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DETERMINANTS OF PURCHASE INTENTIONS OF OVER-THE-COUNTER DRUGS FROM SUPERMARKET STORES

Abstract: Creation of consumer value in drug retailing is influenced by the possibility of receiving advice from trusted pharmacists. In Italy, recent reforms have guaranteed lower prices and wider access to medications by authorising hypermarkets and supermarkets to dispense *Over-The-Counter* (OTC) drugs. However, the ability of such retailers to deliver value to consumers seems to be mainly determined by the extent to which they are perceived as *credible* health-care providers and by the *image* they transmit to their customers. By adopting Ohanian's (1990) *Source Credibility Model* and the *Five Factors Model* of personality (see Digman 1990), this study attempts to evaluate the impact of the basic dimensions of credibility, as well as that of the main image traits (i.e., Big Five Factors), on customers' intention to buy OTC drugs from supermarket stores. Implications on how supermarkets could modify their store image and service facilities to enhance the ability to create value for customers are also discussed.

INTRODUCTION

The term "generic drugs" refers to those medications that, once the period of patent protection has expired, can be sold to patients at more affordable prices (De Joncheere, Rietveld and Huttin 2003). Unlike so-called "Prescription Only Medicine" (POM), purchase of generics does not require a prescription and they are said, therefore, to be available "Over-The-Counter" (henceforth, OTC).[1]

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[1] In the USA, all the medicines that do not fall into the POM category are considered as OTC drugs (Bond 2008). In the UK and in France, the OTC class includes two typologies of medical products: "Pharmacy" (P) medicines, which are provided under the supervision of a licensed pharmacist, and "General Sales List" (GSL) medicines, which can be supplied by various retail outlets, from convenience stores, to supermarkets, and filling stations. P and

Since the late '80s, an increasing number of medications have been switched from POM to OTC status to transfer part of health-care costs from governments to citizens (Bond 2008). In Italy, the reform of the pharmaceutical sector – known as the "Bersani decree", after the then minister of health – was launched in July 2006 and, as its main innovation, it authorised both hypermarkets and supermarkets to enter the pharmaceutical distribution network as providers of OTC drugs alongside pharmacies. By liberalising the market for OTC drugs and stimulating competition among retailers, the new legislative framework has had the effect of ensuring a broader variety of products and favouring a downward trend in the prices of generic medicines (Pioch and Schmidt 2004a).

In drug retailing, however, one of the most important sources of added-value for customers has traditionally been the possibility to interact with trusted pharmacists, thus establishing loyal relationships and benefiting from a tailored and effective service (Maniscalco 2007). Hence, the ability of the recently authorised retailers to deliver value to customers appears to be primarily influenced by the extent to which supermarkets are perceived as *credible* health-care providers and, more in general, by the main dimensions of their *image*.

The purpose of this paper is to study how the psychological dimensions of *credibility* and store *image* affect customers' willingness to purchase OTC drugs from supermarkets: by comparing the beliefs of two different groups of Italian consumers – chosen on the basis of whether they prefer to purchase medicine from traditional pharmacies or from the newly authorised supermarkets – this study attempts to identify those aspects of the service of drug provision that hold a critical valence to match potential purchasers' expectancies.

MAJOR TRENDS IN DRUG RETAILING

Originally operating as medicine producers, pharmacists have assumed, in the past decades, a role of distributors, assuring and controlling consumers' access to medical products (Meneu 2008). From a narrow standpoint, such professionals could be described as mere "drug dispensers" (Gade 2003). However, due to the reshaping of the health-care systems of many

GSL medicines represent, to a certain extent, the equivalent of the Italian SOP (*Senza Obbligo di Prescrizione*) and PDB (*Prodotti Da Banco*) medicines, with the difference that in Italy these two categories of products must be sold under the supervision of a qualified pharmacist. What essentially distinguishes SOP from PDB medicines is that the latter can be personally selected by customers.

countries in Europe and beyond – such as USA, Canada, and Australia (Pioch and Schmidt 2004a) – pharmacists have recently assumed a more complex function.

The growing emphasis on self-care determined by a progressive shift in responsibility from physicians to patients has lead to the conception of medication supply as the provision of a health-care facility rather than simply a commercial activity (Lo 2006). Indeed, in many countries, the authorities for the pharmaceutical service formally state that one of the principle responsibilities of community pharmacists is to productively interact with their customers in order to advise on the correct dosages of OTC medicine and proper treatment of minor illnesses.

Pharmacists themselves seem to be conscious that their profession entails a counselling role, especially towards those patients who are reluctant or unable to express their concerns, or their doubts, to a general practitioner (Pioch and Schmidt 2004a). Nevertheless, lacking the necessary confidential relationship with all of their customers or sufficient information about contraindications and side effects of many in-stock items, many of them are often unable to fine tune their service to respond to the needs of the local community (Lo 2006).

One of the most important drivers of people's choice of favoured outlet for pharmaceutical products is "accessibility" to medications which, in turn, can be ascribed to factors like convenience of location, opening hours, and availability of merchandise (Gore and Thomas 1995). Apart from other aspects fundamentally concerning the economic perspective (e.g., prices, advertising, discounts, etc.), it should be pointed out that, due to the opportunity to interact with a professional health-care advisor, a large number of people still converge on local pharmacies (Pioch and Schmidt 2004b). A possible explanation for this conduct could be represented by the fact that local pharmacists are popularly recognised as trustworthy experts who care about their customers' health, while purchasing of OTC drugs in non-pharmacy outlets is perceived as a more impersonal activity, mainly based on self-reliance (Gade 2003). In a supermarket, consumers do not expect, in effect, to be assisted by personnel in making their decisions, even in the pharmaceutical department.

Pharmacies and non-pharmacy outlets, therefore, seem to transmit different "signals" to their customers, whose beliefs about sale services and product attributes are expected to vary according to the point of sale. A study by Lo (2006) has shown that, when purchased in a non-pharmacy outlet, OTC drugs are seen as less effective than the ones dispensed by specialized pharmacies. Moreover, in this study it is argued that the difference between the two forms of retailing in terms of expectations about the content and the quality of the service offered to customers can be even more pronounced. In particular, the tendency to buy health foods from

specialty stores, rather than from local pharmacies, was explained by reference to specific service components like price and assortment and, more in general, to the "image" of the former typology of store.

From this perspective, Pioch and Schmidt (2004a) suggested that pharmacists still benefit from consumers' acknowledgment of their professional skills and reliable advice, but, at the same time, they appear to be progressively challenged by the stiff competition from other distribution channels. Such a consideration leads one to hypothesise that the extent to which the deregulation process will guarantee public access to self-medication may be closely linked to customers' perception of alternative distributors as credible medicine dispensers. That is, the more reliable and professional the image transmitted by non-pharmacy outlets, the higher the value delivered to consumers of OTC drugs. The concepts of "credibility" and "perceived image" of a retail store, therefore, will both be analysed in the next sections.

SOURCE CREDIBILITY, PERCEIVED STORE IMAGE, CUSTOMERS' VALUES: A REVIEW OF THE LITERATURE

The words "credible" and "credibility" have positive connotations. Ordinarily, these terms are associated, in fact, to a favourable evaluation of a certain entity, which may be a person, an institution, a message, or, in this case, a retail store. In the past few years, market research has turned its attention to this dimension in order to deepen understanding of consumers' perception of brands (e.g., Sweeney and Swait 2008), salespersons (e.g., Liu and Leach 2001), and retailers (e.g., Bobinski, Cox and Cox 1996). A more comprehensive approach to the analysis of credibility was proposed in the marketing field by Ohanian (1990), who worked from Hovland, Janis and Kelley's (1953) *Source credibility model*.

In general terms, *source credibility* represents a communicator's ability to positively affect receivers' beliefs about the validity of his/her assertions (Ohanian 1990). Credible sources are accepted as truthful and are likely to exert a more persuasive effect on receivers' opinions. From Ohanian's (1990) viewpoint, three main dimensions influence the credibility of a certain communicator (i.e., a celebrity endorser in her study): *Trustworthiness*, that is the level of liability perceived in the source; *Expertise*, the receivers' beliefs about the communicator's knowledge of a particular subject; and *Attractiveness*, the extent to which the source is judged to be pleasant or familiar.

Some authors (e.g., Goldsmith, Lafferty, and Newell 2000) have expressed scepticism towards the inclusion of the latter dimension, which refers to the "allure" or "loveliness" of the communicator – who may not only be a person, but also a product, a brand, or a certain location – and have decided to drop *Attractiveness* from Ohanian's (1990) model (see Sweeney and Swait 2008). Yet, as in the case of retail stores the *Attractiveness* dimension can be considered as a reflection of a "sensory effect" (Groppel 1993, p. 99) determined by a number of controllable value-adding dimensions (like in-store promotions, internal ambience, personnel's likeability and pleasantness, etc.), we chose to apply *in toto* the framework in question.

It is also worthwhile to note that the rationale for investigating consumers' own perceptions of entities like products, service settings, or retail environments has been fairly expounded in literature: relevant information about target users and their preferences can indeed be drawn from the analysis of the *traits* more frequently associated with such entities (D'Astous and Lévesque 2003). Back in the late '50s, in a seminal work, Martineau (1958) sensed indeed that visitors perceive retail stores not only in terms of their service facilities (the so-called "functional" dimension), but also in terms of their intangible features, or "*psychological attributes*" (p. 47). The terms "image" and "personality" were interchangeably used by this author to refer to such attributes. Although, more recently, D'Astous and Lévesque (2003) observed that the concept of store image mainly relates to a "*mental representation that encompasses all dimensions that are associated with a store*" (p. 456), and not only to "*the mental dispositions that correspond to human traits*" (p. 457), they recognized that is still possible to use the construct of *store personality* as a proxy of *store image* when considering attributes that are not only descriptive of human personality, and traits that are not uniformly positive (e.g., by means of semantic differential scales).

Aspects like in-store services, internal arrangement, store atmosphere, price, variety, etc. – all of which act as "cues" addressed to customers – have been indicated as some of the main components that concur to determine shoppers' impression – or "image" – of a certain store (Sirgy, Grewal and Mangleburg 2000). The construct of "personality" – in particular, when applied to brands, products, or stores – captures reflections of these cues through those attributes related to human character for brands, products, and both virtual and physical environments (such as stores, in this case). Pioneering this intriguing area of investigation, Aaker's (1997) endeavour to explore "*the set of human characteristics associated with a brand*" (p. 347) have inspired a large number of studies, many of which have recently attempted to also explore the personality of specific contexts of social interaction, such as

points of sale (D'Astous and Lévesque 2003), tourist destinations (Hekinci and Hosany 2006), as well as small and medium enterprises (Guido 2001).

As mentioned before, this paper aims not only to ascertain to what extent customers feel confident to purchase OTC drugs in non-pharmacy outlets (i.e., supermarkets), but also to elicit their overall perception of such an innovative form of health-care provider. The achievement of this second goal here is conceived as instrumental in establishing the perceived personality traits of a non-pharmacy outlet, as well as in assessing consumers' intention to purchase non prescription medicines from such an outlet.

From this point of view, our vision mirrors that of Caprara, Barbaranelli and Guido (1998) who suggest that the *Big Five Model* of personality (see Digman 1990, for a review) can be successfully employed to describe brand, product, and service as perceived by their respective users, because the concept of "personality" has been proved to be more stable than the concept of "image" (cf. Dobni and Zinkhan 1990; Poiesz 1989) and, thus, can provide unequivocal interpretations. According to McRae and John (1992), the *Big Five Model* represents a "*hierarchical organisation of personality traits*" (p. 175), because of its ability to synthesise the thousands of attributes describing human personality in the following five basic dimensions (or Factors): i) *Agreeableness*, the orientation toward compassion and caring about others; *Openness to Experience*, the tolerance of new ideas and new ways of doing things; *Conscientiousness*, the preference for goal-oriented activity; *Extroversion*, the preference for social interaction; and *Emotional Stability*, the ability to cope effectively with negative emotions. Moreover, it should be added that, as shown by Guido (2006), the *Big Five Model* permits one to measure an individual's propensity to prioritise the *hedonic* facets of consumption behaviour, or, on the other hand, the *utilitarian* ones. This author proved, in fact, that the factors *Agreeableness*, *Openness to Experience*, and *Extroversion* collapse into an "outward" meta-dimension, corresponding to the hedonic aspect of consumption; whereas the factors *Conscientiousness* and *Emotional Stability* drop into an "inward" meta-dimension, relating to the utilitarian sphere of purchasing behaviour. Such meta-dimensions represent the values informing people's behaviour during their shopping experience: utilitarian values reflect the rational and functional side of consumption experiences, whereas hedonic values relate to the ludic and recreational aspects of the shopping activity and the pleasure of shopping itself (see, also, Babin, Darden and Griffin 1994; Guido, Capestro and Peluso 2007).

AIM AND HYPOTHESES

The present study addresses the impact of two different psychological dimensions on customers' intention to buy OTC drugs from supermarket stores, namely *supermarkets' credibility* and *perceived image*, as operazionalized by *personality traits*. Assuming that customers' purchase intentions and perceptions of supermarket stores change according to their preference for a specific provider of OTC drugs (i.e., independent vs. supermarket pharmacies; cf. Dominelli, Marciniak and Jarvis 2005), this study aims to compare the perspectives of two groups of subjects: those who identify their favourite providers of OTC drugs with independent pharmacies (hereafter, pharmacy patrons), and those who prefer supermarket pharmacies (hereafter, supermarket patrons). The validity of the following statements is, therefore, hypothesized:

H1: *According to their propensity to patronise either pharmacies or supermarkets, customers hold different perceptions of supermarkets' credibility which, in turn, differently affect their intention to purchase OTC drugs from such retailers*;

H2a: *According to their propensity to patronise either pharmacies or supermarkets, customers hold different images of supermarkets as providers of OTC drugs which, in turn, differently affect their intention to purchase them from such retailers.*

As a corollary of this hypothesis, it follows that:

H2b: *According to their propensity to patronise pharmacies vs. supermarkets, customers satisfy personal shopping values which are mainly utilitarian vs. hedonic, when purchasing OTC drugs from supermarket stores.*

Finally, also the incidence of socio-demographic data is fully tested.

METHOD

Procedure

A local pharmacy and a medium-size supermarket store situated in close proximity to each other (approximately less than a hundred meters) in a pedestrian precinct of Rome (Italy) were chosen as suitable sites to carry out the field study, since they were assumed to guarantee an equivalent physical access to medications to the same local community. Over a pre-arranged time period, on the same working days, two researchers (each of them positioned inside one of the selected retail outlets) independently and simultaneously selected an identical number of shoppers (N = 160) and solicited them to take part in the study. Surveys were administered inside both stores by means of a paper-and-pencil questionnaire. Visitors were briefly introduced to the purpose of the study by the researchers and assisted during the phase of completion, which lasted about ten minutes. According to the answers to a screening question, they were classified either as "pharmacy patrons" or "supermarket patrons": respondents who indicated the pharmacy as their favourite retailers of OTC drugs were placed in the first group; those who expressed their preference for supermarket stores were assigned to the second group.

Sample Characteristics

A proportional quota sampling procedure was followed: five different age brackets were surveyed, each covering a ten-year period (specifically: 16-27; 28-39; 40-51; 52-63; 64 and older) and consisting of sixteen males and sixteen females, respectively.

Measures and Questionnaire

The questionnaire consisted of a series of closed-ended questions and was structured in four different sections. The first appraised customers' tendency to perceive supermarkets as credible retailers of OTC drugs. Following Ohanian's (1990) model, three different scales, each reporting five couples of bipolar adjectives, were employed to obtain three indirect measures of supermarket credibility. The first scale – listing the adjectives *attractive-unattractive*; *classy-not classy*; *beautiful-ugly*; *elegant-plain*; *sexy-not sexy* – was devoted to the measurement of the supermarket's level of *Attractiveness*. Adjectives like sexy, beautiful, ugly were originally included in this scale to measure endorsers' attractiveness. However, the capacity of such items to evoke the "beauty" and "likeability" of a retail setting and its characteristics – from internal decorations to salespersons' appearance, etc. – lead us to

maintain Ohanian's (1990) original wording in order to tap a specific dimension of the epicurean and "aesthetic" side of the shopping experience (see Guido 2006). Existing literature has indeed shown that salesperson or service staff's aesthetic appeal is a variables that contribute to determine the attractiveness of retail and service settings, and capable, therefore, to influence a retailer or service provider's perceived credibility (Harris and Ezeh 2008; Swinyard 1995). The second scale – including the items: *dependable-undependable*; *honest-dishonest*; *reliable-unreliable*; *sincere-insincere*; *trustworthy-untrustworthy* – was aimed to appraise the supermarket's level of perceived *Trustworthiness*. Finally, the third scale, proposed the items *expert-not an expert*; *experienced-inexperienced*; *knowledgeable-unknowledgeable*; *qualified-unqualified*; *skilled-unskilled* to identify the supermarket's level of perceived *Expertise*. Answers were measured on a seven-point semantic differential scale. In addition, a four item scale ranging from 1 (*Not at all*) to 7 (*Very much so*) and listing the items *Trustworthy*, *Attractive*, *Expert*, and *Credible*, was inserted to measure directly the supermarket's credibility.

The second part of the questionnaire addressed the supermarket personality traits through a list of twenty-five adjectives considered as the most effective at depicting human personality among those commonly used in the Italian language (Caprara, Barbaranelli and Zimbardo 2002). Respondents were asked to rate on a seven-point semantic differential scale the Big Five dimensions, each of which was elicited by a sub-list of five different adjectives. Specifically: i) *Agreeableness* was assessed by means of the items *cordial*, *generous*, *loyal*, *sincere*, *unselfish*; ii) *Openness to Experience* was represented by the adjectives *sharp*, *creative*, *innovative*, *modern*, *informed*; iii) *Conscientiousness* was surveyed through the terms *efficient*, *scrupulous*, *precise*, *conscientious*, *diligent*; iv) *Extraversion* was evaluated using the adjectives *happy*, *determined*, *dynamic*, *energetic*, *active*; v) *Emotional Stability* was tapped through the items *optimistic*, *self-confident*, *solid*, *relaxed*, *quiet*.

The third section consisted of four questions inquiring about consumers' intention to purchase OTC drugs from a supermarket store. Participants were required to describe how their perception of such a retailer changed after the launch of the pharmaceutical reform by choosing one assertion from "*It has improved*"; "*It is unchanged*"; "*It has worsened*". The extent to which they welcomed (or not) the opportunity to purchase OTC drugs from supermarkets was also investigated, and, drawing from Ajzen and Fishbein (1980), their intention to do so was assessed by means of the items "*How strong is your intention to buy OTC drugs in a supermarket store within the next fortnight?*", and "*How likely is that you will buy OTC drugs in a supermarket store within the next fortnight?*". Responses were measured

on a seven-point scale ranging from 1 (*Not at all strong*) to 7 (*Very strong*) for the former question, and from 1 (*Not at all likely*) to 7 (*Very likely*) for the latter one.

Finally, through the last section of the questionnaire, socio-demographic data (gender, age, education, profession, marital status, number of children, annual income) were also collected.

RESULTS

For both groups, data analysis was aimed at achieving the following objectives: i) assessing the entity of supermarket credibility and its influence on participants' purchase intention; ii) detecting the latent dimensions of supermarket personality and evaluating their impact on purchase intention; iii) appraising the incidence of demographic characteristics on respondents' purchase intention and their endorsement of the reform of the Italian pharmaceutical distribution system.

Analysis of Supermarket Credibility: Reliability Check and Incidence on Customers' Intention to Purchase OTC Drugs

A) Pharmacy Patrons

Answers to the first section of the questionnaire were initially processed to determine the level of supermarket credibility and its basic dimensions. The scores assigned to the five items relating to the three dimensions developed by Ohanian (1990) were totalled to obtain three *indirect* indicators of supermarket credibility, termed $Trusw._{(Indirect)}$, $Attract._{(Indirect)}$, and $Expert._{(Indirect)}$, respectively; whereas, the sum of these indicators yielded an *indirect* global measure of supermarket credibility, referred to as $CRED._{(Indirect)}$ (mean value = 57.23; SD = 17.389). We point out that *Trustworthiness* emerged as the main representative dimension (mean value = 20.70; SD = 6.26; Cronbach's α = .85), followed by *Expertise* (mean value = 18.61; SD = 7.86; Cronbach's α = .92), and *Attractiveness* (mean value = 17.91; SD = 5.18; Cronbach's α = .80).

By totalising the scores collected through the four-item uni-dimensional scale, three *direct* indicators of supermarket credibility and of its basic dimensions were calculated – i.e., $CRED._{(Direct)}$, $Trusw._{(Direct)}$, $Attract._{(Direct)}$, and $Expert._{(Direct)}$. Such measures were subsequently correlated with the indirect indicators previously computed to check the liability of the

measurements. Such an analysis returned satisfactory results, since all correlations were found to be significant at the .01 level (Table 1).

(Insert Table 1 About Here)

As previously illustrated, the third section of the questionnaire requested respondents to indicate how strong their intention was to purchase OTC drugs from supermarket stores and to rate the corresponding probability of engaging in such an activity. By multiplying the scores for these questions, a direct measure of purchasing intention was obtained (Cronbach α = .95). Next, a multiple linear regression model was run entering the indirect dimensions of credibility as independent variables and considering pharmacy patrons' intentions as dependent variable. This test proved that *Expertise* (β = .34; p < .00) exerts a significant predictive effect on respondent's purchase intention (Table 3).

(Insert Table 3 About Here)

B) Supermarket Patrons

Subjects who indicated supermarkets as their favourite retailers of OTC drugs scored high mainly on *Expertise* (mean value = 25.88; SD = 5.66; Cronbach's α = .88) and *Trustworthiness* (mean value = 25.35; SD = 4.95; Cronbach's α = .78), and less on *Attractiveness* (mean value = 22.38; SD = 4.38; Cronbach's α = .74). In addition, the indirect global measure of credibility computed for this group proved to be moderately higher (mean value = 73.63; SD = 13.23) than that ascertained for pharmacy patrons, whereas the general level of association among the direct and indirect measures of credibility was found to be slightly higher than that detected for the first group of respondents (Table 2).

What is important to notice here is that, as regards regressing supermarket patrons' purchase intention on the indirect measures of supermarkets' credibility (Table 3), unlike pharmacy patrons, *Attractiveness* – rather than *Expertise* – was found to exert the main predictive effect on purchase intentions (β = .29; p < .00). This result coupled with that obtained in the previous section meant that Hypothesis H1 was accepted.

Analysis of Supermarket Personality: Latent Dimensions and Incidence on Customers'
Intention to Purchase OTC Drugs

A) Pharmacy Patrons

The scores that pharmacy patrons assigned to the twenty-five items composing the scale by Caprara, Barbaranelli and Zimbardo (2002) were totalled to draw the five latent dimensions of supermarket personality. Descriptive data relating to these variables are reported in Table 4.

(Insert Table 4 About Here)

To verify the existence of a direct linkage between the perceived personality traits of the supermarket's image and respondents' intention to purchase OTC drugs, a multiple regression analysis was performed: the Big Five Factors were considered as independent variables and the purchase intention as the dependent variable (Table 5). Consistent with our previous test that returned *Expertise* as a valid antecedent of pharmacy patrons' intentions (Table 3, *above*), a similar effect was ascertained, in this case, with regard to *Conscientiousness* ($\beta = .49$; $p < .00$) and *Emotional Stability* ($\beta = .29$; $p < .03$).

(Insert Table 5 About Here)

Thereafter, referring to Guido (2006), two measures of the *utilitarian* and *hedonic* values shaping consumption behaviour were drawn from the Big Five Factors. Specifically, the measure of the *Utilitarian* meta-factor was determined by cumulating the scores that shoppers expressed with respect to *Conscientiousness* and *Emotional Stability*, while the scores relating to the remaining factors were totalled to establish the entity of the *Hedonic* meta-factor. Considering these dimensions as direct antecedents of pharmacy patrons' intentions, a regression model was run (Table 6). In line with the result yielded by our preceding applications, this test showed that *Utilitarism* ($\beta = .78$; $p < .00$) was the only predictor to significantly influence the purchase intentions of customers who recognise the pharmacy as their favourite provider of OTC drugs.

(Insert Table 6 About Here)

B) Supermarket Patrons

Following the procedure previously illustrated for the first group of respondents, the measures of the Big Five Factors were computed also for supermarket patrons (Table 4). Next, two multiple regression analyses were performed to evaluate the impact of these variables, as well as that of the *hedonic/utilitarian* values related to shopping, on supermarket patrons' purchase intentions. The first test returned *Openness to Experience* (Table 5: $\beta = .34$; $p < .00$) as the trait of supermarket personality that most significantly affects this group's willingness to purchase OTC drugs from supermarkets. The second test showed that *Hedonism* (Table 6: $\beta = .39$; $p < .00$) is a significant antecedent of supermarket patrons purchase intention. Comparing these results with those reported for pharmacy patrons, Hypotheses H2a and H2b were accepted.

Incidence of Demographic Data on Customers' Buying Intention and Overall Evaluation of the Pharmaceutical Reform

A) Pharmacy Patrons

By performing a multiple regression analysis with respect to the socio-demographic data relative to the first group, a modest inverse relationship between "age" and the intention to buy OTC drugs ($\beta = .26$; $p < .05$) was detected. This result suggests that, compared to specialised pharmacies, supermarkets are perceived by older consumers as less easily accessible dispensers of OTC drugs. Considering that a large number of non prescription medicines are intended for the ailments of elderly people (Reisenwitz and Wimbish 1997), it can be argued that supermarkets aspiring to fit the needs of this relevant market segment should care about specific aspects of the internal arrangement of their stores, such as merchandise displaying, lighting, and placement of signs.

Subjects' answers to the third section of the questionnaire were also processed, revealing that 55.8% of pharmacy patrons believed that their perception of supermarkets remained almost unchanged after the liberalisation of the pharmaceutical distribution sector; 22.4% asserted that their opinions went up after the reform; 16.9% stated that they went down. Furthermore, over half of the customers included in this group (53.1%) declared that they were opposed to purchasing OTC drugs in supermarkets.

B) Supermarket Patrons

For the second group of respondents, none of the socio-demographic variables were found to significantly affect the intention to purchase OTC drugs from supermarkets. Subjects' opinions about the innovations determined by the above-mentioned reform were eminently positive: 66.3% of the subjects thought that their perception of supermarkets improved; 33.1% judged it as unchanged; whereas only 0.6% of the respondents believed their perception had worsened. In addition, 96.3% of these shoppers claimed to be in favour of the process of the deregulation of the market for OTC drugs.

DISCUSSION

In this paper, customers' perceptions of supermarket stores were considered as preconditions for creating value to consumers when delivering OTC drugs. The study focused on two specific aspects of consumers' mental representations of supermarkets – that is the capability of these stores to provide an effective, safe, and regular supply of medical products (i.e., supermarket credibility) and the peculiarities characterising supermarkets' perceived image (i.e., supermarket personality traits), when seeking *utilitarian/hedonic* values in shopping behaviours. To obtain more reliable information, perceptions of two groups of potential purchasers were compared: those who declared that they felt more comfortable buying OTC drugs in traditional shops (pharmacy patrons), and those who declared that they appreciated the opportunity to purchase these products from supermarkets (supermarket patrons).

Supermarket credibility proved to be a source of added-value for both groups of respondents: the *Expertise* dimension was indeed demonstrated to affect pharmacy patrons' purchase intention, whereas favourable perceptions of a supermarket's *Attractiveness* were found to predict the second group's purchase intention. The adoption of Ohanian's (1990) *Source credibility model*, made it possible, therefore, to single out critical aspects of the interaction between customers and supermarkets, and the dimensions capable of affecting, on the one hand, shoppers' perception of value and, on the other hand, supermarkets' ability to attract and retain patrons.

In line with findings by earlier studies (e.g., Grewal et al. 1998), in this study a significant association between purchase intention and perceived supermarket image was demonstrated. The latent dimensions of supermarket personality that proved to determine pharmacy patrons'

intentions differed from those which exerted a predictive effect on supermarket patrons' purchase intention, which means that individuals' perceptions of supermarket image is closely connected with their own personality traits. This influences, in different ways, their perception of value. Indeed, while pharmacy patrons' intentions were found to be shaped by *Emotional Stability* and *Conscientiousness*, which, according to Guido (2006), are factors relating to one's inner reality (*inward* factors), supermarket patrons' intentions were shown to be determined by *Openness to Experience*, a factor which is inherent to individuals' relations with the external world (an *outward* factor). Furthermore, the surveyed groups of consumers were found to be motivated to buy OTC drugs from supermarket stores by the holding of different values: pharmacy patrons' intentions were shown to be lead mainly by rational considerations (*Utilitarism*), whereas supermarket patrons' intentions proved to be mainly driven by affective motivations (*Hedonism*). Thus, consistent with Babin, Darden and Griffin's (1994) vision, the present study confirmed the subjective nature of shopping values and their close association with customers' goals.

According to our results, to effectively deliver economic value as alternative providers of OTC drugs, supermarkets should implement a differentiated strategic approach. To appeal to customers recognizing specialized pharmacies as their favourite retailers of OTC drugs, they should promote their ability to offer a safe, efficient, and reliable service: credible endorsers, known for their *expertise* in a certain field, for example, could be enrolled to highlight in-store personnel professional skills. Furthermore, visual messages (like posters, leaflets, and print advertisements) could be placed near the shelves displaying pharmaceutical products to highlight counter staff expertise and foster customers' reliance on the security of this new service. Trusted and well-established retail chains could also create their own lines of OTC drugs and certify, trough their private labels, the quality of such products. By launching medicines carrying the store brand name, they could both strengthen their perceived image, and persuade visitors to abandon traditional pharmacies.

To meet customers' *utilitarian* needs, the functional aspects of the buying experience should be privileged: wide assortment and availability of products should be constantly ensured; prices should be clearly displayed; cost-benefit comparisons should be facilitated, and, as suggested by Ladha (2007), promotional coupons could be included in flyers to grant price discounts. Visible signs could be employed to simplify customers' choices and allow easier and rapid selections of merchandise from wider and more assorted displays than those characterising small independent pharmacies. Moreover, to help customers make correct buying decisions, user-friendly electronic interfaces could be positioned near the merchandise

displays to provide clients with concise and comprehensible information about product properties, side-effects, or recommended dosages.

Conversely, the likelihood of *attracting* shoppers who already display a favourable attitude towards supermarkets could be increased by optimising the store layout and improving the internal decoration to create a likeable ambience. Free sample distributions and in-store promotions could be arranged to target price-driven buyers and stimulate impulse buying. The branding strategy, in this case, should aim at fostering the development of a unique and loyal relationship with patrons, for example by using appealing slogans and recognizable logos, which may also help to reinforce the retailers' perceived image.

According to our results, the most *innovative* features related to the service in question – e.g., the opportunity to find newly-launched medicines, or the possibility to compare price in order to contain the household spending on health-care – should be emphasised. To target this category of customer, the *hedonic* side of consumption would need to be stressed: merchandise presentation and store atmosphere should enhance visitors' level of emotional involvement in their purchase experience and satisfy their need for sociality and trigger, at the same time, the spread of positive word-of-mouth.

As far as the study's limitations, it should be observed that, since the interviews were administered in public places (and in the presence of an interviewer), the collected responses might have reflected only in part participants' real opinions, thus weakening the validity of our conclusions. Respondents, for instance, might have identified themselves as pharmacy patrons while, in reality, they prefer to purchase OTC drugs from supermarkets (and viceversa), or may be used to shift from a certain purchase location to another according to their availability of time or their willingness to benefit from promotions and price discounts. It should be added that a "self-selection" bias might have affected the outcome of the survey, since visitors whose level of involvement in the act of purchasing OTC drugs was particularly high at the time of the survey might have agreed, more than other buyers, to take part to the study. Finally, it should be recognised that the generalisability of the results could be limited, as the survey focused on a specific location and, consequently, the researchers gathered data pertaining to a particular group of customers that probably shared similar socio-economic characteristics. To minimize response biases and draw more general conclusions, multiple locations should be, therefore, examined by future research.

CONCLUSIONS

In the light of the reform of the Italian pharmaceutical sector, which came into force in July 2006, the present study showed that the extent to which supermarkets are perceived as credible retailers of OTC drugs changes according to whether customers' tendency to view them or specialised pharmacies, as their favourite providers. Our findings suggest that, by gaining an insight into customers' preference for a certain typology of point of purchase, retailers could use publicity campaigns to influence customers' perceptions of supermarket credibility and personality traits, and enhance, in such a way, their intention to purchase OTC drugs. Moreover, by classifying customers on their buying motivation, effective strategies able to influence shoppers' perceptions of their purchasing experience could be implemented: establishing that customers are primarily oriented to *utilitarian* purchases, low cost competitive advantages could be sought to build price leadership strategies. On the other hand, once having discovered that customers are primarily oriented to *hedonic* purchases, retailers could build competitive advantages of differentiation to influence customers' needs for novelty, distinctiveness, and sociality. The image a store conveys through branding and advertising policies should, therefore, be congruent with such strategies and match buyers preferences and expectations.

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TABLES

Table 1: *Correlations among the Direct and Indirect Measures of Supermarket Credibility: Pharmacy Patrons*

	$Trustw._{(Direct)}$	$Attract._{(Direct)}$	$Expert._{(Direct)}$	$CRED._{(Direct)}$
$Trustw._{(Indirect)}$	.68	.47	.64	.66
$Attract._{(Indirect)}$	.57	.56	.46	.56
$Expert._{(Indirect)}$	.68	.53	.66	.66
$CRED._{(Indirect)}$	.73	.58	.67	.70

Note: Sig. = .01; $N_{(P)}$ = 160; P = Pharmacy Patrons.

Table 2: *Correlations among the Direct and Indirect Measures of Supermarket Credibility: Supermarket Patrons*

	$Trustw._{(Direct)}$	$Attract._{(Direct)}$	$Expert._{(Direct)}$	$CRED._{(Direct)}$
$Trustw._{(Indirect)}$	.42	.40	.45	.46
$Attract._{(Indirect)}$	.42	.50	.46	.47
$Expert._{(Indirect)}$	.51	.41	.58	.54
$CRED._{(Indirect)}$	.52	.50	.57	.56

Note: Sig. = .01; $N_{(S)}$ = 160; S = Supermarket Patrons.

Table 3: *Regression of Patrons' Purchase Intention on the Indirect Measures of Supermarket Credibility*

	Pharmacy Patrons					Supermarket Patrons				
	B	Std. Error	Beta	t	*p*	B	Std. Error	Beta	t	*p*
(Constant)	-11.91	3.50		-3.40	.00	.47	5.71		.08	.93
$Trustw._{(Indirect)}$	.35	.26	.16	1.36	.17	.03	.32	.01	.09	.02
$Attract._{(Indirect)}$	.36	.24	.13	1.47	.14	*.92*	*.29*	*.29*	*3.10*	*.00*
$Expert._{(Indirect)}$	*.61*	*.19*	*.34*	*3.22*	*.00*	.49	.27	.20	1.80	.07

Note: Dependent variable = Intention; $R_{(P)}$ = .58; $R^2_{(P)}$ = .34; Adj. $R^2_{(P)}$ = .32; $R_{(S)}$ = .45; $R^2_{(S)}$ = .20; Adj. $R^2_{(S)}$ = .18; $N_{(P)}$ = $N_{(S)}$ 160; P = Pharmacy Patrons; S = Supermarket Patrons.

Table 4: *Perceived Traits of Supermarket Personality: Total Scores and Mean Values*

	Pharmacy Patrons			Supermarket Patrons		
	Total score	Mean	Std. Error	Total score	Mean	Std. Error
Openness to experience	3381	21.13	.56	4178	26.11	.42
Extroversion	3147	19.67	.58	4028	25.18	.42
Emotional stability	3112	19.45	.58	4016	25.10	.42
Conscientiousness	3068	19.18	.58	4073	25.46	.44
Agreeableness	2975	18.59	.58	3792	23.70	.45

Note: $N_{(P)} = N_{(S)}$ 160; P = Pharmacy Patrons; S = Supermarket Patrons.

Table 5: *Regression of Customers' Intention to Buy OTC Drugs on the Big Five Factors*

	Pharmacy Patrons					Supermarket Patrons				
	B	Std. Error	Beta	t	*p*	B	Std. Error	Beta	t	*p*
(Constant)	-10.56	2.69		-3.92	.00	-6.75	4.82		-1.39	.16
Openness to experience	-.04	.21	-.02	-.20	.84	*.90*	*.29*	*.34*	*3.10*	*.00*
Extroversion	-.15	.24	-.08	-.64	.52	-.19	.30	-.07	-.64	.52
Emotional stability	*.55*	*.26*	*.29*	*2.08*	*.03*	.10	.33	.04	.30	.75
Conscientiousness	*.93*	*.23*	*.49*	*3.91*	*.00*	.58	.34	.23	1.71	.08
Agreeableness	-.03	.25	-.02	-.15	.88	.22	.29	.09	.76	.44

Note: Dependent variable = Intention; $R_{(P)}$ = .66; $R^2_{(P)}$ = .44; Adj. $R^2_{(P)}$ = .42; $R_{(S)}$ = .59; $R^2_{(S)}$ = .33; Adj. $R^2_{(S)}$ = .33; $N_{(P)} = N_{(S)}$ 160; P = Pharmacy Patrons; S = Supermarket Patrons.

Table 6: *Regression of Customers' Intention to Buy OTC Drugs on the Utilitarian/Hedonic Meta-dimensions*

	Pharmacy Patrons					Supermarket Patrons				
	B	Std. Error	Beta	t	*p*	B	Std. Error	Beta	t	*p*
(Constant)	-10.44	2.59		-4.02	.00	-6.08	4.69		-1.29	.19
Utilitarism	*.77*	*.12*	*.78*	*6.28*	*.00*	.25	.17	.19	1.45	.14
Hedonism	.00	-.09	-.14	1.15	.24	*.37*	*.12*	*.39*	*2.94*	*.00*

Note: Dependent variable = Intention; $R_{(P)}$ = .66; $R^2_{(P)}$ = .43; Adj. $R^2_{(P)}$ = .42; $R_{(S)}$ = .57; $R^2_{(S)}$ = .33; Adj. $R^2_{(S)}$ = .32; $N_{(P)} = N_{(S)}$ 160; P = Pharmacy Patrons; S = Supermarket Patrons.