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A structural equation model of impulse buying behaviour in grocery retailing

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ABSTRACT

Purpose: Environmental changes, specifically the economic crisis and the growing penetration of digital technologies, have produced significant changes in shopping habits designed to create new paradigms for impulse buying behaviour. A new scenario seems to be opening up where customers enter the store much more prepared than in the past searching for products they had planned to buy. The purpose of this paper is to explore the determinants of impulse buying in a context of more planning and preparation for shopping.

Design /methodology/approach: The data were obtained using a structured questionnaire from 316 respondents interviewed instore thanks to the cooperation of a leading Italian retail chain. We conducted a two-stage approach mall-intercept survey method to collect data. Firstly, we interviewed customers before entering the store, enquiring them about the pre-shopping preparation and shopping enjoyment tendency. Secondly, we interviewed the same customers at the end of their shopping trips, asking them to indicate which purchases were unplanned. Then, shoppers answered to questions regarding their general tendency to engage in impulse buying, the urges experienced to make impulse purchases, the level of positive and negative affect experienced during the shopping trip.

Findings: In the structural model tested with LISREL 8, we found that pre-shopping tendency influences directly impulse buying: confirming our hypotheses, a higher pre-shopping preparation lead to lower levels of impulse buying. Results also showed that the personality variables (shopping enjoyment tendency and impulse buying tendency) influenced impulse buying through positive affect and urge to purchase. Our research did not find support for the relationship between negative affect and urge. Finally, higher levels of urge to buy impulsively lead to higher levels of impulse buying

Originality/value: From the review of past and recent literature, we have not found a model that considers the influence of pre-shopping tendency on impulse buying behaviour. This paper addresses this major gap in extant literature by including pre-shopping tendency among the individual characteristics (impulse buying tendency and shopping enjoyment tendency) taken into consideration by past contributions.

1. Introduction

Impulse buying in grocery retailing is of interest to manufacturers as well as retailers. Starting from the 90's, several authors have started to investigate the role of the point of sale in consumers' decisions (Bucklin and Lattin, 1991; Donovan et al., 1994; Beatty and Ferrel, 1998; Bell et al., 2011) on the belief that it was possible to stimulate purchases not planned before towards profitable products and/or categories (Inman et al., 2009). During the past two decades, manufacturers have gradually shifted their strategic focus from the traditional marketing levers (e.g. advertising) oriented to create awareness, to instore marketing levers (e.g. promotion) hoping to influence consumers' decisions in store. At the same time, many retailers have invested a lot of resources on in-store marketing to stimulate unplanned purchases.

In Italy at least two out of three purchase decisions are made in store (IGD, 2012) and this data would strengthen the growing strategic importance of the point of sale and all those levers which are operated in store to influence the buying behaviour of the consumer.

However, over the last few years there have been significant changes in shoppers' behaviour due to modifications in the economic and technological landscape. In a context where the unemployment rate grows, the family income decreases, the taxes incidence increases, consumers begin to adopt strategies to reduce the incidence of food expenditure (IGD, 2011). Moreover, the diffusion of new shopping tools has enabled consumers to search for product and pricing

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information anywhere at any time, both outside and inside the store (Silveria and Marreiros, 2014). As a consequence, consumers today enter the store much more prepared than in the past, and they are able to shop quickly only looking for products they had planned to buy.

Consumers' behaviour instore appears to be more influenced by preparatory activities than generally assumed. A recent study (Bellini et al., 2016) found that the degree of grocery shopping preparation influences shopper behaviour inside the store in terms of planned/impulse buying. In particular, the higher is the degree of preparation, the greater is the tendency to plan purchases and the lower is the propensity to make impulse purchases. This means that decisions do not necessarily occur in store, in front of the display, but they can occur also out-of-store, during the pre-trip activities.

Such trends in shopping habits are designed to create new paradigms for impulse buying behaviour. However, from the review of past and recent literature (Weun et al., 1998; Sharma et al., 2010; Jones et al., 2003; Mishra et al., 2012, Beatty and Ferrel, 1998, Zhou and Wong, 2003, Peck and Childers, 2006, Stilley et al., 2010, Ghani and Kamal, 2010, Mohan et al., 2013), we have not found a comprehensive model that considers the preparatory activities among the factors that could influence impulse buying behaviour. Our paper intends to address this gap in existing literature by adding the "pre-shopping tendency" among the variables found to affect impulse buying.

Starting from these considerations, our work focuses on shopping behaviour in grocery retailing in order to explore which factors drive impulse purchases instore in the new retail landscape. The main purpose is to come out with a model that considers pre-shopping variables among the antecedents of impulse buying behaviour.

This paper is organized as follows: we first summarize prior research, introduce our perspective and hypotheses. Next, we describe the methodology with the sample procedure and measures. Then, we specify our structural model and report the findings. The last sections are devoted to discuss the main findings and implications for managers and researchers, limitations and future research.

2. Conceptual framework and hypotheses

2.1. Impulse buying

Over the last decades, several authors started to recognize that many decisions are not made until consumers enter the store (Agnew, 1987; McIntyre, 1995; Inman et al., 2009). The literature defined this phenomenon as 'impulse buying" (for a review of impulse buying behaviour see Muruganantham and Ravi, 2013). According to Iyer (1989) impulse purchases can be divided into four categories: pure impulse buying (purchases characterized by a complete absence of planning); suggestion impulse buying (which occurs when the store suggests new product alternatives to meet a need); reminded impulse purchases (which occurs when consumer remembers to buy a product that is needed only in front of the shelf) and planned impulse purchases (purchases partially planned before entering the store, e.g. the category has already been decided).

Starting from this classification, ten years later Beatty and Ferrel (1998) provided a simpler categorization distinguishing impulse buying from unplanned buying. Impulse buying is "a sudden and immediate purchase with no pre-shopping intentions either to buy the specific product category or to fulfil a specific buying task", whereas unplanned reminder buying may simply be "out of stock" reminder buying. Impulse buying is thus a spur-of-the-moment purchase with little thought (a shopper sees some candy and decides to buy on a sudden urge) while unplanned reminder buying is buying since the shopper forgot to put an item on her list (a shopper sees sugar in the store, remembers she is out of stock and buys it).

In line with these contributions, our definition of "impulse buying" would include only genuinely "impulsive" purchases.

2.2. Impulse buying antecedents

Prior researches on impulse buying found its antecedents in three main categories: individual characteristics (Weun et al., 1998); product category variables (Jones et al., 2003; Inman et al., 2009; Mishra et al., 2012) and situational factors (Belk, 1975; Beatty and Ferrel, 1998).

Among individual characteristics can be cited demographical variables, such as gender and age (Kollat and Willett, 1967; Cobb, 1986; Blaylock and Smallwood, 1987) and personality traits. This latter subcategory includes "impulse buying tendency" e "shopping enjoyment tendency". The first can be defined as the degree to which an individual is likely to make unintended, immediate, unreflective and impulse purchases (Jones et al, 2003) or a tendency to respond quickly to a given stimulus, without deliberation and evaluation of consequences (Gerbing et al., 1987). The second is defined as a consumer's personality trait that finds shopping more enjoyable and experiences greater shopping pleasure than other consumers (Kim and Kim, 2008) or the pleasure one obtains in the shopping process (Beatty and Ferrel, 1998).

As regards to product characteristics, it has been studied that the level of hedonicity of the category bought and the inter purchase cycle (defined as time that elapses between the purchase of a product and the repurchase of the same) affect the probability to buy on impulse (Inman et al., 2009).

Finally, the last variables found to affect impulse buying are situational factors, composed by five main subcategories (Belk, 1975): physical surrounding, social surrounding, temporal perspective, antecedent states and task definition. With reference to grocery shopping, physical surroundings may include in store stimuli such as quantity and quality of the space attributed to the category, display arrangement (Ghani and Kamal, 2010), in store communication, in-store advertisements (Zhou and Wong, 2003), in-store signage (Peck and Childers, 2006), colours (Muruganantham and Shankar, 2013), store environment (Mohan et al., 2013), in-store slack (Stilley et al., 2010), services, store layout and in store promotion (Fam et al, 2011). Social surroundings refer to other persons present during the shopping trip, their characteristics and their apparent roles (Belk, 1975), while temporal perspective regards the time available for the shopping trip (Beatty and Ferrel, 1998) and the time of the day dedicated to the shopping. Antecedent states are momentary moods (such as acute anxiety, pleasantness, hostility, and excitation) or momentary condition (such as fatigue and illness) experienced during the shopping (Belk, 1975). Finally, task definition can include money available for the shopping trip (Beatty and Ferrel, 1998) and shopping intent to purchase a specific product (Belk, 1975). This latter factor could be considered a sort of "preshopping factors", that are variables which influence consumers' decisions before the shopping expedition.

2.3. The role of pre-shopping factors on impulse buying behaviour

To better understand the role of pre-shopping factors on impulse buying behaviour we have to start from the literature on involvement that explains how much time, thought, energy and other resources people devote to a purchase process (Zaichkowsky, 1985; Beatty and Kahle, 1988; Das, 2015a, 2015b). Highly involved individuals, who devote time and energy to search for information before shopping, are likely to be more stable in their preconceived cognitions that lead to purchase (Mittal, 1989). This suggests that impulse buyers may be less involved in their purchase decision-making process than those who make planned purchases.

Nevertheless the obvious linkage between preparatory activities and impulsiveness, most of the studies on impulse buying antecedents have focused the attention on the in-store factors' influence.

Recently, some authors have studied the influence of out-of-store factors on unplanned buying (Bell et al., 2011; Geetha and Bharadhwaj, 2016).

Bell et al. (2011) focused on the influence of three "pre-shopping" factors that can be included among 'task definition' variables: the shoppers' overall trip goals (from concrete to abstract), store-specific shopping objectives (pricing, assortment, service, specific convenience, general convenience, crowding), and prior marketing exposures. The authors found that the amount of unplanned buying increases monotonically with the abstractness of the overall shopping trip goal that is established before the shopper enters the store. Store linked goals also affect unplanned buying; unplanned buying is higher on trips in which the shopper chooses the store for favourable pricing and lower on trips in which the shopper chooses the store as part of a multistore shopping trip. Although out-of-store marketing has no direct effect, it reinforces the lift in unplanned buying from shoppers who use marketing materials inside the store.

Other authors (Geetha and Bharadhwaj, 2016) have studied impulse buying behaviour in emerging country. The presence of the shopping list is one of the factors considered among impulse buying antecedents. According to their findings, shopping list is increasingly becoming an almost extinct feature in modern shopping and that helps greatly to reduce impulse buying. These results are in line with previous contributions according to which shoppers with lists bought fewer items and spent less money than shoppers without lists (Thomas and Garland, 1993; Block and Morwitz, 1999). On the contrary, those who typically gather information in-store are more likely to buy impulsively (Bucklin and Lattin, 1991) than with list.

The shopping list is considered an "external memory aid" (Block and Morwitz, 1999) as it increases the probability of a correspondence between intentions and actions. Similarly, the fact of writing products on a list can help the memory of shoppers, even if they do not bring it during the trip.

Today, however, the tendency of self-regulation is emphasized by the growing penetration of digital technology, which enables consumers to prepare the shopping expedition with different tools in addition to the written shopping list: digital shopping list, on-line price comparison, consultation of digital flyers and usage of apps (IGD, 2011).

The influence of these pre-trip activities on unplanned buying behaviour has been recently studied (Bellini et al., 2015, 2016). The authors investigated the number and the type of pre-trip activities carried out by the consumers (write a shopping list, read flyers online and/or offline, compare retailers online, etc.) on the belief that higher is the engagement in pre-trip activities, lower is impulse buying. This assumption comes from the literature of involvement (Zaichkowsky, 1985; Beatty and Kahle, 1988; Das, 2015a, 2015b). Impulsiveness does not involve enough planning or consideration before a purchase decision. It involves buying actions undertaken without a problem previously having been recognized or buying intention having been formed before entering the store (Engel et al., 1982).

Bellini et al. (2016) have identified three groups of shoppers. The first group, called "not prepared shoppers", includes individuals who had not made any pre-trip activities (they only had a mental shopping list). The second group, called "prepared shoppers", refers to individuals who had made one or two pre-trip activities. Finally, the "professional shoppers" (third group) are individuals who had made three or more pre-trip activities. The analysis shows the presence of a significant relation between "degree of preparation" and "in-store behaviour": the first group (not prepared shoppers) seemed to be more influenced by the store environment. A higher percentage of them have made impulse purchases, driven by the merchandising (position of the product on the shelf) or the attractiveness of the packaging. At the same time, the "professionals" seem to have a deep knowledge about retail promotion since they had planned their purchases based on promotions. In sum, consumers who carry out many pre-trip activities before entering the store tend to plan their purchases at a more specific level (brand or product). Moreover, they are guided by promotion in planning their purchases and they are less influenced by store environment.

2.4. Previous models of impulse buying behaviour

Among prior contributions, we have identified two models of impulse buying that we have evaluated as the most complete.

The first is the one proposed by Beatty and Ferrel (1998), cited by the main literature, which includes some consumer traits (impulse buying tendency, shopping enjoyment tendency) and situational variables (e.g. time and money available). In the structural model tested with LISREL 8, the situational variables (time and money available) and individual variables (shopping enjoyment and impulse buying tendency) were found to influence a set of endogenous variables including antecedent states like positive and negative feelings experienced during the trip and consumers' behaviours inside the store. The positive feelings can be conceptualized as positive affect, which reflects the extent to which a person feels enthusiastic, active, and alert. It is a state of high energy, full concentration, and pleasant engagement (Watson et al., 1988). On the contrary, the negative affect involves a feeling of distress and no pleasurable engagement that subsumes a variety of aversive mood states, including anger and guilt (Beatty and Ferrel, 1998).

Among the variables affecting consumers' behaviour instore, three are the variables included in the model: browsing activity, defined as the in-store examination of a retailer's merchandise for information purpose or recreational without an immediate intent to buy (Bloch, Sherrell et al., 1986); felt urge to buy impulsively, defined as the sudden, spontaneous impulse felt to buy something (Rook, 1987) and ultimately, whether or not an impulse purchase occurred.

The second model on impulse buying behaviour is the one proposed by Mohan (2013) which incorporates store-level situational influences, specifically store environment along with two individual characteristics (impulse buying tendency and shopping enjoyment tendency). In the structural model tested with AMOS, the authors found that store environment drove impulse buying through positive affect and urge. Results also showed that the personality variables ("shopping enjoyment tendency" and "impulse buying tendency") influenced impulse buying through positive affect and urge. This paper did not find support for the relationship between negative affect and urge.

2.5. Proposed impulse buying model

From the review of past and recent literature, we have not found a model that considers the pre-shopping tendency among the factors that could influence impulse buying behaviour.

The purpose of our research is to provide a model of impulse buying which considers jointly impulse buying tendency, shopping enjoyment tendency and pre-shopping preparation tendency as individual antecedents of impulse buying.

It is important to underline that impulse buying tendency is an individual difference variable, while felt urge and impulse buying refer to what occurs on a particular shopping trip, which may or may not reflect the personal trait (Beatty and Ferrel, 1998). In line with prior research, we included positive and negative affect (Beatty and Ferrel, 1998), and the urge to buy impulsively (Dholakia, 2000) as mediators of the influence of the other variables on impulse buying behaviour. Finally, filling the gap in extant literature, we included consumers' pre-shopping tendency among the individual characteristics (impulse buying tendency and shopping enjoyment tendency) taken into consideration by past contributions.

This sub-section explains the conceptual framework of our model of impulse buying behaviour.

2.5.1. Pre-shopping preparation and impulse buying

Starting from the definition given to the concept of price search by Berné et al. (2001) and the concept of planned purchases, we define

pre-shopping preparation tendency as consumer's propensity to general collect and look for all kind of information about prices of different retailers and products, using different sources (flyers, POS, internet) in order to plan the trip. According to some authors(Heckhausen and Gollwitzer, 1987; Iyer and Ahlawat, 1987; Thomas and Garland, 1993; Berné et al., 2001; Gutierrez, 2004; Thomas and Garland, 2004; Puccinelli et al., 2009), shoppers devote time and efforts to the preparation of the trip in terms of price search and planning of purchases in order to avoid impulsive purchases. As discussed in Section 2.3, consumers' behaviour instore appears to be more influenced by preparatory activities than generally assumed. A recent study (Bellini et al., 2016) found that the degree of grocery shopping preparation influences shopper behaviour inside the store in terms of planned/impulse buying. Specifically, the higher is the degree of preparation, the greater is the tendency to plan purchases. Thus, we posit that the higher the level of pre-shopping preparation tendency, the lower is the amount of impulsive purchases. Hence, the following:

H1. – Higher levels of pre-shopping preparation lead to lower levels of impulse buying.

2.5.2. Shopping enjoyment tendency and positive affect

Shopping enjoyment tendency is defined as the pleasure one obtains in the shopping process (Beatty and Ferrel, 1998). According to Bellenger and Korgaonkar (1980), shoppers who derive pleasure from shopping, are more likely to get psychological rewards from the shopping process itself and engage more in non-planned purchases. Based on the above and in line with Beatty and Ferrel (1998), we hypothesize:

H2. - Higher levels of shopping enjoyment tendency lead to higher levels of positive affect.

2.5.3. Impulse buying tendency and urge to buy impulsively

In line with Weun et al. (1998) and Beatty and Ferrel (1998), we define impulse buying tendency (IBT) as the tendency to make unplanned purchases and to buy spontaneously, with little or no deliberation or consideration of the consequences. According to Beatty and Ferrel (1998), a shopper with higher level of impulse buying tendency is likely to experience more urges to buy impulsively and will tend to act more frequently on those urges. This leads to:

H3. - Higher levels of impulse buying tendency lead to higher levels of urge to buy impulsively.

2.5.4. Positive affect and urge to buy impulsively

The literature has showed the existence of a positive and direct link between positive affect and urge to buy impulsively. According to Rook and Gardner (1993), a positive mood would lead to impulse buying more than a negative mood. In particular, 85 per cent of the respondents felt that in a positive mood they have an unconstrained feeling and the desire to reward themselves. Similarly, Donovan et al. (1994) found that pleasure was positively associated with a likelihood of overspending during the shopping trip. Beatty and Ferrel (1998) also found a positive relationship between positive affect and urge to buy impulsively. Hence, the following:

H4. - Higher levels of positive affect lead to higher levels of urge to buy impulsively.

2.5.5. Negative affect and urge to buy impulsively

In literature, the effects of negative moods on behaviour are unclear. Sometimes they produce effects similar to those produced by positive moods, while at other times they produce opposite effects (Clark and Isen, 1982). With reference to the retail setting, negative affect generally creates a desire to withdraw from an environment as it makes the consumer perceive the store to be unlikely to solve his/her intended purpose for visiting it (Eroglu and Machleit, 1993). Hence, there is little chance of impulsive urges being generated. Since negative affect may cause withdrawal from the store, it is unlikely to lead to impulsive urges. Hence, we posit:

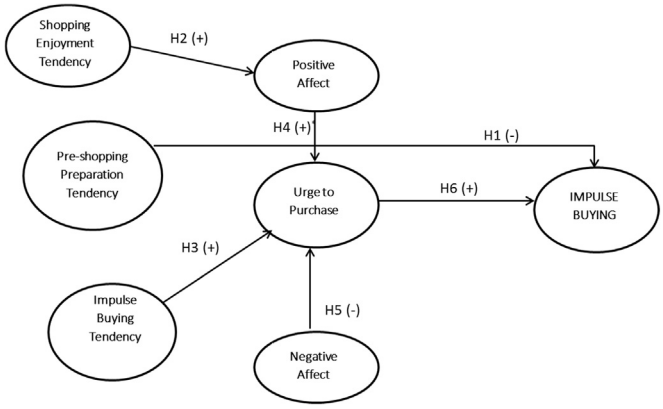

Fig. 1. Conceptual model.

H5. . Higher levels of negative affect lead to lower levels of urge to buy impulsively.

2.5.6. Urge to buy impulsively and impulse buying

This hypothesis derives from the belief that the relationship between urge to buy impulsively and impulse buying is drawn from physical proximity (Beatty and Ferrel, 1998). Consumers who continuously experience impulsive urges during their shopping trips are unable to resist many of these impulsive urges despite their best efforts to control or regulate them (Dholakia, 2000; Baumeister, 2002). Therefore, we posit:

H6. - Higher levels of urge to buy impulsively lead to higher levels of impulse buying.

Fig. 1 summarizes all the hypotheses.

3. Methodology

3.1. Sample

A leading Italian retail chain gave us the permission to conduct our survey in its 2 stores in Parma (a city in the North of Italy). A total of 400 shoppers were approached and 318 returned for the second part of the survey. After removing 2 incomplete questionnaires, we obtained a sample of 316 respondents. The interviewer told to the respondents that this survey was a part of student's thesis and possibly this explained the good response rate despite not giving any monetary incentives to the participants. Table 1 shows the demographic characteristics of the sample.

3.2. Procedure

Two weeks before the outlined data collection, we conducted an accurate pre-test in one of the stores selected, following the same steps of the complete test. One of the authors trained all interviewers on understanding the questionnaire, how to approach the shopper, answering doubts, measuring impulse purchases, how to close the interview and other aspects of the survey, in line with Beatty and Ferrel (1998). This pre-test allowed us to find out minor problems and correct them through instruction changes.

We conducted a two-stage approach mall-intercept survey method (Beatty and Ferrel, 1998) in order to ask questions in the correct temporal sequence, stimulate a correct temporal association and reduce problems of forgetting (Mohan et al., 2013).

First, the interviewer intercepted the shoppers before entering the store by requesting their participation in a survey about general

Table 1
Demographic of the sample.

Characteristic		Percentage
Gender	Female	73.9
	Male	26.1
Age	Under 24	5.8
	25–29	6.2
	30–34	8.8
	35–44	10.6
	45–54	26.3
	55–65	19
	65 or over	23.3
Marital status	Single	16.7
	Married	65.6
	Divorced	3.7
	Widowed	8.5
	Cohabitant	5.6
Family composition	1	14.7
	2	25.6
	3	25.6
	4	31.4
	5	1.6
	more	1.2

shopping habits. During the pre-shopping interview, the shopper was asked to fill out the scale items on shopping enjoyment (Sproles and Kendall, 1986), pre-shopping preparation and demographic characteristics.

The shopper was then asked to come back to the interviewers at the end of the shopping trip for more questions, but nothing has been anticipated about the content of the second part of the survey, in order not to influence the shoppers' behaviour during the trip. Upon their return, the shopper was asked to show the receipt and to indicate which purchases were unplanned. For each item identified as unplanned, the interviewer double-checked with the shopper to insure proper categorization of the purchase. Out of all the unplanned purchases, the reminder type items were eliminated by the following question: "When you saw this item, were you reminded that you were out of this item and needed it?". Interviewers recorded as impulse purchases only those that were clearly unplanned and could not be classified as reminder items (Beatty and Ferrel, 1998).

Finally, shoppers answered to questions regarding their general tendency to engage in impulse buying - impulse buying tendency (Weun et al., 1998) -, the urges experienced to make impulse purchases - urge to purchase (Beatty and Ferrel, 1998), and the level of positive and negative affect experienced during the shopping trip (Watson et al., 1988).

3.3. Measures

We measured all the variables considered with multiple-item scales with the exception of the impulse buying. All the scales used came from past research about shoppers, except for pre-shopping tendency. To measure pre-shopping tendency, we adapted items from two existing scales and specifically 'Temporal price search propensity scale' and 'Spatial price search propensity scale' (Gauri et al., 2008). The 'shopping enjoyment tendency' items were from Sproles and Kendall (1986). The negative affect items were from Beatty and Ferrel (1998), while the positive affect scale was directly from PANAS scale (Watson et al., 1988). Finally, the 'impulse buying tendency' scale was drawn from Beatty and Ferrel (1998). As for impulse buying variable, researchers counted the number of impulse purchases for each shopper to arrive at a total number. Then we calculate the "proportion of items bought on impulse" and we used it as our dependent variable. For data using proportions, the variance of means tends to be smaller near 0% and 100% compared to the means near 30–70%, and arcsine transformation is recommended to address this concern (Steel and Torrie, 1980). Thus, for a more accurate analysis, our dependent variable was transformed using arcsine transformation in line with Mohan et al. (2013).

4. Findings

4.1. Measurement model

We used a structural equation modelling approach with LISREL 8.8 and we tested the measurement model before analysing the structural one, as recommended by Anderson and Gerbing (1988) and Sethi and King (1994). Based on pre-test survey, traditional scale development procedures, as explanatory factor analysis and coefficient alphas, were adopted to remove items that did not sufficiently contribute to the reliability and validity of the proposed scales (Beatty and Ferrel, 1998). The adequacy of the individual items and the composites were assessed by measures of reliability and validity (Beatty and Ferrel, 1998). We tested the reliability of each constructs by using the Cronbach's Alpha (Santos and Reynaldo, 1999). To test the convergent validity of our measures, we examined the significance of the factor loading (Anderson and Gerbing, 1988) and the composite reliability. Further, discriminant validity was assessed by comparing the variance extracted (AVE) to the square of the correlation between the two latent variables (Fornell et al., 1981). The items considered are indicated in Table 2.

For what concerns reliability, we found that all the values were higher than the minimum acceptable value (.70), with the exception of the 'impulse buying tendency' (.67). Regarding convergent validity, we found all the factor loading significant, and the composite reliability of each construct higher than the cut-off value (.70). Also in this case the only exception was 'impulse buying tendency' (.68) but we decided to consider it into the model because of the validation received in previous research. We had, finally, evidence of discriminant validity for each construct as the average variance extracted (AVE) in each factor exceeds the indicated correlation coefficient.

The model had a good fit: x2=229.417 (p=.0), df =116, x2/df =1.98, RMSEA =.05, CFI =.95, std RMR =.05 GFI =.93. All the fit indices were better than the recommended ones (RMSEA $< .06$, CFI $> .95$ stdRMR $< .05$).

4.2. Structural equation model

Our structural model had a good fit: χ 2=242.776 (p .0), df =126, χ 2/df =1.93, SRMR =.05, RMSEA =.05, CFI =.95, GFI =.93, with all fit indices in line with recommended values.

The analysis realized support all our hypotheses, with the only exception for the effect of negative affect on urge, as Mohan et al. (2013) previously found.

Fig. 2 shows the final model with all the path coefficients and the significance for each of them.

Specifically, the results shown that preshopping tendency has a negative and direct effect on impulse buying (β=−.107, t-value =−2.024), supporting H1. As expected in the H2, the enjoyment tendency had a positive impact on positive affect (β=.162, t-value =2.678). In addition, we found that positive effect had a significant positive impact on urge to purchase (H3; β=.110, t-value =1.969) but we didn't found any significant relationship between negative affect and urge to purchase (H4; β=.035, t-value =.562).

Urge to purchase was also directly affected by impulse tendency (β=.467, t-value =6.000), supporting H5. Finally, as expected, urge had a positive effect on making impulse purchases (β=.383, t-value =6.550), supporting H6.

Test of urge as a mediator. As proposed by Iacobucci et al. (2007), we tested the mediating role of urge to purchase considering preshopping tendency. Mohan et al. (2013) demonstrated the mediating role for positive and negative affect and for impulse buying tendency. In this work, we tested a model with direct and indirect path from preshop-

Table 2
Scale summary.

Scale items	Factor loading	Cronbach Alpha	Composite Reliability
Shopping enjoyment tendency (Sproles and Kendall, 1996)		**.82**	**.83**
1. Shopping is one of my favorite activities	.84		
2. Shopping is a way I like to spend leisure time	.95		
3. Shopping is a waste of time[a]	.56		
Pre-shopping preparation tendency (Gauri et al., 2008)		**.82**	**.84**
1. I usually collect information about retailers' offers before enter the store (flyers, POS, internet)	.79		
2. I usually plan purchases depending on retailer's offers (price and promotion)	.98		
Urge to purchase (Beatty and Ferrel, 1998)		**.87**	**.87**
1. I experienced a number of sudden urges to buy things I had not planned to purchase on this trip	.79		
2. On this trip I saw a number of things I wanted to buy even thought they were not on my shopping list	.82		
3. I experienced no strong urge to make unplanned purchases on this trip	.87		
Positive affect (Watson et al., 1988)		**.70**	**.76**
1. I felt excited on this shopping trip	.50		
2. I felt enthusiastic while shopping today	1		
3. I felt happy during the shopping trip	.62		
Negative affect (Watson et al., 1988)		**.73**	**.79**
1. I felt bored on this shopping trip	.61		
2. I felt lethargic while shopping today	.87		
3. I felt upset during the shopping trip	.73		
Impulse buying tendency (Weun et al., 1998)		**.67**	**.68**
1. When I go shopping, I buy things that I had not intended buying	.79		
2. I am a person who makes unplanned purchases	.63		
3. It is fun to buy spontaneously	.50		

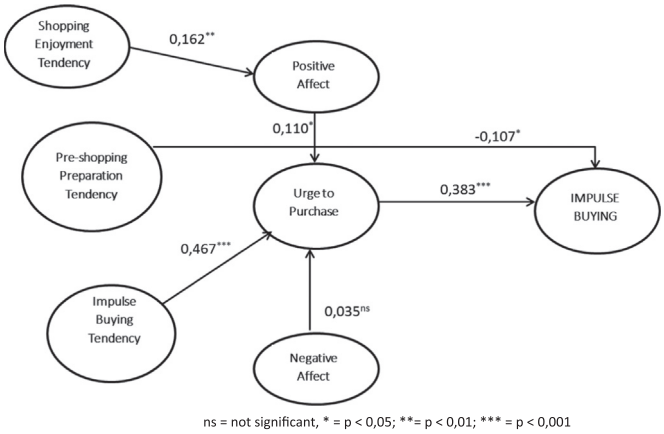

Fig. 2. Structural model. ns = not significant, *= p < 0,05; **= p < 0,01; ***= p < 0,001.

ping tendency to impulse buying and we found no significance for the indirect relation.

5. Discussion

Data analysis found a good fit for our model and obtained support for all hypotheses except one. In the structural model tested with LISREL 8, we found that pre-shopping tendency influences directly impulse buying: confirming our main hypothesis, a higher pre-shopping preparation leads to lower levels of impulse buying (H1). Results also showed that the personality variables (shopping enjoyment tendency and impulse buying tendency) influenced impulse buying through positive affect and urge to purchase, in line with previous studies (Mohan et al., 2013). Our research did not find support for the relationship between negative affect and urge to buy impulsively, which means that negative affect did not affect urge to buy impulsively negatively. Also Beatty and Ferrel (1998) as well as Mohan et al. (2013) did not find a significant influence of negative affect on urge to buy impulsively. Finally, higher levels of urge to buy impulsively lead to higher levels of impulse buying, in line with previous research (Rook, 1987; Beatty and Ferrel, 1998; Dholakia, 2000; Baumeister, 2002).

6. Conclusions

The grocery sector is an extremely competitive field where manufacturers compete both "outside" and "inside" the retail chains for the attention of consumer.

It is well known that in-store marketing activities capture a shopper's attention and therefore drive up unplanned buying (Inman et al., 2009). However, on trips in which the shopper takes note of marketing information outside the store environment, the shopper is likely to have engaged in planning (Ross and Bettman, 1979).

Today, thanks to the growing penetration of digital technology, consumers are able to collect marketing information outside the store environment with many tools (digital shopping list, on-line price comparison, consultation of digital flyers and usage of apps). According to IGD (2011), 61 per cent of online consumers use the Internet to do research related to spending. About 45 per cent searches for grocery products information, 43 per cent searches offers, 33 per cent reads information relating to stores' promotions, 33 per cent looks for on line coupons, 26 per cent visits the brands website, 18 per cent uses social network to give feedback about food products, 11 per cent uses digital shopping list.

New paradigms for impulse buying behaviour are emerging. In the literature framework (Weun et al., 1998; Sharma et al., 2010; Jones et al., 2003; Mishra et al., 2012; Beatty and Ferrel, 1998; Zhou and Wong, 2003; Peck and Childers, 2006; Stilley et al., 2010; Ghani and Kamal, 2010; Mohan et al., 2013) we have not found a model that considers the pre-shopping tendency among the factors that could influence impulse buying behaviour. Two important contributions (Beatty and Ferrel, 1998; Mohan et al., 2013) came up with a model that explains impulse buying, but pre-shopping factors are not included.

Given the increasing in pre-trip activities and its influence on shopping behaviour instore (Bellini et al., 2015, 2016), we believe that a model of impulse buying behaviour could not ignore the impact of preparatory activities in impulse purchases. Thus, we have proposed a model which includes pre-shopping tendency among the individual characteristics (impulse buying tendency and shopping enjoyment tendency) taken into consideration by past contributions.

Our model shows that pre-shopping tendency influences directly impulse buying: confirming our main hypothesis, a higher pre-shopping preparation leads to lower levels of impulse buying.

The findings we summarized offer new implications for managers. The effects of preshopping factors on purchasing decisions instore are designed to create a new scenario for the practice of shopper marketing. Retailers and manufacturers have to gradually evolve from focusing on "in-store" to focusing on all stages in the shopping cycle, in order to influence shoppers throughout the entire shopping cycle (motivations to shop, search, evaluation, category/brand/item selection, store choice, store navigation, purchase and repurchase). As suggested by Shankar et al. (2011), they have to recognize that the key trigger points in the shopping cycle con occur both outside and inside the store.

The influence of preshopping factors is potentially quite substantial, and marketers have to look for new ways to influence shoppers' perceptions early in the shopping cycle, without diminishing the role of the point of sale and the role of in-store marketing levers.

7. Limitations and future research

While our research has valuable contributions, it also has some limitations.

First, some limitations are associated with the store-intercepted survey research such as measurement error and interviewer effects. Respondents may have been influenced by the presence of interviewers and then distorted in order not to appear impulsive buyers.

Another concern is about pre and post-measurement design that, in particular, can lead to premeasurement effects and mortality effects (Mohan, 2013). However, this approach allowed us to capture measures at two points in time, which was critical and appropriate to the study design.

Additionally, another limitation of this research is the generalizability. Our sample, interviewed in regional stores, is probably neither truly random nor necessarily representative of any larger population (Beatty and Ferrel, 1998). But, given our interest in relationships between variables rather than population descriptions, this may not be a major problem.

Finally, we have decided to focus on few variables and interactions, even if we are aware that other variables could be considered in our model. For example, we did not consider some situational variables like time and money, which were found to influence positive and negative affect and, also, impulse buying (Beatty and Ferrel, 1998; Mohan et al., 2013). It would be interesting to understand which variables affect the pre-shopping preparation tendency in order to include them into the model.

Moreover, it has been shown that the effort devoted to price search increases in line with the importance that the cost of a product has for the family budget (Stigler, 1961). This means that money available could negatively influence the pre-shopping tendency: if consumers have some budget constraint, they will probably invest time and efforts in prepare the shopping trip.

Another variable which were found to influence impulse purchases is the time planned (Geetha and Bharadhwaj, 2016). Time planned for shopping is negatively related to impulse buying hence consumers who make a store visit on time constraints and specific time allotted for shopping are not likely to make impulse purchases. Time pressure may be one of the reasons for less impulse buying. By limiting the amount of time in the store, the shopper is more likely to move quickly through the store and focus on the products he or she had planned to purchase. It could be interesting to understand which is the relationship between the time planned and the time devote to preparatory activities.

Lastly, future research could investigate the profile of shoppers who made impulse purchases in terms of promotion or prevention-focused. According to recent research exploring the influence of the RFT (regulatory focus theory) on consumer retailing shopping behaviour in terms of impulsiveness (Das, 2015a, 2015b), impulse buying differs from prevention-focused shoppers (individuals emphasize on positive outcome and gain) to promotion –focused shoppers (individuals emphasize on negative outcomes and losses). Promotion-focused shoppers are more likely to take part in purchase environment, which are hedonically strong and impulse oriented, whereas prevention-focused subjects are more inclined to functional-based activities. Since impulsiveness is not prevalent in all shoppers, retailers should know the characteristics of shoppers. Future research could address this issue as well.

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