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Master's Degree in Marketing
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Chair of Consumer Behavior

How to promote healthy eating among children?

The role of endorsers on expected palatability and parents' willingness to buy vegetable food for their kids

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Table of contents

Introduction

Children constitute an important consumer group, assuming the threefold role of users, future market and influencers (McNeal, 1992).

In this regard, from 2017 to 2020, Italian families consisting of two adults and at least one underage child spent more than a quarter of the average household's income per child (Bank of Italy, 2022). The estimation accounted for both goods and services solely intended for children (e.g., infant food, school fees, etc.) as well as a fraction of the total household expenditures ascribable to them (e.g., housing expenses, transportation, etc.). 60% of the costs aimed at satisfying kids' basic needs, including food, clothing, household items, education and health.

Meanwhile, marketers also see children as future consumer grownups with their own purchasing power, therefore developing a positive feeling towards a brand and becoming loyal to it at a very young age ensures the company repurchases as the individual will become a life-long consumer (Bidmon, 2017).

According to G. Belch, Belch, and Ceresino (1985), over the years, family structure has evolved with husband and wife playing an equal influence: indeed, modern relationships are characterized by a higher degree of co-participation in both child-care and decision-making. Moreover, power distance between parents and children has decreased, resulting in a more open communication and more prominent children influence on family decisions (Labrecque and Ricard, 2001; Lackman and Lanasa, 1993). Theory of family purchasing decisions has been extended, differentiating between autonomous decisions made just by one individual, and joint ones, thus shared among several or all of the family members (Sheth, 1974).

Parents act as gatekeepers and are the ones who have the final say over household decisions, while children often participate in and exert an influence on what their parents buy. Children may affect the family's in-store and online decision process in different ways across the various stages (Ayadi and Muratore, 2020), however "*pester power"* appears more prominent during initiation and choices evaluation (Belch G., Belch M. and Ceresino, 1985; Nørgaard, Bruns, Christensen and Mikkelsen, 2007) while it declines at the decision stage (Beatty and Talpade, 1994; Moschis and Mitchell, 1986). In this regard, "*pester power"* indicates children's attempts to influence family's consumption patterns through nagging, repetitively asking and badgering parents into purchasing products they like (Kraak, Gootman and McGinnis, 2006; Shoham and Dalakas, 2005; Gunter and Furnham, 1998).
As Dikcius, Urbonavicius, Pakalniskiene and Pikturniene (2020) suggested, the *buying center* approach described by G.E. Belch, Belch and Ceresino (1985) can be applied to the household context to describe the different roles and interchanges when purchasing decisions are made by different individuals. A buying center accounts for five roles: initiator, influencer, decision maker, buyer, and user, however different roles may be undergone by the same subject depending on the situation. The initiator is the one who has an understated need or desire, to satisfy which he or she suggests a purchase. The influencer advances choice criteria and puts pressure on other family members in order to persuade them toward a preferred option. In this regard, there is a difference between participating in and influencing a decision. Indeed, a high level of participation does not

necessarily imply the same level of influence: in other words, participation may be active but not effective. Influence implies a change in emotions, thoughts or behavior (Baumeister and Vohs, 2007; Huston, 2002; French and Raven, 1959), in the case of parent and child, the former ends up condescending to his or her offspring request. Thus, children's influence on a decision occurs whenever the conduct enacted by parents turns out to be different to whether they had ignored their children's will (French and Raven, 1959).
The decision-maker is the one allowing or hindering the purchase of a good or service, while the buyer performs the purchasing act. Ultimately, the end user is the one consuming the product and eventually evaluating it.

Children are involved in family activities and interactions on a daily basis, and watch their parents making decisions. In fact, according to Drenten, Peters and Thomas (2008), two-thirds of parents take their children with them as they go shopping. In doing so, adults share information about needs, products, features and so on. At the same time children get the chance to participate in the buying process, for example, by asking for products, negotiating on some features or influencing family purchases based on their own preferences. Indeed, nine out of ten parents are said to undergo purchasing decisions specifically based on their kids' wills (Drenten, Peters and Thomas, 2008).
Children's influence increases as it comes to products that concern them directly as final users like toys, food, clothing and school material, as they grow up, or whereas the product is perceived as inexpensive (Page, Sharp, Lockshin and Sorensen, 2019; Martensen and Grønholdt, 2008; Chavda, Haley and Dunn, 2005).
According to Rossiter (1978), they exert both an active and passive influence on their parents' choices. Indeed, adults may take into consideration direct requests (active influence) or indirect ones (passive influences) anytime they opt for an item based on their previous knowledge of kid's likes and wants. Therefor child preferences result to have been internalized, meaning parents cater to their child's preferences even when he or she is not actively involved or present during the purchasing process.

Children seem to have a vast influence when it comes to food (Ebster, Wagner and Neumueller, 2009; McNeal, 1992), indeed Hunter (2002) reported children affect 80% of food purchasing decisions both directly and indirectly.
Most common requests accounts: snacks, candy, cereal and cookies, fast foods and dessert foods (Story and French, 2004; Isler, Popper and Ward, 1987). Accordingly, research has shown a preference towards sweets, salty, fat and calorie-dense foods (Studer-Perez and Musher-Eizenman, 2022).
A nutritionally poor diet characterized by habitual overconsumption of HFSS foods (high in fat, sugar and salt) has negative consequences on the organism as it leads to nutritional deficiencies. More in depth, an unbalanced diet consists in over or underconsumption of recommended quantities of protein, carbohydrates, fiber, fats, vitamins or fluids (WHO, 2000).
The little consumption of fruits and vegetables among youths is of concern, at this regard the WHO European COSI round five reported the percentage of children eating vegetables on a daily basis varied significantly across countries, ranging from 57% (Denmark and Portugal– the only two countries where more than half of the children population ate vegetables regularly) to only 13% (Georgia and Spain) (World Health Organization European Region, 2022).

Unhealthy diets are a key driver of overweight and obesity, resulting from "*an energy imbalance between calories consumed and calories expended*" (WHO, 2021), thus when intake exceeds burn. Obesity is both a disease per se and a long-term cause of noncommunicable diseases (NCDs), such as type 2 diabetes, cardiovascular diseases, musculoskeletal disorders and cancers (Lega and Lipscombe, 2020; Avgerinos, Spyrou, Mantzoros and Dalamaga, 2019; Parida, Siddharth and Sharma, 2019; Wolin, Carson and Colditz, 2010). Moreover, obesity-related illnesses contribute to economic and social costs (McKinsey, 2020). Thus, prevention and early intervention is essential.
Over the past decades, obesity rate has increased in industrialized countries among both adults and children (Smith, Fu and Kobayashi, 2020). In 2002 the European Association for the Study of Obesity (2002) decried childhood obesity in Europe "*an acute health crisis*". Currently, according to WHO data (2022) in Europe about 60% of adults exceed the recommended body weight.

As for children, 7.9% of kindergartners are overweight or obese. Among school-age children and adolescents, excessive weight affects one in three children in elementary school and one in four among 10 to 19-year-olds. The phenomenon has reached epidemic proportions, and according to WHO forecasts no European state will be able to halt this crescent trend by 2025.
Childhood obesity may have repercussions either on children' young and adult life as it is associated with increased chances of obesity in adulthood, moreover obese children are at risk of experiencing hypertension, cardiovascular disease, breath difficulties, insulin resistance and bone fractures more frequently compared to their peers (WHO, 2021).
At last, excessive body weight at a young age may have psychosocial consequences in addition to physical ones, indeed due to weight bias adults and youngsters with obesity may experience discrimination and stigmatization with profound effects on both mental and physical health (Pearl and Hopkin, 2022).

In the past, to cope with the problem and incentivize healthy eating practices among kids, leading entertainment companies such as *Walt Disney*, *Nickelodeon*, *Sesame Workshop* and *Warner Bros* partnered with producers and supermarkets by licensing some of their characters to be featured on the packaging of fruits, vegetables and balanced foodstuffs (i.e. small portion sizes, adequate intake of nutrients and calories) (Bell, David and Winig, 2006). Bell, David and Winig (2006) reported that before launching the *Disney Magic Selections* line, in 2004, focus groups with mothers helped the company to understand children were able to affect purchase decisions regardless the fact that they were or not in stores. Moreover, a discrepancy between children and mothers' food preferences was discerned, with the latter interested in healthier products. In conclusion, to be parents-appealing, products needed to be both healthy and enthuse kids.

Currently, the practice of featuring animated characters on kids' products is widespread for HFSS products.
However, the insufficient intake of fruit and vegetables and the rising incidence of overweight is a serious issue against which food companies should take a stand and put efforts in helping halt this trend.

Previous research focused mainly on the use of animated characters (licensed or company-owned characters) on healthy food packs on children attention, attitude and food intake, neglecting other

types of testimonials, such as children as spokesperson, despite being frequently used as well by marketing practitioners on child-related goods.

In addition, parents' perception and behavioral response toward child-oriented package design have also been under-researched, despite the pivotal role they play as gatekeepers in shaping youngsters' dietary behavior.

May a more appealing design encourage parents to buy vegetables for their kids?
The aim of the thesis is to investigate how depicting different types of endorsers (children as endorsers vs animated characters) on vegetable-based food package facade could impact parents' willingness to buy the product for their kids with a focus on expected palatability.

By doing so, the thesis aspires to investigate whether there is a way to help counter low fruit and vegetable intake among children while facilitating nutrients intake through package design.

The next chapter contains a review of the literature on the main factors influencing children's eating practices, main criteria of adults' food choices, and the role of packaging as a communication tool in the purchasing process with a specific focus on the graphic component. It ends by identifying the main literature gaps on the topic and outlining the thesis research question.

Chapter two will dedicated to the conceptual model and defining the hypotheses. The first paragraph focuses on the main effect that is, the relationship between the independent and the dependent variable, while the second paragraph introduces the mediator and explains its relationship with the other two variables.

In order to deepen the above-mentioned topic, a quantitative study will be conducted with contributions for both theory and practice. Its results will be outlined in chapter three.

At last, chapter four outlines the conclusions of the study and some hint for future research.

This thesis intends to shade light on endorsers effectiveness among parents in the case of healthy food. In addition, the role of expected palatability, which is a crucial driver for food choice at the point of sale, will be investigate based on different endorsers. This insight is based on intermodal correspondence which causes package impressions to be transferred to the product as a whole. Thus, given a visual cue one assumes further characteristics of the product that belong to different senses the person is in reality not able to perceive, such as taste. Such an effect is may condition purchase intention.

This research will also provide some practical contributions, since its results can be taken into consideration for package design. At last, the thesis aims to generate a positive social impact, through creating value for consumers and incentivizing fruit and vegetable consumption.

Chapter 1

1.1 Literature review

The following section is intended to provide a comprehensive overview of the factors that influence children's food preferences. When confronted with the problem of child overeating and yet lack of fruit and vegetable intake, it is indeed important to investigate which elements, both external and internal, contribute to influencing youngsters' eating practices.

According to the *Innocenti Framework* (Raza, Fox, Morris, Kupka, Timmer, Dalmiya and Fanzo, 2020), a model formulated by representatives of FAO, GAIN, Johns Hopkins University and UNICEF, there are four: food supply chains, the external and personal food environment, and the behaviors of family members, including children, toward food consumption.

Packaging-related literature will also be investigated, in particular by delving into the importance of visual components since they result in a stronger influence due to the fact that food is mostly considered a low involvement product and is generally purchased under time constraints.
In a context where the packaging often completely envelops the product, its design is a decisive purchasing driver, due to a spill-over effect causing impressions about food packaging to transfer to the packaged product as a whole.
An overview of the main variables considered by adult consumers during grocery shopping will also be provided.
With regard to the graphics, the literature about animated characters on kids' food packages and children as testimonials will be explored outlining the peculiarities of both, as these are the two main endorser types on children's products.
The state of the art on previous studies aimed at investigating cartoon characters as a way to boost fruit and vegetable consumption will be discussed.

Consequently, the main gaps in the literature will be highlighted. Based on that, a research question will be formulated.

1.1.1 Factors influencing children food preferences

Having ascertained through the literature that there is a preference among children for HFSS products, it remains to investigate its possible causes and more generally what factors and influencers determine the diets of young people.
In this regard, it is necessary to investigate the food system through a methodological framework drafted specifically from the perspective of children's nutrition; in fact, although food systems should secure healthy food for all, children experience a different condition than adults: in fact, they are more susceptible to internal and external influences.

The *Innocenti Framework* described by Raza, Fox, Morris, Kupka, Timmer, Dalmiya and Fanzo (2020) organizes and links together the different elements of the food system with a focus on factors

that influence the diets of children and adolescents [*Appendix 1*]. The development of this model was inspired by the outcome of the global consultation held at the *Innocenti Research Centre* in 2018 and outlines the relationship between food systems and youngsters. Its formulation was led by representatives from FAO, GAIN, Johns Hopkins University and UNICEF. The framework brings together the factors that may lead to malnutrition, an umbrella term including either overnutrition, undernutrition or micronutrient deficiencies, since they are all different perspectives of the same issue that collectively affects every country worldwide (UNICEF, WHO, World Bank, 2020).

Specifically, the framework consists of a set of elements, such as: drivers, determinants, influencers, and interactions, which collectively affect children's and adolescents' diets.
The influence of individual elements on the umbrella concept of malnutrition varies across contexts; in fact, there are usually several elements that contribute to undernutrition and overweight.

More emphasis will be given to the factors that are most likely to influence children toward eating behaviors that increase the risk of overeating.

The framework has five drivers, thus the main contextual factors that impact exogenously or endogenously on the effectiveness of the food system. They are demographic context, political and economic environment, technological advances, natural resource abundance or scarcity and their management, and lastly social norms. The stability of these factors supports the food system in delivering safe, accessible and nutritious products.

The *Innocenti Framework* then identifies four determinants (food supply chains, external food environments, personal food environments, and behaviors of caregivers, children and adolescents), thus the processes of the food system which impact the production and consumption contexts.

The supply chain encompasses all activities involved in production, food processing, packaging, storage, marketing and distribution, up to the disposal of leftover products. These steps involve a plurality of actors who may be more or less sensitive to the dietary needs of children and adolescents. For example, during food processing the producer may add value to the finished product. In the case of children foods, value addition usually includes: fortification, reformulation (aimed, for example, at reducing the amount of trans fats) making foods more palatable, precooking (to increase convenience), packaging foods in a way to make them more appealing, or portioning with the aim of reducing quantities by organizing balanced portions for children (Gelli, Hawkes, Donovan, Harris, Allen, De Brauw and Ryckembusch, 2015).
On the other hand, however, in order to make foods more appealing to children, palatability is often altered through further processing involving the addition of flavorings and colorings with a consequent increase in trans and saturated fats, sugars, and sodium (Giusti, Bignetti and Cannella, 2008).
Therefore, the food value chain plays an important role in ensuring a balanced diet.
Its actors must strive to promote healthy foods.

According to Turner et al. (2018), food environments fall into two domains: the external domain and the personal one. They collectively refer to contexts of interaction between consumers and food systems that occur at the stage of food purchase, preparation, and consumption (Pingault, 2017).
Specifically, external food environments are physical contexts in which children and their caregivers interact with food (i.e., stores, shopping malls, school cafeterias, information providers, commercials, etc.). This interaction is influenced by market-related factors such as availability, price, advertising, quality, and food regulation.
In this regard, advertising and branding play major roles in influencing children's food preferences (Cairns, Angus, Hastings and Caraher, 2013).
The main media source in promoting food to children is television. In this regard, an experiment conducted by Borzekowski and Robinson (2001) found that within a sample of children between the ages of two and six, children who had previously watched a commercial about a particular food product expressed a preference toward the displayed food.
Similar results had been previously reported by Goldberg, Gorn and Gibson (1978) as well as Taras, Sallis, Patterson, Nader and Nelson (1989).
In a study conducted by Marshall, O'Donohoe and Kline (2007), nearly two-thirds of the sample reported food advertisements made them feel hungry. Therefore, the repeated sight of HFSS products could reinforce the preference toward energy-dense products.
Moreover, numerous studies have confirmed the high vulnerability of young audiences; in fact, difficulties have been observed by preschool kids in distinguishing between television advertisements and entertainment programs (Buijzen and Valkenburg, 2003; Blosser and Roberts, 1985; Gorn and Goldberg, 1982). However, television is not the only advertising source: indeed, this day and age kids live in a media-saturated environment (Story, and French, 2004) in which online advertising plays a relevant role as well. Other factors that may affect youngsters' choices are product placement and promotions such as cross-selling and promotional prices.

Furthermore, at the point of sale, adults and children are influenced by the packaging and labels on foods. Attractive graphics, such as the use of bright colors and animated characters, helps attract the attention of younger children. Food labels and especially claims pertaining to the nutritional quality of foods also represent a potential point of difference from competitors, in addition it facilitates parents' selection of foods more in line with their children's nutritional needs.

Personal food environments, on the other hand, encapsulate the subjective factors that influence nutrition such as price and convenience. Indeed, the concept of affordability varies according to purchasing power. Low-income families are therefore more likely to opt for nutritionally poor foods if cheaper than healthy ones. Convenience is another important factor, over the decades the number of female workers has increased, as both parents work, they have less time to do the cooking resulting in a preference towards convenient foods (i.e. ready-to-eat foods, snacks or precooked meals) with savings in time and effort. Although more convenient, prolonged consumption of ultra-processed or poorly balanced foods can compromise individuals' diet.

Children themselves play a role in shaping their diet through their own food preferences as they tend to eat what they like and refuse flavors they do not. According to this, it has been noted an innate preference among young children toward sweet and salty flavors, in contrast to sour and bitter flavors

which are usually avoided (Birch and Fisher, 1998). Therefore, foods preferred by children often tend to have high amounts of sugar, salt and fats.

Children also have an innate aversion to unfamiliar flavors (*neophobia*) leading them to reject foods they have never tasted before. Therefore, except for very sweet or salty foods, acceptance of new flavors does not occur immediately but after repeated consumption occasions. In fact, taste acquisition tends to increase with repeated exposure (Sullivan and Birch, 1994; Birch and Marlin, 1982). Therefore, familiarity is a crucial part of developing food preferences.
Experience appears to be crucial in originating the food preferences among kids, in this regard parents play a primary role.
In fact, caregivers' behaviors represent the junction point between children external and personal food environment.
In the case of children, intra-household dynamics play a prominent role in influencing the new-burn's relationship with food over the years, since the family food environment tends to influence dietary preferences and acceptance patterns.

Caregivers do not just influence children by shaping the food environment through their purchasing decisions, food preparedness and availability, they also act as supervisors over their diets.
In this regard, parents may impose directives by allowing or restricting certain foodstuffs; despite noble intentions, such practices have been reported to comport adverse consequences in the development of children's relationship with food (Stanek, Abbott and Cramer, 1990).
Typically, two regulatory interventions are put in place, aimed at: restricting the consumption of certain foods or encouraging it. On the one hand, contrary to what one might expect, restricting or prohibiting the consumption of certain foods does not encourage dislike of the restricted food, but conversely, these ploys backfire by increasing preference toward the prohibited foods and incentivizing excessive consumption. For example, Fisher and Birch (1996) showed that snacks restriction resulted in excessive snack consumption in girls. Similarly, imposing certain foods (usually fruits and vegetables) actually proves to be counterproductive, resulting in increased dislike toward them (Newman and Taylor, 1992; Birch, Birch, Marlin and Kramer,1982).
In conclusion, parents' coercive and imperative conducts often do not bring the desired results. The best strategies to influence children's eating habits towards fruits and vegetables has been found to be eating the same foods of their parents, as it has been shown repeated exposure increases acceptance (Scaglioni, Salvioni and Galimberti, 2008).

1.1.2 Packaging

Food falls into the category of low-involvement products (Mitchell, 1999). Where purchase involvement is defined as a sum of *"individual's interactions with the product and the purchase situation*" (Beatty, Homer and Kahle, 1988).
Concerning products, high or low involvement determines the relevance consumers address to the product attributes. When high, involvement results in a keener decision process. In this case, product choice requires more effort and resources, since they often cost more and may entail significant risk should the purchase turn out to be misguided. Therefore, high involvement products are solely bought

from time to time. On the contrary, low involvement items are perceived as effortless and more frequently bought due to the fact they are relatively inexpensive and less risky (Kotler and Armstrong, 2010; Oly Ndubisi, and Tung Moi, 2006; Sengupta, Goodstein, and Boninger, 1997).

Accordingly, grocery usually occurs after a comparison of relatively homogeneous sets of alternative brands with little variation in terms of value.
A second distinctive characteristic of food choices comes from packaging, as the product - if not loose - is only partially visible or not visible at all. Hence, the consumer routinely infers product characteristics and palatability based on its cover pack (Van der Laan, De Ridder, Viergever and Smeets, 2012).
Over time moving to self-service, larger shops and broader market segments made packaging a pivotal part of the selling process due to its potential of triggering impulsive buying behaviors. This aspect takes on even more importance considering that, on average 70% to 80% of purchasing decisions take place at the point of sale (Bell, Corsten and Knox, 2011; Hui, Inman, Huang and Suher, 2013), of which 9 out of 10 result from product package examination (Urbany, Dickson and Kalapurakal, 1996).
On the one hand, this represents an opportunity as it implies a considerable chance of persuading the consumer while shopping through package design. On the other hand, it outlines a highly competitive environment.

In line with the *Innocenti Framework* described above, packaging belongs to the external food environment. It serves two basic purposes: logistics and marketing (Prendergast and Pitt, 1996). On the one hand it contains, protects and preserves the qualities of the product across the various steps of the distribution channels, from transportation to storage, to point of sale display (Gonzalez, Thornsbury and Twede, 2007). The second and broader one is marketing, indeed package represents a communication vehicle which allows the product to attract consumer attention, differentiate itself from competitors' and overall communicate brand value thought the use of a combination of different elements, namely shape, design, colors, symbols, and messages (Butkeviciene, Stravinskiene and Rutelione, 2008; Kupiec and Revell, 2001).

There are several conceptual models regarding package elements classification (Kuvykaite, Dovaliene and Navickiene, 2009).
Pritchett B., Pritchett T. and Kotler (2003) identify six components in defining the packaging design strategy: material, shape, size, color, text and brand. Many of which are common to the Smith and Taylor (2004) model, in which, on the contrary, brand element has been substituted by flavor and the text variable is not accounted. Similarly, Ampuero and Vila (2006) do not include textual and verbal elements in their packaging framework. The formers in fact distinguish between two groups of elements: structural (size, form, materials) and graphics (color, images) ones.

However, two classes of elements are solely identified (Kuvykaite, Dovaliene and Navickiene, 2009; Butkeviciene, Stravinskiene and Rutelione, 2008; Silayoi and Speece, 2004; Rettie and Brewer, 2000; Grossman and Wisenblit, 1999; Bloch, 1995): verbal elements (product information, slogans, country-of-origin, producer and brand) and visual elements (material, size, shape, graphic and colors).

In this regard, according to Silayoi and Speece (2004) informational elements on food packages affect the cognitive side, while visual elements have an impact on the affective one as they influence consumer's emotions.

From previous literature Kuvykaite, Dovaliene and Navickiene (2009) identified two main variables capable of strengthening or weakening package overall effect on consumer's willingness to buy, namely: involvement level and time pressure.
They are the result of conflicting trends. In the first case higher involvement may be shown by some consumers who for example had become more concerned about one or more products' characteristics (i.e. nutrition quality) and consequently pay more attention to label information. On the contrary, other consumers experience rush when shopping and cooking, they are interested in less time-consuming options to reduce time waste. Consequently, they pass on more detailed considerations or complicated dining options.

As described above, food is usually identified as a low involvement product. However, Silayoi and Speece (2004) retort that importance given to grocery shopping is subjective depending on one's perception: some may not see shopping for food as a low involvement action. Accordingly, visual elements have a stronger effect on low-involved consumers, indeed while informational elements require more time to be read and processed, graphic ones evoke a more emotional and impulsive reaction. On the contrary, highly involved consumers will concentrate more on the information provided and are more prone to become loyal to the product over time.

Time constraints has also been reported to mediate package influence on purchase intention. Pressure affects shopping decisions as it requires consumers to make choices quickly, which frequently results in unplanned purchases or purchasing less products than intended.
Indeed, when consumers are pressured, visual elements seem to have a stronger influence, oppositely, in the absence of any urgent matter, verbal elements do (Silayoi and Speece, 2004).

1.1.3 Food selection criteria

With regard to the food sector, since packaging completely wraps the product, a consistent part of consumer choice is influenced by the benefits that packaging communicates, rather than the product itself (Underwood and Klein, 2002).
On the one hand, packaging may directly provide a benefit, such as recyclability or portability since packs usually allow products to be transported more easily. On the other hand, packaging can stimulate consumers' assumptions (indirect benefits), for example based on graphics or materials the product may be perceived as higher or lower quality (Steenis, Van Herpen, Van Der Lans, Ligthart and Van Trijp, 2017; Celhay and Trinquecoste, 2015; Underwood, 2003).

Consumers form and entrust a vast range of convictions to motivate their choices. They rely on cues every time they buy something without any previous experience of that same product (Olson and Jacoby, 1972). Oftentimes during purchasing occasions, the number of clues contained on a product confection are overwhelming compared to the consumers' limited attention span (Higgins, 1996).

Therefore, not all of them are noticed. Instead, only those that are prominent enough are more likely to be noticed (Romaniuk and Sharp, 2004) and potentially able to affect the purchase decision.

According to Fishbein (1967) in the case of parents buying food for their children, their purchasing decisions depend on two aspects: the level of awareness of products' specificities and the level of importance they attribute to the qualities these products provide.

Before launching the *Disney Magic Selections* line, in 2004, the company hosted several focus groups with mothers in order to better understand food selection criteria and family dynamics. In conclusion, to be parents-appealing, products needed to be both healthy and meet kids' taste preferences (Bell, David and Winig, 2006).

More broadly, thus regardless of subjective conducts, nutritional quality, taste, naturalness, price, convenience, and sustainability are identified as generally important drivers of consumer choice (Furst, Connors, Bisogni, Sobal and Falk, 1996; Steptoe, Pollard and Wardle, 1995).
Among these, Nørgaard, Bruns, Christensen and Mikkelsen (2007) identified taste, nutritional values and convenience as the main drivers in food selection.

1.1.4 Graphics

As previously reported, graphics belong to the category of package visual elements and so do colors, materials, size and shape.

The sensory attributes of a product's packaging can affect consumers' product experience due to the cross-modal correspondence effect.
In particular, intermodal correspondences refer to the unconscious tendency to pair a product sensory characteristic with another from a different sensory source (Parise and Spence, 2012), this way, given a sensory perception, one assumes further characteristics of the product that belong to different sense modalities he or she is in reality not able to perceive directly. Such inferences have an impact on consumer behavior, as consumer judgment on food taste may be altered for example by touch or visual perceptions.
In this regard, Deliza, Macfie and Hedderley (2005) demonstrated orange juice was perceived as sweeter when poured from an orange container than from a white one. Even the shape of a package may alter the perceived flavor, more specifically Becker and colleagues (2011) find out yogurt flavor was perceived as richer if served in a square container rather than a rounder one.
Similarly, Togawa, Park, Ishii and Deng (2019) analyzed cross-modal correspondence effect on package visual-taste combination and its implications, demonstrating that different product image displayed on package front can enhance the perceived food flavor in the pre-purchase, consumption and post-purchase stages.
They demonstrated that locating the product image at the bottom of the package front positively impacts the consumer flavor heaviness perception, willingness to buy and contributes instilling a sense of satiety.

Moreover, concerning graphics location Rettie and Brewer (2000) studied package design strategies in conjunction with medical and psychological insights based on brain laterality.
More specifically, perception has been shown to be asymmetrical, as a consequence of the so-called brain laterality, meaning the two brain hemispheres are not symmetrical. Consequently, the brain receives and decodes information from the opposite side of the body. It happens for sight as well as for other senses such as hearing, touch and movement.

In contexts where time is limited and alternatives are many, it is essential for a product to attract attention, be noticed, and ultimately result in the consumer's final set of considerations. In this context, scientific knowledge of how the human brain is organized and works can provide interesting insights into dosing effective, easy-to-remember and fast processable cues on product packs.

Considering the different but complementary specializations of the human brain, and that stimuli located on one side of the pack are processed by the opposite hemisphere, placing the graphic and textual parts on the side where it is easier for customers to process them can represent an advantage. Specifically, to ease procession, text should be positioned on the right side of the pack, while images should be placed on the left side.

1.1.5 Animated spokes-characters

In the case of food packs aimed at children, packages are frequently characterized by recurring elements such as appealing fonts, bright colors, gifts, and on top of them animated characters. Such elements are designed in order to attract children's attention (Elliott and Truman, 2020). For a more extended overview of the topic, Mulligan, Potvin Kent, Vergeer, Christoforou and L'Abbe´ (2021) coded a table listing the main marketing techniques used in designing child-appealing food packs. [*Appendix 2*]

Cartoonized spokes-characters include a broad set of human subjects and anthropomorphic animals (Kraak and Story, 2015) who work as endorsers for the product or brand. They represent the product and acts as a source of information to increase its acceptability and like among a potential consumer base (Batra, Myers and Aaker, 1996).

Mascots help companies communicate brand personality and shape product identity (Phillips, 1996). They can be specifically developed by a company to endorse and promote a specific product or brand (brand equity characters) (Garretson and Niedrich, 2004) such as Tony the Tiger for Kellogg's, Quicky for Nestle, Carletto for Findus and so on.
Conversely cartoon media characters are notorious characters, usually from television programs, licensed for inter-promotional scopes, an example may be SpongeBob Squarepants or Dora the Explorer by Nickelodeon on cereal boxes, toy premiums or giveaways.
In the latter case, the rationale is that kids will transfer the positive attitude they have toward the character they are fan of on the product ultimately resulting in recognition, like and loyalty (Connell, Brucks and Nielsen, 2014; Kraak and Story, 2015).

Featuring animated characters on kids' products is quite common for food companies, despite some contrasting results, most academic researchers reported spokes-characters have a positive effect on kids taste expectations, attitude and behavior.

More in depth, Neeley and Schumann (2004) study revealed character's actions and voice influence recognition and kids' attention towards television advertisements, characters and product, however no influence on predilection, intention or product choice has emerged.
Likewise, according to Ogle, Graham, Lucas-Thompson and Roberto (2017), children pay more attention to products with characters but opt for products without characters. They demonstrated kids tend more easily to notice products hosting licensed cartoon characters on the package front facade. They also revealed children spend more time looking at them. However increasing attention did not turn into purchase requests as kids were found to prefer options without characters.

On the contrary, the study conducted by Roberto, Baik, Harris and Brownell (2010) found that the majority of the sampled children exhibited a buying preference toward foods whose packages featured an animated character, compared to those without a character. Similarly, a preference in flavor toward food endorsed by characters was reported as well. No difference in perception was observed on the basis of demographic elements, such as age, gender and ethnicity.
Moreover, Kotler, Schiffman and Hanson (2012) demonstrated that a familiar cartoon character is capable of increasing children's preference and willingness to taste both healthy and unhealthy foods, followed by unfamiliar characters, compared to personage-free packs. Similar results were achieved by Smits and Vandebosch (2012) who investigated how eating frequency, voracity, and purchase request varied when a product was sponsored by a famous animated character, an unknown one, or whether the pack featured no spoke-character at all.
It was found that, eating frequency, appetite, and children intensity of purchase requests toward parents were greater for foods marked by a famous and unknown character compared to the non-character option. With the former having a stronger effect on all the three variables.

Currently, the effectiveness of spokes-characters on food packaging, is under investigation as one way to incentivize healthy eating among kids (Lianbiaklal and Rehman, 2023; De Costa, Møller, Frøst and Olsen, 2017).
In this regard, studies seem promising, advancing evidence according to which depicting animated characters on healthy products packaging - mainly fruit and vegetables - increases the preference and intake of those foods, with positive effects on the health and nutritional intake of young consumers (Keller, 2014; Kotler, Schiffman and Hanson, 2012; de Droog, Valkenburg and Buijzen, 2011; Wansink, Just and Payne, 2012).
De Droog, Valkenburg and Buijzen (2010) found that both popular and unpopular characters were able to boost children's preference and purchase requests for fruit up to sweets.

However other publications reported the overall character's effect on meal choice, preference and willingness to eat was higher for HFSS foods (e.g. cereals, cookies, and sweets) compared to fruits and vegetables.
Accordingly, comparing product form within the same category, spoke-characters were able to influence kids' preferences vs no-character products; nevertheless, confronting meals high in sugar

and fat with fruit or vegetables both sponsored by characters, energy-dense foods were preferred (Kraak and Story, 2015).

1.1.6 Children as spokespersons

Besides animated characters, other types of endorsers are also common, including celebrities, company employees, experts and ordinary consumers. Choosing one subject over another is a strategic matter and it may depend on the industry to which the product belongs or more generally on the brand's communication objectives.
Celebrity spokespersons are largely used to increase brand visibility and gain attention, usually they need to fit with the brand characteristics to prove effective results (Kamins and Gupta 1994; Lynch and Schuler, 1994; Till, 1998; Tom, Clark, Elmer, Grech, Masetti and Sandhar, 1992). When choosing company employees as the product or brand endorsers - being firm's representatives- they work as an indicator of the company quality and values (Stephens and Faranda, 1993; Hartline, Maxham and McKee, 2000). Product category experts bring support and credibility to the eyes of consumers reinforcing the brand performance claims (Till and Busler, 2000).
Non-celebrity spoke-people helps clarify the target consumers by portraying a potential product or service user and ease potential consumers to identify themselves into the infamous person endorsing the brand (Deska, Hingston, DelVecchio, Stenstrom, Walker and Hugenberg, 2022).

Children are also used as product testimonials. Notwithstanding, literature lacks in-depth research on this topic despite the fact there are numerous examples of brands using kids on their products packages such as but not limited to Pampers, Huggies and Chicco for diapers, Plasmon for baby food and Kinder for Kinder Cioccolato chocolate bars.
This demonstrates a misalignment between literature and marketing practitioners. Indeed, the majority of research studies examining the endorsers' effectiveness on children or parents have investigated mainly one form of endorsers: animated spoke-characters (Binder, Naderer and Matthes, 2020).

In the absence of a comprehensive body of research on the use of ordinary people, also referred to as peer endorsers, on packages whether young or adults and its effects on consumers, a more extensive review on the peculiarity of using peers in advertising communication will be conducted.

According to Batra, Myers and Aaker (1996) and Munnukka, Uusitalo and Toivonen (2016), a peer endorser is a typical customer lookalike who represents a product and acts as a source of information to increase its acceptability and like among potential consumers, through his/her perceived trustworthiness and similarity to the actual target users. Indeed, the use of ordinary people as testimonials helps improve advertising credibility.
Friedman, H., and Friedman, L. (1979) showed that peer endorsers are more effective when paired with non-complex, low-risk products as opposed to celebrity endorsers or experts from the field. The authors suggested it is due to the similarity to the end consumers, which reinforces the sense of identification and perceived competence. Specifically, the study was supposed to investigate whether or not the persuasiveness of different endorser types (expert, celebrity, typical consumer, and no-

endorsement as control condition) varied depending on the type of product endorsed (jewelry, cookies and a vacuum cleaner) and what resulted to be the best product/endorser type combinations. The study reported significant product/testimonial interaction. Going into further detail, advertisements hosting the following combinations of product and endorsers: jewelry/celebrity, cookies/consumer and vacuum cleaner/expert, reported the highest results in terms of attitude toward the product, willingness to buy, and endorser perceived credibility.
Likewise, according to Bower and Landreth (2001) there are advantages in opting for ordinary-looking testimonials over celebrities. In fact, consumers would compare themselves to an individual they perceive as similar to them instead of an idealized one which could lower their self-perception with negative consequences on the appreciation and effectiveness of the advertisement campaign.

1.1.7 Credibility

There are three main factors influencing message credibility: source, audience and context (Billeter et al, 2012; Hovland and Weiss, 1951; Petty, Cacioppo and Schumann, 1983).

Ohanian (1990) defines source credibility (or believability) as the set of a "*communicator's positive characteristics that affect the receiver's acceptance of a message*".
Testimonials are frequently used in marketing to arouse product credibility and quality perception. Endorser's credibility is fundamental when the target consumers have little familiarity with the product (e.g., they are not aware of it, have scant information, or may have little knowledge about its usage) (Jain and Posavac 2001), for example in the case of a new product launch or for complex products requiring a certain degree of expertise.

Concerning endorsers, the literature on source credibility identifies two main conceptual frameworks: the credibility of the source model and the attractiveness of the source model. The source credibility model was proposed by Hovland, and colleagues (1953) and is grounded on two components: reliability and competence of the source. Instead the attractiveness model describes credibility as the result of four variables: familiarity, sympathy, similarity and attractiveness (McGuire, 1985).

In addition to the previously outlined variables, Latané et al. (1995) added another factor capable of augmenting credibility: message proximity. Distance can be intended in both a physical and psychological sense. There is a relationship between the one's feeling of perceiving something being distant or near the self and construal level, which Wright et al. (2012) found it influences credibility. Drawing on these premises, Billeter et. al (2012) investigated how changes in the psychological distance of a message to its target audience may alter trustworthiness showing that the closer a message is, the more credible it will seem.
This has been proved under several conditions: by altering the message location (package versus advertisement), taking into account previous product knowledge (it emerged psychological distance plays a more prominent role when consumers have little information about a product), depending on the narrative voice (when presented in a first-person voice the product was perceived closer).

1.2 Literature gaps

In light of the existing literature outlined until now, a few topics arise meriting further consideration.

1) Previous researches focused on how to encourage healthy eating among children, while overlooking the role of parents during grocery shopping and food choice

2) Despite the fact that depicting famous or company-owned animated characters on healthy food mostly resulted in positive effects among children in terms of preference and choice, no information has been acquired about the reaction adults have toward animated characters on healthy foodstuffs

3) As for the type of endorser, previous studies only considered animated characters whether licensed or created by the company. However, those are not the only popular types of endorsers displayed on children's products.

As anticipated above, previous studies focused mainly on the effect of animated characters on healthy food packs according to children. In this regard, parents' like and behavioral response toward such strategies have remained unresearched, despite the pivotal role they play as gatekeepers on their kids eating habits and nutritional choices.
In fact, most studies focus on children's attitude, preference, and choice orientation in response to pack facade design (e.g. presence vs absence of cartoonised spoke-characters) (Ogle, Graham, Lucas-Thompson and Roberto, 2017; Keller, 2014; Kotler, Schiffman and Hanson, 2012; Smits and Vandebosch, 2012; Wansink, Just and Payne, 2012; de Droog, Valkenburg and Buijzen, 2011; Roberto, Baik, Harris and Brownell, 2010; Neeley and Schumann, 2004) without taking into consideration parents' disposition. Indeed, results obtained on children-only samples should not be considered an accurate predictor of product popularity and market success in light of the fact that children do not exert purchasing power.
Their wants in fact have to confront the ultimate opinion of their parents who act as gatekeepers on many aspects, including food choices and dietary behavior (Raza, Fox, Morris, Kupka, Timmer, Dalmiya and Fanzo, 2020; Sleddens, et, al, 2015; Marshall, O'Donohoe and Kline, 2007; Lee and Beatty, 2002).
Moreover, given children's innate preference for sweet and salty flavors and their tendency to avoid unfamiliar tastes, parents play a primary role in introducing kids to new flavors by purchasing foods they think their children might enjoy (indirect influence).
Despite pastern power and children's ability to influence adults, it would be more accurate to test whether the effects obtained among children match those collected among a set of parents. Especially in the case of vegetables which are not usually demanded by children.
When designing the product packaging, it is best to consider that the main cues considered in the formation of preferences might be dissimilar, or the same attributes might yield different outcomes among kids and grownups.
For example, adults may be more interested in the product nutritional quality and try to infer it through the package design (Steenis, Van Herpen, Van Der Lans, Ligthart and Van Trijp, 2017, Bell,

David and Winig, 2006) compared to children, who may be more attracted by the fact that the package communicates fun (Nørgaard, Bruns, Christensen and Mikkelsen, 2007).
So far, a few studies have been conducted on adults. Despite that, parents are indeed highly involved in the purchasing process. Therefore, the link between featuring animated characters or other forms of endorsers (e.g. spoke-children, since they are common as well on many child-oriented category goods) and parents' willingness to buy healthy products for their children should be investigated more accurately. Moreover, study variables should be chosen based on adults' choice criteria and priorities architecture.
In this regard, Contreras-Manzano, et al. (2020) inquired about the effect of a licensed animated media character (a Minion) on the facade of a pack of cereals. The study revealed that the group exposed to the animated character condition were more likely to evaluate the cereal as unhealthy.
Joining this result with those of other research studies focusing on children only (e.g. Enax, et al., 2015; Lapierre, Vaala and Linebarger, 2011), it seems that the presence of an animated character on a cereal box positively influences children preference, while lowering adults' attitude toward the product.
Lastly, Contreras-Manzano, et al. (2020) experiment involved a product generally rich in sugar. In contrast, no studies have yet been conducted on adults' perception of fruit and vegetable packages depicting an animated character. Indeed, so far it has been generally attested that the presence of an animated character on fruit and vegetable packages generates positive effects on both children's taste perception and behavior. However, no studies have been conducted on adults.

Another aspect that requires further examination deals with the selection of the most persuasive endorser, according to parents' perception, for plant-based products aimed at children.
Concerning communication campaigns, Giménez García-Conde, Marín and Ruiz De Maya (2020) reported that adults' intention to buy fruits and vegetables for their children increased when the suggestion was provided by an expert rather than a celebrity endorser. This study is related to a different mean of communication than packaging, that is television advertisement. In fact, a social marketing campaign provides educational contents intended to be repeatedly broadcasted over time. In this case, the message precedes the purchasing occasion by far.
Therefore, no studies appear to have yet addressed the effects of different endorser types on healthy products packs among adult with the aim of boosting nutritionally balanced food consumption among kids.
Results from Giménez García-Conde, Marín, and Ruiz De Maya study (2020) refer to different conditions, as the most effective type of endorser might vary depending on the communication tool and the state of the consumer journey.
Consequently, it might be worthwhile to assess whether other forms of endorsers (e.g. spoke-children, since they are common as well on the package front of many child-oriented category goods) would be perceived as more or less effective in incentivizing parents' willingness to buy healthy food for their kids compared to animated character or no character at all.

1.3 Purpose of the study and research question

Visual elements and "fun" graphics such as animated characters are reported to boost HFSS food consumption in children, increasing public health concerns (Elliott and Truman, 2020).
In response both companies (e.g. *Walt Disney*, *Nickelodeon*, *Sesame Workshop* and *Warner Bros*) and marketing researchers have started concentrating on animated characters (licensed or company-owned) as a way to encourage healthy eating among youngsters.

Despite generally positive results among children, parents' perception and behavior toward such strategies have remained unresearched.
Given the literature gaps discussed above, this research thesis will focus on adults as gatekeepers, in light of their fundamental role in shaping children's eating habits to include fruit and vegetables in their diets through overtime exposure and acquired taste familiarity.

Studies investigating children preference for a pack of vegetables or fruit with or without animated characters on it could not guarantee the food to be a success, should it be launched on the market, due to children innate predilection toward sweet and salty flavors.
In fact, contrary to the empirical study, within a supermarket, products are numerous, and kids would be presented with a wide range of choices. Consequently, a child would no longer be faced with only two options belonging to the same category to choose from, indeed he or she would be surrounded by many different product categories that might be perceived as more appealing, for instance causing him or her to ignore completely the vegetable section.
Accordingly, other studies showing children generally prefer HFSS products with animated characters over vegetable products albeit with animated characters as well reinforce this sentiment.

This calls for a study making parents the target of a vegetable product for kids as ultimate decision makers instead of children (final users).

Youngsters preference for endorsed foodstuff can be explained through intermodal correspondence causing positive package impressions to be transferred to the product as a whole (Steenis, Van Herpen, Van Der Lans, Ligthart and Van Trijp, 2017; Parise and Spence, 2012), in this regard no information has been acquired about the perception and reaction adults have toward endorsers on healthy food packs intended for children.
May a more appealing design encourage parents to buy vegetable meals for their kids?

The aim of this thesis is to investigate how endorser types (child as endorser vs animated character) on vegetable-based food package front could impact parents' willingness to buy the product for their kids with a focus on expected palatability.
Based on this premise the following research question have been formulated: *How can different types of endorsers influence parents' willingness to buy healthy food for their kids? And how do expected palatability mediates this relation?*

Chapter 2

2.1 Hypothesis and conceptual framework

In the following chapter the thesis conceptual model would be described. The model aims to inquire adults' reactions in terms of perceptions and behavior toward the package of a nutritionally balanced meal for kids on the basis of different types of endorsers.

Endorsers type (children peer endorsers vs animated characters) will be the independent variable, as it will be manipulated in order to evaluate its influence on the dependent variable.
Parents' willingness to buy the vegetable-based food for their kids will be the dependent variable. Based on the literature provided in the following paragraphs, this relationship is supposed to be mediated by the expected food palatability.

2.1.1 Main effect – the effect of endorsers type on adults' willingness to buy

Within a highly competitive environment such as that of a supermarket, where products are many, with few differentiating features and perceived as low involvement by hasty consumers, standing out is a determinant of success and it is essential to secure growing shares over the category (Chin, Isa and Alodin, 2020). For this reason, an eye-catching packaging is of strategic importance.
Packaging, as a communication tool, is capable of highly impacting the purchase decision in the case of unpremeditated purchases (Bell, Corsten and Knox, 2011; Hui, Inman, Huang and Suher, 2013; Urbany, Dickson and Kalapurakal, 1996). Especially under time constraints, its visual components may play a decisive influence on willingness to buy (Silayoi and Speece, 2004).

In this regard, willingness to buy (WTB), or purchase intention (PI), is defined as the consumer's propensity to purchase a good or a service (Younus, Rasheed and Zia, 2015).

A common marketing strategy to strengthen a company's brand image, attract consumer attention and potentially solicit purchase intention is endorsement.
According to Batra, Myers and Aaker (1996) and McCracken (1989) an endorser is any subject - person or character - who is recognized to be promoting a product or acting as a source of information to increase its acceptability and like among potential consumers, through his/her/its perceived trustworthiness or attractiveness.

Among foods aimed at children animated characters are quite common. This term refers to "illustrated" spoke-characters whose traits could be human or anthropomorphic (Kraak and Story, 2015). They could be licensed, usually from an entertaining company (Connell, Brucks and Nielsen, 2014; Kraak and Story, 2015), or company-owned, thus specifically designed by a company to endorse a product (Garretson, and Niedrich, 2004).

According to Chen, Huarng and González (2022) consumers overall feelings and believes about an animated character, also referred to as character image, depend on characters' emotional value, symbolic representation, and consumer-character perceived congruence.

Consumer choices are not always guided by rationality, an example is the over-choice paradox, a bias occurring whenever a person is facing too many options with a consequential detriment in his or her decision-making ability. For this reason, emotions hold a in important role in shaping consumer behavior (e.g. Sharma, Trott, Sahadev and Singh, 2023; Watson and Spence, 2007). Consequently, products as well as package features are designed to recall emotions in the attempt to incentivize buying behaviors and increase satisfaction (Ma and Wang, 2021; Desmet, Overbeeke and Tax, 2001) and characters are no exception (Escalas, Moore and Britton, 2004).
Symbolic representation takes root in semiotics, that is the study of what is seen or interpreted as a sign (Chandler, 2002; Leeds-Hurwitz, 1993; Eco, 1979). More precisely, a sign results from the combination of an object graphic representation (signifier) and the concepts it is referred to (signified) (Oswald, 2012).
D'Angelo and Cantoni (2006) reported animated characters to be complex signs, as they are able to convey different meanings and values. For example, *Pikachu* implies an outgoing and adventurous mindset, whereas *Hello Kitty* recalls delicacy and kindness.
At last, consumer-character perceived congruence refers to the level of perceived similarity between a person self-concept and the animated character personality traits. According to Parker (2009) consumers seek for products whose symbolic attributes matches their self-concept (e.g., actual self, ideal self or social self).
Chen, Huarng and González (2022) investigated the effect of animated characters dimensions (emotional value, symbolic representation, and consumer-character perceived congruence) on adults' willingness to buy. The authors outlined that participants who identified the most with the animated character emotional, symbolic and personality traits showed a significant propensity to buy the character merchandise.

A peer endorser instead is a typical customer lookalike who represents a product and acts as a source of information to increase its awareness and incentivize a positive attitude among a potential consumer base, through his/her perceived trustworthiness and similarity to the actual target users. Indeed, the use of ordinary people as testimonials helps improve advertising credibility (Batra, Myersand Aaker, 1996; Munnukka, Uusitalo and Toivonen, 2016).

In this regard, Latané et al. (1995) identified distance, both physical as well as phycological as a factor capable of augmenting credibility.
Billeter and colleagues (2012) demonstrated psychological distance is able to alter target audience sensitiveness and attitude toward a product or advertising message. Psychological distance is grounded on *Construal level theory* (CLT) (Liberman and Trope, 2003). In accordance with CLT, the way people perceive contingencies depends on the level of perceived psychological distance (Liberman and Trope, 1998). Construct levels could be high or low: high-level constructs identify an object made from an abstract representation, while low-level constructs turn out to be more concrete. CLT accounts 4 dimensions: spatial distance, temporal distance, hypotheticality, that is the likelihood

of an event to occur, and social distance. In particular, social distance implies a person is perceived closer than another based on perceived similarities.

In the case of a non-famous endorser the level of psychological distance is influenced by perceived social distance (Liberman and Trope, 1998 and 2003) which in turn is derived from interpersonal similarity between subjects (Liviatan, Trope and Liberman, 2008).

Chang and Chen (2022) explored this concept in the field of sport communication, showing that people perceive a different degree of social distance depending on whether the advertisement hosts a professional and famous athlete compared to a peer endorser. Specifically, the perceived psychological distance decreases in the case of an ordinary-looking testimonial.

According to Tajfel and Turner (1979) the effectiveness of an endorser depends on the perceived psychological distance, and more specifically on the degree of social similarity with the target consumer. The lower the perceived social distance, the higher the consumer would be involved. In conclusion, psychological distance is expected to be lower in the case of a non-celebrity spokesperson, as it portrays an average target consumer and eases self or third-party recognition (Deska, Hingston, DelVecchio, Stenstrom, Walker and Hugenberg, 2022) leading to a higher sensitiveness and trust toward the endorsed product (Billeter, et al., 2012).

These results match the findings of H. Friedman and L. Friedman (1979) study aimed at investigating whether different endorser types persuasiveness varied depending on the type of product endorsed and what resulted to be the best product/endorser type combinations.
It turned out peer endorsers are more effective when paired with uncomplex and low-risk products. Concerning the study, the "cookies/typical consumer" combination reported the highest results in terms of attitude toward the product, willingness to buy, and endorser perceived credibility compared to other products tested.

However, no studies so far tested which endorser type among peer endorsers and animated characters is more suited to encourage parents to buy vegetable-based food for their kids: it remains unclear whether a child peer endorser can be the most effective strategy to promote healthy foods aimed at children.

H1: Depicting children peer endorsers (vs animated characters) (IV) on a vegetable food package aimed at children has a positive effect on parents' willingness to buy (DV)

2.1.2 The mediating role of expected palatability

Consumers form a vast range of convictions to support their buying behavior. They rely on cues every time they purchase something (Olson and Jacoby, 1972).
According to *Cue utilization theory*, when deciding over a purchase, consumers rely on intrinsic and extrinsic cues. In the case of food, the first group refers to inner product qualities such as ingredients and portion size, while the latter accounts all the elements and features which do not directly depend on the product itself, including: package design, brand name, price or country of origin (McCarthy and Norris, 1999).

Taste has been reported to be the main criterion on which individuals' food consumption choices are based, leading them to pick one product over another (Jung, Shin, Severt and Crowe-White, 2020; Kourouniotis, Keast, Riddell, Lacy, Thorpe and Cicerale, 2016)

Expected palatability has been chosen as a study variable since it is one of the most relevant drivers affecting adults' purchasing decisions for themselves as well as when shopping for on behalf of their kids. Indeed, parents are conditioned by what they expect their offspring will like (indirect influence) and are aware that taste is a key driver for liking new foods. They will probably only buy meals they expect their kids to like, while refraining from purchasing foods that might be disliked and consequently left over.
Secondly, palatability is a unique and peculiar consequence in the food sector of the spill-over effect leading consumers to extend cues gained from package visual elements onto the taste sphere due to cross-modal correspondence effect (Togawa, Park, Ishii and Deng, 2019; Parise and Spence, 2012; Becker, van Rompay, Schifferstein and Galetzka, 2011). In this regard, leveraging on cross-modal correspondence when designing a product package is considered a fine food marketing strategy since taste, and therefore consumers liking, is strictly influenced by the visual - or in this case graphic - perception of the product (Lee and Lim, 2022; Huang, Wang and Wan, 2022; Michel, Velasco, Gatti and Spence, 2014).
In addition, palatability is often investigated in the case of children, resulting in different taste perceptions whether the product is presented in a package with or without character (e.g. Enax, et al., 2015; Letona, Chacon, Roberto and Barnoya, 2014; Smits and Vandebosch, 2012; Lapierre, Vaala and Linebarger, 2011) meriting further considerations among adults as well.

Package visual characteristics (external cues) hold a prominent role in attracting consumers attention and motivating their purchasing decisions (Visentin and Tuan, 2021) especially when looking for a product they have never tried before. They will generate expectations about the food palatability or quality, based solely on what can be inferred by looking at the package (i.e. the image displayed on the façade, its colors, the package shape, or the material of which it is made of).
More specifically, consumers unconsciously formulate expectations based on the senses they can rely on and assume further characteristics of the product that belong to different sense modalities they are not actually able to experience directly (Parise and Spence, 2012).

Paring product visual sensory characteristics with taste expectations is a vivid example of cross-modal correspondence, resulting in a palatability assumption.

The literature does not provide a comprehensive understanding of the concept of expected palatability, consequently two separate definitions of the above-mentioned terms will be reported. There is no univocal definition of palatability (Ramirez, 1990), for instance Kissileff (1990) proposed a distinction between intrinsic and reported palatably. The first was defined as an inner property of the food, while the second as the sum of intrinsic palatability with sensory and post-dining perceptions.
In this work food palatability will be defined as a favorable hedonic judgment based on food taste characteristics (Booth, 1990; Le Magnen, 1987; Yeomans, 1998).
On the other hand, an expectation indicates a person's psychological state of anticipation, in which the individual is aware that something will presumably occur (Costa, Balthazar, Franco, Másrico, Cruz and Junior, 2014). Regarding food, expectation can be interpreted as one's conviction that a dish possesses a certain attribute (Cardello, 1994), in this specific case a pleasant taste.

In the case of Letona, Chacon, Roberto and Barnoya (2014), Kotler, Schiffman, and Hanson (2012), De Droog, Valkenburg, Buijzen (2011) and Roberto, Baik, Harris, and Brownell (2010) experiments, children were asked to taste the same nutritionally balanced foods coming from two different containers, one blank while the other hosting an animated character, to test whether their liking would have changed depending on the presence or absence of a cartoonised endorser. The researchers demonstrated the presence of animated characters had a positive effect on kids taste perception of fruit and vegetables. Interviewers asked whether or not the products tasted the same and if not which one was better. As a result, the majority of kids indicated the one with the character as tastier even though both packages contained the same product.
Although the focus of those studies were to attest a difference in taste perception, this is in turn a consequence of a difference in taste expectations between the two variants based on the graphics and capable of conditioning the young sample to such an extent they inferred first and actually perceived a different taste even if they have eaten the same product twice.

It has been reported that pictures trigger mental imagery (Huang, Wang and Chan, 2022) since they allow to "mentally depict" oneself or others using the product (Thomas and Capelli, 2018). In fact, in accordance with the cross-modal correspondence effect, mental representation is a "multi-model" construct, which means for instance that mental imagery inspired by sight can trigger associated senses such as tastes in one's mind (Koubaa and Eleuch, 2021; Dou, Li, Geisler and Morsella, 2018).

By definition, an endorses is a subject acting as a source of information to increase product acceptability (Batra, Myers and Aaker, 1996).
In this process, identification and credibility play a consistent role (Schouten, Janssen and Verspaget, 2021). Identification can be actual or "wishful", which can be described as the desire to be or look as someone else (Hoffner and Buchanan 2005).
The desire to identify oneself with someone else might be greater in the case of animated characters compared to peer endorsers. Indeed spoke-characters often convey some personality traits in which the viewer might recognize himself or herself (e.g., actual self, ideal self or social self).
A concept shared by Parker (2009) according to which consumers seek products whose symbolic attributes matches their self-concept.

In contrast, Schouten, Janssen, and Verspaget (2021) reported "authentic" subjects as more effective testimonials as they appeared similar to the target audience which perceives them as more credible and fund it easier to identify with them.

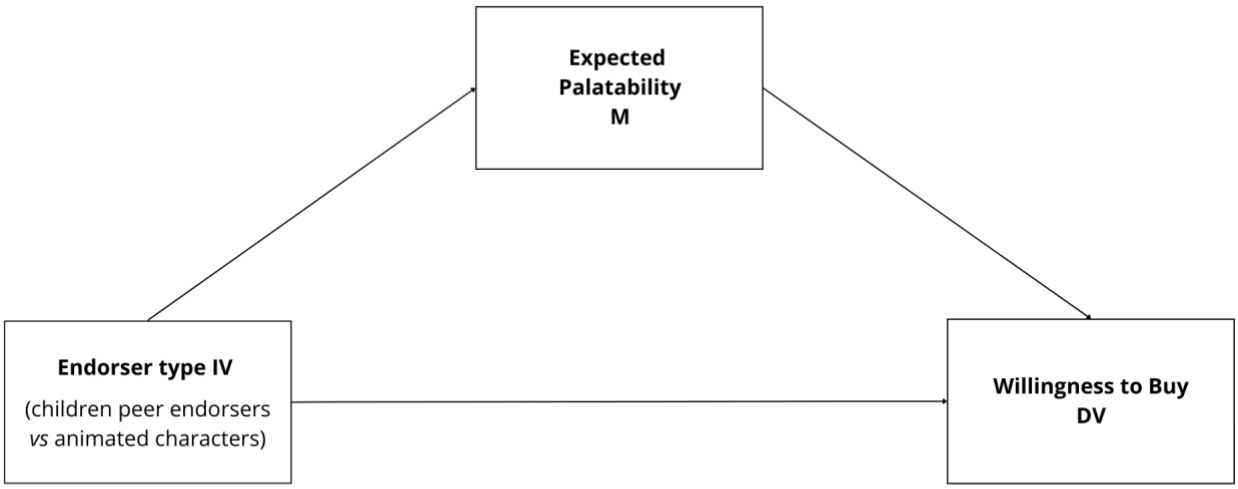
Consequently, the question arises whether different subjects endorsing the same nutritionally-balance product aimed at kids, will lead to a different expected palatability as a result of mental visualization due to endorser differences.

In turn, it has been observed that a positive gustatory expectation result in higher willingness to buy (Lee and Lim, 2022; Konuk, 2021; Jung, Shin, Severt and Crowe-White, 2020)

H2: Children peer-endorsers (vs animated characters) (IV) have a positive effect on food expected palatability (M), which in turn positively influence parents' willingness to buy (DV). Thus, expected palatability is expected to mediate the relationship

Based on the previous literature review and hypothesis formulation, the following conceptual model and have been developed.

Title: Conceptual model



Chapter 3

This chapter is dedicated to study the effects of how endorser types on vegetable-based food package front could impact parents' willingness to buy the product for their kids and to test whether expected palatability mediates this relationship.
For this purpose, a quantitative research study was conducted, consisting of a pre-test and a main study.
The upcoming paragraphs provide insights into the construction of the questionnaires and go through the results obtained from the data analysis.

3.1 Pre-Test

Before launching the main study, a pre-test was run among a convenient sample with the aim of verifying the effectiveness of the independent variable manipulation, that is whether children peer endorsers were perceived differently from animated spoke-characters or not.
41 participants took part in the study, 31 females (75.6%), 10 males (24.4%), all of them were Italian. All of them compiled the questionnaire, meaning all the questions were answered. The age ranged from 21 to 61, with an average age of 25.76 (SD_{age}= 8,06; Med_{age}= 24; Mod_{age}= 24).
Participants were randomly assigned to one of the two pictures: one depicting three children while the other hosting three animated characters, namely rabbits in superheroes suits, each of them attached to a different food: carrot, beans and barley.
After seeing the picture respondents were asked to evaluate on a scale from 1 to 7 how similar the observed subjects were to humans, based on a three items prevalidated sub-scale adapted from Golossenko, Pillai and Aroean (2020).

Title: Pre-test stimuli

Respectively: Children peer endorsers scenario and Animated character scenario

Consequently, items reliability was checked, showing excellent conditions (C. Alpha= 0.957). Despite erasing an item would have increased C. Alpha from 0.957 to 0.968, however, since the difference resulted to be quite small, all items were kept.
In conclusion, an independent sample t-test was conducted. Variances of the two groups resulted not to be equal (Levene's test, p = < 0.001).
Results revealed that on average subjects exposed to the children peer endorsers scenario were more prone to evaluate them as more human-like compared to the ones assigned to the animated characters scenario (p= 0.001 < 0.05). Therefore, *H0* was rejected and the manipulation resulted to be successful. ($M_{children\_peer\_endorser}$ = 6.71, $SD_{children\_peer\_endorsers}$ = 0.440; $M_{animated\_characters}$ = 2.98, $SD_{animated\_characters}$ = 1.340) [*Appendix 3*].

3.2 Main study

The following paragraphs will illustrate the main study that aims to test whether depicting different endorser types on a vegetable food package front could impact parents' willingness to buy the product for their kids and to test whether expected palatability mediates this relationship.
In this regard, a control condition, thus a scenario in which the product package was unendorsed, will also be tested.

The next paragraphs will describe the questioners design, scales and participants.
As a following step, a manipulation recheck will be performed on the pre-test stimuli.
At first, the analysis will investigate whether endorsers (animated characters vs children peer endorsers vs no endorser) have in a significant influence on expected palatability and WTB. These effects will be verified via one-way ANOVAs.
At the end, the analysis will focus on verifying the conceptual model hypothesis. Therefore, it will be tested how a different type of endorser (animated characters vs children peer endorsers) has an effect on WTB and how this relationship is mediated by expected palatability through PROCESS Model 4. *[Appendix 4*]

3.2.1 Questioners design and scales

For the main study two separate questionnaires were launched, one dedicated to the manipulation of the independent variable in which respondents were randomly assigned to one of two conditions: children peer endorsers vs animated characters.
The second questionnaire, on the other hand, showed a picture of a vegetable product package with no endorser at all.

A package of ready-made soup was chosen as the vegetable and nutritionally balanced meal to show respondents. The soup was reported to be made from vegetables, grains, and legumes. The aim was to choose a product that appeared balanced and nutritious.

In order to better characterize the animated characters, it was decided to assign each of them one of the vegetables the soup was named after, respectively: carrot, beans and barley. The colors of their superhero suits were also coordinated with the color of the vegetable they have been assigned to.

The two questionnaires had an identical structure, except for the pre-test manipulation recheck questions, which were present only in the questionnaire where endorsers were featured on the soup packs.

Apart from that, both questionnaires included an introduction, which indicated children as the main target of the product, after which respondents were shown a picture of the soup package front.
Thereafter they were asked to indicate their expected palatability based on the package appearance and their willingness to buy the product for their children.
Finally, a few sociodemographic questions were presented to investigate respondents age, gender, and nationality.
Expected palatability was assessed on a 1 to 7 prevalidated Likert scale adapted from Konuk (2021), willingness to buy was measured on 1 to 7 prevalidated Likert scale adapted from Konuk (2019) as well.

Title: Main study stimuli

Respectively: Children peer endorsers scenario, Animated characters scenario and No Endorser scenario

3.2.2 Participants and procedure

The questionnaires were administered among two convenient samples of 104 parents in total, with an average age of 37.63 (SD_{age}= 7.25). Among the participants 68 (65.4%) were female and 36 (34.6%) were male. The vast majority of the participants was Italian (95.2%).

More specificity, 70 respondents answered the first questionnaire and randomly saw one of the two endorser types (children peer endorsers vs animated characters), while the others were exposed to the control questionnaire.

Privacy and anonymity of the study were not only assured but also emphasized in order to entice respondents to answer openly.

The survey was shared through Qualtrics, data were analyzed on SPSS.

3.2.3 Manipulation recheck

What previously assessed by the pre-test has been confirmed. Endorser type manipulation resulted to be successful: respondents demonstrated that they perceived children as different from animated characters.

More specifically items reliability was checked, showing excellent conditions (C. Alpha= 0.993) and a new independent sample t-test was conducted (Levene's test p = 0,320; t-test $p<0.001$).
On average subjects exposed to the children peer endorsers scenario were more prone to evaluate them as more human-like compared to the ones assigned the animated characters scenario ($M_{children\_peer\_endorsers} = 6.63$, $SD_{children\_peer\_endorsers} = 0.553$; $M_{animated\_characters} = 1.93$, $SD_{animated\_characters} = 0.866$)

3.2.4 Analysis and results

Before delving into verifying the conceptual model hypothesis, a preliminary analysis to investigate whether presence or absence of endorsers and their typologies (animated characters vs children peer endorsers vs no endorser) significantly impact expected palatability and WTB has been conducted via two one-way ANOVAs.
This additional step aims to further deepen the research topic and better contextualize the subsequent analysis in relation to the current market scenario. In fact, within the ready-to-eat soup market, most products do not feature any endorser.
Therefore, it might be relevant to understand whether, compared with market practice (no endorser scenario) featuring children peer endorsers or animated characters significantly increase expected palatability and parents' WTB before proceeding with the core analysis.

Scales reliability were checked for variables from both questioners.
From the first questioner, expected palatability items reliability was checked, showing excellent conditions (C. Alpha= 0.967) and so did WTB (C. Alpha= 0.974).
Similarly, in the case of the control questioner, expected palatability (C. Alpha= 0.892) and WTB (C. Alpha= 0.958) items reliability showed solid results.

At first the relationship between presence or absence of endorsers and their typologies and expected palatability was investigated.
The assumption of equal variances was verified (Levene's test $F = 0.393$; $p = 0.676$) and at least one mean differed among the groups ($F= 182.59$; $p= 0.001$). A Bonferroni post-hoc test revealed that expected palatability was significantly higher in the case of children peer endorsers (Expected $palatability_{children\_peer\_endorsers}= 6.46$) compared to animated characters and no endorsers ($p= 0.001$).
On the contrary, expected palatability resulted to be significantly lower in the case of no endorsers (Expected $palatability_{no\_endorser} = 2.63$) compared to children peer endorsers and animated characters ($p= 0.001$). In the case of animated characters (Expected $palatability_{animated\_characters} = 4.14$), they result to significantly elicit a lower expected palatability than children peer endorsers but higher than an unendorsed soup ($p=0.001$).

Similar results were obtained when inquiring whether presence or absence of endorsers and in case which type had a greater impact of parents WTB.
The assumption of equal variances was verified (Levene's test $F = 0.493$; $p = 0.612$) and at least one mean differed among the groups ($F= 179.92$; $p= 0.001$).
Even in this case, the most effective endorser type resulted to be children peer endorsers ($WTB_{children\_peer\_endorsers} =6.37$; $p =0.001$), followed by animated characters ($WTB_{animated\_characters}= 3.85$; $p = 0.001$). The lowest effects on WBT were seen in the case of no endorsers ($WTB_{no\_endorser} = 2.41$; $p = 0.001$).

After that, the conceptual model hypothesis were tested on the N=70 sample, starting from the main effect. A one-way ANOVA was performed between the IV (children peer endorsers vs animated characters) and the DV (WTB). The assumption of equal variances was verified (Levene's test $F = 0.508$; $p = 0.479$) and means differed among the groups ($F= 145.69$; $p= 0.01$). More specifically, the most effective endorser type resulted to be children peer-endorsers ($WTB_{children\_peer\_endorsers} =6.37$; $SD= 0.847$), followed by animated characters ($WTB_{animated\_characters} = 3.85$; $SD = 0.901$).

PROCESS Model 4 was run in SPSS to test whether expected palatability mediates the relation between endorser type and parents' willingness to buy the soup for their kids.
The model fit resulted to be significant ($p= 0.000$).
The effect of endorsers (IV) on expected palatability (M) is positive and statistically significant ($B = 2.31$, $SE = 0.21$, $t (1, 68) = 11.08$, $p= 0.000$) suggesting that children peer endorsers vs animated characters significantly increase taste expectations (*Path a*).

The effect of expected palatability (M) on parents WTB (DV) the soup for their kids is positive and statistically significant ($B = 0.82$, $SE = 0.70$, $t (2, 67) = 11.82$, $p= 0.000$), suggesting that a higher taste expectation elicits higher purchase intention (*Path b*).

The effect of endorsers (IV) on parents WTB (DV) the soup for their kids when considering the mediating role of expected palatability is positive and statistically significant ($B = 0.62$, $SE = 0.20$, $t (2, 67) = 3.08$, $p= 0.003$), suggesting that children peer endorser vs animated characters increases adults purchase intention also when considering expected taste (*Path c1*).

The total effect of endorsers on parents WTB the soup for their kids (*Path* c), which refers to the main effect of the independent variable on the dependent variable (without mediation) is positive and statistically significant (B = 2.52, SE = 0.21, t = 12.07 p = 0.000, 95% CI = 2.107, 2.941).

The indirect effect of endorsers on parents WTB the soup for their kids via expected palatability is positive and statistically significant (B = 1.91, SE = 0.25, CI = 1.382, 2.369) suggesting that expected palatability mediates and therefore explains the relationship between endorsers type and adults purchase intention. Additionally, the coefficient of the total effect (c) is larger than the coefficient of the direct effect (c1) (2.52 > 0.62), suggesting that expected palatability partially mediates the effect of endorsers on parents WTB the soup for their kids.

Chapter 4

4.1 Results Discussion

These findings contribute to gain understanding on the more effective ways to encourage healthy and nutritious eating among children by pursuing a different perspective and shifting the focus from children to parents as the final decisionmakers in the purchasing process.

This study, addresses and explores the fields of consumer behavior and consumer choices. Underlying the current study is the question of whether endorsers can be a valuable nudging tool, that is, whether they can easily encourage positive and virtuous behaviors, with the aim of facilitating adults' choice toward plant-based products for their children.

Moreover, the quest of understanding how packaging graphics can motive healthy food consumption among youngsters has been addressed by both marketing researchers and practitioners. Despite with a greater predilection for animated characters compared to other types of endorsers and mainly in the case of children as decision makers. Therefore, this study aims to contribute to both areas bringing a new perspective.

More specifically the aim of the thesis was to investigate how endorser types (children as endorsers vs animated characters) on vegetable food package front could impact parents' willingness to buy the product for their kids with a focus on expected palatability.

Going into details, for what concerns adults' expected palatability and willingness to buy, the results have shown a greater intention to buy children soup when the package front depicted the three children peer endorsers, compared to the three animated characters and control condition – thus no endorsers.

This research study also posed the hypothesis that perceived palatability would mediate the relationship between endorser type and parents' willingness to buy the vegetable soup for their offspring. More specifically, when the package façade reported children as peer endorsers, the soup expected palatability would be expected to increase leading to a higher purchase intention.

Since the mediation resulted to be significant, hypothesis were conformed, meaning that expected palatability (M) increases willingness to buy (DV) in the case of children peer endorsers.

In light of these results, the following paragraphs will outline the academic, managerial and social implications of this study.
In addition, the limitations and additional research directions for further studies will be outlined.

4.1 Theoretical implications

At first it has been verified whether endorsers presence vs absence was able to affect expected palatability and willingness to buy. As a result, both expected palatability and parents' willingness

to buy resulted to be significantly lower in the case of no endorsers compared to children peer-endorser and animated characters. This finding was in line with previous studies although they were conducted on children, where the unendorsed options consistently elicited less liking and purchase intention (Ogle, Graham, Lucas-Thompson and Roberto, 2017; Keller, 2014; Kotler, Schiffman and Hanson, 2012; Smits and Vandebosch, 2012; Wansink, Just and Payne, 2012; de Droog, Valkenburg and Buijzen 2011; Roberto, Baik, Harris and Brownell, 2010; Neeley and Schumann, 2004). Therefore, a similar finding was proved true for adults as well.
The tendency to prefer the endorsed soups because they are thought to be tastier can be explained by the spill-over effect leading consumers to extend cues gained from package visual elements onto the taste sphere due to cross-modal correspondence effect (Togawa, Park, Ishii and Deng, 2019; Parise and Spence, 2012; Becker, van Rompay, Schifferstein and Galetzka, 2011).
More specifically sight influences taste that cannot be directly experiencing.

Later the conceptual model was tested, as a result all the hypothesis were corroborated. It emerged endorsers type is able to positively affect parents' willingness to buy in case of vegetable food aimed at kids and that this relationship is mediated by expected palatability.
More in depth is has been demonstrated that children as peer endorsers significantly increases taste expectations, a higher taste expectation elicits higher purchase intention and that children peer endorsers (vs animated characters) increases adults purchase intention also when considering expected palatability.
This research proves novelty inquiring the effectiveness of a different type of endorsers, while previous studies mainly concentrated on licensed or company-owned animated characters.

These results may also be explained by the fact that endorses are conceived to increase product acceptability (Batra, Myers and Aaker, 1996) with identification and credibility playing a consistent role in this process (Schouten, Janssen and Verspaget, 2021).
Actual identification and credibility have been reported to be higher in the case of peer endorsers.
In this regard Schouten, Janssen and Verspaget (2021) reported "authentic" subjects to be perceived as more effective testimonials as they appeared similar to the target audience.
In turn, credibility is positively influenced by psychological distance. According to Tajfel and Turner (1979) work, the lower the perceived psychological and social distance, the higher the consumer involvement would be.
Indeed psychological distance is expected to be lower in the case of peer endorsers, as it portrays an average target consumer and eases self or third-party recognition (Deska, Hingston, DelVecchio, Stenstrom, Walker and Hugenberg, 2022) leading to a higher sensitiveness and trust toward the endorsed product (Billeter, et al., 2012).

The current study also adopts a novel perspective, as it addresses parents instead of children in contrast with previous studies. This approach is motivated by the fact that parents act as gatekeepers and are the ones who have the final say over household decisions. Children often participate and influence what adults buy, however "*pester power*" appears more prominent during initiation and choices evaluation (G. Belch, Belch, and Ceresino, 1985; Nørgaard, Bruns, Christensen and Mikkelsen, 2007) while it is limited at the decision stage (Beatty and Talpade, 1994; Moschis and Mitchell, 1986).

4.2 Managerial implications

The thesis focuses on the importance of food packaging visual components and more specifically on graphics as it is able to condition the affective side and plays a huge influence on purchase intention especially in the case of low involvement product and when experiencing time constraints.

Unlike several previous studies which concentrated on famous animated characters, both independent variable scenarios relied on infamous endorsers as it was believed to be a more feasible strategy for a company to adopt in the long run. This was done in order to provide feasible recommendations even for emerging brands.

Specifically, according to the ANOVAs it is advisable to feature endorsers on vegetable soups as they were preferred compared to the underscored package.

Going into details, and based on the PROCESS results as well, featuring children peer endorsers compared to animated characters on the packaging of children's vegetable products should be encouraged as parents reported a higher expected palatability and purchase intent toward those products.

These thesis results also have a social value. Childhood obesity and overweight are indeed a serious problem. Over the past decades, excessive weight rate has increased especially among industrialized countries (Smith, Fu and Kobayashi, 2020), until in 2002 the European Association for the Study of Obesity (2002) has started tackling obesity as a health crisis. Among school-age children and adolescents, excessive weight affects one in three children in elementary school and one in four among teenagers. As a consequence, experiencing obesity at a young age may have both physical and psychosocial consequences.
Therefore, this thesis add knowledge to the possible strategies aimed at encouraging healthy and nutritious foods intake among children, by deepening the role of endorsers in this process and identifying peer endorsers as a valid graphic solution to boost perceived palatability and parents purchase intention.

4.3 Limitations and future researches

This study sheds light on endorsers potentials in boosting vegetables taste expectations and choice, however the current research field is broad, and possibilities remain open for further researches.
The following paragraphs report only some examples of alternative models partially inspired by the current study, which could help enrich the research topic.

In the first place, the study target was different from the existing literature as this thesis concentrated on parents. Indeed, they were considered to be a more reliable sample to estimate a new product market success than children since they exert purchasing power and act as gatekeepers, while kids influence tend to decrease during the decision stage (Beatty and Talpade, 1994; Moschis and Mitchell, 1986).

However, since the effect of peer endorsers has never been inquired on children liking and behavior toward healthy foods, the test could be repeated on a children sample in order to compare the findings with the thesis results should any difference emerge.

Other types of endorser may be evaluated and compared in the future. As anticipated above, a choice was made to focus on non-famous endorsers as they were believed to be more feasible to maintain in the long run instead of famous endorsers (e.g. licensed animated characters, celebrities or sport people).
However, the literature lacks studies related to different types of testimonials. Therefore, it might be appropriate to broaden the research area by evaluating how expected palatability and WTB change in the case of other types of endorsers.
A future study could concentrate on famous endorsers only or combine both famous and non-famous testimonials.

In addition, another study could be conducted considering the number of endorsers per package, whether one or more, as a moderator. In fact, it was chosen to feature three children as well as three animated characters as the soup's main ingredients (carrots, beans and cereals), in this way each animated character could be characterized more accurately through one of the three vegetables. However, there is no evidence about what is considered to be the best number of subjects to report on the package.

Moreover, concerning the package design, in order to nudge consumers towards healthy eating different techniques other than or in combination with endorsers may be used in order to make healthy foods more appealing and facilitate its consumption.
Color, for example may be an interesting variable to test. Indeed, package colors help convey product properties through cross-modal correspondence and induce consumers to formulate expectations about the product (Tijssen, Zandstra, de Graaf and Jager, 2017). In the current study, the square label at the center of the soup package participants were exposed to was light brown, indeed a soft color was chosen to recall earth, nature and more broadly health. As an alternative, half of the respondents might have seen a more saturated colors (i.e. red or yellow).
The color of the packaging therefore could be studied as a moderator. In fact, saturated colors tend to be associated with richer flavors. Therefore, a color intense shade (vs a softer one) may elicit higher expected palatability.
On the other hand, shiny tints are more common for HFSS products (Theben, Gerards and Folkvord, 2020). Indeed, vivid colors are usually implicitly associated with products of lower nutritional quality, high in fat and sugar. As an alternative to the study suggested ahead, a moderated mediation model could be studied with the aim of testing the current IV and DV with perceived nutritional quality as a mediator and color (saturated vs soft shade) as a moderator.

Were a food company be interested in these results to design novel food packs, these findings may represent a starting point for further reasoning and more in-depth data analysis to complement and deepen the current results. More research should be carried out to understand the market thoroughly.

Qualitative analysis, such as one-to-one interviews or parents focus groups could be conducted to gain a deeper understanding and inquire the motivations of adults' preferences for the peer endorsers version over the others two.
More broadly qualitative research might be useful in order to point out their wants and expectations in the case of healthy food products aimed at kids.
Interviews would allow company researchers to delve deeper into the general sentiment toward this type of product by directly asking respondents what the main drivers of choice are within the category.
In fact, in this thesis, expected palatability was chosen because it emerged as the most important driver from the literature, however new trends may be emerging, therfor qualitative research could provide additional perspective to the analysis conducted so far and in case highlight new variables to for further investigations.
At last, this approach could prove useful in understanding whether, on behalf of international data indicating an increase in overeating among children across Europe, adults are also aware of this phenomenon and its risks. Specifically, whether parents are informed about the recommended amounts of fruits and vegetables children should consume on a daily base and whether they struggle to achieve these quantities.

At last, a shelf test aimed at simulating a shopping experience might prove to be a more accurate method to determine which of the three products parents like the most not only comparing the three package variations among each other but with other competing brands as well.
This would enable the three product variants to be evaluated in a more realistic context in which for example participants can simulate a shopping experience and interact with the products by staring at them, moving around, picking one up and then putting it into the in the shopping chart or back on the shelf. The consumer will be exposed to and conditioned by more variables, for example, the number of products belonging to the category, their colors, disposition and so on. Taking into account people have a limited attention span, when faced with a large variety of options consumers may accuse choice overload, with the consequent inability to devote equal and prolonged attention to all the products at display. In fact, if the shelf is assorted in a realistic way an emerging brand or a new product variant is likely to occupy a reduced amount of space, compared to more established brands. For this reason, this type of studies allows researchers to assess not only the consumers' preferred option with respect to the three product variants under test (children peer endorsers vs animated characters vs unendorsed) but also to evaluate how each one of them is perceived when compared to others competing products.

In addition to researchers' direct observation of participants conduct, eye-tracking technology could provide more detailed information. Indeed eye-tracking's allows to objectively quantify consumers attention, more in depth it analyses eye movements and allows a more accurate detection of salient patterns, that is, features capturing the consumer's attention, and for how long those elements have been stared (Carter and Luke, 2020; Pozharliev and Cherubino, 2020; Wedel and Pieters, 2017).

In conclusion, in light of what previously outlined, this thesis contributes to the existing literature for its originality, thus through testing peer endorsers as one of the independent variable scenarios and varying the sample composition from children to adults. As a consequence, the current results made

it possible to deepen the understanding on the category and formulating shrewd suggestions aimed at practitioners on what endorser to opt for, while at the same time becoming a base for further researches in both academic and managerial fields.

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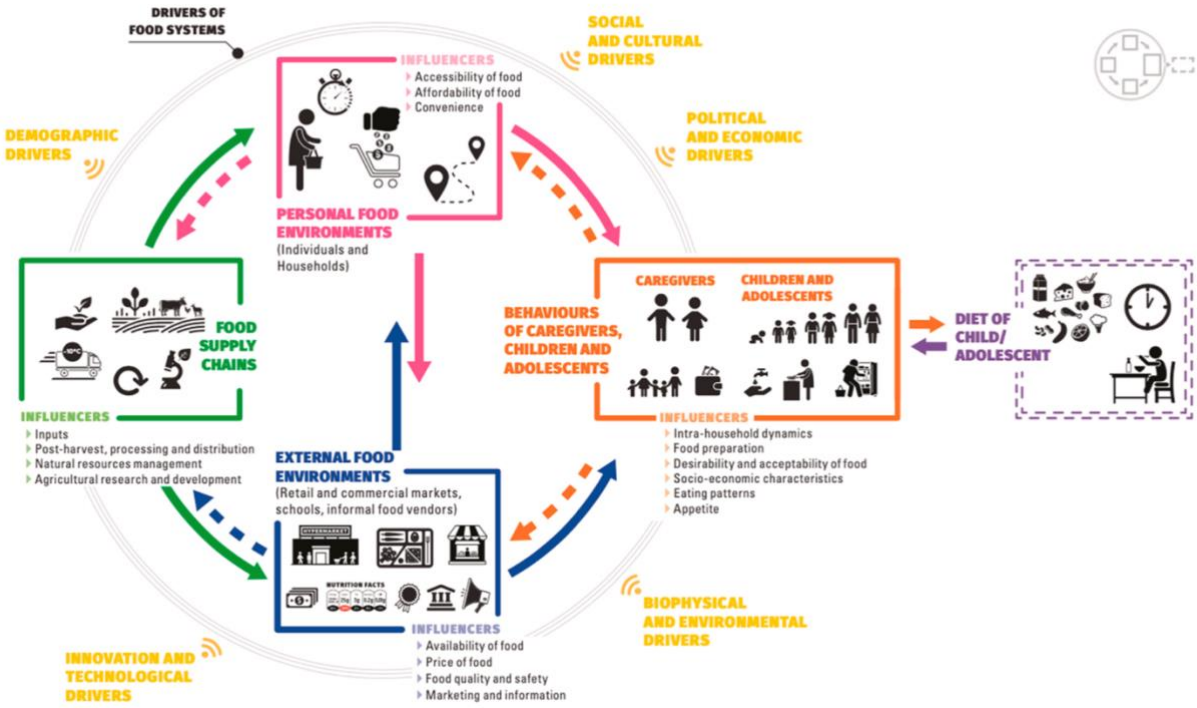
Appendix

Appendix 1 – The *Innocenti* Framework for children's and adolescents' diets.



Source: UNICEF, GAIN, 2019. Food Systems for Children and Adolescents. Working Together to Secure Nutritious Diets. UNICEF, New York.
https://www.gainhealth.org/sites/default/files/publications/documents/convening-paper-series-3-food-systems-for-children-and-adolescents.pdf

Appendix 2 – Frequent marketing tactics aimed at children

#	Technique	Definition	Examples
1	Child-appealing visual/graphical design of package	Intense colors, patterns or visual designs on the packaging or design themes related to fantasy, adventure, magic, sports, etc. that are clearly appealing to children. *Note: this can include child-appealing lettering, if it is enough on its own for the product to be considered "child-appealing", otherwise code lettering under broad techniques.*	Space-themed visual design Rainbow packaging Chalkboard-style lettering
2	Unconventional shape of the product, featured on the package	The product featured on the packaging has a shape that is unconventional or unusual for that type of product. E.g. if crackers have a shape other than their usual square or round shape. *Note: In the case of clear plastic containers where the product is visible through the package, this counts as the shape being visible.*	Animal shaped crackers Alphabet shaped pasta Character, fruit or animal shaped gummies
3	Unconventional flavour of the product, featured on the package	The product featured on the package has a flavour that is unconventional or unusual for that type of product, or a flavour that is not a 'real' or 'discernable' flavour. *Note: this could include the presentation of the flavour in a 'negative' way that may appeal to children; e.g., tastes crazy, weird, sour, whacky*	Tropical Storm Flavour Cheddarific Secret Flavour Chocolate Mud flavour Cool Cucumber flavour
4	Unconventional colour of the product, featured on the package	The product featured on the package has a colour that is unconventional or unusual for that type of product. E.g. if crackers are coloured rather than their usual plain/brown colour. *Note: In the case of clear plastic containers where the product is visible through the package, this counts as the color being visible.*	Rainbow crackers Purple Ketchup Colour changing drink powder Rainbow fruit roll ups (instead of just red, for example) *Note: multi-colored candies would NOT be unusual, unless they are described in a more 'fun' or child-appealing way.*
5	Games or activities on package	Presence of games or activities on the package.	Connect the dots Mazes "Count how many snowmen"
6	Presence of branded characters or spokespersons	Presence of company- or brand-owned characters.	Tony the Tiger Toucan Sam Cap'n Crunch Kraft Bears Pillsbury Doughboy
7	Presence of Licensed Characters	Presence of characters from TV shows, movies, books, etc., that may appeal to children. Note: human actors, if presented as the character are included here (e.g., Miley Cyrus as Hannah Montana), if portrayed as themselves, include under "Presence of Celebrities" (e.g., Miley Cyrus advertised as Miley Cyrus).	Dora the Explorer Batman Hannah Montana Star Wars characters

#	Technique	Definition	Examples
8	Presence of celebrities	Presence of actors, athletes, musicians, other public figures that may appeal to children	Derek Jeter Miley Cyrus
9	Other characters or cartoons	Presence of cartoon characters, animals, etc. that are not branded, licensed, celebrities or tie-ins to child-appealing media (i.e., that do not fit into any of the above techniques)	Cartoon pictures of fictional sports players Animal cartoons on animal crackers
10	Other child-appealing tie-ins	Other movie/sports/TV show etc. tie-ins that are appealing to children are advertised on the package aside from one of the types of characters or celebrities described above. *Note: these may appear in addition to the presence of any characters described above*	Hockey tie-ins that feature an ice-rink or hockey equipment with/without a specific player. Harry Potter tie-in where Hogwarts is presented with/without a character.
11	Presence of children/parents/families	Presence of children or children with their families on the package, either real people or cartoon.	Children shown eating the product Pictures of children eating with their parents
12	Toys or prizes	Toys or prizes included with or inside the package or to be redeemed later.	Figurine inside package Stickers inside package
13	Coupons, contests, or giveaways, specifically appealing to children	Coupons, contests or giveaways to be entered or redeemed later. *Note: contests or giveaways must be for child-appealing prizes (unlike, for e.g., a Patio Furniture set)*	Enter to win tickets to a child-appealing movie Coupon for free yogurt tubes
14	Children's product lines, featured on the package	A product line that is designed/branded for children is featured/named on the package, either for that product, or a different product.	"mini-" or "junior" product lines (e.g., Minigo yogurt) Lunchables "Small cookies for small hands"
15	Appeals to fun	Product packaging makes appeals to the product being fun or funny, having fun while eating the product, being happy, enjoyment, humour etc. *Note: this includes "fun" packaging (i.e., Packaging that is designed in a way to promote "fun" during eating, or makes eating an "activity")* *Note: this could be as part of the product name (e.g., "Fun Dip"), if it is clearly "fun" and appealing to children*	"Have more fun with" "Feel the bubbles melt" "Try our crazy new flavors" "Smiles included" Display of children having fun, being happy, enjoying the product Yogurt Tubes Dunkaroos Processed cheese with dipping breadsticks (if "dipping" is promoted as an activity)
16	Appeals to coolness or novelty	Product packaging makes appeals to the product being cool/hip or new, being cool, while eating the product, etc. *Note: this could be as part of the product name; e.g., "Kool Kreatures"*	"Try our crazy new flavors" Kool-Aid "Try me!" On-pack claim that the product is "new"
17	Recipes, specifically appealing to children	Product packaging displays recipes that can be made using the product and may appeal to children or are promoted as appropriate for children or families to make together.	Rice Krispy squares Party Snack Mix
18	Promotion of websites, social media, rewards programs, specifically appealing to children	Product packaging promotes product/brand/company website, child-specific or games-based brand website, social media, or opportunities to "join", "become a member", redeem points, and collect rewards or to connect or share with others in a manner that is evidently child-appealing	"Find more games on [website]" References to "kids club" or similar

Source: Mulligan, C., Potvin Kent, M., Vergeer, L., Christoforou, A. K., & L'Abbé, M. R. (2021). Quantifying child-appeal: the development and mixed-methods validation of a methodology for evaluating child-appealing marketing on product packaging. *International journal of environmental research and public health*, *18*(9), 4769.

Appendix 3 – Pre-Test

Human-like three items prevalidated sub-scale, adapted from Golossenko, Pillai and Aroean (2020)

A questo punto, basandoti sull'immagine che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni:

	Fortemente in disaccordo	In disaccordo	Un po' in disaccordo	Né d'accordo né in disaccordo	Un po' d'accordo	D'accordo	Fortemente d'accordo
Questi soggetti hanno un aspetto umano	○	○	○	○	○	○	○
Questi soggetti sono simili ad esseri umani	○	○	○	○	○	○	○
Questi soggetti hanno un aspetto simile a quello umano	○	○	○	○	○	○	○

Table 3.1 Items for pre-test manipulation

Sociodemographic data

Statistiche

Quanti anni hai?

N	Valido	41
	Mancante	0
Media		25,7561
Mediana		24,0000
Modalità		24,00
Deviazione std.		8,05848
Varianza		64,939
Minimo		21,00
Massimo		61,00

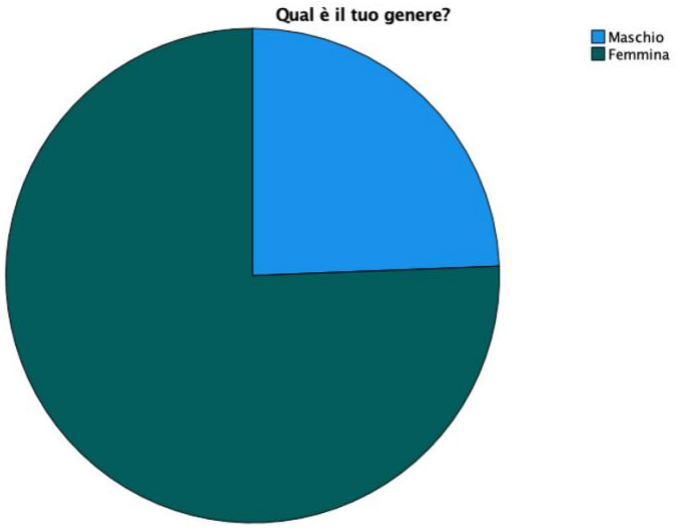


Table 3.2 and 3.3 Demographics: age and gender

Reliability Analysis

Affidabilità

Scala: ALL VARIABLES

Riepilogo elaborazione casi

		N	%
Casi	Valido	41	100,0
	Escluso[a]	0	,0
	Totale	41	100,0

a. Eliminazione listwise basata su tutte le variabili nella procedura.

Statistiche di affidabilità

Alpha di Cronbach	Alpha di Cronbach basata su elementi standardizzati	N. di elementi
,957	,962	3

Matrice di correlazione tra gli elementi

	A questo punto, basandoti sull'immagine che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: - Questi soggetti hanno un aspetto umano	A questo punto, basandoti sull'immagine che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: - Questi soggetti sono simili ad esseri umani	A questo punto, basandoti sull'immagine che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: - Questi soggetti hanno un aspetto simile a quello umano
A questo punto, basandoti sull'immagine che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: - Questi soggetti hanno un aspetto umano	1,000	,867	,880
A questo punto, basandoti sull'immagine che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: - Questi soggetti sono simili ad esseri umani	,867	1,000	,939
A questo punto, basandoti sull'immagine che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: - Questi soggetti hanno un aspetto simile a quello umano	,880	,939	1,000

Statistiche elemento-totale

	Media scala se viene eliminato l'elemento	Varianza scala se viene eliminato l'elemento	Correlazione elemento-totale corretta	Correlazione multipla quadratica	Alpha di Cronbach se viene eliminato l'elemento
A questo punto, basandoti sull'immagine che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: - Questi soggetti hanno un aspetto umano	10,17	16,345	,887	,788	,968
A questo punto, basandoti sull'immagine che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: - Questi soggetti sono simili ad esseri umani	9,98	18,774	,927	,889	,925
A questo punto, basandoti sull'immagine che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: - Questi soggetti hanno un aspetto simile a quello umano	9,76	19,489	,939	,899	,922

Table 3.4 Cronbach Alpha (0.957)

T-test

Test t

Statistiche gruppo

	Condition	N	Media	Deviazione std.	Errore standard della media
Hum_Like	Peer endorser	22	6,7121	,44000	,09381
	Animated Character	19	2,9825	1,34014	,30745

Test campioni indipendenti

		Test di Levene per l'eguaglianza delle varianze		Test t per l'eguaglianza delle medie							
						Significatività		Differenza della media	Differenza errore std.	Intervallo di confidenza della differenza di 95%	
		F	Sign.	t	gl	P unilaterale	P bilaterale			Inferiore	Superiore
Hum_Like	Varianze uguali presunte	21,087	<,001	12,328	39	<,001	<,001	3,72967	,30254	3,11772	4,34161
	Varianze uguali non presunte			11,603	21,349	<,001	<,001	3,72967	,32144	3,06185	4,39748

Table 3.5 Independent sample t-test (means of "Peer Endorsers" and "Animated Characters")

Appendix 4 – Main Study

Expected Palatability three items prevalidated scale, adapted from Konuk, F. A. (2021)

Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni:

	Fortemente in disaccordo	In disaccordo	Un po' in disaccordo	Né d'accordo né in disaccordo	Un po' d'accordo	D'accordo	Fortemente d'accordo
Questo prodotto sembra gustoso	○	○	○	○	○	○	○
Questo prodotto sembra delizioso	○	○	○	○	○	○	○
Suppongo che il sapore di questo prodotto sia buono	○	○	○	○	○	○	○

Table 4.1 Items for mediator

Willingness to buy three items prevalidated scale, adapted from Konuk, F. A. (2019)

Indica in che misura sei d'accordo con le seguenti affermazioni:

	Fortemente in disaccordo	In disaccordo	Un po' in disaccordo	Né d'accordo né in disaccordo	Un po' d'accordo	D'accordo	Fortemente d'accordo
Penso che acquisterei questa zuppa per mio figlio/a	○	○	○	○	○	○	○
Acquisterei questa zuppa per mio figlio/a	○	○	○	○	○	○	○
È molto probabile che acquisti questa zuppa per mio figlio/a	○	○	○	○	○	○	○

Table 4.2 Items for dependent variable

Sociodemographic data

Gender

		Frequenza	Percentuale	Percentuale valida	Percentuale cumulativa
Valido	Maschio	36	34,6	34,6	34,6
	Femmina	68	65,4	65,4	100,0
	Totale	104	100,0	100,0	

Statistiche

Age

N	Valido	104
	Mancante	0
Media		37,6346
Mediana		36,0000
Modalità		34,00
Deviazione std.		7,25414
Varianza		52,622
Minimo		27,00
Massimo		65,00

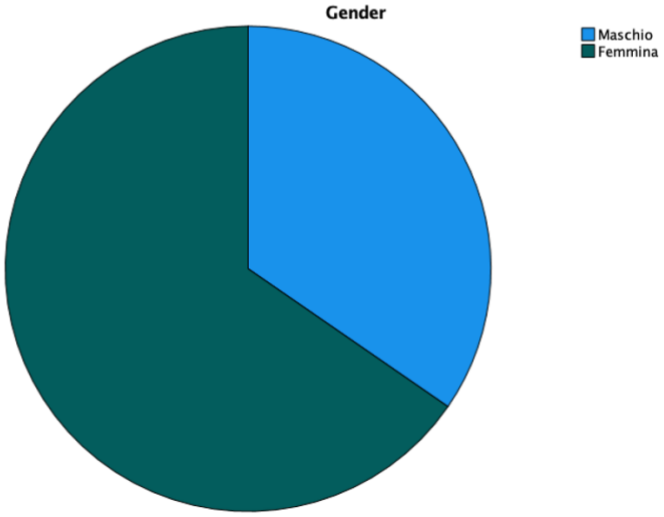


Table 4.3 and 4.4 Demographics: age and gender (N=104)

Qual è il tuo genere?

		Frequenza	Percentuale	Percentuale valida	Percentuale cumulativa
Valido	Maschio	22	31,4	31,4	31,4
	Femmina	48	68,6	68,6	100,0
	Totale	70	100,0	100,0	

Statistiche

Quanti anni hai?

N	Valido	70
	Mancante	0
Media		37,6000
Mediana		36,0000
Modalità		34,00
Deviazione std.		7,26596
Varianza		52,794
Minimo		27,00
Massimo		65,00

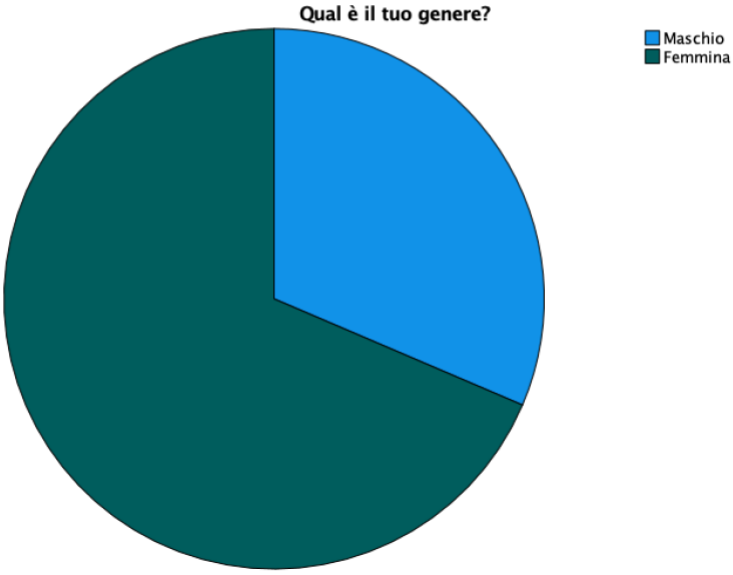
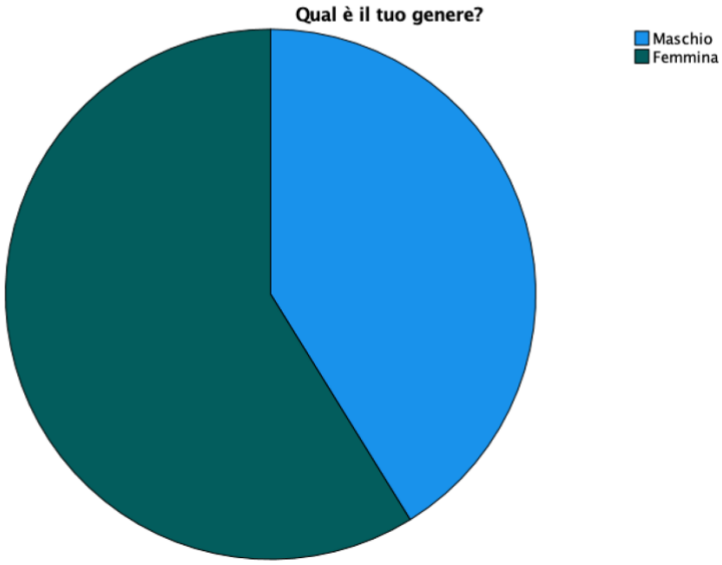


Table 4.5 and 4.6 Demographics: age and gender (N=70)

Qual è il tuo genere?

		Frequenza	Percentuale	Percentuale valida	Percentuale cumulativa
Valido	Maschio	14	41,2	41,2	41,2
	Femmina	20	58,8	58,8	100,0
	Totale	34	100,0	100,0	



Statistiche

Quanti anni hai?

N	Valido	34
	Mancante	0
Media		37,7059
Mediana		37,0000
Modalità		29,00
Deviazione std.		7,33827
Varianza		53,850
Minimo		27,00
Massimo		61,00

Table 4.7 and 4.8 Demographics: age and gender (N=34 – control survey)

Reliability Analysis

Affidabilità

Scala: ALL VARIABLES

Riepilogo elaborazione casi

		N	%
Casi	Valido	70	100,0
	Escluso[a]	0	,0
	Totale	70	100,0

a. Eliminazione listwise basata su tutte le variabili nella procedura.

Statistiche di affidabilità

Alpha di Cronbach	Alpha di Cronbach basata su elementi standardizzati	N. di elementi
,967	,967	3

Matrice di correlazione tra gli elementi

	Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: – Questo prodotto sembra gustoso	Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: – Questo prodotto sembra delizioso	Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: – Suppongo che il sapore di questo prodotto sia buono
Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: – Questo prodotto sembra gustoso	1,000	,920	,917
Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: – Questo prodotto sembra delizioso	,920	1,000	,886
Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: – Suppongo che il sapore di questo prodotto sia buono	,917	,886	1,000

Statistiche elemento-totale

	Media scala se viene eliminato l'elemento	Varianza scala se viene eliminato l'elemento	Correlazione elemento-totale corretta	Correlazione multipla quadratica	Alpha di Cronbach se viene eliminato l'elemento
Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: – Questo prodotto sembra gustoso	10,54	8,455	,946	,895	,939
Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: – Questo prodotto sembra delizioso	10,87	8,433	,923	,858	,957
Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: – Suppongo che il sapore di questo prodotto sia buono	10,39	8,849	,920	,853	,958

Table 4.9 Expected palatability scale, Cronbach Alpha (0.967) (N=70)

Affidabilità

Scala: ALL VARIABLES

Riepilogo elaborazione casi

		N	%
Casi	Valido	34	100,0
	Escluso[a]	0	,0
	Totale	34	100,0

a. Eliminazione listwise basata su tutte le variabili nella procedura.

Statistiche di affidabilità

Alpha di Cronbach	Alpha di Cronbach basata su elementi standardizzati	N. di elementi
,892	,898	3

Matrice di correlazione tra gli elementi

	Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: - Questo prodotto sembra gustoso	Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: - Questo prodotto sembra delizioso	Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: - Suppongo che il sapore di questo prodotto sia buono
Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: - Questo prodotto sembra gustoso	1,000	,733	,743
Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: - Questo prodotto sembra delizioso	,733	1,000	,760
Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: - Suppongo che il sapore di questo prodotto sia buono	,743	,760	1,000

Statistiche elemento-totale

	Media scala se viene eliminato l'elemento	Varianza scala se viene eliminato l'elemento	Correlazione elemento-totale corretta	Correlazione multipla quadratica	Alpha di Cronbach se viene eliminato l'elemento
Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: - Questo prodotto sembra gustoso	5,24	2,791	,787	,619	,858
Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: - Questo prodotto sembra delizioso	5,41	2,492	,801	,641	,835
Basandoti sull'immagine del prodotto che hai appena visto. Indica in che misura sei d'accordo con le seguenti affermazioni: - Suppongo che il sapore di questo prodotto sia buono	5,12	2,107	,807	,652	,843

Table 4.10 Expected palatability scale, Cronbach Alpha (0.892) (N= N=34 – control survey)

Affidabilità

Scala: ALL VARIABLES

Riepilogo elaborazione casi

		N	%
Casi	Valido	70	100,0
	Escluso[a]	0	,0
	Totale	70	100,0

a. Eliminazione listwise basata su tutte le variabili nella procedura.

Statistiche di affidabilità

Alpha di Cronbach	Alpha di Cronbach basata su elementi standardizzati	N. di elementi
,974	,974	3

Matrice di correlazione tra gli elementi

	Indica in che misura sei d'accordo con le seguenti affermazioni: – Penso che acquisterei questa zuppa per mio figlio/a	Indica in che misura sei d'accordo con le seguenti affermazioni: – Acquisterei questa zuppa per mio figlio/a	Indica in che misura sei d'accordo con le seguenti affermazioni: – È molto probabile che acquisti questa zuppa per mio figlio/a
Indica in che misura sei d'accordo con le seguenti affermazioni: – Penso che acquisterei questa zuppa per mio figlio/a	1,000	,925	,937
Indica in che misura sei d'accordo con le seguenti affermazioni: – Acquisterei questa zuppa per mio figlio/a	,925	1,000	,918
Indica in che misura sei d'accordo con le seguenti affermazioni: – È molto probabile che acquisti questa zuppa per mio figlio/a	,937	,918	1,000

Statistiche elemento-totale

	Media scala se viene eliminato l'elemento	Varianza scala se viene eliminato l'elemento	Correlazione elemento-totale corretta	Correlazione multipla quadratica	Alpha di Cronbach se viene eliminato l'elemento
Indica in che misura sei d'accordo con le seguenti affermazioni: – Penso che acquisterei questa zuppa per mio figlio/a	10,20	9,901	,951	,905	,957
Indica in che misura sei d'accordo con le seguenti affermazioni: – Acquisterei questa zuppa per mio figlio/a	10,19	9,690	,936	,877	,966
Indica in che misura sei d'accordo con le seguenti affermazioni: – È molto probabile che acquisti questa zuppa per mio figlio/a	10,27	9,215	,945	,896	,961

Table 4.11 WTB scale, Cronbach Alpha (0.974) (N=70)

Scala: ALL VARIABLES

Riepilogo elaborazione casi

		N	%
Casi	Valido	34	100,0
	Escluso[a]	0	,0
	Totale	34	100,0

a. Eliminazione listwise basata su tutte le variabili nella procedura.

Statistiche di affidabilità

Alpha di Cronbach	Alpha di Cronbach basata su elementi standardizzati	N. di elementi
,958	,959	3

Matrice di correlazione tra gli elementi

	Indica in che misura sei d'accordo con le seguenti affermazioni: – Penso che acquisterei questa zuppa per mio figlio/a	Indica in che misura sei d'accordo con le seguenti affermazioni: – Acquisterei questa zuppa per mio figlio/a	Indica in che misura sei d'accordo con le seguenti affermazioni: – È molto probabile che acquisti questa zuppa per mio figlio/a
Indica in che misura sei d'accordo con le seguenti affermazioni: – Penso che acquisterei questa zuppa per mio figlio/a	1,000	,889	,872
Indica in che misura sei d'accordo con le seguenti affermazioni: – Acquisterei questa zuppa per mio figlio/a	,889	1,000	,901
Indica in che misura sei d'accordo con le seguenti affermazioni: – È molto probabile che acquisti questa zuppa per mio figlio/a	,872	,901	1,000

Statistiche elemento-totale

	Media scala se viene eliminato l'elemento	Varianza scala se viene eliminato l'elemento	Correlazione elemento-totale corretta	Correlazione multipla quadratica	Alpha di Cronbach se viene eliminato l'elemento
Indica in che misura sei d'accordo con le seguenti affermazioni: – Penso che acquisterei questa zuppa per mio figlio/a	4,76	3,337	,903	,817	,946
Indica in che misura sei d'accordo con le seguenti affermazioni: – Acquisterei questa zuppa per mio figlio/a	4,85	2,978	,925	,857	,931
Indica in che misura sei d'accordo con le seguenti affermazioni: – È molto probabile che acquisti questa zuppa per mio figlio/a	4,85	3,341	,913	,836	,939

Table 4.12 WTB scale, Cronbach Alpha (0.958) (N=34 – control survey)

Affidabilità

Scala: ALL VARIABLES

Riepilogo elaborazione casi

		N	%
Casi	Valido	70	100,0
	Escluso[a]	0	,0
	Totale	70	100,0

a. Eliminazione listwise basata su tutte le variabili nella procedura.

Statistiche di affidabilità

Alpha di Cronbach	Alpha di Cronbach basata su elementi standardizzati	N. di elementi
,993	,993	3

Matrice di correlazione tra gli elementi

	A questo punto, basandoti sull'immagine del prodotto che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: – I soggetti riportati sulla confezione hanno un aspetto umano	A questo punto, basandoti sull'immagine del prodotto che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: – I soggetti riportati sulla confezione sono simili ad esseri umani	A questo punto, basandoti sull'immagine del prodotto che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: – I soggetti riportati sulla confezione hanno un aspetto simile a quello umano
A questo punto, basandoti sull'immagine del prodotto che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: – I soggetti riportati sulla confezione hanno un aspetto umano	1,000	,985	,971
A questo punto, basandoti sull'immagine del prodotto che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: – I soggetti riportati sulla confezione sono simili ad esseri umani	,985	1,000	,984
A questo punto, basandoti sull'immagine del prodotto che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: – I soggetti riportati sulla confezione hanno un aspetto simile a quello umano	,971	,984	1,000

Statistiche elemento-totale

	Media scala se viene eliminato l'elemento	Varianza scala se viene eliminato l'elemento	Correlazione elemento-totale corretta	Correlazione multipla quadratica	Alpha di Cronbach se viene eliminato l'elemento
A questo punto, basandoti sull'immagine del prodotto che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: – I soggetti riportati sulla confezione hanno un aspetto umano	8,54	24,136	,982	,971	,992
A questo punto, basandoti sull'immagine del prodotto che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: – I soggetti riportati sulla confezione sono simili ad esseri umani	8,59	24,420	,992	,983	,985
A questo punto, basandoti sull'immagine del prodotto che hai appena visto, indica in che misura sei d'accordo con le seguenti affermazioni: – I soggetti riportati sulla confezione hanno un aspetto simile a quello umano	8,56	25,033	,981	,968	,993

Table 4.13 Human likeness scale, Cronbach Alpha (0.993) (N=70)

T-test: pre-test manipulation re-check

Test t

Statistiche gruppo

	Endorser	N	Media	Deviazione std.	Errore standard della media
Hum_like	Animated Charachter	35	1,9333	,86621	,14642
	Peer Endorser	35	6,6286	,55290	,09346

Test campioni indipendenti

		Test di Levene per l'eguaglianza delle varianze		Test t per l'eguaglianza delle medie							
						Significatività				Intervallo di confidenza della differenza di 95%	
		F	Sign.	t	gl	P unilaterale	P bilaterale	Differenza della media	Differenza errore std.	Inferiore	Superiore
Hum_like	Varianze uguali presunte	1,004	,320	-27,031	68	<,001	<,001	-4,69524	,17370	-5,04185	-4,34862
	Varianze uguali non presunte			-27,031	57,760	<,001	<,001	-4,69524	,17370	-5,04297	-4,34751

Dimensioni effetto campioni indipendenti

		Standardizzatore[a]	Stima del punto	Intervallo di confidenza 95%	
				Inferiore	Superiore
Hum_like	D di Cohen	,72664	-6,462	-7,637	-5,276
	Correzione di Hedges	,73478	-6,390	-7,553	-5,218
	Delta di Glass	,55290	-8,492	-10,550	-6,424

Table 4.14 Independent sample t-test (means of "Peer Endorsers" and "Animated Characters")

ANOVAs

A una via

Descrittive

Exp_pal

	N	Medio	Deviazione std.	Errore std.	95% di intervallo di confidenza per la media		Minimo	Massimo
					Limite inferiore	Limite superiore		
Animated Character	35	4,1429	,87960	,14868	3,8407	4,4450	1,00	6,00
Peer Endorsers	35	6,4580	,86788	,14670	6,1599	6,7561	2,33	7,00
No Endorser	34	2,6274	,76380	,13099	2,3608	2,8939	1,67	5,00
Totale	104	4,4265	1,78582	,17511	4,0792	4,7738	1,00	7,00

Tests di omogeneità delle varianze

		Statistica di Levene	gl1	gl2	Sig.
Exp_pal	Basato sulla media	,393	2	101	,676
	Basato sulla mediana	,810	2	101	,448
	Basato sulla mediana e con il grado di libertà adattato	,810	2	88,666	,448
	Basato sulla media ritagliata	,754	2	101	,473

ANOVA

Exp_pal

	Somma dei quadrati	df	Media quadratica	F	Sig.
Tra gruppi	257,316	2	128,658	182,590	<,001
Entro i gruppi	71,168	101	,705		
Totale	328,484	103			

Dimensioni effetto ANOVA[a]

		Stima del punto	Intervallo di confidenza 95% Inferiore	Superiore
Exp_pal	Eta quadratico	,783	,705	,828
	Epsilon quadratico	,779	,700	,824
	Effetto fisso omega quadratico	,777	,698	,823
	Effetto casuale omega quadratico	,636	,536	,699

Test post hoc

Confronti multipli

Variabile dipendente: Exp_pal

Bonferroni

(I) Endorser	(J) Endorser	Differenza della media (I–J)	Errore std.	Sig.	Intervallo di confidenza 95% Limite inferiore	Limite superiore
Animated Character	Peer Endorsers	-2,31514*	,20066	<,001	-2,8037	-1,8266
	No Endorser	1,51550*	,20213	<,001	1,0234	2,0076
Peer Endorsers	Animated Character	2,31514*	,20066	<,001	1,8266	2,8037
	No Endorser	3,83065*	,20213	<,001	3,3386	4,3227
No Endorser	Animated Character	-1,51550*	,20213	<,001	-2,0076	-1,0234
	Peer Endorsers	-3,83065*	,20213	<,001	-4,3227	-3,3386

*. La differenza della media è significativa al livello 0.05.

Table 4.15 one-way ANOVA for Expected Palatability
(means of "Peer Endorsers", "Animated Characters" and "No Endorsers") (N= 104)

Descrittive

WTB

	N	Medio	Deviazione std.	Errore std.	95% di intervallo di confidenza per la media		Minimo	Massimo
					Limite inferiore	Limite superiore		
Animated Character	35	3,8477	,90126	,15234	3,5381	4,1573	1,00	6,67
Peer Endorsers	35	6,3720	,84705	,14318	6,0810	6,6630	3,00	7,00
No Endorser	34	2,4118	,88838	,15236	2,1018	2,7217	1,00	5,00
Totale	104	4,2278	1,85953	,18234	3,8662	4,5894	1,00	7,00

Tests di omogeneità delle varianze

		Statistica di Levene	gl1	gl2	Sig.
WTB	Basato sulla media	,493	2	101	,612
	Basato sulla mediana	,306	2	101	,737
	Basato sulla mediana e con il grado di libertà adattato	,306	2	99,983	,737
	Basato sulla media ritagliata	,512	2	101	,601

ANOVA

WTB

	Somma dei quadrati	df	Media quadratica	F	Sig.
Tra gruppi	278,104	2	139,052	179,924	<,001
Entro i gruppi	78,056	101	,773		
Totale	356,160	103			

Dimensioni effetto ANOVA[a]

		Stima del punto	Intervallo di confidenza 95%	
			Inferiore	Superiore
WTB	Eta quadratico	,781	,702	,826
	Epsilon quadratico	,776	,696	,822
	Effetto fisso omega quadratico	,775	,694	,821
	Effetto casuale omega quadratico	,632	,532	,696

Test post hoc

Confronti multipli

Variabile dipendente: WTB

Bonferroni

(I) Endorser	(J) Endorser	Differenza della media (I–J)	Errore std.	Sig.	Intervallo di confidenza 95% Limite inferiore	Limite superiore
Animated Character	Peer Endorsers	-2,52429*	,21015	<,001	-3,0359	-2,0127
	No Endorser	1,43595*	,21169	<,001	,9206	1,9513
Peer Endorsers	Animated Character	2,52429*	,21015	<,001	2,0127	3,0359
	No Endorser	3,96024*	,21169	<,001	3,4449	4,4756
No Endorser	Animated Character	-1,43595*	,21169	<,001	-1,9513	-,9206
	Peer Endorsers	-3,96024*	,21169	<,001	-4,4756	-3,4449

*. La differenza della media è significativa al livello 0.05.

Table 4.16 one-way ANOVA for WTB
(means of "Peer Endorsers", "Animated Characters" and "No Endorsers")
(N= 104)

Hypothesis testing

Descrittive

WTB

	N	Medio	Deviazione std.	Errore std.	95% di intervallo di confidenza per la media Limite inferiore	Limite superiore	Minimo	Massimo
Animated Charachter	35	3,8476	,90150	,15238	3,5379	4,1573	1,00	6,67
Peer Endorser	35	6,3714	,84703	,14317	6,0805	6,6624	3,00	7,00
Totale	70	5,1095	1,53931	,18398	4,7425	5,4766	1,00	7,00

Tests di omogeneità delle varianze

		Statistica di Levene	gl1	gl2	Sig.
WTB	Basato sulla media	,508	1	68	,479
	Basato sulla mediana	,506	1	68	,479
	Basato sulla mediana e con il grado di libertà adattato	,506	1	67,336	,479
	Basato sulla media ritagliata	,666	1	68	,417

ANOVA

WTB

	Somma dei quadrati	df	Media quadratica	F	Sig.
Tra gruppi	111,468	1	111,468	145,695	<,001
Entro i gruppi	52,025	68	,765		
Totale	163,494	69			

Dimensioni effetto ANOVA[a]

		Stima del punto	Intervallo di confidenza 95% Inferiore	Superiore
WTB	Eta quadratico	,682	,549	,759
	Epsilon quadratico	,677	,542	,756
	Effetto fisso omega quadratico	,674	,539	,753
	Effetto casuale omega quadratico	,674	,539	,753

Table 4.17 one-way ANOVA for WTB
(means of "Peer Endorsers" and "Animated Characters") (N= 70)

Matrice

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.0 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : WTB
    X  : Endorser
    M  : Exp_Pal

Sample
Size:  70

**************************************************************************
OUTCOME VARIABLE:
 Exp_Pal

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,8024      ,6438      ,7627   122,8983     1,0000    68,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     4,1429      ,1476    28,0654      ,0000     3,8483     4,4374
Endorser     2,3143      ,2088    11,0859      ,0000     1,8977     2,7309

**************************************************************************
OUTCOME VARIABLE:
 WTB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,9471      ,8969      ,2516   291,4577     2,0000    67,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant      ,4359      ,3007     1,4494      ,1519     -,1644     1,0362
Endorser      ,6180      ,2009     3,0761      ,0030      ,2170     1,0189
Exp_Pal       ,8235      ,0696    11,8241      ,0000      ,6845      ,9625
```

```
************************** TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 WTB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,8257      ,6818      ,7651   145,6950     1,0000    68,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,8476      ,1478    26,0239      ,0000     3,5526     4,1426
Endorser     2,5238      ,2091    12,0704      ,0000     2,1066     2,9410

************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     2,5238      ,2091    12,0704      ,0000     2,1066     2,9410

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      ,6180      ,2009     3,0761      ,0030      ,2170     1,0189

Indirect effect(s) of X on Y:
            Effect     BootSE   BootLLCI   BootULCI
Exp_Pal     1,9059      ,2524     1,3820     2,3690

************************ ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

------ END MATRIX -----
```

Table 4.18 PROCESS model 4 (N= 70)