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Factors Contributing to Increase Brand Loyalty On Infant Nutrition Category In Portugal

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Dissertation

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FACTORS CONTRIBUTING TO INCREASE BRAND LOYALTY ON INFANT NUTRITION CATEGORY IN PORTUGAL

by

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ABSTRACT

The main objective of this study is to understand customer behavior on Infant Nutrition Category in Portugal. In a context of high promotion levels and fast-growing retail brands, it is important to understand the benefits valued by the customers and their concerns to conquer space and develop long loyal relationships based in more than only price.

The study is composed by exploratory research on which qualitative information was gathered through a focus group, fifteen parents with babies between 6 months and three years old were interviewed, and quantitative data was gathered through a survey with a 404 sample were conducted. The main findings observed that parents are nowadays more informed than in previous decades, what leads them to be less loyal to brands in emotional terms and focusing more on products characteristics.

Parents wish to give the best to their babies, the food they consider the healthier, which baby likes and that allows a healthy development. However, price is a constraint so parents try to balance their choices with the family available budget, giving the best that they can afford. The importance of price is higher for parents with lower education levels and lower income available.

This study enriches literature knowledge about parents' behavior regarding baby's feeding habits specifically in Portugal and gives tools to Infant Nutrition companies to better understand their shoppers in order to offer products more aligned with customer needs, enhance relationship with parents and increase brand loyalty in today's paradigm.

KEYWORDS

Customer Behavior, Loyalty, Infant Nutrition

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1. INTRODUCTION

When a baby is born, it starts a beautiful journey on which the baby is the main protagonist. The baby starts to discover the world around him, his parents, his family, places, colors, smells, and flavors. Infant Nutrition plays an important role on this learning process as part of this discovery will happen through food, and because it is fundamental to the baby's health and wellbeing (Lange, et al., 2013; Nicklaus, 2016). However, babies cannot eat everything that adults can, even when they complete one year or even two (Rêgo, et al., 2019; Portuguese Nutrition Association, 2019). Babies have specific nutrition needs in each different growth stage (Rêgo, et al., 2019; Portuguese Nutrition Association, 2019) and in that Infant Nutrition products represent a special role: providing the right options adapted to babies' needs and helping parents choose the best options to ensure a healthy development of their baby, the creation of balanced feeding habits (Maslin & Venter, 2017, p. 138; Zalewski, 2017; Gruszfeld, 2013) and prevent future diet-related chronic diseases (Skinner, et al., 2015; Okubo, et al., 2015; Gordon Larsen, 2010; Birch, and Doub, 2014).

Nowadays, Infant Nutrition category in Portugal values around 82 million euros per year (Nielsen PT MKT MAT W13 2021). Brands offer a wide portfolio, namely infant formula, infant cereals, and other Meals & Drinks such as fruits, meals, milkies and snacks, and they target babies and toddlers from birth until age three. However, it is prohibited to have communication, promotion or other actions that encourage purchase of products indicated for babies with less than 6 months, as the World Health Organization considers breast milk the best option for babies at this age (Rêgo, et al., 2019; Portuguese Nutrition Association, 2019). Products are available for parents in different sales channels, namely retail, pharmacy, para pharmacy, e-commerce and out of home point of sales.

Nestlé is the category leader in retail, leading almost all segments, followed by Danone (Annex 1). However, retail brands grew substantially over the last years, achieving the third place, very close to Danone (Annex 1) (common business way to analyze players). Even though birth rate has been decreasing, having reached the lowest value from decades in 2021, the category is managing to grow, mainly through retail brands growth. This trend of retail brands growth is happening across FMCG market in Portugal and not only on Infant Nutrition Category (Nielsen Portugal, 2020) (Annex 2). Also, Portugal is a high promotional weighted market and promotional intensity, and frequency are increasing (Nielsen H+S YTD W13 2021).

There is no doubt that price plays an important role in the consumer choices, especially for families with lower incomes (Sklenárová, 2021). A study conducted by Valaskova, et al. (2018) observed that 71% of the respondents prioritize the price when buying retail brands of child food. This prioritization of price is one main factor that explains the growth of retail brands, since these brands are typically cheaper than supplier brands (Nielsen, MAT PT MKT W13 2021). Furthermore, the quality perception of retail brands increased in the last years what also supported the growth of retail (Valaskova, et al., 2018). However, in developed markets such as North America and Europe, price is not only a “critical purchase selection factor”, but also a “key brand-switching driver” with 26% of European respondents affirming that they switched the brand of infant nutrition products because it was less expensive and 23% saying they switched because the brand was in promotion (Nielsen Report Trends In The Baby Food And Diaper Markets Around The World, 2015). Promotion also has its impact on consumer behavior, since more than 50% of consumers are influenced by promotion in baby food items (Sklenárová, 2021).

In this context it is possible to understand that price and promotion play a crucial role in FMCG, but also on the Infant Nutrition category. Even though supplier brands are usually not the cheaper option, they are responsible for high R&D investments that provide improved products in many terms, namely health and sustainability. Thus, the main objective of this study is to understand customer behavior on Infant Nutrition Category in Portugal, understand customers’ needs, desires, concerns, and options, giving important insights and recommendations to develop a customer centered approach, match customers’ expectations and improve brand loyalty.

2. LITERATURE REVIEW

2.1. UNDERSTANDING PARENTS INFANT NUTRITION CHOICES

Before thinking about brand loyalty and factors that secure consumers to a specific Infant Nutrition brand, it is important to understand consumer behavior, why people buy Infant Nutrition products at the first place, how do they choose, and which characteristics do they value most.

One possible definition of consumer behavior is “The study of the processes involved when individuals or groups select, purchase, use, or dispose products, services, ideas, or experiences to satisfy needs and desires” (Solomon, 2018, p. 22). Literature have already explained the factors that influence consumer behavior and there are different ways of grouping them. In this study, the Consumer Behavior Model (Holbrook,1999) will be applied, which divides these influences into three main groups:

- Internal influences, such as motivation, perception, personality, and attitudes
- Social influences, mainly social identity, reference groups and opinion leader
- Cultural influences, culture characteristics, and social class

There are lots of different reasons why parents and caregivers buy commercialized infant nutrition products. According to a study realized in Czech Republic the reasons more often pointed out by parents are saving time, diet diversity, help balancing children diet, convenience, and taste (Sklenárová, 2021). Another study carried out by Lipták and Hajdú (2018) adds travelling and lack of time.

Regarding sources of information about infant feeding, the most named are feedback of friends and family, healthcare professionals, blogs and in-store promotion (Sklenárová, 2021).

There are some studies that analyzed the factors and characteristics that influence parents on the choice of baby food. These studies highlight many aspects, some of them common between authors and which are considered as the more common among parents.

- **Price** (Limsuwan, 2019, pp. 323-324; Boak, et al., 2016, p. 359; Steptoe, et al., 1995; Rodriguez-Oliveros, et al., 2014). Price is the most important factor on purchase decision process of Infant Formula, along with product availability (Gatdula, et al., 2021).
- **Quality** (Boak, et al., 2016, p. 359). Quality perception is crucial for the purchase decision, influencing the range of brands considered and the number of times parents buy (Pradeepa & Pandurangan, 2016). It can be influenced by many factors, mainly price, brand image, satisfaction and product characteristics (Pradeepa & Pandurangan, 2016).
- **Convenience** (Rodriguez-Oliveros, et al., 2014; Synnott, et al., 2007; Steptoe, et al., 1995; Rajeh, 2020).

- **Artificial additives and added sugars** (Rodriguez-Oliveros, et al., 2014; Sklenárová, 2021; Rajeh, 2020).
- **Fit with children needs and tastes**. Parents try to find products that help children with specific feeding needs, such as obstipation or low weight, but also products that are appropriate in terms of age stage (Rajeh, 2020). At the same time, parents are concerned about children liking the food and enjoying meals. (Rodriguez-Oliveros, et al., 2014; Limsuwan, 2019, pp. 323-324; Pavithra, 2018, p. 76).
- **Brand trust and reputation**. Brands play an important role in consumers' minds, since it helps to reduce the risk and increase perceived quality of the brand (Keller, 1993). Trust is key to parents, even for the first purchase. Parents tend to trust more in companies that were present when they were young (Rodriguez-Oliveros, et al., 2014). Reputation can be described as the set of "previous experiences with the brand" and implies action consistency through time (Milewicz & Herbig, 1994).
- **Natural perception and food texture** (Rodriguez-Oliveros, et al., 2014; Steptoe, et al., 1995).
- **Organic products** (Rodriguez-Oliveros, et al., 2014). Previous research already highlights that parents are already aware of the existence of organic food and that they have a positive perception of it (Fernqvist & Ekelund, 2014). However, this positive attitude does not always result in purchases (Hjelmar, 2011; van Dam & van Trijp, 2013; Vermeir & Verbeke, 2006), since there are still many inconvenient factors such as high prices and limited offers (Padilla-Bravo et al., 2013). Nevertheless, organic baby food sales are increasing, and brands are expanding their portfolio worldwide (Harris, 1997, pp. 14,15).
- **Ethical, social and environmental concerns** (Rodriguez-Oliveros, et al., 2014; Steptoe, et al., 1995). Parents do not refer to brands' social responsibility as the main purchase driver at all situations, but as a choosing factor between similar products in terms of nutrition information, ingredients, and price (Rodriguez-Oliveros, et al., 2014).
- **Product variety and availability** (Rodriguez-Oliveros, et al., 2014; Limsuwan, 2019, pp. 323-324; Boak et al., 2016, p. 359; Gatdula, et al., 2021).
- **Promotion** (Rodriguez-Oliveros, et al., 2014).
- **Atractiveness** (Limsuwan, 2019, pp. 323-324).
- **Familiarity and brand satisfaction** (Limsuwan, 2019, pp. 323-324; Steptoe, et al., 1995).
- **Influencer endorsement** (Limsuwan, 2019, pp. 323-324).
- **Packaging**. Packaging can attract children's attention and they can have a significant influence on the products chosen, especially as age increases (Balcarová et al, 2014, p. 18; Sklenárová, 2021).

- **Healthcare professional's recommendation** (Rajeh, 2020; Sklenárová, 2021).
- **Healthy and development supportive** (Rajeh, 2020).
- **Origin** (Sklenárová, 2021). National products can be perceived as having higher quality compared to foreign ones (Velčovská & Del Chiappa, 2015; Ming-Sung Cheng et al., 2007).

It is important to consider that parents seem to be more willing to pay more for baby food than for food for themselves, since they are more concerned with health and safety issues (Hjelmar's, 2011). The number of options available, amount of information and numerous advertising interactions are increasing (Dawson, 2013; Mesch et al., 2014). These combined with the "perceived risk" of arming the children in consequence of bad choices can make baby feeding related decisions complex and parents can feel some difficulties, especially considering that it can be a high-involvement purchase (Zaichkowsky, 1985). One of the difficulties is related to brand claims, since parents find it hard to understand which ones are scientifically supported (Rajeh, 2020). Also, labels are sometimes difficult to read and provide poor information (Velčovská & Del Chiappa, 2015, p. 647).

2.2. BRAND LOYALTY: WHAT IS IT AND WHY IS IT IMPORTANT?

Brand Loyalty can be defined as "a deeply held commitment to rebuy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior." (Oliver, 1999, p.33-44). Also, it is important to take into consideration that brand loyalty can only exist if consumers' expectations towards the product or service are met or exceed (Keller, 2019).

According to Jacoby & Kyner (1973, p.1-9), brand loyalty occurs when the following factors are detected: "the buying decisions have to be nonrandom, expressed over time, a behavioral response, occur decision making unit, conscious choice of the brand even though there are brands who offer similar products, and it also have to be a psychological evaluation process." Also, customers' free interactions with the brand represent a high loyalty level (Shang, Chen & Liao, 2006).

According to Oliver Four-Stage Loyalty Model (1999), there are four levels of brand loyalty:

- **Cognitive loyalty:** First phase of loyalty, where the relationship is mainly stablished between product's benefits and price and not really with the brand itself;
- **Emotion loyalty:** The relationship is stablished with the product as before, but also with the brand. This type of loyalty is the result of satisfaction;

- **Behavior loyalty:** Stronger loyalty than on emotion loyalty. However, it is still based on satisfaction, therefore it can easily change if something goes wrong or if competitors start to be more appealing;
- **Action loyalty:** At this stage customers are willing to act and to overcome potential barriers to buy the product/service offered by the brand they want. The relationship is now stablished with the brand and not focused only on the product characteristics as before.

Brand loyalty is a goal that brands should focus on, since it can positively impact brand performance (Heskett, et al, 1994) and can be used as a competitive advantage (Heskett, et al., 1997; Rust, et al., 2000; Woodruff, 1997). Loyal customers are willing to buy more, pay higher prices and recommend the brand to others, increasing positive word-of-mouth of the brand (Reichheld, 1993; Wright and Sparks, 1999; Zeithaml, et al., 1996). And word-of-mouth is “the most commonly cited source for information about baby food/formula” (Nielsen Report Trends In The Baby Food And Diaper Markets Around The World, 2015), instigating experimentation and being a source of new customers. Also, brand loyalty increases the possibility of repurchasing and reduces the competitors’ threat (Matzler, Grabner-Kräuter, & Bidmon, 2008). Loyal customers tend less to change between brands, creating a sustainable audience through time (Oliver, 1997). A global survey of Arla Foods revealed that only 27% of the respondents did never change between brands while nurturing their babies, what shows the market dynamics.

2.3. UNDERSTANDING PARENTS INFANT NUTRITION CHOICES

One of the first steps to brand loyalty to exist is brand awareness, since the fact that a customer knowing a brand will increase the possibility to have that brand integrated in the customer consideration set (Keller, 2013). Also, companies should focus on market penetration, since it is necessary that consumers have a first experience with the brand to be possible for brand loyalty to exist at the first place (Nenycz-Thiel, et al., 2013). However, once the customer knows the brand and have already tried it, some other factors should be considered in order to strengthen brand-consumer relationship and increase brand loyalty. These different factors do not only affect brand loyalty directly, but also influence each other mutually in many cases.

2.3.1.BRAND IMAGE

Infant nutrition purchases involve emotions and feelings, and brands can help parents reduce the perceived risk and increase certainty (Keller, 2013). Once customers know the brand, they start forming an image of it through associations. This image can be based on “brand attributes”, related to product characteristics, and based on "brand benefits", more related to the physiological characteristics and values that the customer associates with the brand (Keller, 2013). It is important that brands produce strong positive associations in consumers' minds, but also that these associations are unique, reinforcing the competitive advantage towards competition (Keller, 2013). Brand image is directly related to brand personality and the way consumers see the brand, and it can impact consumer behavior and purchase decision (Bozbay & Özkan, 2016, pp. 3549-3550). People do not only buy products for their utilitarian value but are also influenced by the meanings and symbolic representativity of those products and brands (Wang, et al., 2009, p. 199).

2.3.2.BRAND PERCEPTION AND BRAND PERSONALITY

Brands can transmit various human personality characteristics that can be identified through the Big Five scale: sincerity, excitement, competence, sophistication, and ruggedness (Keller, 2013; Aaker, 1997). These personality traits can be deduced by consumers on their interactions with the brand, through brand elements and product usage (Aaker, 1997). The way consumers perceive brands can have a significant impact on their purchase decisions. Consumers prefer brands to which they can identify themselves and that allow them to "express their personality or characteristics through the products corresponding with their self-image" (Foroundi, et al., 2017; Sirgy, 1982; Aaker, 1999). Positive brand perception can help to increase sales and brand loyalty (Foroundi, et al., 2018). On the other hand, "low or negative perception" can also impact brand loyalty in a negative way (Foroundi, et al., 2018). Thus, brand personality differentiates the brand from competition, rises preference and consequently impacts positively brand loyalty (Biel, 1993; Fournier, 1998). The association of the brand with human personality traits positively impacts consumer satisfaction and increases loyalty towards the brand, as more human the brand is, more loyal consumers tend to be (Brakus, et al., 2009).

2.3.3.CUSTOMER SATISFACTION

According to the report "Customer Loyalty, Satisfaction and Marketing Mix: Empirical Evidence From Infant Formula Industry" (Hooi, 2012) there is a correlation between Marketing Mix Elements (Price, Product, Placement and Promotion) and customer satisfaction in infant formula segment. In turn, customer satisfaction is a crucial driver for customer loyalty (Liao, et al., 2009; Eggert & Ulaga 2002). In fact, "satisfaction and loyalty are two stages in the customer's response to the company offerings" (Torres-Moraga, et al., 2008). Satisfaction happens in a first stage of the customer-brand relationship, while loyalty happens later in a stage of maturity of this stablished relationship. However, the impact of satisfaction in brand loyalty is not always the same in all cases. Satisfaction strongly conducts to loyalty in cases where the relationship stablished between the brand and the consumer is of functional nature, rather than in emotional ones (Fernandes & Moreira, 2019).

2.3.4. BRAND TRUST

Brand trust is critical to develop and maintain brand loyalty (Kim, et al., 2019), since it increases satisfaction and leads consumers to be more tolerant towards prices (Delgado-Ballester & Luis Munuera-Alemán, 2001, p. 1253). There is a positive relationship between trust in a brand and the image that customers have of the one and the perceived quality of the products (Ahmad Mabkhot, et al., 2017, pp. 71,79). Also, trust contemplate premises that consumers have about brands, such as reliability, morality, altruism and sincerity, which reduces the risk associated with the brand and their products, increasing the perception of being more probable to meet expectations (Hess, 1995; Chaudhuri and Holbrook, 2001). As seen before Infant Nutrition purchase decisions evolve emotions and perceived risk, brands can improve the trust with management of this risk (Keller, 2013) through offering detailed information to parents and by adding testing certificates on the products (Clulow, 2022).

2.3.5. RECOMMENDATION

Recommendation plays an important role in several markets, and for countless different products. However, in Infant nutrition market, recommendation is even more important, as parents rely on a greater level on healthcare professionals, especially when considering products for babies with only a few months (Ing-udomnoogoon, 2017).

2.3.6. WORD OF MOUTH

Customers tend to trust more on information and opinions transmitted by their peers than by companies and brands (Brown, et al., 2007). In fact, feedback of family and friends and out of stock situations are the main reasons for European mothers to switch brands (Nielsen Report Trends In The Baby Food And Diaper Markets Around The World, 2015). However, with the technology growth and social media expansion, word of mouth is no longer only about close family and friends, but also about communities of people that are facing the same experiences or difficulties as their peers are, even if they do not know each other personally. Communities can have an important impact in consumer behavior since it rises awareness about the brand, transmit information about the products (Ba, 2001), allows experiences and advice sharing (Srinivasan, et al., 2002), and improves trust on the brand

(Bowen & Bowen, 2015; Laroche, et al., 2013, 2012). Therefore, communities are an important benefit for brands (Schau, et al., 2009), once it influences the relationship with the brand (McAlexander, et al., 2002) and facilitates the development of an emotional connection", that will be fundamental to establish brand loyalty (Casaló, et al., 2010).

2.3.7. CONSUMER BRAND ENGAGEMENT

Customer engagement implies that customers have a motivation to interact with the brand (Brodie, et al., 2011). It is necessary for this engagement to happen that the customer have already some involvements with the brand (Hollebeek, et al., 2014), which means that the brand needs to primarily be interesting for the customer (Mittal, 1995; Zaichkowsky, 1994). These interactions represent a level of "cognitive, emotional and behavioral investment" for the customer (Hollebeek, 2011). Customer brand engagement can conduct customers to feel more connected with the brand and even to "incorporate brands into their self-concept" (Hollebeek, et al., 2014). Also, it can lead customers to see a bigger differentiation between branded products and other similar non branded products (Hollebeek, et al., 2014). Consumer' Brand Engagement can have a special impact in brand loyalty in cases where the nature of the relationship established with the brand is strongly emotional (Fernandes & Moreira, 2019). Loyalty increases when consumers "feel connected with, attached to and love" (Hwang & Kandampully, 2012). Thus, social connections between brands and these communities can build opportunities to stablish trust and loyalty (Algesheimer, et al., 2005; Bagozzi & Dholakia, 2002; Habibi, et al., 2014; Labrecque, 2014; Laroche, et al., 2013, 2012).

2.3.8. BRAND EXPERIENCE

The concept of brand experience can be explained by the psychological and behavioral results that a consumer finds when impacted by brand stimulus (Brakus, et al., 2009). This brand influence can happen in different situations and involve direct or indirect interactions with the brand, namely when the consumer searches the product, sees brand advertisement, when he buys the product or consumes it (Arnould, et al., 2002; Brakus, et al., 2009; Holbrook, 2000). Brand experiences can influence repurchase intention and brand loyalty directly but also indirectly through satisfaction (Mittal & Kamakura 2001; Oliver 1997; Reicheld 1996; Brakus, et al., 2009). Brand loyalty is conquered by offering higher-level brand experiences, which lead to preference and differentiation increase (Brakus, et al., 2009). It is also important to consider that brand experiences have a positive effect on brand loyalty if strong and positive bonds are created with these interactions, and a long relationship is nurtured through it (Iglesias, et al., 2010). Brand commitment and consumer positive attitude toward the brand associated with it are important drivers that increase the disposition of the customer to keep this relationship (Chaudhuri & Holbrook, 2001; Evanschitzky, et al., 2006).

2.3.9. BRAND LOVE

Literature considers that a person can feel love for other things than people, inclusively brands (Albert, et al., 2008; Batra, et al., 2012). Brand love can be explained as the set of "of passion, attachment, positive evaluations of the brand, positive emotions in response to the brand and declarations of love for the brand" (Carroll & Ahuvia, 2006) and it has "seven dimensions: perceived functional quality, self-related cognitions, positive affect, negative affect, satisfaction, attitude strength, and loyalty" (Batra, et al., 2012). Brand love formation can be a consequence of the identification of the consumer with the brand's characteristics and personality (Carroll & Ahuvia, 2006) and trust in the brand and offered products (Albert & Merunka, 2013). People tend to like more of brands linked to feelings of pleasure and amusement and with which they can identify themselves with (Carroll & Ahuvia, 2006). Also, perceived quality and satisfaction are crucial drivers for the development of brand love (Batra, et al., 2012), since love is considered "most intense and profound satisfaction of all" (Fournier & Mick, 1999). However, love and satisfaction are different concepts to consider, since satisfaction is necessary for the appearance of brand love, but not all satisfied consumers will develop it. Brand love implies a stronger bond and an emotional long-term relationship (Fournier & Mick, 1999; Reichheld, 2003; Roberts, 2004). Brand love can positively impact consumer behavior and loyalty (Batra, et al., 2012; Carroll & Ahuvia, 2006; Bergkvist, et al., 2010), since it affects brand commitment, word of mouth, decreases elasticity towards premium prices and increases repurchase intention (Carroll & Ahuvia, 2006).

2.3.10. LOYALTY DRIVERS CAN CHANGE FROM CONSUMER TO CONSUMER

Although it is important to consider that different customers can be attached to a brand for different reasons (Kapferer & Laurent, 1985). Demographic factors influence purchase criteria of infant formula and parents' perception of feeding options, especially income and education level (Rajeh, 2020). Parents with lower education levels usually have more price elasticity (Honkanen & Frewer, 2009).

3. STUDY OBJECTIVE AND IMPORTANCE

Main question: How can Infant Nutrition supplier brands improve brand loyalty through factors other than price and promotion?

The objective of the study is to better understand the current shopper of infant nutrition products in Portugal. It is already known that price and promotion play a crucial role in the purchase decision of mothers, fathers, and other decision makers, but which other factors are valued by them? What can be improved on the rest of the Marketing Mix in order to increase brand loyalty?

In the literature there are already some studies about customer behavior in the Infant Nutrition category, but the gap is found in consequence of the following factors:

- Existing studies are focused on infant formula and not in baby food, a segment that represents more than 70% of the market value;
- Most of the similar studies focus on factors influencing product purchase and not drivers of brand loyalty;
- Also, usually the studies focus on only one purchase driver and not on a holistic view;
- Actual literature focus on identifying drivers and not on how to improve them;
- Some studies focus on mothers from worldwide, others on specific countries such as Thailand, USA and China. Cultural, economical and environmental factors can differentiate the behavior of the mothers of these studies and Portuguese mothers;
- Most of the studies have already some years. Customers are always changing and women that are becoming mothers are now from different generations what can also impact behavior;
- The majority of previous studies rely on small samples, making harder to safely generalize.

Saying this, it is possible to affirm that the objective of the study is to deeply understand Portuguese customers and their behavior through the shopper decision funnel, in order to provide recommendations to Infant Nutrition brands of how to adapt their products, communication and placement to correspond to the needs and desires of the actual shopper and increase brand loyalty.

This study can be valued in two different perspectives. On one hand, there is a theoretical interest regarding filling a gap found in the current literature, through understanding brand loyalty drivers specifically for Infant Nutrition category and today's parents' consumer behavior and decisions. On the other hand, the study interest does not live only in the academic world, but also in a practical perspective, since it can provide information for Infant Nutrition marketers and managers on how to manipulate these drivers in order to deliver products and services better aligned with customer needs, strengthen the relationship with them and ultimately improve brands performance in Portuguese today's paradigm. At the same time, the study can contribute to improve parents' available options and baby nutrition.

3.1. RESEARCH QUESTIONS

This study aims to answer the following questions:

- What are the customers' concerns that Infant Nutrition brands help to solve? Why do they buy these products?
- Are the customer behavior and needs the same in all the different segments of the category?
- Which are the characteristics most valued by shoppers of Infant Nutrition products? Which are the ones that most influence purchase decision?
- Are customers willing to pay more for healthier products?
- Are customers willing to pay more for more sustainable products?
- Are customers willing to pay more for organic products?
- Do customers perceive differences between brands in this category?
- Which are the brands with higher awareness and brand recognition in Portugal?
- Do parents feel loyal to any Infant Nutrition brand? If so, which are the factors responsible for this bond?
- Which are the factors that lead parents to repurchase a certain brand?
- Does the fact of have been feed with certain brand as a child increase the intention of give the same brand to their children?

3.2. THEORETICAL MODEL

Expected conclusions of the study can be summarized as showed in the following picture. It is expected that parents consider a range of characteristics such as price, quality, convenience, promotion, recommendation, and ingredients, and make induvial purchase decisions based on these different drivers.

With the purchase, consumers engage with brands and stablish a relationship with them (stronger relationship if there is frequent repurchase). With the purchase and consequent relationship with the brand some other factors are add to the equation, namely customer satisfaction, engagement, recommendation, brand trust, brand personality, brand love and brand perception.

These new drivers will influence brand loyalty, enhance it or weaker it, what ultimately will impact consumer behavior and purchase decision.

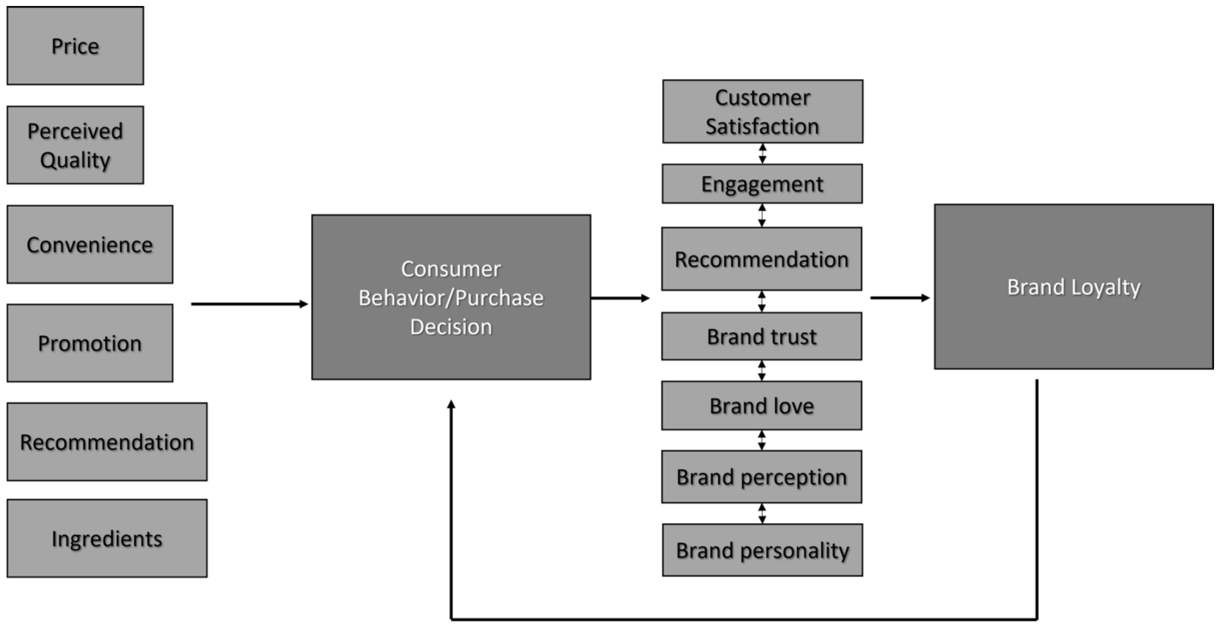

Figure 1 – Study expected theoretical model.

4. METHODOLOGY

4.1. RESEARCH CONTEXT AND PARTICIPANTS

The study is developed in Portugal, with data collection of Portuguese mothers and fathers. The study considers only parents and tutors, and no other caregivers such as grandparents or education professionals. The parents should have babies from six months up to three years of age. Babies with less than six months are not being considered because before this stage babies are feed almost exclusively by milk (breast milk or infant formula) and parents are not involved yet in all the category, since World Health Organization recommends breastfeeding during the first 6 months of life, and it is illegal in Portugal to promote products before this stage. Portuguese suppliers offer products until three years old, at this age toddlers start to be considered a target for different range of products such as breakfast cereals.

4.2. DATA COLLECTION

The type of research that better fits the study goal is exploratory research, to better understand Portuguese parents' purchase decisions and the factors that most influence them on buying a specific brand. The first stage of data collection consisted in conducting a focus group to gather some first inputs and understand the way parents think about infant nutrition, their priorities, and fears.

Then, a questionnaire was conducted. The objective is to validate the main conclusions of qualitative data collected to see if it is possible to generalize conclusions to a bigger sample of parents and with that reinforce the importance of the findings.

5. FOCUS GROUP

5.1. METHOD

Focus group structure was created based on research questions and previous literature, in order to have a foundation to the conversation and at the same time to validate if some previous findings are reliable for the Portuguese reality (Annex 3).

Participants were selected only with the criteria of being a parent of a baby between 6 months and 3 years old. Fourteen mothers and one father agreed voluntarily to participate. Three different sessions were conducted. Participants were mostly from the Lisbon Metropolitan area. There was a diversity of ages between parents, but also between babies. Interviewed parents were from different family backgrounds, some of them with more than one child and others with only one. The babies age range distribution was the following: three babies with six months, four babies between one and two years old, five babies between two and three years old and four babies with three years old. All participants were informed about the study objective. Personal information is confidential. Due to Covid-19 pandemic situation the focus groups were conducted online. Focus groups were conducted in Portuguese and findings were translated to English. Qualitative data was collected in January 2022.

5.2. FINDINGS

Inputs gathered in the focus groups showed that previous literature related to parents' consumption behavior can be used also in Portugal, since the main topics approached did not deviate significantly. However, there are slight differences that need to be understood.

5.2.1. PURCHASE DRIVERS

Breastfeeding is the recommended nutrition option during the first months of life. However, it is not always possible. Mothers find this recommendation a significant pressure for themselves, especially in cases on they need to come back to their work positions before the baby complete six months. Even though they easily move to infant formula when needed, they feel more confident about their decision when the baby accepts the formula, and they see improvements in terms of weight, comfort, cramps, and sleep quality.

Usually babies start experimenting solid food, such as soups, paps, yogurt, fruits and small snacks and cookies between four and six months, usually before going to the nursery. Sometimes mothers do not work yet on this phase, what allows them to focus on the baby and to have more time to prepare meals. On this phase mothers prefer to prepare homemade meals for their babies, since they have that possibility, they believe that is better to the child and it allows them to save money comparing with ready to eat commercialized options. Although regarding infant cereals does not seem to have a consensus, some mothers prefer to prepare homemade paps, but others prefer to start giving commercialized ones from the first day because of the iron fortification, which is an important nutrient for a healthy development, and it is not possible to incorporate on homemade ones. When they return to work, finding time to prepare everything starts to be challenging and they start introducing retail bought products. They do not stop preparing soups, fruit pure and other snacks, but they find a balance between homemade options and retail ones, so that they can completely feed the baby considering the reduced available time. They see commercialized products especially for unplanned situations and to make their life easier. Also, it is easier to send packaged products to nursery comparing with homemade ones, especially single consumption packages. Convenience is the most influent purchase driver that leads mothers to the infant nutrition category, especially in baby food.

Food safety plays an important role for some parents. They trust infant nutrition brands on that, and prefer to take packaged fruits, soups, and meals when they go out, instead of homemade ones because they are afraid that these ones can spoil without being on the fridge and being consumed later.

The search for convenience also leads mothers to start giving the same food that all the family eat to the children, since it facilitates meals preparation. Although this only happens at an older phase, near three years old, and the diet do not fully change to an adult one. With mothers of older babies was possible to understand that as the baby grows, they start to feel less pressure and start to give more and more commercialized products since convenience occupies, at this phase, a bigger space than the perceived risk. As the baby grows some infant nutrition products consumption become less frequent, fruit pouches seem to be the products that persists for longer time.

Infant nutrition offer range is wide in Portugal which leads mothers to have the necessity to deeply search before the purchase. The healthcare professional opinion, feedback of friends and family with babies with closer ages and information gathered online are the main sources of information. Some parents also point out scientific studies and books. The most consumed online information are blogs and Instagram accounts of other mothers and pediatricians.

Parents follow healthcare professionals' recommendations, but they do not fully rely on it. They search for complementary information that gives them the knowledge and the confidence to make some adjustments so that they meet their personal beliefs and child tastes. They consider that they can learn much with others' experiences, "sometimes what another mother says is as important as what the pediatric says", one mother said. Also, their own past experience as a child can give some orientation. They do not completely follow what their parents did with them because they consider that there was a positive evolution in todays' habits. Thus, there is not a visible connection between the brands they ate as a child and the brands they intent to give to their children, since they are trying to improve these past habits.

Despite all opinions and external orientation, most of parents affirmed that the most important source of information for them are product labels. They consider crucial to know how to correctly read the ingredients list and nutritional table and affirm that this information is the key for their decisions. There is some suspicion related to infant nutrition products regarding health claims. Some mothers consider that brands that call themselves healthy, do not always correspond with. Also, they distrust products with cartoons and other attractive images since they consider that they focus only on capture babies desire and not on health. Usually, they give these kinds of products as a reward on special occasions and not on daily basis. To overcome this lack of trust they use labels information to know deeply each product and make conscious choices.

Research can be time consuming, and mothers end up focusing only on drivers that they prioritize, paying less or no attention to characteristics that they do not consider mandatory. Mothers also feel that it is hard to find products that offer all the benefits and characteristics that they value at the same time, especially on the infant cereals segment. They can find products with some benefits but without another's.

The first thing mothers search and try to understand is the product ingredients and nutritional table. They search for products with a shorter ingredient list, without added sugar, but also without other ingredients such as rapeseed oil, palm oil, hydrolyzed fats, sweeteners, preservatives, or other ingredients that are related to chemistry. However, infant cereals reinforced with iron are valued by mothers and it is a characteristic that they look for. Added sugars play an important role on this search, since mothers strongly want to avoid it, especially during the first months of life. Mothers showed a balanced opinion regarding older phases. They do not want to completely ban sugars from children diet, but they are focused on give it in smaller quantities, less frequently and introduce it as late as possible. For them is important to give to their babies food with calories, some sugars and some fat, because they recognize that it is needed for the healthy development, but they want to give on the right amount and of the correct types. However, mothers are also concerned about the ingredients used to substitute sugar and consider that sometimes it can be even worse. They are afraid of giving products with sweeteners to their children, as they consider it damaging. They affirmed to not be informed about infant nutrition products legislation and being insecure about the possibility of products that claim having no added sugars, having in reality these kinds of ingredients. On the infant formula segment, it is important to consider that mothers try to find the one that is the most similar as possible to breast milk.

The concern regarding the product is not only focused on the ingredients used, but also in the way products are produced. Mothers try to find less processed food to give to their children, since they consider it less healthy. Here, organic food gains relevance too, even if it is not consensual between parents. Some mothers try to find organic food, especially during first months of life, since they consider it healthier, and they do not intend to expose babies to chemicals so soon. However, they recognize organic products are more expensive and that products diversity is lower, what leads them to do not feed the babies exclusively with organic products. On the other hand, other mothers still have some doubts regarding organic products, practices used, products used in production and grey areas on the Law, which makes them not consider this characteristic on their purchase decision process. The prioritization of organic ingredients is more significant in fresh fruits and vegetables. The effort to feed the baby with organic food is higher during first months of life. Some parents consider it as a relevant characteristic when prices between products are similar but are not willing to pay more for it.

There is no doubt that price and promotion play an important role in this category. The importance varies depending on the segment and the phase on which they are buying the product. For mothers it is important to find the best solution available inside their monetary range. Promotion seems to be even more important as mothers seem to have a feeling of finding a great opportunity. This monetary factor plays an important role in first purchases, when parents do not want to risk spending a lot of money on a product that babies may reject, ending with everything on the garbage. Many times, the trial phase occur when the product is on promotion because it reduces this fear. After trying, if the baby accepts and appreciate the product, parents are more willing to pay more since they know that the product works for them.

And this is the third most important purchase driver: children acceptance. If parents already know that a product works and the baby like it, they will try to buy the same product or at least the same range of products in the future, to avoid the risk of rejection and all the problems associated with that, such as crying and feeding difficulty. The availability to try new products depend on the segment of products. Mothers are more likely to try new things related to fruits and infant cereals, where the diversification is valued and advised. Contrarily, there is almost no space for change in infant formula, on which the probability of rejection is considered higher by them. This reluctance is even higher if the baby is still fed only with infant formula since parents do not want to take the risk of being enabled to feed the baby. Parents want to encourage their babies to easily eat and eat a "little bit of everything", thus acceptance and baby's taste play an important role.

Another concerned demonstrated by parents is food texture. After the babies start to eat solid food, parents start to introduce options that force babies to chew to develop this capacity.

Even though one common comment was related to finding a balance between the healthier option, available time, and cost. Mothers are available to give retail products to their children, even if they associate it with more processed and sometimes less healthy options, if it substantially saves time, save money and if it is one of the best options on that range of products. Although, mothers also refer that they frequently feel pressure from family members and schools to give products that they consider less healthy for the children. They affirmed that in some cases when the baby tried these options parents could not convince them to return to healthier meals.

Country of origin is not a relevant criterion for mothers when buying packaged infant nutrition products. However, they value local production regarding fresh fruits and vegetables, since they consider that they have higher quality and are healthier. There is some distrust considering long expiration dates.

There is some concern about sustainability, parents consider it important and recognize that there is the need to change behaviors. However, baby and parents' daily basis urgent needs become the priority and sustainability ends forgotten. Also, the lack of more sustainable convenient options pushes parents to buy products that they do not consider the ideal option for the environment. On this topic there is also some suspicious about brand claims and parents are not willing to pay higher prices in return of more sustainable products.

5.2.2. LOYALTY DRIVERS

Brands' names were not referred by the moderator on any circumstance, mothers recalled brands by their one. Hero Baby, Holle, Naturnes BIO and NAN were the most positively referred by the interviewed mothers. Petit Papão were recalled by one mother with high satisfaction. They affirmed to have or have had these brands on their consideration set. Cerelac, Nestlé, Aptamil, Blédina and Nutribén were also referred since they are mature brands in the market, but they did not show to be so attractive for the majority of the interviewed mothers.

It is clear that parents do not perceive brands as all the same in infant nutrition category. They make an effort to be informed, know nutritional differences between brands offer and production methods, through search and labels reading. With this first search parents define a set of two or three brands that they consider to be more aligned with what they value. Some parents buy products from these brands in function of price and promotion without reread labels. Others read the labels of any new product on the market and decide if they add it or not to their consideration set.

Trust regarding brands is not consensual between parents. Some of them tend to trust more big companies that have a long-time experience, since they perceive them as experts and as having higher responsibility. Other parents distrust these big companies, since they feel that they believe so much on their power on the market that they are free to do mistakes and tend to trust more on smaller and new companies that are fighting for their place on the market and thus do not take the risk of doing something wrong.

Parents report that nowadays there is more information available and consider themselves as more informed consumers compared to their parents. Also, they consider that brand related distrust increased as a consequence of the information increase. Mothers with more knowledge and more capacity of reading labels seem to be less loyal to brands since they take decisions based on each product characteristics and distrust more brands. Conversely, mothers that revealed to have difficulty and lack of nutrition knowledge tend to trust more the brands and choose products from brands with higher reputation. In these cases, brands play a role of facilitation on the purchase decision and of increasing mothers' confidence on their choices.

However, distinction between brands is not the same in all the segments. The perceived difference between brands and products seems to be closely related to brand loyalty, since mothers tend to switch more between brands in segments in which they do not find a relevant difference. Prepared fruits segment, including cups, jars, and pouches, are considered identical across brands. They consider that ingredients and production method is the same for all brands. In this case, mothers do not prefer any brand in specific, they buy according to price and promotion, and retail brands are viewed as the same as the supplier brand. However, in infant formula, usually loyalty is very high. When a baby appreciate a specific formula and it helps to solve any kind of issue, parents will make an effort to never switch it while the baby needs it. Infant Cereals are the middle segment regarding intention and willingness to switch, since mothers value diversification of cereals and flavors, and the commitment is not so high as with infant formula. In this segment, mothers probably will have a small consideration range, maybe 2 or 3 brands, the ones they trust and know that the baby likes and can buy from each one of them depending on price and promotion.

The baby appreciation is also an important factor leading to brand loyalty, especially when the baby has more tendency to rejects food. When a product works well with their babies, mothers do not intend to switch to a different one.

Mothers did not show to have a significant emotional relationship with infant nutrition brands. As opposite, they seemed to focus more on concrete information to make a rational choice. They affirm to not be significantly loyal in the majority of segments, with exception of infant formula. In cases on which loyalty exists, and it is not only related to the brand but even to a specific product.

Parents accept retail brands products if after their search they consider it appropriate for their baby. There is no stigma around retail brands, since mothers believe that these products can be as good as supplier brands. They treat these products as they do with supplier brands products: search, ask for opinion and read the labels before buying. From all retail brands operating in Portugal, Lidl was the most referred. Mothers showed high levels of satisfaction, highlighting the high quality and low prices.

The priority for mothers is buying products that are nutritionally safe and healthy for their babies, products that their babies like and easily eat and that they can afford. There are other factors that can be considered nice to have but not must have, since are placed in a lower phase of the decision tree. They try to give the best to their children. However, it is important to consider that knowledge and available time to search varies between mothers.

6. QUESTIONNAIRE

6.1. METHOD

A questionnaire was developed based on the previous inputs gathered. The objective of the survey was to validate the findings of the focus groups with a larger sample, creating the possibility to generalize results to the Portuguese population (Annex 4).

The sampling technique used on this study was convenience sampling. The questionnaire was shared through social media, directly with mothers and fathers, but also posted in Portuguese mothers Facebook groups. The total number of responses were 737. However, after making sure that the sample only included parents of babies between six months and three years old, living in Portugal and who finished the questionnaire, the total number of responses considered was 404 (total sample size). All participants were informed about the study objective through the survey introductory message (Annex 4). Participation agreement was asked as the first question. Personal information is confidential. The questions were made in Portuguese. The quantitative data was collected in May 2022.

6.2. SAMPLES CHARACTERIZATION

The sample size of the study is 404 responses. Participants were mainly Portuguese (90%) women (98%), with ages between 18 and 50 years old. There were participants from all of the country including islands, but the majority lives in Lisbon (36%), Setúbal (27%) and Porto (11%). The study includes participants with different household incomes and education levels. The majority of participants have only one child (57%), but were also questioned parents with two, three, four and more children. For more detailed data please see Annex 5 to 12.

6.3. FINDIGS

6.3.1. PURCHASE DRIVERS

In the first section of the survey, the main objectives were to understand what parents are buying, why they are buying, how they are buying, but also their habits and feelings on the process of feeding their children.

Firstly, it is important to know that in Portugal it is normal to buy commercialized Infant Nutrition products (87% of participants confirmed that they usually buy these kind of products), being the most bought Infant Cereals (bought by 70% of participants), Yogurts and milkies (67%), Fruit Puree (63%) and Snacks & Cookies (63%) (Annex 12).

Babies' consumption of these products is really frequent, with more than half of the parents claiming that they give it to their babies on a daily basis (Annex 13). The ones that do not buy Infant Nutrition commercialized products do not do it because they prefer to prepare everything at home (75%), because of ingredients (43%) and because at their home all the family eats the same including the baby (39%) (Annex 20). The reasons that lead parents to buy each segment of Infant Nutrition products vary (Annex 14):

In Infant Formula and growing up milk the main reasons referred by parents were need (69% and 65% respectively) and recommendation (38% and 50%).

In Infant Cereals (paps) the most referred purchase drivers were convenience (48%), recommendation (39%) and fortification and vitamins (35%).

Fruits, Meals and Snacks are bought mainly for a matter of convenience (65%, 84% and 69% respectively) and to out of home consumption (91%, 71% and 72%). Yogurts and Milkies reasons are also similar, but besides convenience (45%) and out of home usage (43%), fortification and vitamins (43%) also stand out. Also, it is important to highlight that in fruits, yogurts and snacks segment parents autonomously referred a few times that they buy it because their children love it and because they offer it as a gift/treat.

As seen before, the purchase process can be difficult and stressful for parents, so they mostly rely on the pediatrician's recommendation (63%) and products labels (54%), but also on family and friends' recommendation (24%) and social media (12%).

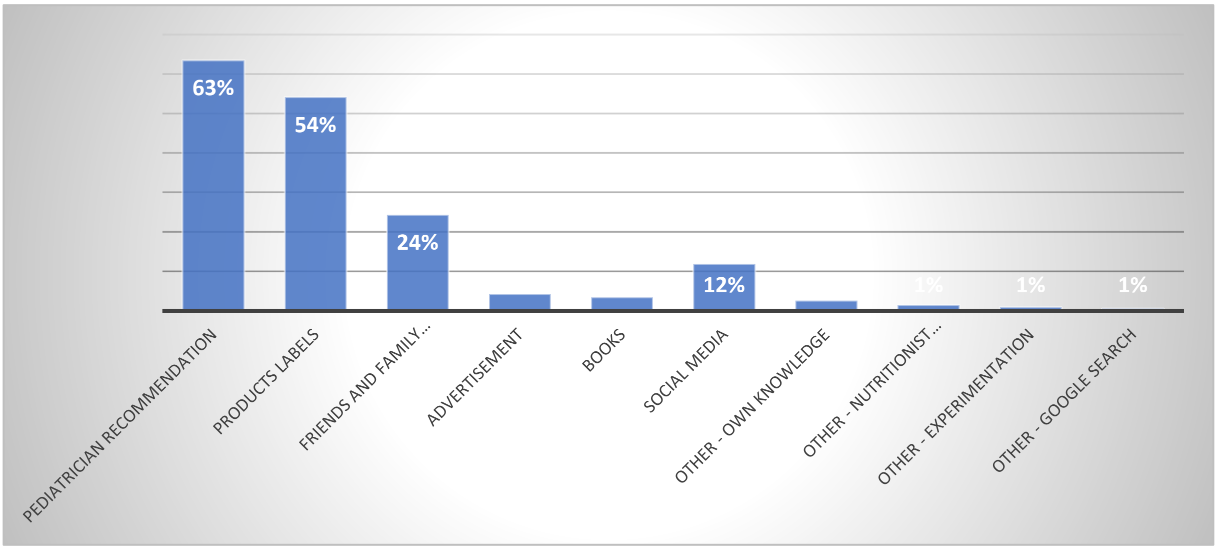

Figure 2 – Survey results: Information sources

To read Infant Nutrition product labeling is in fact a habit that the majority of Portuguese parents claim to have (94%), with 52% of participants affirming to read it always and 41% to read only in some products (Annex 15). This habit is even stronger for parents of babies with less than 12 months (80% always reads) (Annex 16).

The majority of parents tends to trust on Infant Nutrition commercialized products, despite some reticence can be observed since the mean of agreement levels with the statements "I trust on Infant Nutrition commercialized products" (*M*=4,428 *SD*=4,205) and "I distrust Infant Nutrition commercialized products" (*M*=3,601 *SD*=3,582) is near the neutral levels (Annex 17).

The factor time plays an important role on the purchase decision. Parents showed an high level of agreement with the statement "If I had time, I would prepare all meals and snacks at home" (*M*=6,119 *SD*=5,807) (Annex 17). However, they also try to find a balance between their available time and what is the best for their baby (*M*=6,085 *SD*=5,711) (Annex 17). The existence of some trust issues and doubts relatively to Infant Nutrition commercialized products and the search for balance between the best option and time leads to more distributed responses regarding the value parents give to commercialized products that help them saving time (*M*=4,309 *SD*=4,206) (Annex 17). Nevertheless, it was seen before that for some segments convenience is still one of the main purchase drivers.

When buying Infant Nutrition products, parents consider nutritional table (53%) and ingredients (48%) the most important aspects, but also whether it helps the baby's development (33%), price (28%) and recommendation (18%) (Annex 18). Analyzing the category all together shows that price does not play a role so important as previous findings show. This happens because in fact price is not the main driver in formula and growing up milk, since it is needing the main purchase driver and choice is made considering quality (ingredients and nutritional table). Also, the importance of price is influenced by demographic characteristics (to find out more please read 6.6.3 Shopper Profiles). In other segments lead by convenience and out of home consumption, price plays a key role, especially in the fruit segment (Annex 19).

Regarding ingredients, the concern with added sugars is universal, with the majority of the parents showing high levels of agreement with the statement "I prefer to give to my baby Infant Nutrition Products without added sugars" (*M*=6,445 *SD*=6,027) (Annex 17).

Parents also prefer to give to their children organic products (*M*=5,720 *SD*=5,457) (Annex 17) and the majority consider them healthier for babies (*M*=5,881 *SD*=5,558) (Annex 17). Parents are also willing to pay more for healthier Infant Nutrition products (*M*=6,159 *SD*=5,787) (Annex 17).
"Made in Portugal" seems to be valued by parents (*M*=5,181 *SD*=4,992), but not so much as observed in other factors (Annex 17). The same happens with eco-friendly products (*M*=5,431 *SD*=5,145) (Annex 17).

Even tough parents frequently buy commercialized Infant Nutrition products, almost all of them also cook at home for their babies (99%), which corroborates previous search for balance. The 1% that do not prepare homemade meals and snacks, do not do it mainly for lack of time (100%) (Annex 21), what makes convenience and ease of use of these products especially important for these parents. Parents prepare homemade meals mostly because they consider it the best nutrition for their babies (89%), but also because it is more sustainable (29%) and cheaper (25%) (Annex 22). The meals most prepared by parents are soup (92%), main dish (79%) and fruit puree (70%) (Annex 23). Results do not show a significant difference of behavior regarding homemade preparation between mothers with only one baby and mothers with more than one baby (Annex 24).

6.3.2. LOYALTY DRIVERS

In Portugal, the brands with higher brand recall are supplier brands from the companies with higher market share: Nestlé (76%), Blédina (53%) and Nutribén (42%), being spontaneously named when parents were asked about Infant Nutrition brands without any brand name being given (Annex 39). In total 20 different brands were recalled (Annex 25).

The same brands have the higher brand awareness and recognition, since they were also in the group of the most selected brands when a list was given to the parents. However, some other brands entered in the top referred, one from a multinational company already in the top and a retail brand: Nestlé (63%), Cerelac (55%), Blédina (44%), Nutribén (43%) and Continente do Bebé (42%) (Annex 26). All the 16 brands on the list were recognized (Annex 26).

A first sign that confirms the relatively low loyalty existent on this category is the fact that the majority of Portuguese parents do not have a favorite Infant Nutrition brand (57%) (Annex 27). The ones that affirm to have one refer mainly Nestlé (28%), Holle (17%), Hero Baby (14%) and Nutribén (11%) (Annex 27). Also, 54% of participants affirm having the habit of buying retail brands Infant Nutrition products (Annex 28). This habit is particularly higher for parents that buy Snacks (67%), Fruits (65%) and Yogurts (63%) (Annex 29).

It is clear that there is some loyalty in the Infant Nutrition category. However, there are a few indicators that loyalty is not strongly high:

- Low level of agreement with the statement “Normally I buy always the same Infant Nutrition brand” (*M*=4,394 *SD*=4,392) (Annex 30).
- Participants affirm to vary between Infant Nutrition brands (*M*=4,176 *SD*=4,189) (Annex 30).
- 38% of participants disagree with the statement “Normally I buy always the same Infant Nutrition brand regardless of price” (*M*=4,101 *SD*=4,143) (Annex 30).

The loyalty towards brands varies between product segments. Infant Formula shoppers tend to be more loyal (*M*=5,667 *SD*=5,538) than fruit puree shoppers (*M*=3,300 *SD*=3,376) (Annex 30).
Even though brands which were the most recalled, recognized and referred as favorite were big brands from multinational companies, parents claim some aversion to prefer well known and big dimension brands (*M*=3,225 *SD*=3,319) (Annex 30).

Parents do not show a positive relation between brands they ate as a child and the brands they want to give to their children (*M*=2,280 *SD*=2,429) (Annex 30).

Overall, less than 50% of parents show a loyal behavior towards brands, with the acceptance by the baby (21%), support of baby development (20%), flavor (15%) and price (14%) being the most important factors when deciding to switch between brands (Annex 31). Even though parents value price and consider it on the purchase decision process, it is not the only factor, then the majority do not choose the brand that is cheaper (*M*=3,359 *SD*=3,440) (Annex 30). In turn, promotion can positively impact brand loyalty, since on average parents seem to agree more that they choose the brand under promotion than the cheapest one (*M*=3,740 *SD*=3,810) (Annex 30).

6.3.3. SHOPPER PROFILES

Participants showed overall a similar behavior regarding purchase decision and loyalty towards brands. Results did not show significant differences between the overall behavior of participants, and the behavior of parents with only one baby. Parents of babies on different growing stages also did not show a significant difference on behavior either. However, when comparing the behavior and opinions of parents from different ages, education levels and income backgrounds it is noticeable some deviations that academics and companies should consider.

AGE

For communication matters, it is important to know that younger mothers consider more social media as an important source of information than older mothers (25% by parents between 18 and 25 years old), even if they keep relying the most on pediatrician recommendation and product labeling (Annex 32).

As older parents are, the most they tend to agree less with the statement “If I have the time, I would prepare all meals and snacks for the baby at home”, even keeping high levels of agreement. Thus, it can be assumed that older mothers are more willing to buy convenient products.

Age ranges	N	*M*	SD
18-25	24	6,708	6,252
26-30	87	6,333	5,996
31-35	114	6,079	5,792
36-40	89	6,101	5,734
41-45	36	5,500	5,339

Figure 3 – Survey results: Profile Analysis: If I had time, I would prepare all meals and snacks at home (Likert Scale from 1 to 7) – Segmented by age

Price seems more important for younger mothers, since they tend to prefer more the cheaper brand (Annex 33) and they have more the habit of buying retail brands (63%) (Annex 34).

EDUCATION

Regarding sources of information, it is possible to notice that parents with higher education levels (graduation and masters) tend to refer more to the product labels as an important source of information (Annex 35). These mothers and fathers affirm to always read the label of Infant Nutrition products, while mothers with high school or professional courses affirm to read only in some products (Annex 36).

It is the importance given to price that most differentiate parents between different education levels. Mothers for whom the highest education level finished is high school, refer more often the factor price when asked about main purchase drivers (41%) (Annex 37). Choosing the cheaper brand available also reflects better the reality of parents with high school level than for others (*M*=3,769 *SD*=3,788) (Annex 38). They disagree more than the rest regarding buying always the same brand regardless the price (*M*=3,852 *SD*=2,772) (Annex 39). Promotion also represents an important role for these parents (*M*=4,278 *SD*=4,277) (Annex 40). Retail brands have even a higher penetration on parents with high school education level (65%), despite all education levels present a level higher than 50% (Annex 41).

After parents with high school finished, parents with professional courses are the ones that show more sensitivity to (Annex 38 and 40).

For parents with high levels of education such as master's degrees, the loyalty towards Infant Nutrition brands seems to be higher than for the rest of the parents, they agree more with the statement "Normally I buy always the same Infant Nutrition brand regardless price" (*M*=4,383 *SD*=2,696) (Annex 39). On the other hand, these parents disagree more with the statements "Usually, I buy the Infant Nutrition brand that is cheaper" (*M*=2,917 *SD*=2,938) (Annex 38) and "Usually, I buy the Infant Nutrition brand that is on promotion" (*M*=3,317 *SD*=3,276) (Annex 40).

<u>INCOME</u>

Contrarily to others, parents with lower available income per capita (less than 250€ per household person per month) do not consider as main factors for choosing a brand the nutritional table and ingredients, but price (46%) and the support to the baby development (46%) (Annex 43).

The concern with price of families with lower budget, lead them to agree more with the statement "Usually, I buy the Infant Nutrition brand that is cheaper". As the income grows the level of agreement with this statement decreases, as other concerns can come into the picture (Annex 44). The same behavior is observed regarding buying the brand that is on promotion (Annex 45). Thus, retail brands conquer higher penetration on lower income levels (77% on less than 250€ vs 37% on more than 1000€) (Annex 46).

Parents with higher income seem to be less price sensitive and more loyal to brands. Parents with more than 1000€ per household person per month have more a favorite brand than others (67%) (Annex 47). Parents with higher income agree more that they usually buy the same brand regardless the price (Annex 48) and are also more willing to pay more for healthier products for the baby, in fact this agreement grows as the income available grows (Annex 49).

The value given to homemade meals preparation is higher on lower budget families, probably in consequence of lack of budget and having price as main driver. As the income grows, the value given to homemade decreases. (Annex 50).

Parents with lower income also read less the product labeling than others (only 31% reads always). Also, the percentage of participants that do not read them because they do not know how to (10%) and because they do not consider it important is higher than for other parents (8%) (Annex 51). The habit of reading the labels seems to be somehow related with the available income, because as the income level increases the percentage of parents that always read it also increases (Annex 51).

Based on the data of this study, two main shopper profiles can be differentiated: the mainstream shoppers and the premium shoppers.

On one hand, **mainstream shoppers** are parents for whom price plays a key role on process decision thus to budget restrictions. These parents want to give the best for their baby, but they need to find the best solutions available on lower price tiers. Thus, they usually buy retail brands products, and vary in function of price and promotion, having less loyalty towards Infant Nutrition brands. This shopper profile represents a significant slice of the total Portuguese shoppers, whereby it is important for brands to consider having “less premium” solutions, without stop offering the benefits needed by babies, in order to allow availability of more accessible prices and make sure that specific brand is the chosen by customers.

On the other hand, **premium shoppers** are parents with higher income available and/or with higher education levels that are concerned to give the best option to their babies and are willing to pay so. They are parents even more attentive, that read product labeling almost always. These shoppers tend to be more loyal to brands when they believe that one is the best, even if they need to pay more. For these shoppers’ mainstream is not enough, they want added benefits and innovative products. But they need to clearly understand the benefits and reasons before shopping and paying an extra price since they also buy retail brands. Working on new improved products regarding ingredients and nutritional table, and communicate those competitive advantages, seems to be crucial for conquering theses parents.

7. DISCUSSION AND CONCLUSIONS

Findings confirmed that price and promotion play an important role in infant nutrition category in Portugal, even if with different levels for different parents and for different segments. They are important drivers affecting mothers and fathers purchase decisions, since parents need to take decisions with their available budget. However, are the list of ingredients and nutritional table the characteristics that parents are more concern with and that influence them the most when choosing Infant Nutrition products. Thus, it is important for brands to work on the ingredients list of their products, simplify them and substitute ingredients with bad reputation for other options with a healthier perception. Developing new products simpler and more like the homemade options can also help improving parents' trust.

It is clear that all parents want to give the best to their babies, however education level and the income available can lead to some differences on parents' priorities. Thus, it is important for brands to offer customized products for both shopper profiles proposed: mainstream and premium.

Parents are much more informed than in previous decades. They have more information available, with easy access and they feel now empowered by the capacity of reading and understanding labels and nutritional information. Knowledge empowers parents, but at the same time changed the category paradigm. Loyalty is less based on brand qualities and image, and more associated to the product characteristics. Loyalty is strongly limited to the cognitive phase and emotional relation stablishing seems to be an even bigger challenge. Thus, meeting parents needs through products ingredients and nutritional table, but also benefits such as convenience and support to the baby development, is now even more important.

The information sources parents rely on the most are pediatricians and product labeling. Therefore, is key to work on the relationship with healthcare professionals, clarify the benefits of the products and conquer allies on the recommendation. At the same time, it is important to make nutritional information easy and fast to read to facilitate parents. Having good product only it is not enough, it is extremely necessary to make sure that parents understand the brand product benefits in order to convince them that there is more there than only a price matter. Also, communication should be an important way to demystify some ideas that parents have, such as "homemade is always healthier for the baby" and "commercialized products have preservatives and others unhealthy ingredients".

8. LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The present study relies on a 404 sample, with representativity of ages, incomes and education levels. However, the study presents some limitations that are important to have into consideration and that can be overcome in further research:

- Low male representativity, since 98% of participants were women, what can mask some behavioral differences between genders;
- Participants were mainly from urban areas (76%), especially Lisbon, Setúbal and Porto, which can mask some behavioral and cultural differences;
- Study data were gathered by convenience sampling, through social media and Facebook groups, which may conduct to some biases;
- The fact that all the Infant Nutrition product segments were analyzed together may mask some behavioral differences.

The author recognizes that the broader objective of the study it is not yet sold out, therefore, it shares the following recommendations for further research that may allow to understand the Portuguese Infant Nutrition customer more deeply:

- Focus the analysis on specific product segments to better understand the motivations of each one and the differences between them;
- Analyze other variables that can be impacting parents' choice, such as breast-feeding period duration, parents' knowledge of specific regulations, parents' type of work;
- Analyze the concept of "healthy" for Portuguese parents. What do they understand as healthy? What are the main concerns regarding health? What should have and not have an Infant Nutrition product to be considered healthy by parents? There are differences between the concept of healthy food between different countries?
- Conduct a price elasticity analysis. What is the maximum price tier parents are willing to go to in order to give the best to their babies? How demographic characteristics influence elasticity? Do product segment influence price elasticity?
- Analyze the retail brand shopper in Infant Nutrition category. How do parents see these brands? Do they find differences to supplier brands? Do they trust them equally? Do they relate with all retail brands the same way? Or are they more loyal to one?
- It would also be interesting to observe parents' behavior in-store, without parents noticing that they are being observed, to understand the way they shop and what they search for.

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10. ATTACHMENTS

ANNEX 1

PT MKT - MAT W13	Nestlé	Danone	Retail Brands	Alter	Hero	Lactogal	Others
TOTAL NI	50,6%	19,9%	19,8%	3,3%	1,0%	4,7%	0,6%
IF + GUM LIQ	50%	28%	0,0%	5%	0%	16%	0%
INFANT CEREALS	79%	4%	12,0%	5%	0%	-	0%
MEALS & DRINKS	37%	23%	36%	1%	2%	-	1%
FRUIT	21%	29%	45%	2%	2%	-	1%
MEALS	45%	45%	4%	4%	1%	-	2%
MILKIES	91%	0%	8%	0%	0%	-	0%
HEALTHY SNACKS	70%	21%	3%	0%	5%	-	1%

Figure 4 – Infant Nutrition suppliers Market Share per segment in retail. Nielsen Portugal MKT MAT W13 2021.

ANNEX 2

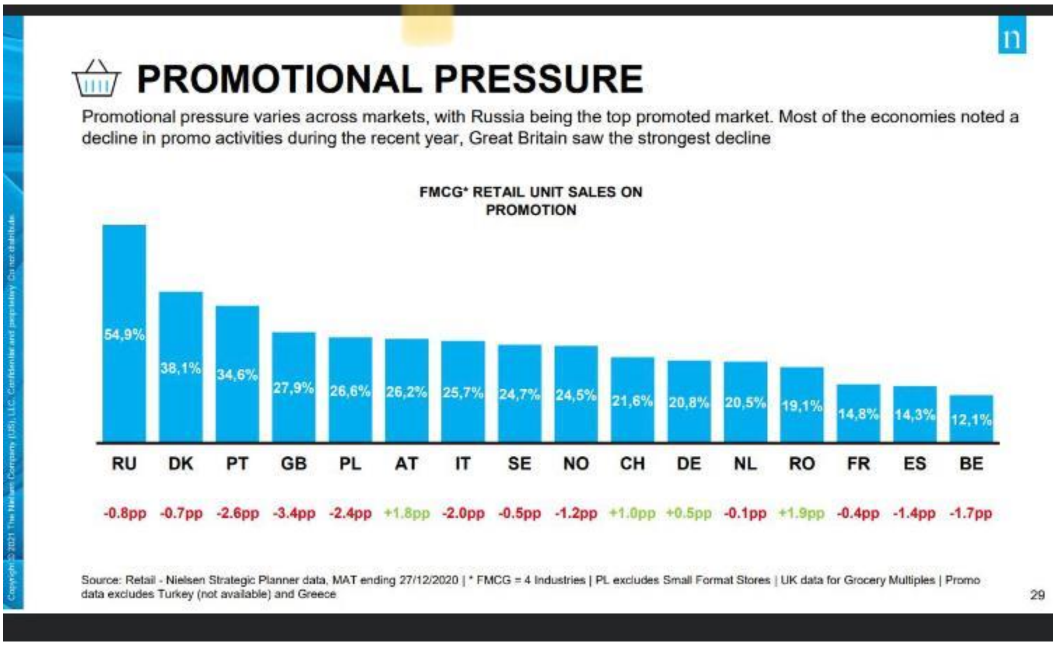


Figure 5 – FMCG retail brands evolution in Portugal. Nielsen Portugal MKT+Lidl 2019 and 2020 data.

ANNEX 3 – FOCUS GROUP QUESTIONS

The focus group started with moderator and study objective presentation, followed by participants brief presentation:

a. Name
b. Age
c. Where are they from
d. How many kids they have and their age
e. Word that comes to mind when thinking about motherhood

2. Do you buy infant nutrition products? If yes, which ones?
3. When did you start buying these products? Which ones were the first ones?
4. Why do you buy these products?
5. (For mothers with older babies) Did you introduce other products as he/she grew?
6. Where do you find information to decide which products you should buy?
7. What do you expect to find in an infant nutrition product? What are the factors that make you decide for a specific product?
8. Do you think that healthier should be more expensive? (ex: no added sugars, certified ingredients) And are you willing to pay more?
9. Do you feel that there is a difference between brands? Which one do you consider the best and why? Do the best brand change between segments?
10. Do you usually buy retail brands products?
11. Do you usually buy the same brand? (make sure that I have this information for all segments)
12. (If yes) Why? What makes you choose always that specific brand? What do you like about it?
13. (If no) Why do you switch? What makes you decide for one instead of another?
14. Do you buy organic products? (If yes) Do you buy for all family or specifically for the baby? Why do you buy?
15. Do you pay attention to where products come, how and where are they produced?
16. Do you value that brands try to offer more sustainable products? Would you be willing to pay more for that kind of products?
17. Some of these brands have now some years of history in Portugal. Some of them already existed when you were babies. Do you feel a desire of giving to your children the same brands that you ate?

ANNEX 4 – QUESTIONNAIRE QUESTIONS

INTRODUCTION MESSAGE

Hello,

I am a student of the Master Information Management with a specialization in Marketing Intelligence of NOVA IMS. Within the scope of my Master thesis about the behavior of the shopper of infant nutrition products in Portugal I would like to understand better the motivations and choices of the Portuguese parents of babies aged between six months and three years old.

In that regard, I submit the present survey, which takes around 5 minutes to answer. Your participation is voluntary, which means that you are free to participate or not, and that you can leave the survey any time. Answers are anonymous and will be used for academic purposes only.

Your answer is extremely important for my master thesis, so thank you in advance for your time and availability.

If you have any question or curiosity, please contact:

m20200390@novaims.unl.pt

Thank you,

Catarina Sousa

I declare that I am at least 18 years old and that I agree to participate in this study. I declare that I have been informed that my participation in this study is voluntary, and that I can withdraw from it at any time without penalty, and that all data collected is confidential. I understand that there are no serious risks associated with the present study.

- I agree to participate on this study
- I do not agree to participate on this study

1. Are you a mother/father/tutor of a baby aged between 6 months and 3 years old?

   Yes

   No

2. Do you live in Portugal?

   Yes

   No

3. How many children do you have?

   1

2

3

4 or more

4. Which is the age of your babies?

   Baby 1 _____

   Baby 2 _____

   Baby 3 _____

   Baby 4 _____

<u>INFANT NUTRITION CHOICES</u>

1. Do you buy Infant Nutrition products? (For example, paps, formula milk, fruit puree, milkies, snacks.)

   Yes

   No

2. Which are Infant Nutrition products that you buy?

   Infant Formula

   Baby porridge

   Growing up milk

   Fruit Puree

   Meals jars

   Yogurts and dairy foods

   Snacks & Cookies

   Others. Which?

3. Why do you buy these products?

   For each product segment were asked:

   I don't buy

   Cost

   Food safety

   To take out of home

   Fortification and vitamins

   Need

Recommendation

Convenience

Other

4. With which frequency do you offer Infant Nutrition product to your baby? By Infant Nutrition products I mean commercialized products such as paps, fruits purees, formula, etc.
   Daily consumption (every day)
   Frequent consumption (4-3x week)
   Occasional consumption (1x week)
   Rare consumption (less 1x week)

5. Which are the information sources that help you deciding which Infant Nutrition products to buy? (Select up to 2 options)
   Social media
   Books
   Pediatrician recommendation
   Friends and family recommendation
   Advertisement
   Products labels
   Other. Which?

6. Please indicate to what extent you agree with the following statements.
   Likert Scale: 1 - Totally disagree to 7 – Totally agree
   6.1 I trust commercialized Infant Nutrition products
   6.2 I prefer to give organic products to my baby
   6.3 If I had time, I would prepare all meals and snacks at home
   6.4 I distrust commercialized Infant Nutrition products
   6.5 I look for a balance between the best for the baby and my available time
   6.6 I value commercialized options that allow me to save time
   6.7 I consider organic products healthier for my baby
   6.8 I prefer Infant Nutrition products without added sugars
   6.9 I am willing to pay more for healthier products for my baby
   6.10 I prefer products made in Portugal
   6.11 I value Infant Nutrition products that are more environment friendly

7. Which are the most important factors for you for choosing an Infant Nutrition product? (Select up to 2 options)

   Price

   Ingredients

   Nutritional table

   Promotion

   Recommendation

   Brand

   Help baby development

   Other. Which?

8. Do you have the habit of reading the ingredient list and nutritional table of Infant Nutrition products?

   Yes, always

   Yes, but only in few products

   No, I do not think it is important

   No, I do not know how to read it correctly

9. Which are the reasons for not buying Infant Nutrition products? (Select up to 3 options)

   (Note: This question was shown only to the participants that said that they do not buy Infant Nutrition products)

   Cost

   Ingredients

   Packaging

   Distrust

   Recommendation

   At home everyone eats the same meal

   Make at home

   Other. Which?

10. Do you prepare meals/snacks at home?

    Yes

    No

11. Which meals/snacks do you prepare for your baby?

Soup

2^{nd} dish

Pap

Yogurt

Fruit puree

Snacks and cookies

12. Why do you prepare meals/snacks at home? (Select up to 2 options)

    Cheaper

    Best for the baby

    Pediatrician recommendation

    Friends and family recommendation

    More sustainable

    Other. Which?

13. Why do you not prepare meals/snacks at home?

    (Note: This question was shown only to the participants that said that they do not prepare meals/snacks at home)

    Lack of time

    Convenience

    Best for the baby

    Pediatrician recommendation

    Friends and family recommendation

    Food safety

    Other. Which?

<u>RELATIONSHIP WITH BRANDS</u>

1. Which brands do you know?

   Brand 1 ____

   Brand 2 ____

   Brand 3 ____

   Brand 4 ____

   Brand 5 ____

2. Which Infant Nutrition brands do you buy?

   Cerelac

   Blédina

   NAN

   Holle

   Aptamil

   Hero Baby

   Nutribén

   Naturnes Bio

   Mimosa

   Yogolino

   Nestlé Junior

   Continente do Bebé

   Lupilu

   Pingo Doce retail brand

   Baby Wells

   Nestlé

   Other. Which?

   I do not buy Infant Nutrition products

3. Do you have a favorite Infant Nutrition brand?

   Yes. Which? ___

   No.

4. Do you have the habit of buying retail brands Infant Nutrition products?

   Yes

   No

14. Please indicate to what extent you agree with the following statements.

    Likert Scale: 1 - Totally disagree to 7 – Totally agree

    14.1 Normally I buy always the same Infant Nutrition brand

    14.2 Usually, I buy the Infant Nutrition brand that is cheaper

    14.3 Usually, I buy the Infant Nutrition brand that is on promotion

    14.4 Usually, I vary between different Infant Nutrition brands

    14.5 Normally I buy always the same Infant Nutrition brand regardless of price

14.6 Usually, I buy the same Infant Nutrition brand if it is on promotion

14.7 I like to give to my baby the same brands I ate with his age

14.8 I prefer to buy well known and big dimension Infant Nutrition brands

15. What makes you prefer one Infant Nutrition brand over another? (Select up to 3 options)

    Price

    Promotion

    Store Availability

    Flavor

    Communication

    Sustainability

    Brand History

    Connection with the brand

    Local of production

    Help baby development

    Baby acceptance

    Company ethics

    Other. Which?

DEMOGRAPHICS

1. What is your gender? (Of the mother/father)

   Male

   Female

   Prefer not to say

2. What is your age? (Of the mother/father)

   ____

3. Where do you live? (Select Portuguese district)

4. What is your nationality? (Of the mother/father)

   Portuguese

   Other. Which?

5. What is the average monthly income of your household? (Choose the interval)

6. How many people are in your household?

7. What is your level of education? (Consider the highest finished)

   Basic education

   High school

   Professional course

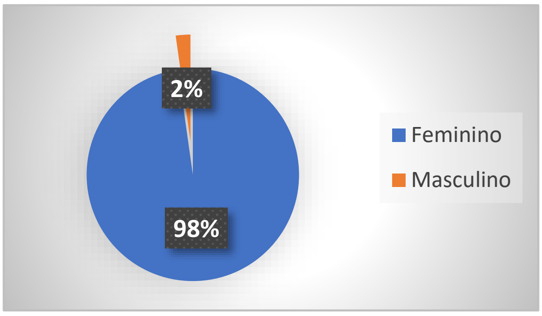
   Graduation

   Master's degree

   Doctorate

   Other

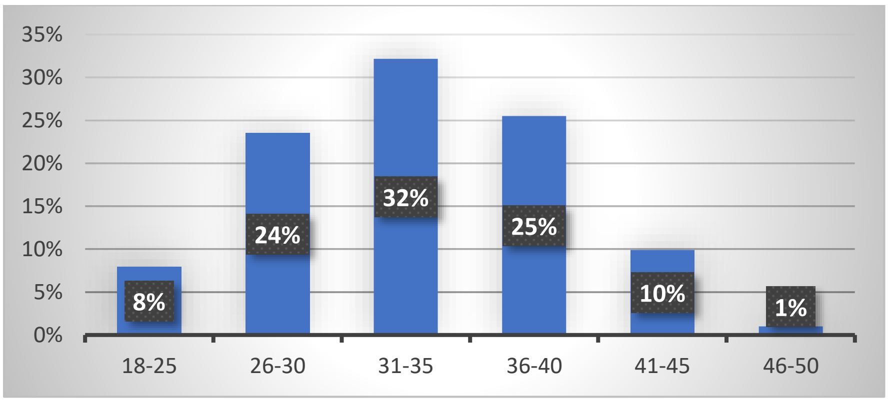
ANNEX 5 – SURVEY RESULTS: PARTICIPANTS GENDER



Gender		
Female	395	98%
Male	9	2%

Figure 6 – Survey results: Gender of survey participants.

ANNEX 6 – SURVEY RESULTS: PARTICIPANTS AGE



Age		
18-25	32	8%
26-30	95	24%
31-35	130	32%
36-40	103	25%
41-45	40	10%
46-50	4	1%

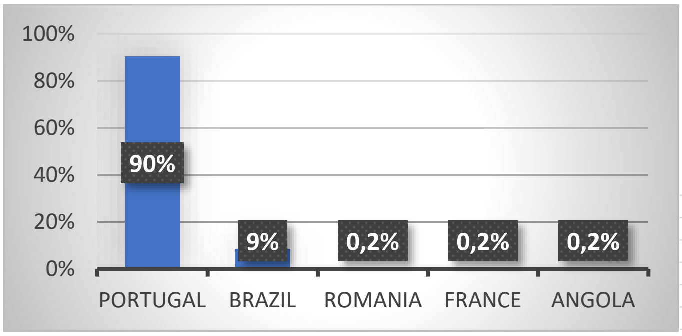
Figure 7 – Survey results: Age of survey participants.

ANNEX 7 – SURVEY RESULTS: PARTICIPANTS CITY

Setúbal	108	27%
Lisboa	145	36%
Porto	43	11%
Leiria	10	2%
Açores	6	1%
Faro	12	3%
Guarda	3	1%
Viseu	5	1%
Portalegre	3	1%
Vila Real	3	1%
Beja	10	2%
Santarém	8	2%
Braga	13	3%
Coimbra	6	1%
Madeira	2	0%
Castelo Bran	8	2%
Aveiro	12	3%
Viana do Cas	4	1%
Évora	3	1%

Figure 8 – Survey results: Participants' city.

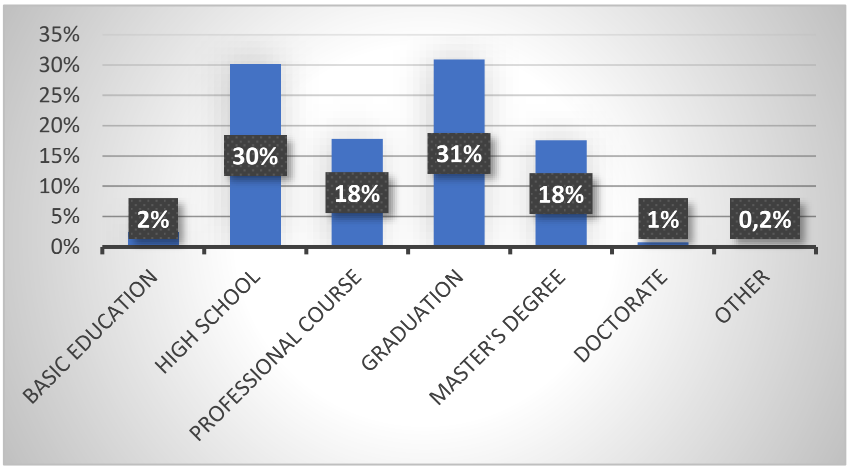
ANNEX 8 – SURVEY RESULTS: PARTICIPANTS' NATIONALITY



Nacionality		
Portugal	365	90%
Brazil	35	9%
Romania	1	0%
France	1	0%
Angola	1	0%

Figure 9 – Survey results: Participants' Nationality.

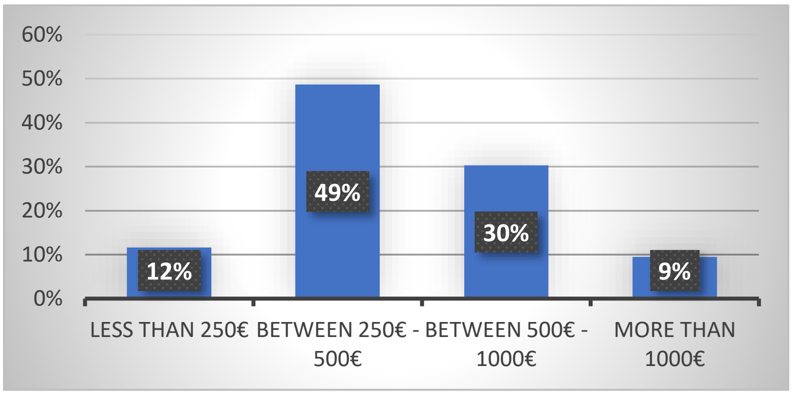
ANNEX 9 – SURVEY RESULTS: PARTICIPANTS' EDUCATION LEVEL



Education Level		
Basic Education	10	2%
High School	122	30%
Professional course	72	18%
Graduation	125	31%
Master's degree	71	18%
Doctorate	3	1%
Other	1	0,2%

Figure 10 – Survey results: Participants' Education Level.

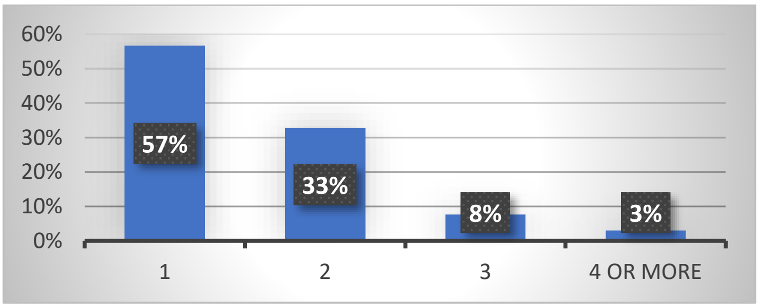
ANNEX 10 – SURVEY RESULTS: PARTICIPANTS' AVERAGE MONTHLY HOUSEHOLD INCOME PER CAPITA



Income level		
Less than 250€	43	12%
Between 250€ - 500€	180	49%
Between 500€ - 1000€	112	30%
More than 1000€	35	9%

Figure 11 – Survey results: Participants' average monthly household income per capita.

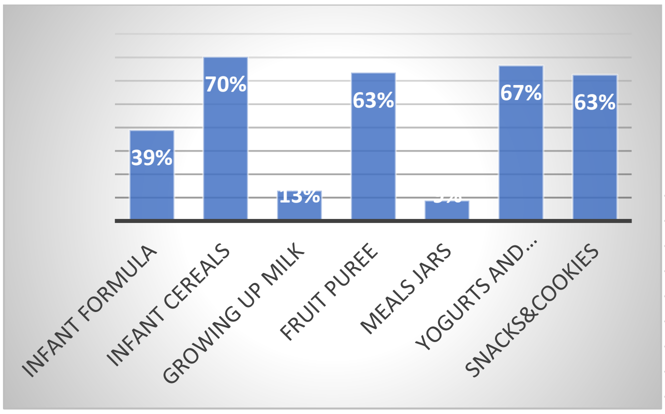
ANNEX 11 – SURVEY RESULTS: PARTICIPANTS' NUMBER OF CHILDREN



1	229	57%
2	132	33%
3	31	8%
4 or more	12	3%

Figure 12 – Survey results: Participants' number of children.

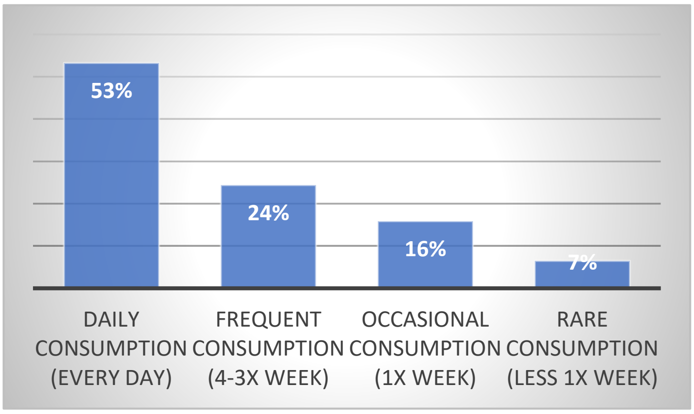
ANNEX 12 – SURVEY RESULTS: What baby food products do you buy?



What baby food products do you buy?		
Infant Formula	137	39%
Infant Cereals	248	70%
Growing Up Milk	46	13%
Fruit Puree	224	63%
Meals Jars	31	9%
Yogurts and Milkies	235	67%
Snacks&Cookies	221	63%

Figure 13 – Survey results: What baby food products do you buy?

ANNEX 13 – SURVEY RESULTS: How often do you offer baby food products to your baby?

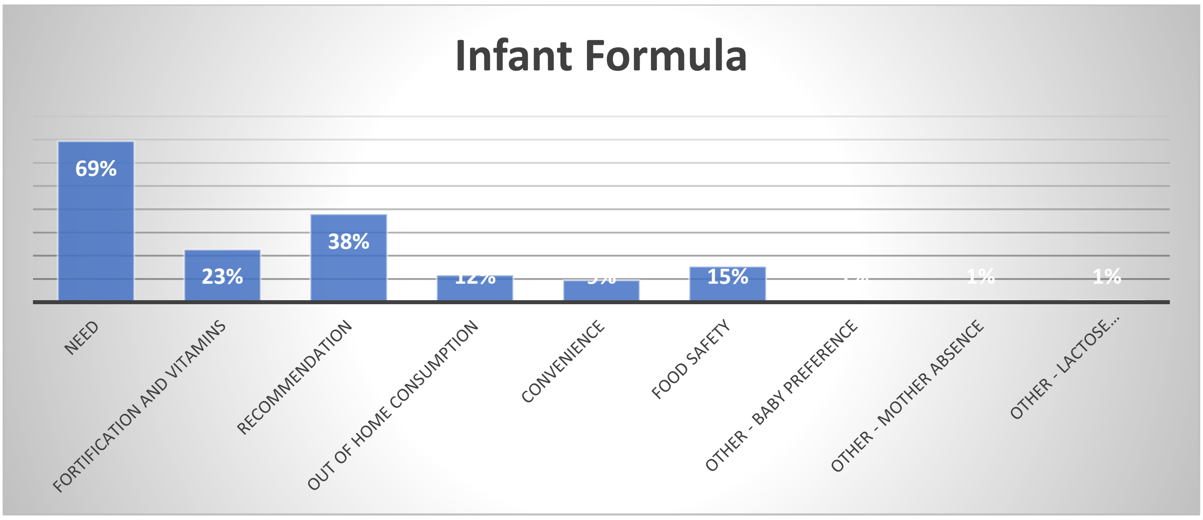


How often do you offer baby food products to your baby?		
Daily consumption (every day)	188	53%
Frequent consumption (4-3x week)	86	24%
Occasional consumption (1x week)	56	16%
Rare consumption (less 1x week)	23	7%

Figure 14 – Survey results: How often do you offer baby food products to your baby?

ANNEX 14 – SURVEY RESULTS: Why do you buy these products?

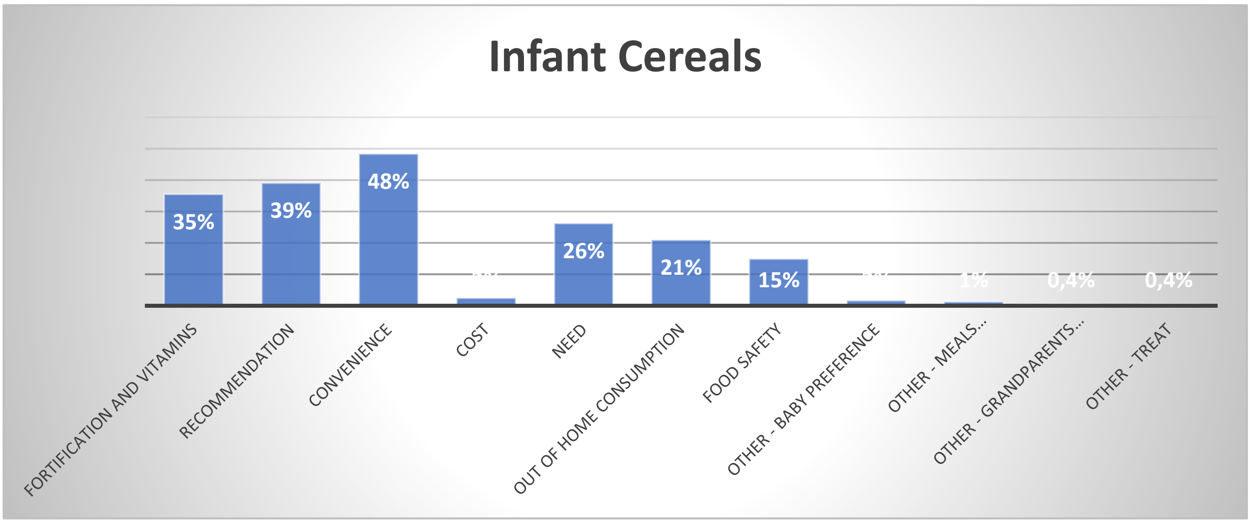
<u>INFANT FORMULA</u>



Infant Formula		
Need	95	69%
Fortification and vitamins	31	23%
Recommendation	52	38%
Out of home consumption	16	12%
Convenience	13	9%
Food safety	21	15%
Other - Baby preference	1	1%
Other - Mother absence	1	1%
Other - lactose intolerance	1	1%

Figure 15 – Survey results: Why do you buy these products? (Infant Formula)

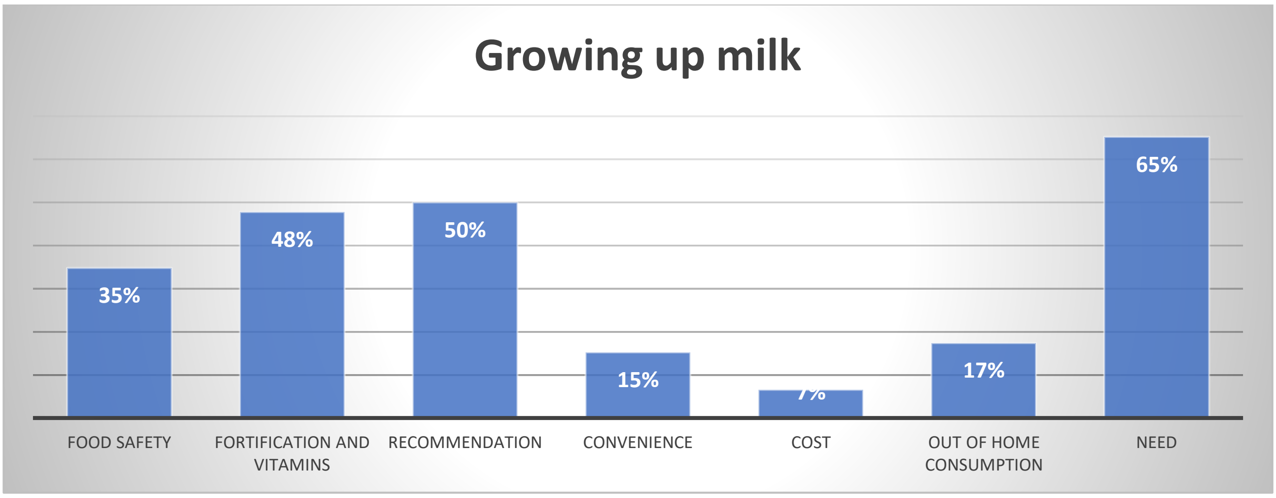
INFANT CEREALS



Infant Cereals		
Fortification and vitamins	88	35%
Recommendation	97	39%
Convenience	120	48%
Cost	6	2%
Need	65	26%
Out of home consumption	52	21%
Food safety	37	15%
Other - Baby preference	4	2%
Other - Meals diversification	3	1%
Other - Grandparents influence	1	0,4%
Other - Treat	1	0,4%

Figure 16 – Survey results: Why do you buy these products? (Infant Cereals)

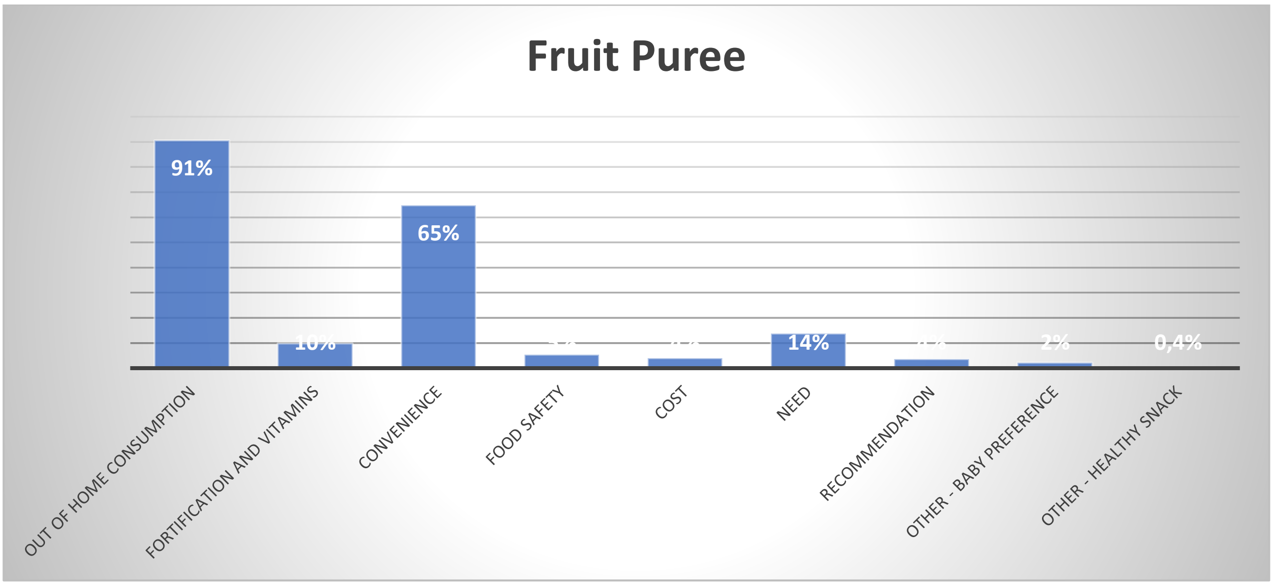
GROWING UP MILK



Growing up milk		
Food safety	16	35%
Fortification and vitamins	22	48%
Recommendation	23	50%
Convenience	7	15%
Cost	3	7%
Out of home consumption	8	17%
Need	30	65%

Figure 17 – Survey results: Why do you buy these products? (Growing Up Milk)

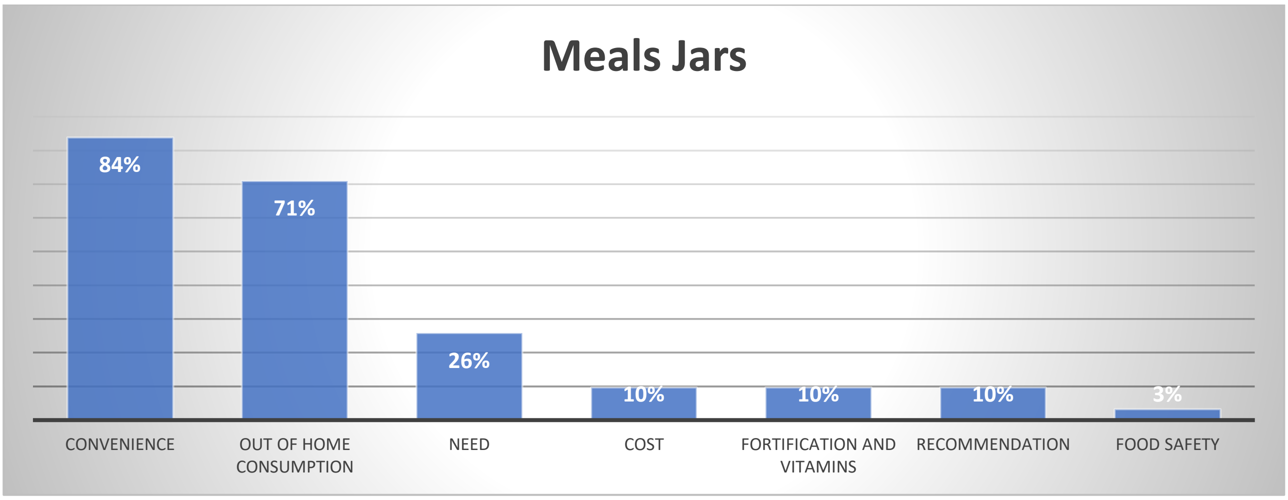
FRUIT PUREE



Fruit Puree		
Out of home consumption	203	91%
Fortification and vitamins	22	10%
Convenience	145	65%
Food safety	12	5%
Cost	9	4%
Need	31	14%
Recommendation	8	4%
Other - Baby preference	5	2%
Other - Healthy snack	1	0,4%

Figure 18 – Survey results: Why do you buy these products? (Fruit Puree)

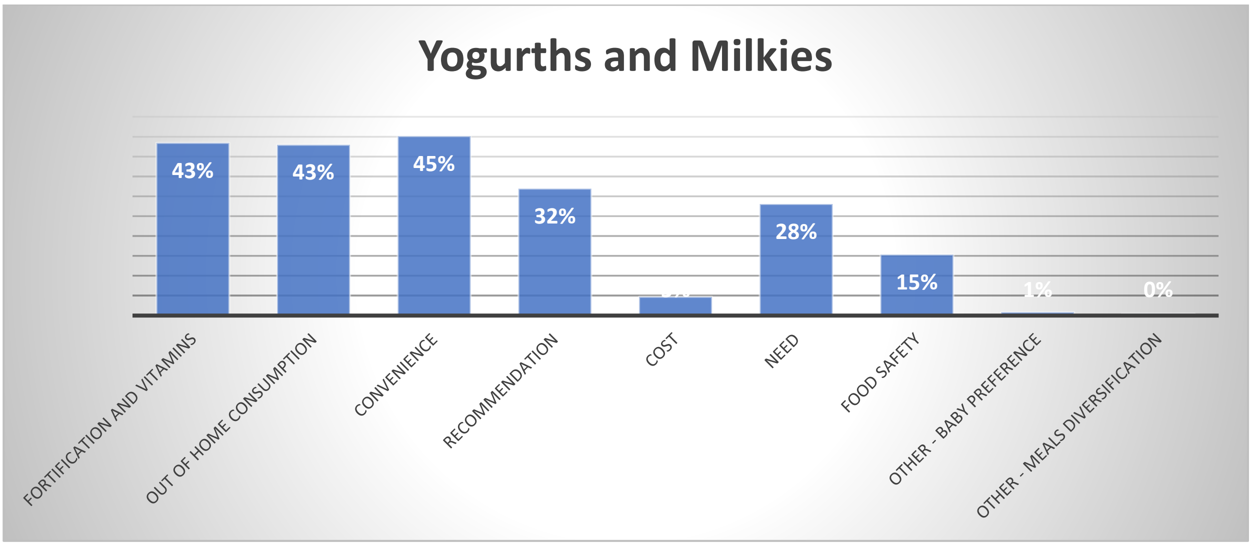
MEALS JARS



Meals Jars		
Convenience	26	84%
Out of home consumption	22	71%
Need	8	26%
Cost	3	10%
Fortification and vitamins	3	10%
Recommendation	3	10%
Food safety	1	3%

Figure 19 – Survey results: Why do you buy these products? (Meals Jars)

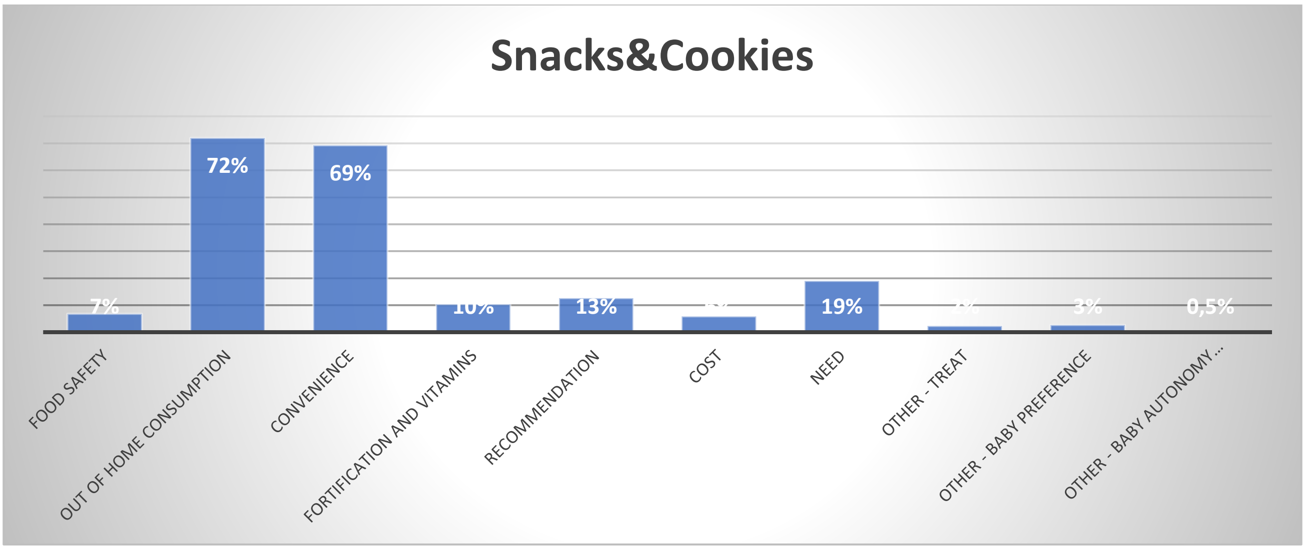
YOGURTS AND MILKIES



Yogurths and Milkies		
Fortification and vitamins	102	43%
Out of home consumption	101	43%
Convenience	106	45%
Recommendation	75	32%
Cost	11	5%
Need	66	28%
Food safety	36	15%
Other - Baby preference	2	1%
Other - Meals diversification	1	0%

Figure 20 – Survey results: Why do you buy these products? (Yogurts and Milkies)

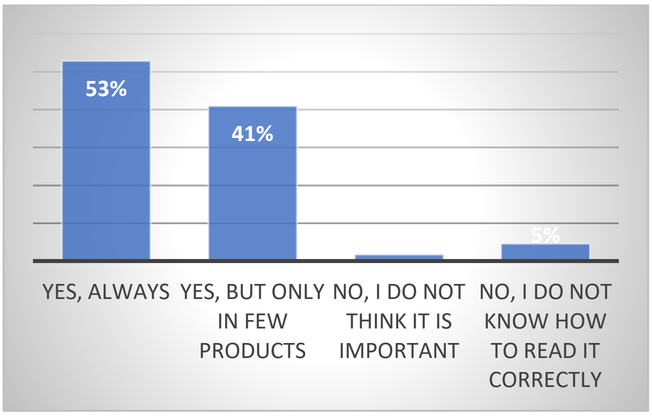
SNACKS&COOKIES



Snacks&Cookies		
Food safety	15	7%
Out of home consumption	159	72%
Convenience	153	69%
Fortification and vitamins	23	10%
Recommendation	28	13%
Cost	13	6%
Need	42	19%
Other - Treat	5	2%
Other - Baby preference	6	3%
Other - Baby autonomy development	1	0,5%

Figure 21 – Survey results: Why do you buy these products? (Snacks & Cookies)

ANNEX 15 – SURVEY RESULTS: Do you have the habit of reading the ingredient list and nutritional table of Infant Nutrition products?



To read labels habit		
Yes, always	186	53%
Yes, but only in few products	144	41%
No, I do not think it is important	6	2%
No, I do not know how to read it correctly	16	5%

Figure 22 – Survey results: To read labels habit

ANNEX 16 – SURVEY RESULTS: Do you have the habit of reading the ingredient list and nutritional table of Infant Nutrition products? (Parents with babies with less than 12 months)

Habit in parents with babies with less 12months		
Yes, always	14	80%
Yes, but only in few products	2	12%

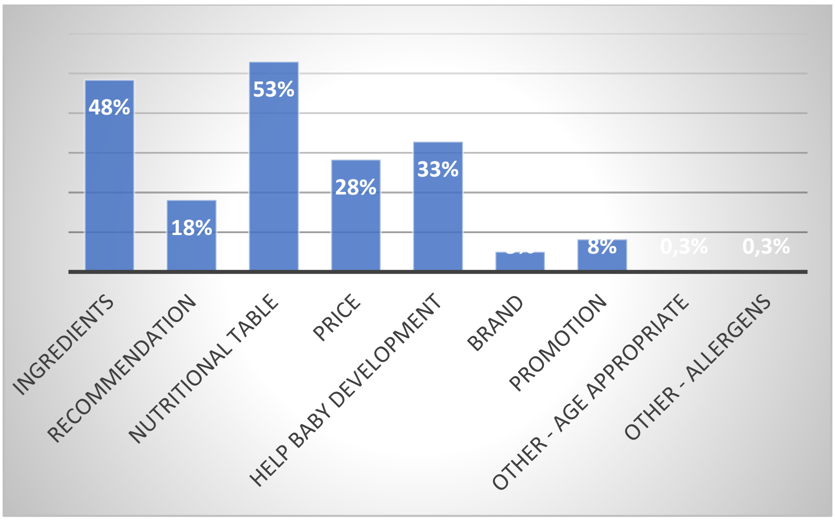
Figure 23 – Survey results: To read labels habit of parents with babies with less than 12 months

ANNEX 17 – SURVEY RESULTS: Likert Scale from 1 to 7

Likert Scale Question	N	*M*	SD
I trust commercialized Infant Nutrition products	353	4,428	4,205
I distrust commercialized Infant Nutrition products	353	3,601	3,582
If I had time, I would prepare all meals and snacks at home	353	6,119	5,807
I look for a balance between the best for the baby and my available ti	353	6,085	5,711
: I value commercialized options that allow me to save time	353	4,309	4,206
I prefer Infant Nutrition products without added sugars	353	6,445	6,027
I prefer to give organic products to my baby	353	5,720	5,457
I consider organic products healthier for my baby	353	5,881	5,558
I am willing to pay more for healthier products for my baby	353	6,159	5,787
I prefer products made in Portugal	353	5,181	4,992
I value Infant Nutrition products that are more environment friendly	353	5,431	5,145

Figure 24 – Survey results: Likert Scale Results

ANNEX 18 – SURVEY RESULTS: Which are the most important factors for you for choosing an Infant Nutrition product?



Ingredients	171	48%
Recommendation	64	18%
Nutritional table	187	53%
Price	100	28%
Help baby development	116	33%
Brand	18	5%
Promotion	29	8%
Other - Age appropriate	1	0,3%
Other - Allergens	1	0,3%

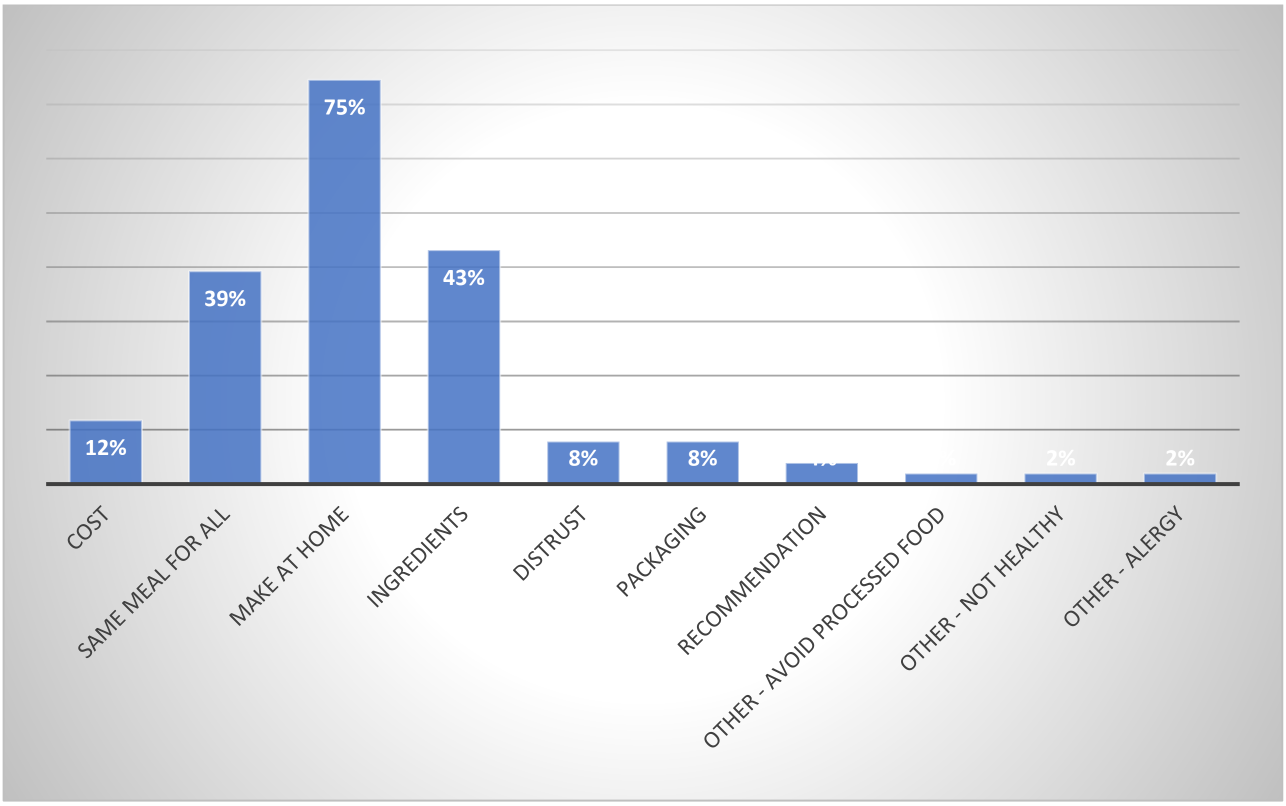
Figure 25 – Survey results: Which are the most important factors for you for choosing an Infant Nutrition product?

ANNEX 19 – SURVEY RESULTS: Segments most bought by parents that value the price

Segments most bought by parents that value the price	
Infant Formula	26%
Infant Cereals	**66%**
Growing Up Milk	8%
Fruit Puree	**75%**
Meals Jars	13%
Yogurts and Milkies	**69%**
Snacks&Cookies	**69%**

Figure 26 – Survey results: Segments most bought by parents that value the price

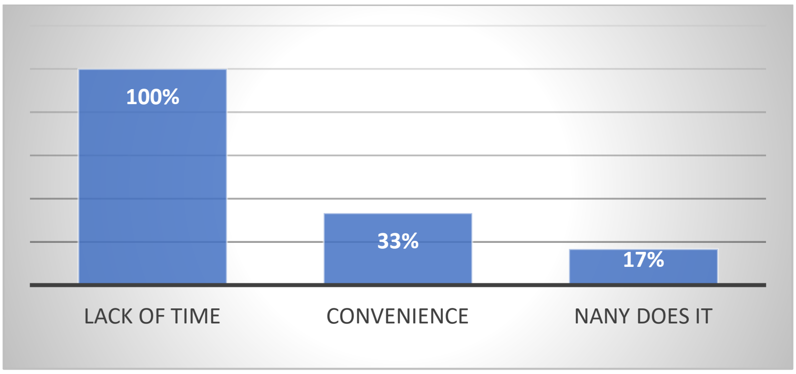
ANNEX 20 – SURVEY RESULTS: Reasons for not buying Infant Nutrition products



Cost	6	12%
Same meal for all	20	39%
Make at home	38	75%
Ingredients	22	43%
Distrust	4	8%
Packaging	4	8%
Recommendation	2	4%
Other - Avoid processed food	1	2%
Other - Not healthy	1	2%
Other - Alergy	1	2%

Figure 27 – Survey results: Reasons for not buying Infant Nutrition products

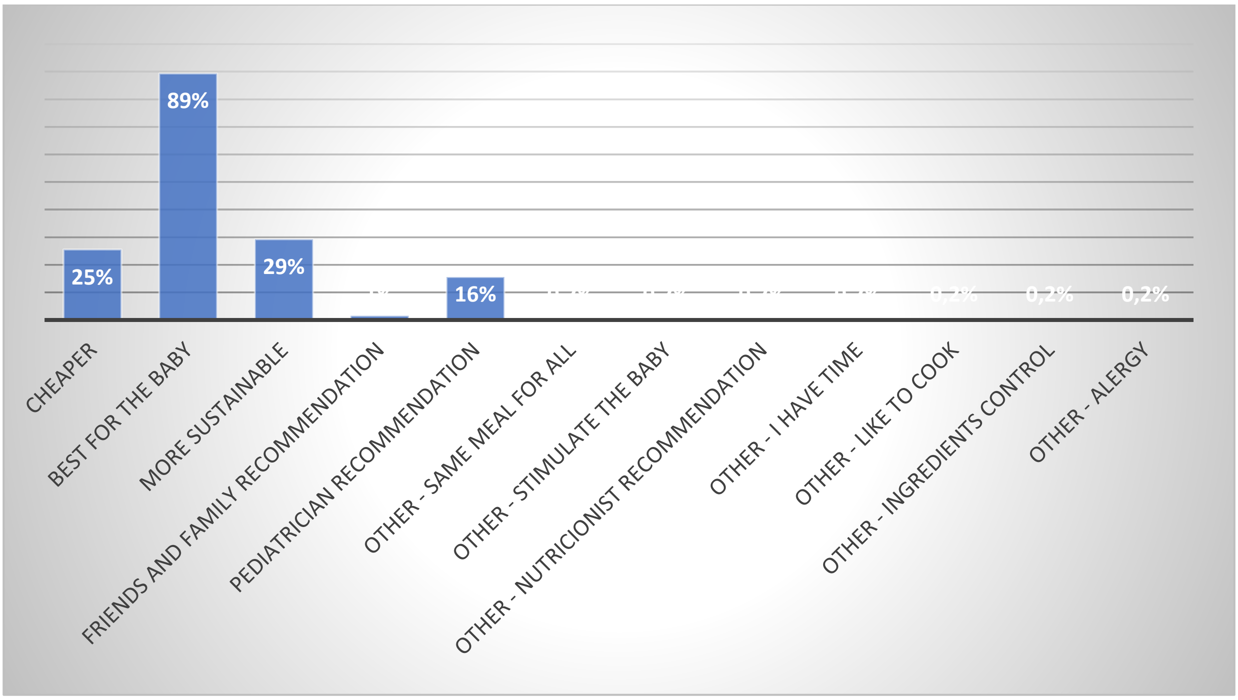
ANNEX 21 – SURVEY RESULTS: Why do you not prepare meals/snacks at home?



Lack of time	6	100%
Convenience	2	33%
Nany does it	1	17%

Figure 28 – Survey results: Why do you not prepare meals/snacks at home?

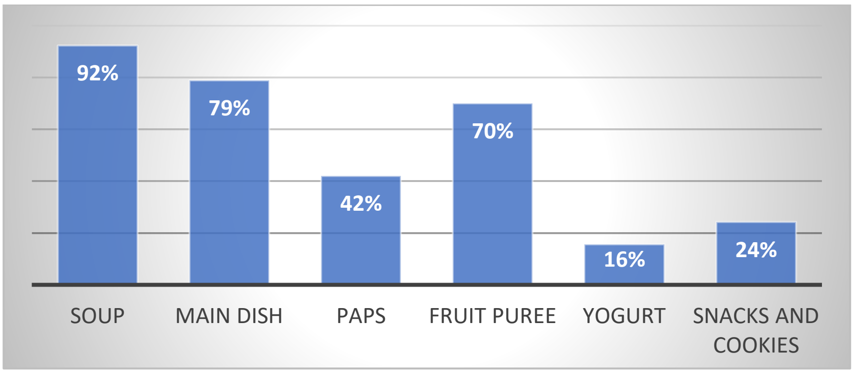
ANNEX 22 – SURVEY RESULTS: Why do you prepare meals/snacks at home?



Cheaper	103	25%
Best for the baby	361	89%
More sustainable	118	29%
Friends and family recommendation	6	1%
Pediatrician recommendation	63	16%
Other - Same meal for all	1	0,2%
Other - Stimulate the baby	1	0,2%
Other - Nutricionist recommendatio	1	0,2%
Other - I have time	1	0,2%
Other - Like to cook	1	0,2%
Other - Ingredients control	1	0,2%
Other - Alergy	1	0,2%

Figure 29 – Survey results: Why do you prepare meals/snacks at home?

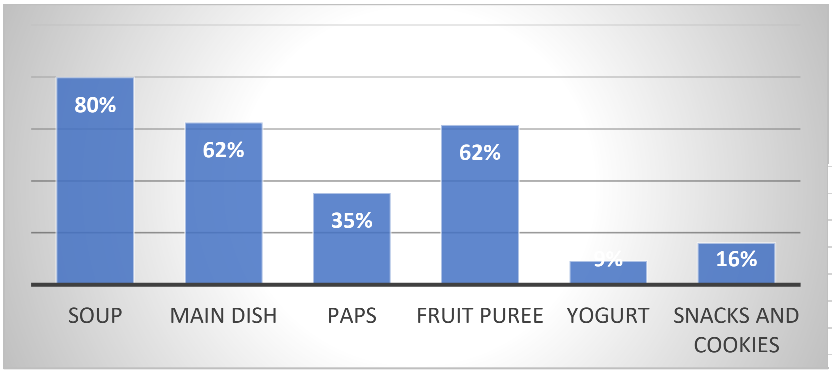
ANNEX 23 – SURVEY RESULTS: Which meals/snacks do you prepare for your baby?



Soup	373	92%
Main dish	319	79%
Paps	170	42%
Fruit puree	283	70%
Yogurt	63	16%
Snacks and cookies	98	24%

Figure 30 – Survey results: Which meals/snacks do you prepare for your baby?

ANNEX 24 – SURVEY RESULTS: Which meals/snacks do you prepare for your baby? (Parents with only 1 child)



Parents with 1 baby		
Soup	183	80%
Main dish	143	62%
Paps	81	35%
Fruit puree	141	62%
Yogurt	21	9%
Snacks and cookies	37	16%

Figure 31 – Survey results: Which meals/snacks do you prepare for your baby? (Parents with only 1 child)

ANNEX 25 – SURVEY RESULTS: Brand recall

Nestlé	**289**	**76%**
Blédina	**201**	**53%**
Nutribén	**160**	**42%**
Cerelac	130	34%
Holle	108	28%
Hero	85	22%
Aptamil	44	12%
NAN	42	11%
Hero baby	28	7%
Continente	30	8%
Mimosa	23	6%
Danone	23	6%
Smileat	15	4%
Yogolino	14	4%
Continente do bebé	14	4%
Marcas próprias	13	3%
Pingo doce	12	3%
Milupa	12	3%
Nestum	11	3%
Novalac	10	3%

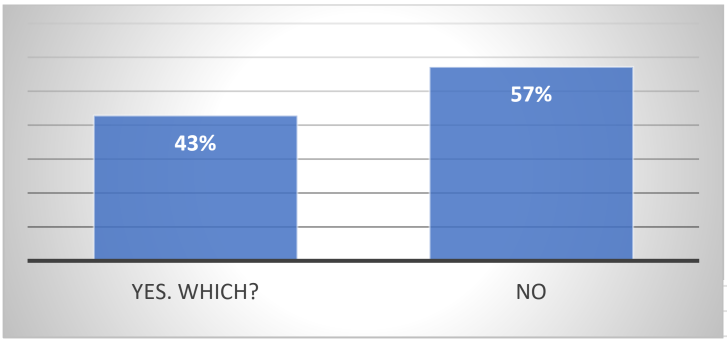
Figure 32 – Survey results: Most referred brands when parents were asked by Infant Nutrition brands, they know without a list being given

ANNEX 26 – SURVEY RESULTS: Brand awareness

Nestlé	238	**63%**
Cerelac	207	**55%**
Blédina	166	**44%**
Nutribén	163	**43%**
Continente do bebé	160	**42%**
Yogolino	124	33%
Hero Baby	124	33%
Mimosa	118	31%
Holle	111	29%
Marca Própria do Pingo Doce	96	25%
NAN	94	25%
Lupilu	80	21%
Baby Wells	80	21%
Naturnes BIO	76	20%
Nestlé Junior	72	19%
Aptamil	71	19%

Figure 33 – Survey results: Most selected brands when parents were asked by Infant Nutrition brands, they know from a given list

ANNEX 27 – SURVEY RESULTS: Do you have a favorite Infant Nutrition brand?

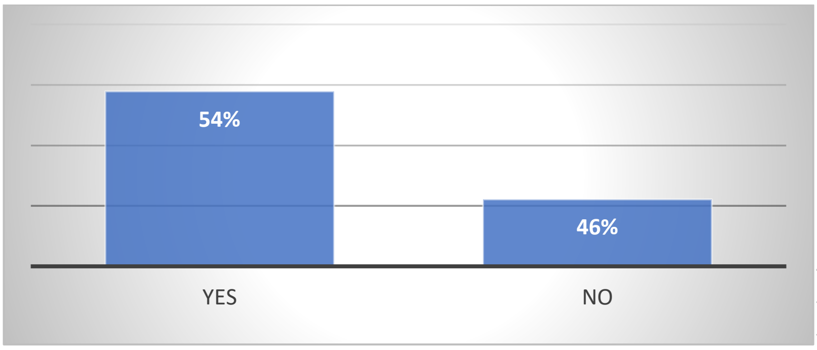


Yes. Which?	173	43%
No	231	57%

Favorite Brands	#	%
Nestlé	50	28%
Holle	30	17%
Hero Baby	24	14%
Nutribén	20	11%
NAN	9	5%
Blédina	9	5%
Cerelac	8	5%
Continente	7	4%
Aptamil	6	3%
Naturnes bio	3	2%
Cerelac	2	1%
Novalac	1	1%
Nestum	1	1%
Nat	1	1%
Humana	1	1%
Pingo doce	1	1%
Pingo doce	1	1%
Smileat	1	1%
Baby wells	1	1%
Marca própria intermarché	1	1%

Figure 34 – Survey results: Do you have a favorite Infant Nutrition brand? And list of the favorite ones.

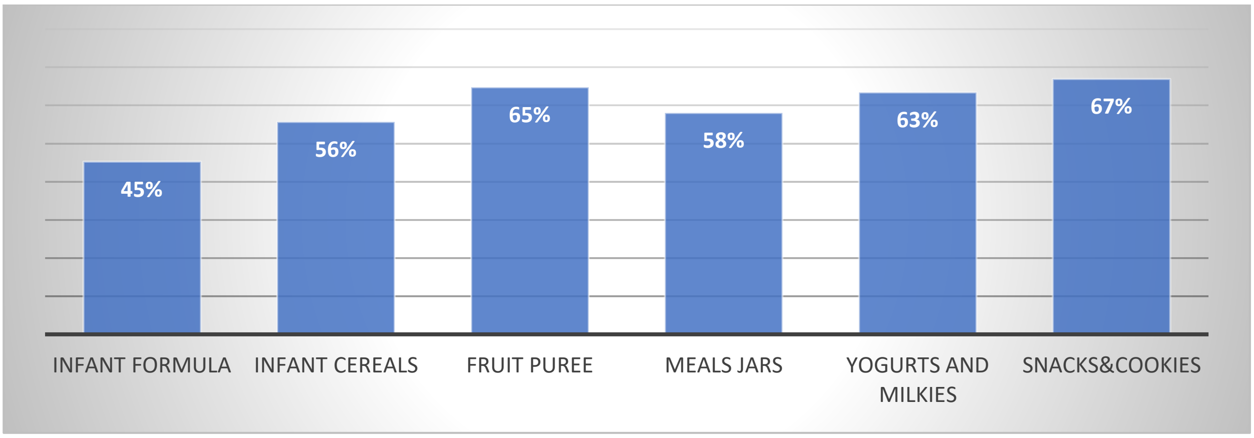
ANNEX 28 – SURVEY RESULTS: Do you have the habit of buying retail brands Infant Nutrition products?



Yes	220	54%
No	184	46%

Figure 35 – Survey results: Habit of buying retail brands Infant Nutrition products

ANNEX 29 – SURVEY RESULTS: Do you have the habit of buying retail brands Infant Nutrition products? (By product segment)



Habit of buying retail brands by segment	
Infant Formula	45%
Infant Cereals	56%
Fruit Puree	65%
Meals Jars	58%
Yogurts and Milkies	63%
Snacks&Cookies	67%

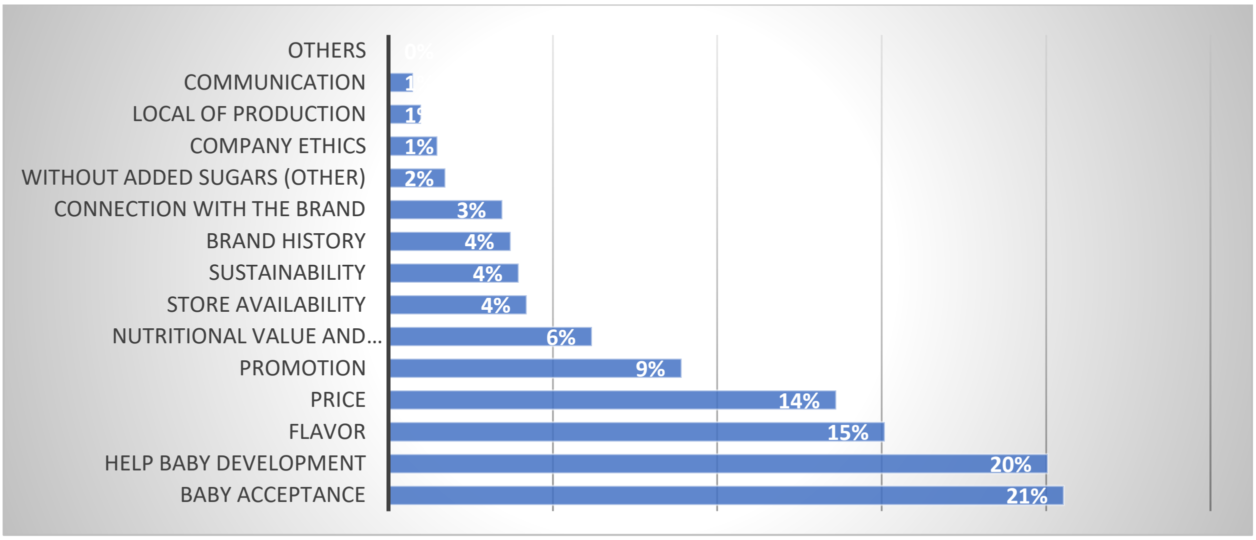
Figure 36 – Survey results: Habit of buying retail brands Infant Nutrition products of the people who buy each segment

ANNEX 30 – SURVEY RESULTS: Likert Scale from 1 to 7

Likert Scale Question	N	*M*	SD
Normally I buy always the same Infant Nutrition brand	404	4,394	4,392
Normally I buy always the same Infant Nutrition brand - Infant Formula	9	5,667	5,538
Normally I buy always the same Infant Nutrition brand - Infant Cereals	11	5,091	4,899
Normally I buy always the same Infant Nutrition brand - Fruit Puree	10	3,300	3,376
: Usually, I vary between different Infant Nutrition brands	404	4,176	4,189
Normally I buy always the same Infant Nutrition brand regardless of price	404	4,101	4,143
I prefer to buy well known and big dimension Infant Nutrition brands	404	3,225	3,319
I like to give to my baby the same brands I ate with his age	404	2,280	2,429
Usually, I buy the Infant Nutrition brand that is cheaper	404	3,359	3,440
Usually, I buy the same Infant Nutrition brand if it is on promotion	404	3,740	3,810

Figure 37 – Survey results: Likert scale

ANNEX 31 – SURVEY RESULTS: What makes you prefer one Infant Nutrition brand over another?



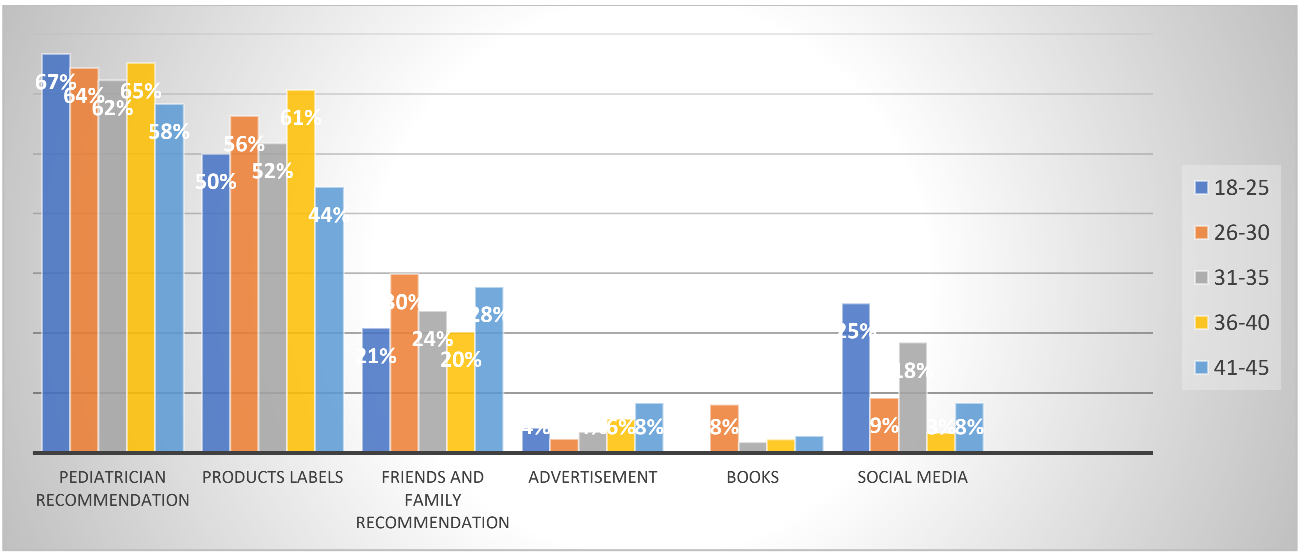
Baby acceptance	83	21%
Help baby development	81	20%
Flavor	61	15%
Price	55	14%
Promotion	36	9%
Nutritional value and ingredients (Other)	25	6%
Store Availability	17	4%
Sustainability	16	4%
Brand History	15	4%
Connection with the brand	14	3%
Without added sugars (Other)	7	2%
Company ethics	6	1%
Local of production	4	1%
Communication	3	1%
Others	0	0%

Others pointed out by parents
Nutritionist/pediatrician recommendation
Healthier
Allergens
Benefit for the baby
More natural

Figure 38 – Survey results: What makes you prefer one Infant Nutrition brand over another?

PROFILE ANALYSIS

ANNEX 32 – SURVEY RESULTS – PROFILE ANALYSIS (AGE): SOURCES OF INFORMATION



18-25	24	
Pediatrician recommendation	16	67%
Products labels	12	50%
Friends and family recommendation	5	21%
Advertisement	1	4%
Books	0	0%
Social media	6	25%

26-30	87	
Pediatrician recommendation	56	64%
Products labels	49	56%
Friends and family recommendation	26	30%
Advertisement	2	2%
Books	7	8%
Social media	8	9%

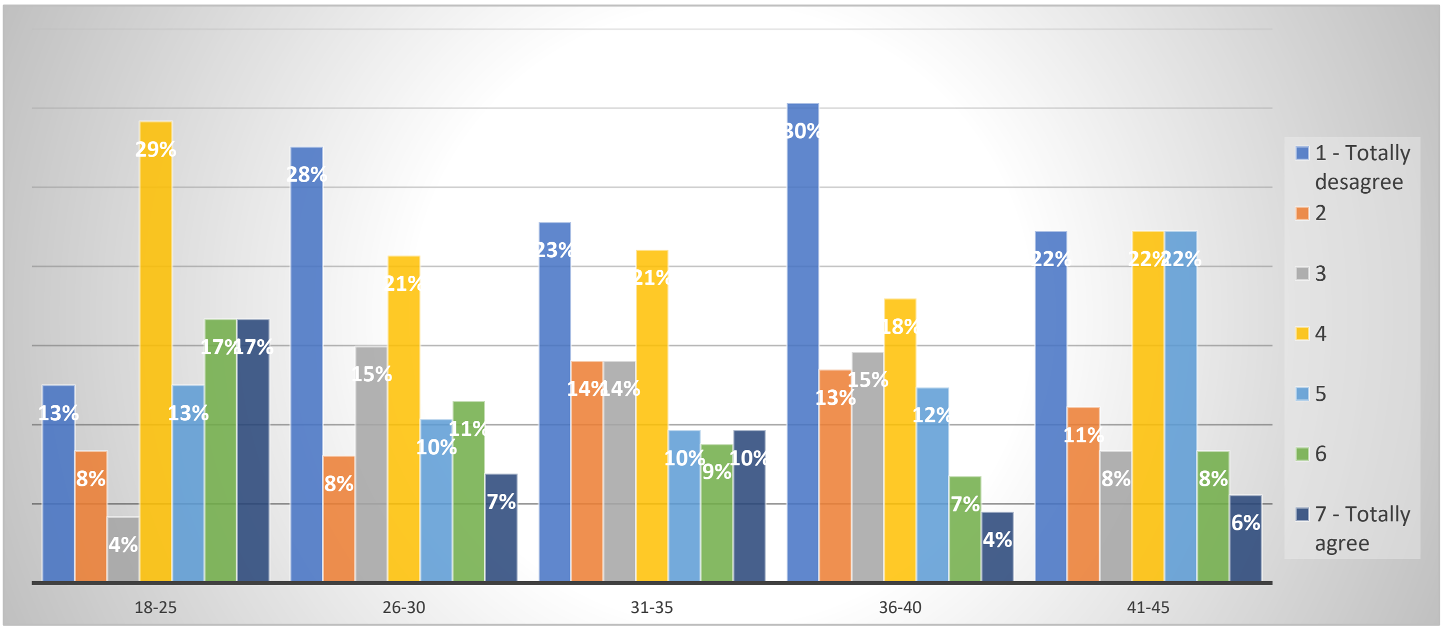
31-35	114	
Pediatrician recommendation	71	62%
Products labels	59	52%
Friends and family recommendation	27	24%
Advertisement	4	4%
Books	2	2%
Social media	21	18%

36-40	89	
Pediatrician recommendation	58	65%
Products labels	54	61%
Friends and family recommendation	18	20%
Advertisement	5	6%
Books	2	2%
Social media	3	3%

41-45	36	
Pediatrician recommendation	21	58%
Products labels	16	44%
Friends and family recommendation	10	28%
Advertisement	3	8%
Books	1	3%
Social media	3	8%

Figure 39 – Survey results: Profile Analysis: What are the information sources that help you deciding which Infant Nutrition products to buy? – Segmented by age

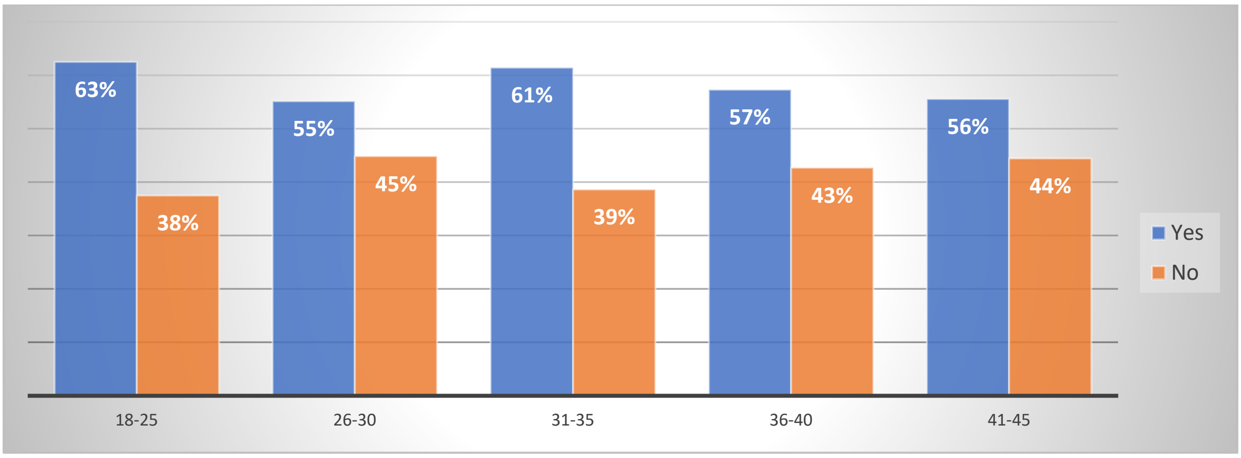
ANNEX 33 – SURVEY RESULTS – PROFILE ANALYSIS (AGE): Usually, I buy the Infant Nutrition brand that is cheaper (Likert Scale from 1 to 7)



Age ranges	N	*M*	SD
18-25	24	4,375	4,291
26-30	87	3,402	3,457
31-35	114	3,456	3,502
36-40	89	3,067	3,112
41-45	36	3,583	3,559

Figure 40 – Survey results: Profile Analysis: Usually, I buy the Infant Nutrition brand that is cheaper (Likert Scale from 1 to 7) – Segmented by age

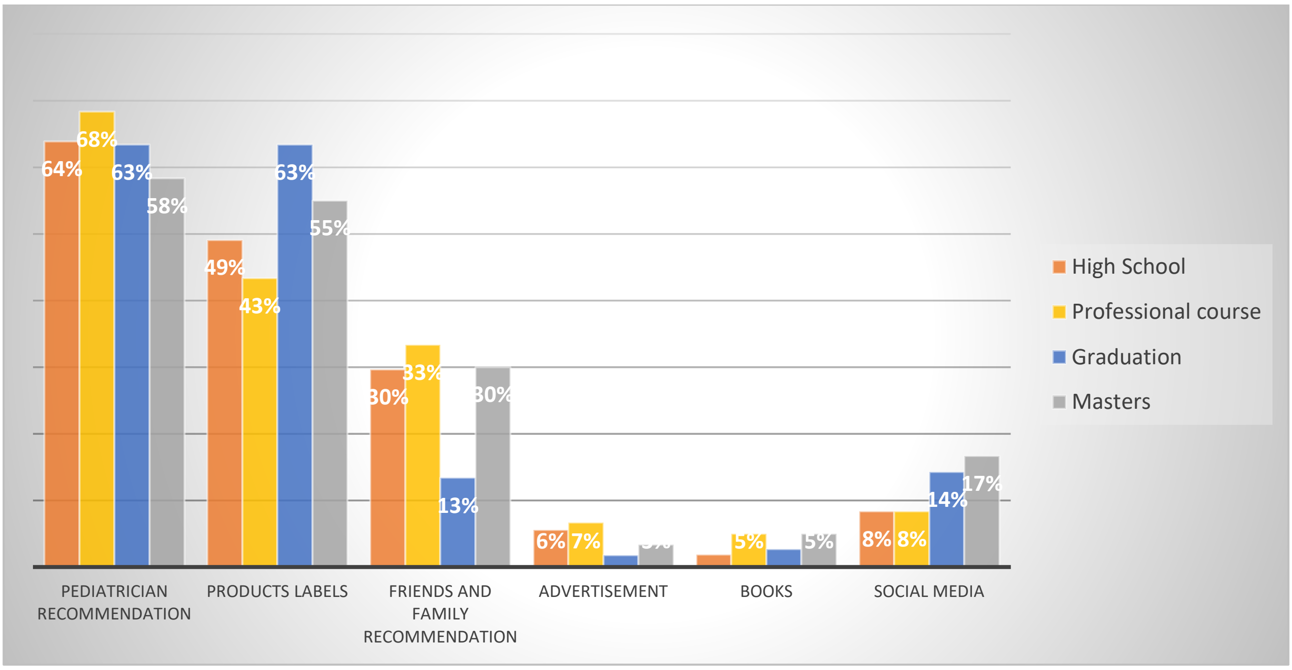
ANNEX 34 – SURVEY RESULTS – PROFILE ANALYSIS (AGE): Do you have the habit of buying retail brands Infant Nutrition products?



	18-25	26-30	31-35	36-40	41-45
Yes	63%	55%	61%	57%	56%
No	38%	45%	39%	43%	44%

Figure 41 – Survey results: Profile Analysis: Do you have the habit of buying retail brands Infant Nutrition products? – Segmented by age

ANNEX 35 – SURVEY RESULTS – PROFILE ANALYSIS (EDUCATION): SOURCES OF INFORMATION



High School	108	
Pediatrician recommendation	69	64%
Products labels	53	49%
Friends and family recommendation	32	30%
Advertisement	6	6%
Books	2	2%
Social media	9	8%

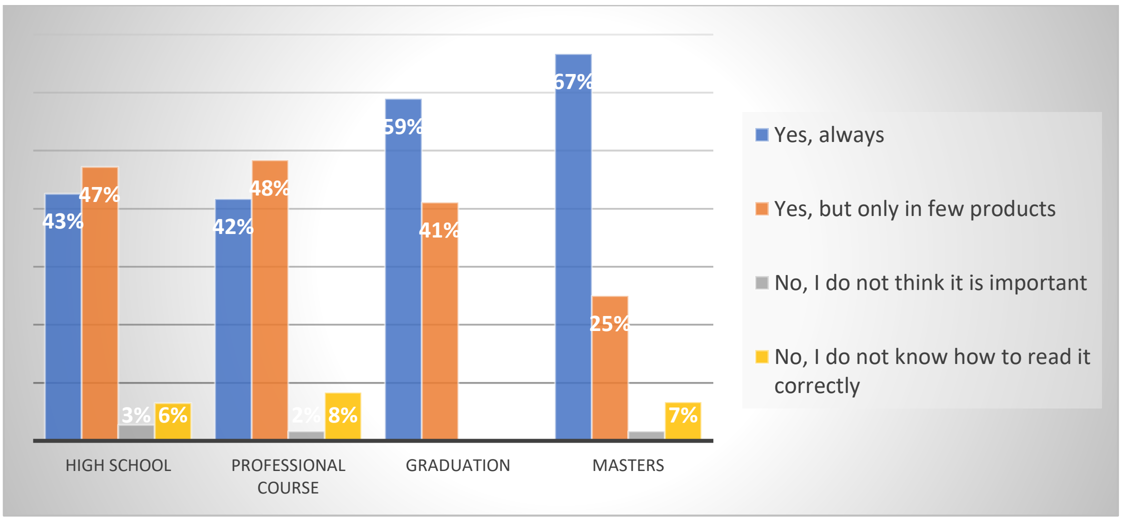
Professional course	60	
Pediatrician recommendation	41	68%
Products labels	26	43%
Friends and family recommendation	20	33%
Advertisement	4	7%
Books	3	5%
Social media	5	8%

Graduation	112	
Pediatrician recommendation	71	63%
Products labels	71	63%
Friends and family recommendation	15	13%
Advertisement	2	2%
Books	3	3%
Social media	16	14%

Masters	60	
Pediatrician recommendation	35	58%
Products labels	33	55%
Friends and family recommendation	18	30%
Advertisement	2	3%
Books	3	5%
Social media	10	17%

Figure 42 – Survey results: Profile Analysis: What are the information sources that help you deciding which Infant Nutrition products to buy? – Segmented by education level

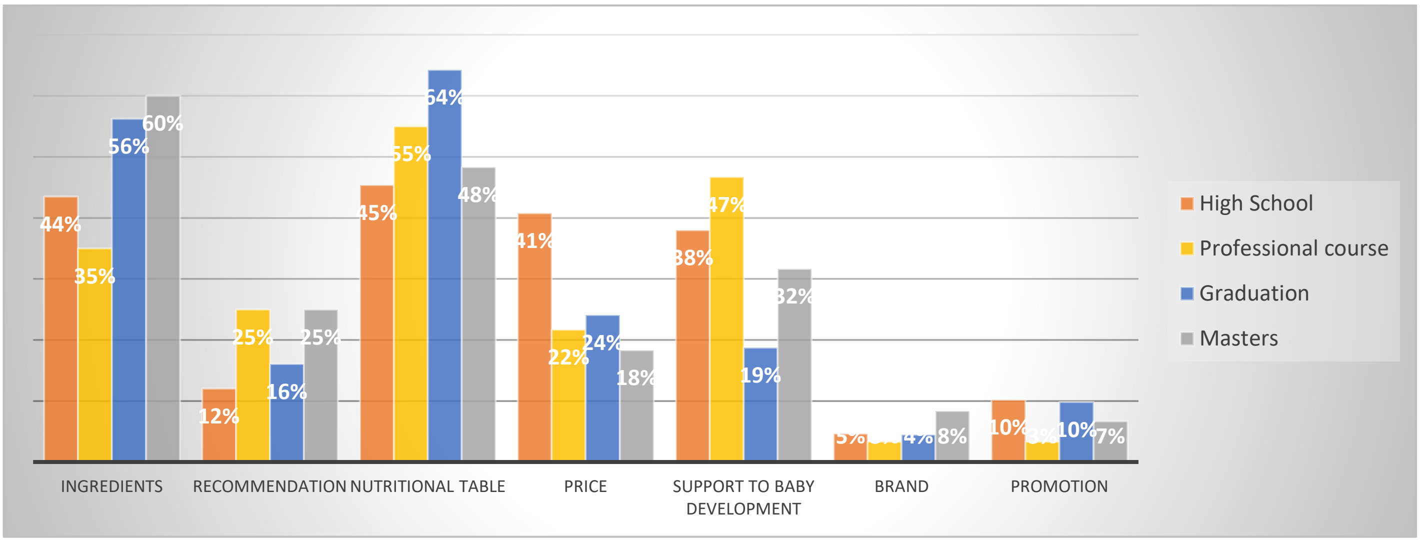
ANNEX 36 – SURVEY RESULTS – PROFILE ANALYSIS (EDUCATION): Habit of reading label



	High School	Professional course	Graduation	Masters
Yes, always	43%	42%	59%	67%
Yes, but only in few products	47%	48%	41%	25%
No, I do not think it is important	3%	2%	0%	2%
No, I do not know how to read it corr	6%	8%	0%	7%

Figure 43 – Survey results: Profile Analysis: Do you have the habit of reading the ingredient list and nutritional table of Infant Nutrition products? – Segmented by education level

ANNEX 37 – SURVEY RESULTS – PROFILE ANALYSIS (EDUCATION): Which are the most important factors for you for choosing an Infant Nutrition product?



High School		
Ingredients	47	44%
Recommendation	13	12%
Nutritional Table	49	45%
Price	44	41%
Support to baby development	41	38%
Brand	5	5%
Promotion	11	10%

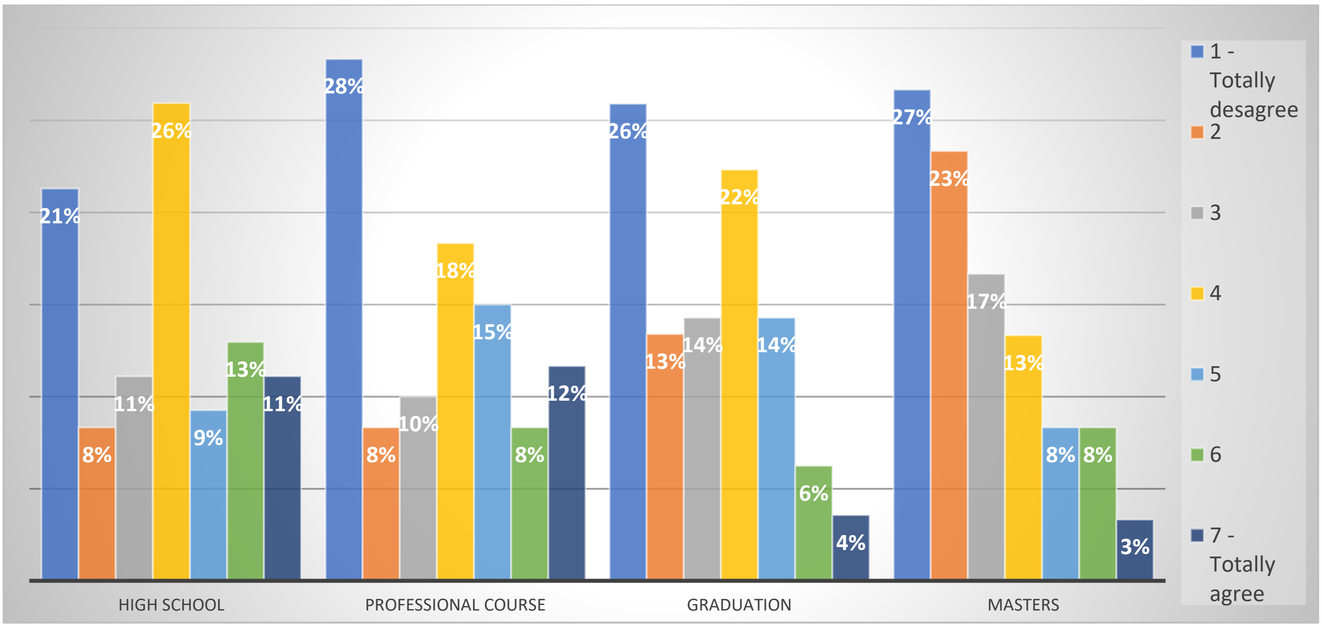
Professional course		
Ingredients	21	35%
Recommendation	15	25%
Nutritional Table	33	55%
Price	13	22%
Support to baby development	28	47%
Brand	2	3%
Promotion	2	3%

Graduation		
Ingredients	63	56%
Recommendation	18	16%
Nutritional Table	72	64%
Price	27	24%
Support to baby development	21	19%
Brand	5	4%
Promotion	11	10%

Masters		
Ingredients	36	60%
Recommendation	15	25%
Nutritional Table	29	48%
Price	11	18%
Support to baby development	19	32%
Brand	5	8%
Promotion	4	7%

Figure 44 – Survey results: Profile Analysis: Which are the most important factors for you for choosing an Infant Nutrition product? – Segmented by education level

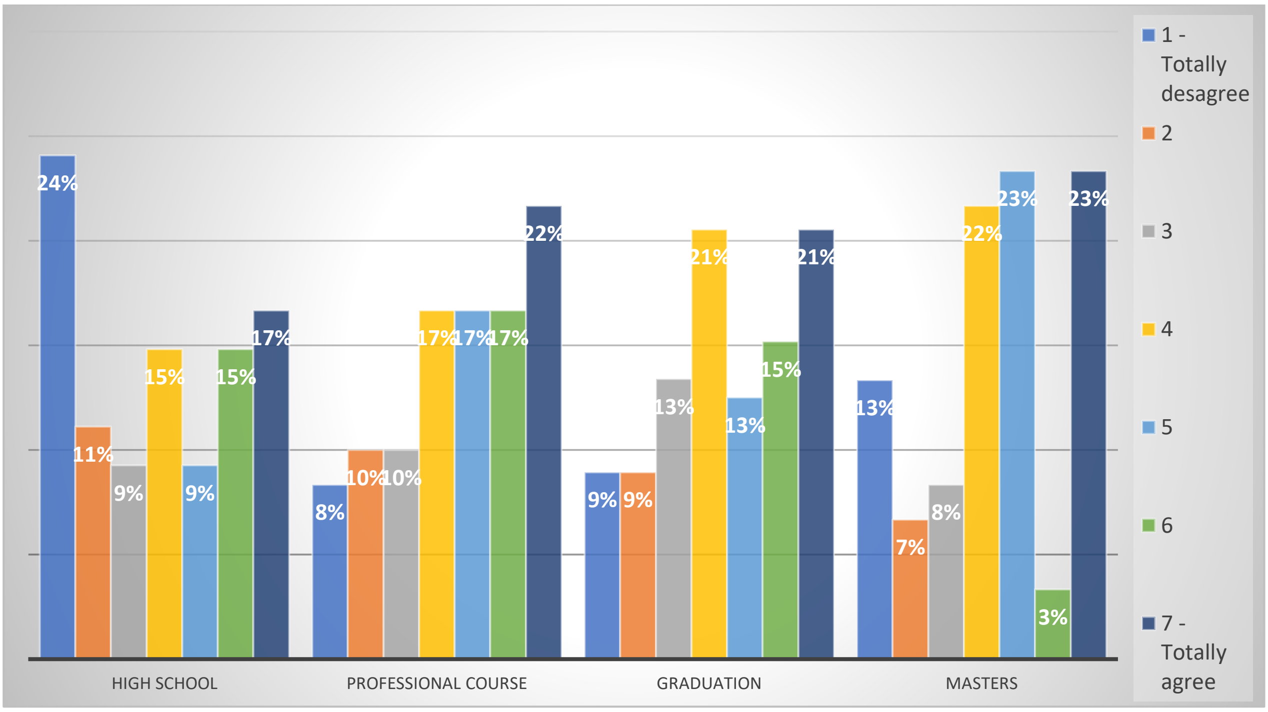
ANNEX 38 – SURVEY RESULTS – PROFILE ANALYSIS (EDUCATION): Usually, I buy the Infant Nutrition brand that is cheaper (Likert Scale from 1 to 7)



Education levels	N	*M*	SD
High School	108	3,769	3,788
Professional course	60	3,550	3,656
Graduation	112	3,188	3,168
Masters	60	2,917	2,938

Figure 45 – Survey results: Profile Analysis: Usually, I buy the Infant Nutrition brand that is cheaper (Likert Scale from 1 to 7) – Segmented by education level

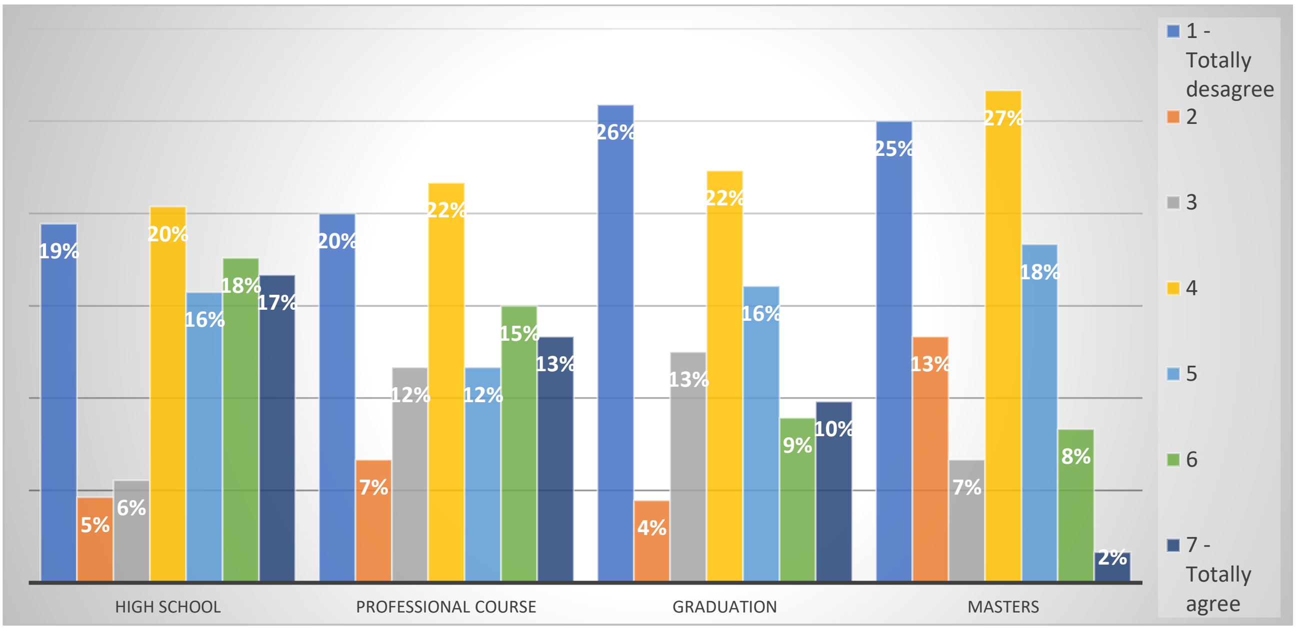
ANNEX 39 – SURVEY RESULTS – PROFILE ANALYSIS (EDUCATION): Normally I buy always the same Infant Nutrition brand regardless of price (Likert Scale from 1 to 7)



Education levels	N	*M*	SD
High School	108	3,852	2,772
Professional course	60	4,600	3,101
Graduation	112	4,464	4,373
Masters	60	4,383	2,696

Figure 46 – Survey results: Profile Analysis: Normally I buy always the same Infant Nutrition brand regardless of price (Likert Scale from 1 to 7) – Segmented by education level

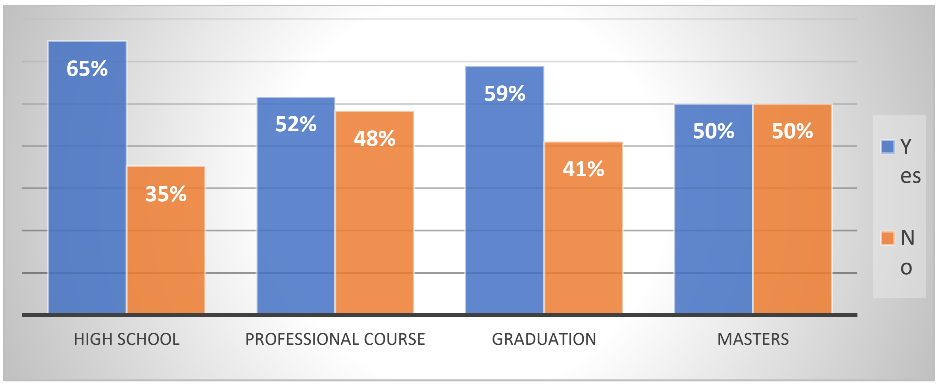
ANNEX 40 – SURVEY RESULTS – PROFILE ANALYSIS (EDUCATION): Usually, I buy the Infant Nutrition brand that is on promotion (Likert Scale from 1 to 7)



Education levels	N	*M*	SD
High School	108	4,278	4,277
Professional course	60	3,967	3,983
Graduation	112	3,643	3,679
Masters	60	3,317	3,276

Figure 47 – Survey results: Profile Analysis: Usually, I buy the Infant Nutrition brand that is on promotion (Likert Scale from 1 to 7) – Segmented by education level

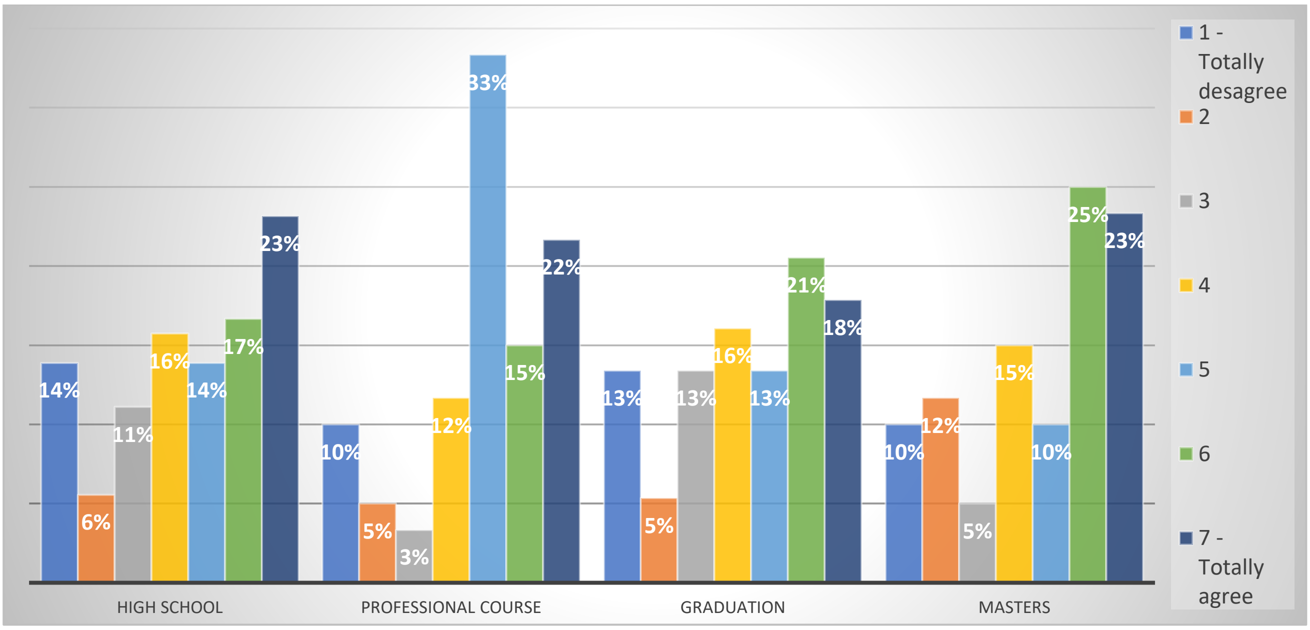
ANNEX 41 – SURVEY RESULTS – PROFILE ANALYSIS (EDUCATION): Do you have the habit of buying retail brands Infant Nutrition products?



	High School	Professional course	Graduation	Masters
Yes	65%	52%	59%	50%
No	35%	48%	41%	50%

Figure 48 – Survey results: Profile Analysis: Do you have the habit of buying retail brands Infant Nutrition products? – Segmented by education level

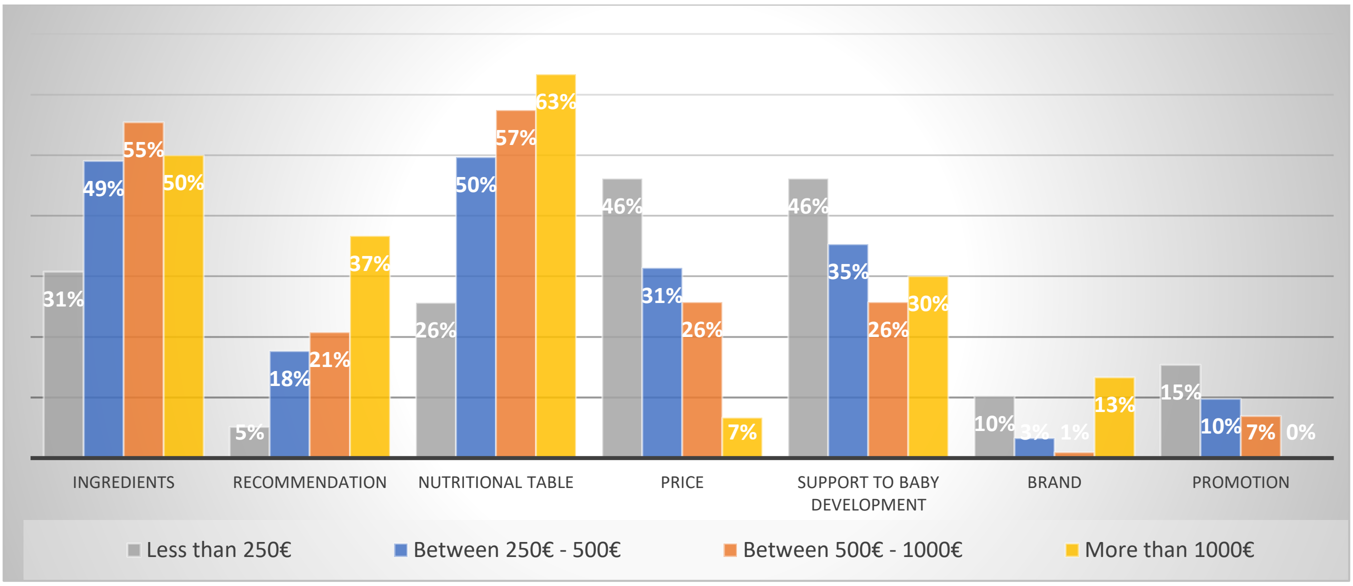
ANNEX 42 – SURVEY RESULTS – PROFILE ANALYSIS (EDUCATION): Normally I buy always the same Infant Nutrition brand (Likert Scale from 1 to 7)



Education levels	N	*M*	SD
High School	108	4,528	4,491
Professional course	60	4,850	4,687
Graduation	112	4,438	4,379
Masters	60	4,717	4,651

Figure 49 – Survey results: Profile Analysis: Normally I buy always the same Infant Nutrition brand (Likert Scale from 1 to 7) – Segmented by education level

ANNEX 43 – SURVEY RESULTS – PROFILE ANALYSIS (INCOME): Which are the most important factors for you for choosing an Infant Nutrition product?



Less than 250€		
Ingredients	12	31%
Recommendation	2	5%
Nutritional Table	10	26%
Price	18	46%
Support to baby development	18	46%
Brand	4	10%
Promotion	6	15%

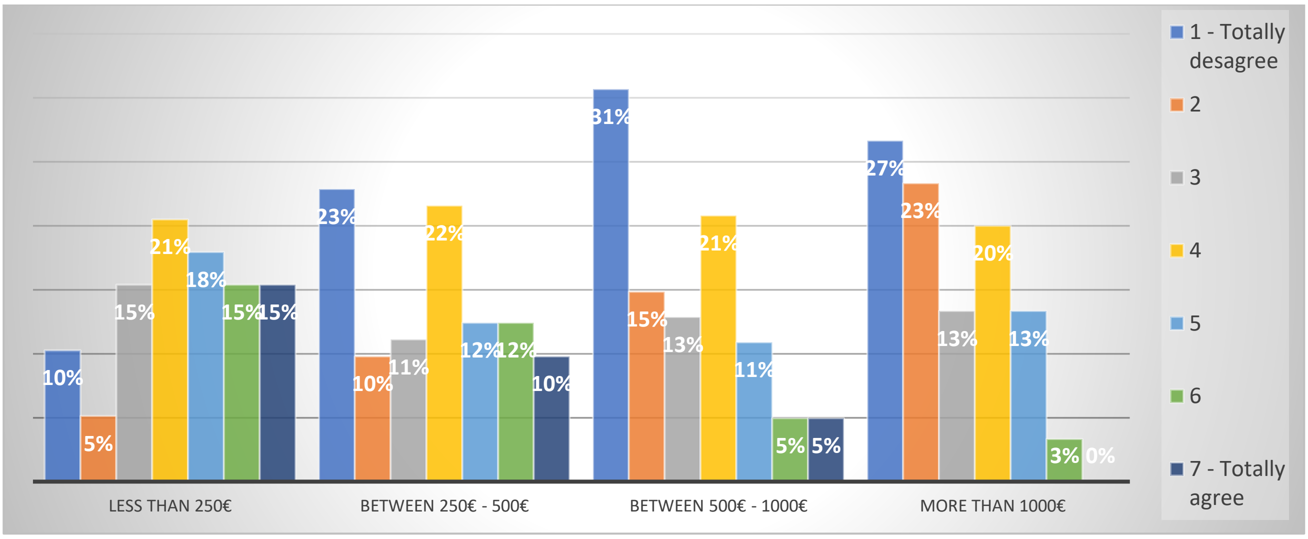
Between 250€ - 500€		
Ingredients	75	49%
Recommendation	27	18%
Nutritional Table	76	50%
Price	48	31%
Support to baby development	54	35%
Brand	5	3%
Promotion	15	10%

Between 500€ - 1000€		
Ingredients	56	55%
Recommendation	21	21%
Nutritional Table	58	57%
Price	26	26%
Support to baby development	26	26%
Brand	1	1%
Promotion	7	7%

More than 1000€		
Ingredients	15	50%
Recommendation	11	37%
Nutritional Table	19	63%
Price	2	7%
Support to baby development	9	30%
Brand	4	13%
Promotion	0	0%

Figure 50 – Survey results: Profile Analysis: Which are the most important factors for you for choosing an Infant Nutrition product? – Segmented by income level

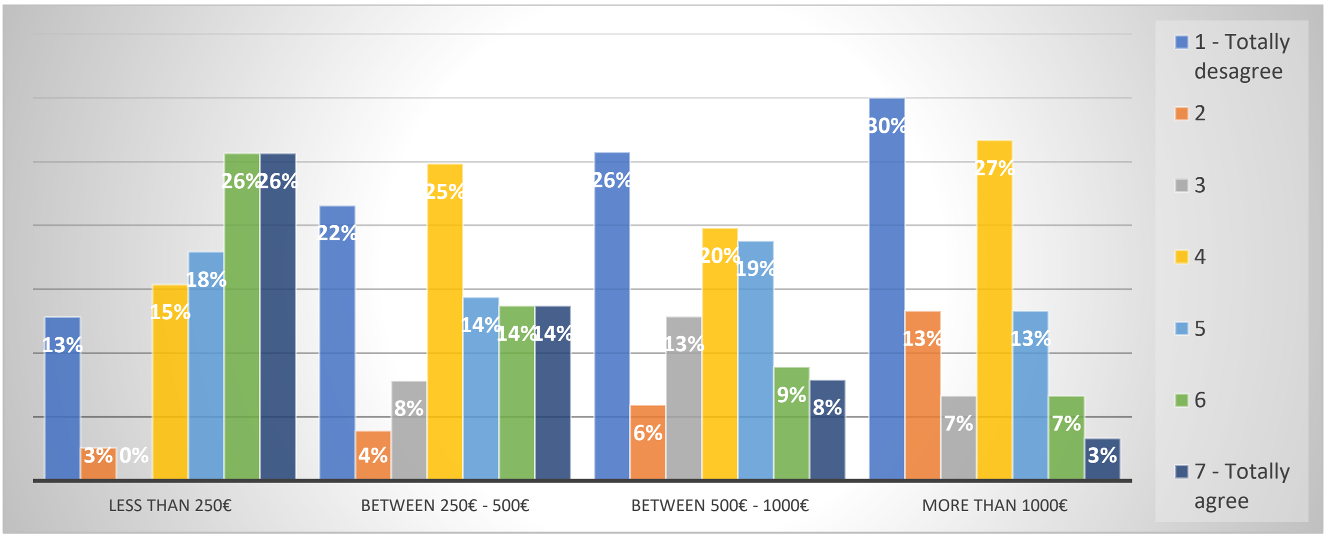
ANNEX 44 – SURVEY RESULTS – PROFILE ANALYSIS (INCOME): Usually, I buy the Infant Nutrition brand that is cheaper (Likert Scale from 1 to 7)



Income levels	N	*M*	SD
Less than 250€	39	4,385	4,261
Between 250€ - 500€	153	3,673	3,712
Between 500€ - 1000€	101	3,010	3,051
More than 1000€	30	2,800	2,708

Figure 51 – Survey results: Profile Analysis: Usually, I buy the Infant Nutrition brand that is cheaper (Likert Scale from 1 to 7) – Segmented by income level

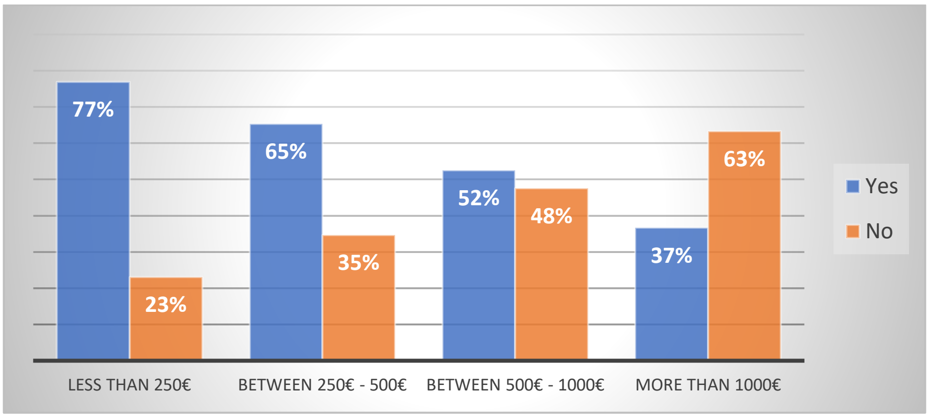
ANNEX 45 – SURVEY RESULTS – PROFILE ANALYSIS (INCOME): Usually, I buy the Infant Nutrition brand that is on promotion (Likert Scale from 1 to 7)



Income levels	N	*M*	SD
Less than 250€	39	5,026	4,894
Between 250€ - 500€	153	4,026	4,036
Between 500€ - 1000€	101	3,584	3,610
More than 1000€	30	3,133	3,152

Figure 52 – Survey results: Profile Analysis: Usually, I buy the Infant Nutrition brand that is on promotion (Likert Scale from 1 to 7) – Segmented by income level

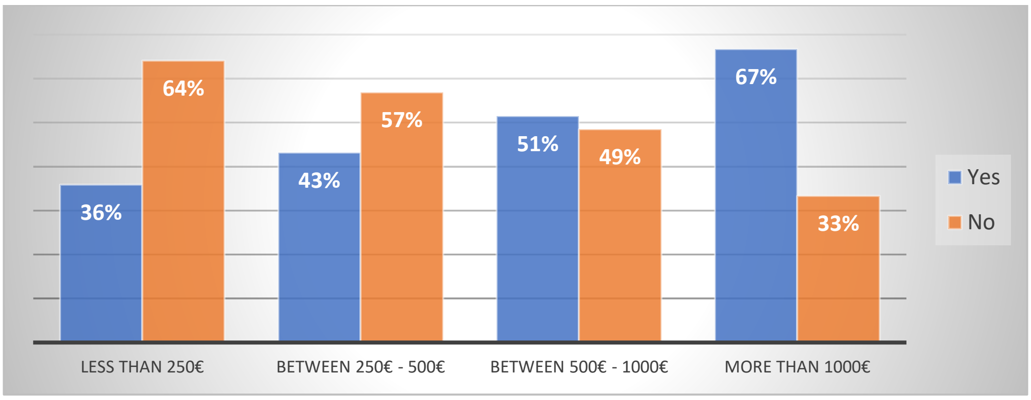
ANNEX 46 – SURVEY RESULTS – PROFILE ANALYSIS (INCOME): Do you have the habit of buying retail brands Infant Nutrition products?



	Less than 250€	Between 250€ - 500€	Between 500€ - 1000€	More than 1000€
Yes	77%	65%	52%	37%
No	23%	35%	48%	63%

Figure 53 – Survey results: Profile Analysis: Do you have the habit of buying retail brands Infant Nutrition products? – Segmented by income level

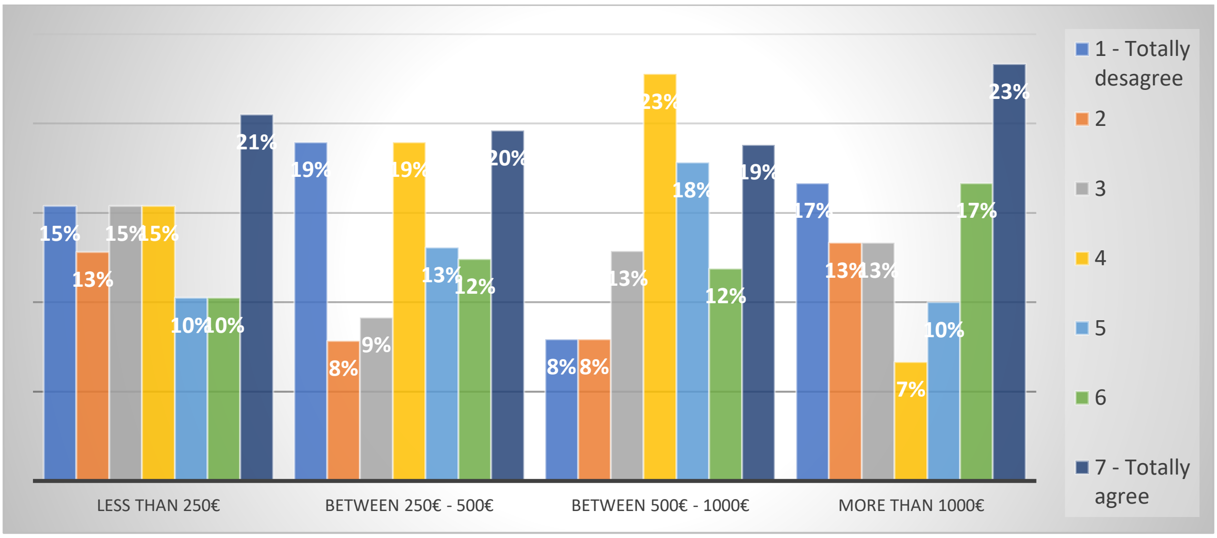
ANNEX 47 – SURVEY RESULTS – PROFILE ANALYSIS (INCOME): Do you have a favorite Infant Nutrition brand?



	Less than 250€	Between 250€ - 500€	Between 500€ - 1000€	More than 1000€
Yes	36%	43%	51%	67%
No	64%	57%	49%	33%

Figure 54 – Survey results: Profile Analysis: Do you have a favorite Infant Nutrition brand? – Segmented by income level

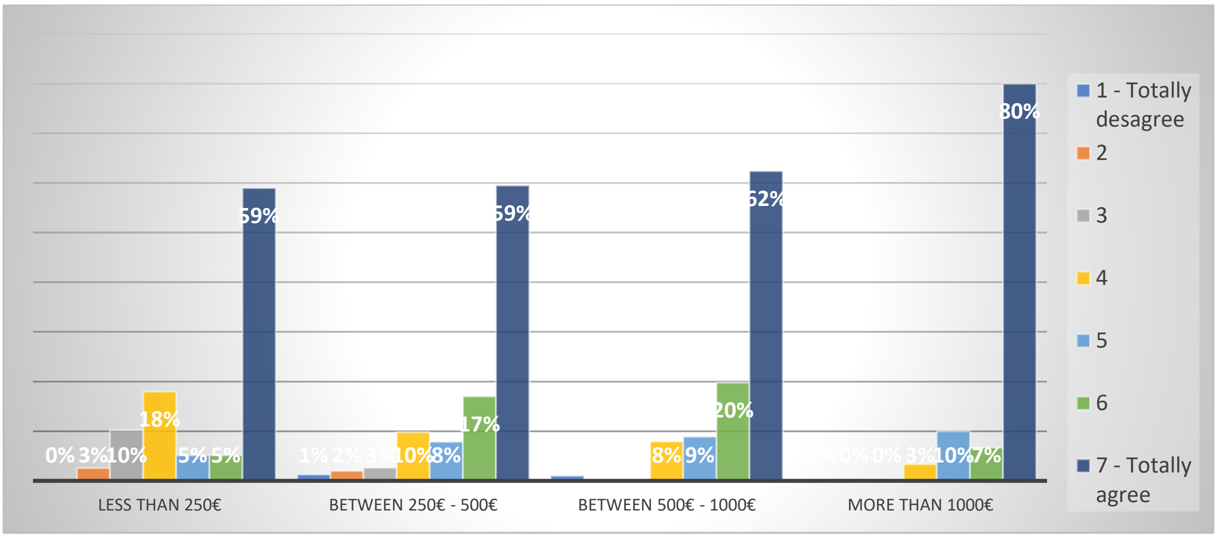
ANNEX 48 – SURVEY RESULTS – PROFILE ANALYSIS (INCOME): Normally I buy always the same Infant Nutrition brand regardless of price (Likert Scale from 1 to 7)



Income levels	N	*M*	SD
Less than 250€	39	4,051	4,095
Between 250€ - 500€	153	4,150	4,190
Between 500€ - 1000€	101	4,455	4,324
More than 1000€	30	4,233	4,320

Figure 55 – Survey results: Profile Analysis: Normally I buy always the same Infant Nutrition brand regardless of price (Likert Scale from 1 to 7) – Segmented by income level

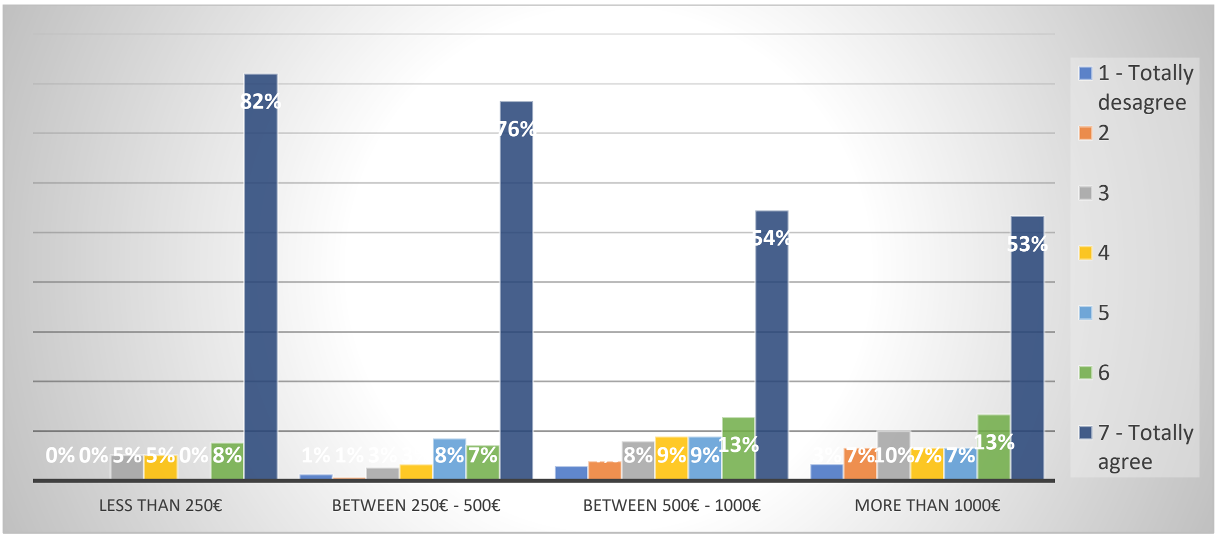
ANNEX 49 – SURVEY RESULTS – PROFILE ANALYSIS (INCOME): I am willing to pay more for healthier products for my baby (Likert Scale from 1 to 7)



Income levels	N	*M*	SD
Less than 250€	39	5,769	5,491
Between 250€ - 500€	153	6,098	5,746
Between 500€ - 1000€	101	6,327	5,905
More than 1000€	30	6,633	6,164

Figure 56 – Survey results: Profile Analysis: I am willing to pay more for healthier products for my baby (Likert Scale from 1 to 7) – Segmented by income level

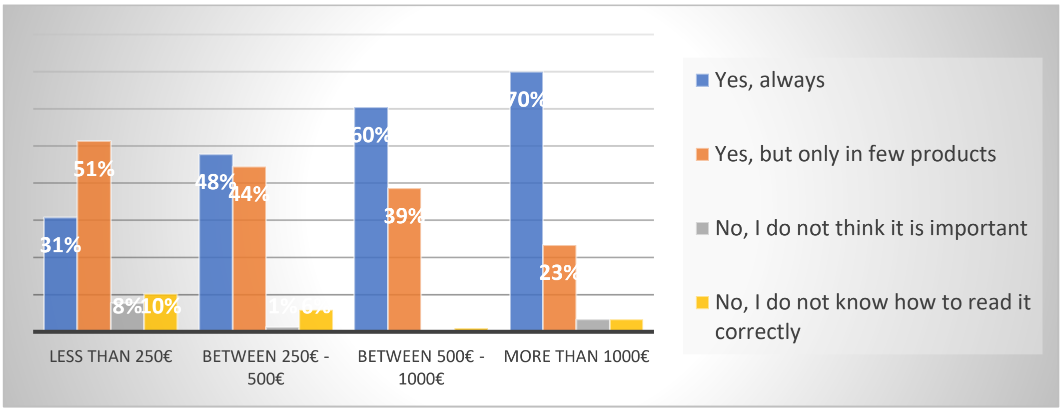
ANNEX 50 – SURVEY RESULTS – PROFILE ANALYSIS (INCOME): If I had time, I would prepare all meals and snacks at home (Likert Scale from 1 to 7)



Income levels	N	*M*	SD
Less than 250€	39	6,564	6,139
Between 250€ - 500€	153	6,444	6,044
Between 500€ - 1000€	101	5,733	5,490
More than 1000€	30	5,600	5,410

Figure 57 – Survey results: Profile Analysis: If I had time, I would prepare all meals and snacks at home (Likert Scale from 1 to 7) – Segmented by income level

ANNEX 51 – SURVEY RESULTS – PROFILE ANALYSIS (INCOME): Do you have the habit of reading the ingredient list and nutritional table of Infant Nutrition products?



	Less than 250€	Between 250€ - 500€	Between 500€ - 1000€	More than 1000€
Yes, always	31%	48%	60%	70%
Yes, but only in few products	51%	44%	39%	23%
No, I do not think it is important	8%	1%	0%	3%
No, I do not know how to read it correctly	10%	6%	1%	3%

Figure 58 – Survey results: Profile Analysis: To read labels habit – Segmented by income