact that the adopted product has on the social context of the consumer. Studies have shown that the higher the risk is the lower the consumer innovativeness tends to be.

The cautious attitude of some consumers towards the electronic products is signaled also by the decrease in electronic products purchased online. People want to be reassured that they can gain the best value out of their money and that whatever problem there may be there is a reassuring person they can rely upon. This is why many consumers prefer to go to physical shops and purchase products they already know, from established brands they already trust, asking for information to physical person that are there, next to them, ready to make their doubts dissipate. Meanwhile, on the food side, consumers are looking for experiences, novel stimuli that can entertain them. Consumers are more and more ready to experience novel purchase and delivery processes, opening to the digital interaction and online purchasing of food offerings. What they want to be reassured on is the quality of the ingredients, their origin, their characteristics. Their main concern here is not about status or the received value, but it is related to how safe the used ingredients are, if the production process is in harmony with their beliefs and values, if the product resonates with their view and inspiration. It is becoming an experience, where consumers can take part in a movement, an idea, a fight or a community, simply consuming a product that comes from a specific place or whose ingredients have been processed in a particular way.

There is a difference between the two markets also in the way the personality traits affect consumer innovativeness. Some personality traits do not seem to have a differential effect between the two market, for example the personality trait “openness” leads to an increase in consumer innovativeness independently from the domain of reference. But this research has led to confirm also the second and third hypotheses and therefore to affirm that the personality traits “conscientiousness” and “neuroticism” have differential effects on consumer innovativeness depending on the referring market. In particular, the personality trait “Conscientiousness” has been negatively correlated to consumer innovativeness in both markets. Additionally, for lower values of this personality trait, the increase in consumer innovativeness in the bakery segment has been found to be greater than the increase in consumer innovativeness in the electronic segment. This result

fully confirms the hypothesis, but the data show other elements if a more in-depth analysis is done. In fact, the difference of the impact of the personality trait on the consumer innovativeness in the two market is significant only for low values of the personality trait itself. This means that for high values of the personality trait “Conscientiousness” there is no much difference in the consumer innovativeness between the two market segments. The higher the moderator values are, the less influential the difference is. The difference in the moderating effects ceases to be significant for values in Conscientiousness higher than 65.19. This is very interesting, furthermore when the value of the moderator is around 84.00, we have the same consumer innovativeness for both markets. This basically means that when consumers score high on the personality trait conscientiousness, they tend to have the same, low, consumer innovativeness in both market segments. Taking into account this data and the information processed in the literary review about the risk-avoidance patterns of the individuals who score high on this personality trait, I think that a first hypothesis on the reasons behind this phenomenon can be done. Overly cautious individuals, so individual who have very high score on conscientiousness, tend to make very safe choices independently of the inherent risk of the choice. They want to make sure everything they do has been thought through, that they know what happens next and the effects of their actions. This may lead them to face everything in a scheduled, planned, safe way. Thus, the inherent risk of the novel product has much less impact for them because they want to do safe choices no matter what. Meanwhile, at decreasing levels of this personality trait, consumers tend to be more innovative and risk-taking where the risk is lower. This could explain the obtained results.

Also, the other personality trait, neuroticism, has a differential effect on the consumer innovativeness in the two market segments. The moderating effect is very similar to what it has been possible to see for the conscientiousness personality trait. Going more in-depth, this personality trait seems to not have any influence on the consumer innovativeness in the electronic segment. Differently, the effect it has on the bakery segment is very clear: the lower the values of the personality trait are, the higher the consumer innovativeness is. Similarly to H2, also here there is a significant difference for the lower values of the moderator. There is a significant difference between the consumer innovativeness of the two market segments for values not higher than 48.5772. It was expected that the moderator, in this case, would have some effect in the bakery segment instead of the electronic segment, but it was not possible to clearly foresee the entity of this effect. As it has been discussed in the literary review, there are studies that highlight the impact of neuroticism on eating behaviors. But very little can be found about its influence in other segments. Furthermore, its impact on the consumer innovativeness has been deemed by some studies negative, but usually inferior compared to the other personality traits. The reason for which the impact of

neuroticism is so evident in the food market and almost invisible in the technology market, could be found in the role played by the emotions. Neurotic individuals are can be moody, anxious, depressed. They may tend to fear social contexts and norms and disregard them at the same time. The most important element here is the emotional instability, the fact they tend to have changes of emotions, they tend to feel anxious in social contexts and also, they may tend to fear social interactions. In a context of stress, where people feel to be under pressure, where they feel to be exposed to the judgement of the society, they tend to act in a more scheduled and systematic way. These individuals, in this kind of context, tend to be less open to process new information. This would lead to a lower consumer innovativeness. This is even more true if the purchase environment can be hardly controlled, as the one for bakery products (usually you cannot purchase the desired products from home, in the safety of your walls, you have to go out in a mall or supermarket). Besides, neurotic people can tend to have eating disorders or feel anxious and depressed towards their relationship with the food. When this happens, there can be a similar effect to what has been previously explained and they tend to avoid new stimuli and information that remind them of their bad perceived relationship, or worse that lead them to face that relationship. This may explain the results and so the reasons why consumers who score low on neuroticism tend to be highly innovative, following the trend for the food market, while the consumers who have high values of this moderator tend to be much less innovative. The results show that consumers who have score of 70 on the personality trait neuroticism are as innovative in the food market as in the technology market. This happens even if, as it has already been said, the inherent risk for electronic products is higher than bakery products. In top of that, the two moderators (neuroticism and conscientiousness) are not correlated. This can signify that there is no common factor which cause highly conscious and neurotic consumers to behave in a similar way, considering their innovativeness in these two markets. Therefore, the reasons behind their attitude should be different and this is why I believe that, given the available data, the two suggested hypotheses are the most likely and coherent ones.

My suggestions for the professionals who work in the electronic segment and more generally in the technologic market, is to reassure consumers in any possible way. Their investment in novel options run several risks and the first option to bring them to consider the new offerings is to make the fears and avoidance factors disappear. An example of this is a very effective guarantee program developed by BQ in Spain, which has resulted in an increase of online purchase of electronic products. For the professionals working in the food and bakery markets, my suggestion is to dare. They can dare now, they can try new stuff, they can market novel products, they can show multicultural offerings, the consumers are ready for this. At the same time, it is important to shut down consumers' doubts and suspicions even before they are born: be clear on the origin of the

products, explain the process the ingredients have gone through, show certifications if there are, do not pretend if there are not. Another advice is to consider the geographical area where they are marketing the products. This research has not controlled the geographical variable and there may be differences in the attitude to adopt new food offerings depending on the area. The professionals should look into this too to make sure to do the right choice.

This study highlights once again the importance and the impact of the personality on the adoption of novel products. Furthermore, this research has shown important findings on the different impact personality traits can have on different markets. The professionals must be aware that they can dig in, that they can start in-depth analyses on their referring market to assess the impact of personality traits and develop an ad hoc targeting. While in the electronic segment there are no big differences the personality traits analyzed show to have a significant impact. This may suggest to professionals that they have more ground to dig in to make further target segmentation, identifying more specific persona, creating ad hoc offerings for them.

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