COMPARATIVE PERCEPTION(S) OF CONSUMER GOODS PACKAGING: CROATIAN CONSUMERS’ PERSPECTIVE(S)

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Abstract
For centuries, packaging communicates and is capable of attracting consumer’s attention. In the B2C market it usually communicates images influencing consumer perception, appeal to the consumer’s emotions, and generate desire for some specific product. Therefore, packaging could be considered as promotional tool, especially within the retail industry environment. However, to understand how packaging communicates and influences consumers it is necessary to emphasize the way how consumers perceive packaging in general. The “communication” dimensions of packaging are factors that could affect consumers and influence their purchasing behaviour. While some of the communicational dimensions of packaging (e.g. design, size, colour, category) could catch brand’s modest attention among academic researchers, there is a relative lack of studies dealing with the packaging material. It is the purpose of this paper to provide a limited overview to generic consumer’s perception of packaging material by combining the findings from the current seminars’ research, studies and primary research used in this paper. Focus groups findings indicate that consumers are merely aware of different packaging material and their characteristics. Consumers are expressing needs for safe packaging, yet the importance of convenience seems to be the most important and they are prepared for some trade-offs in order to maintain usage convenience. It is indicative that preferences of particular packaging material over another are moderated by certain factors (e.g. age, place of consumption, occasion, and product category). Due to sample and research methodology limitations the findings are limited regarding their generic value. However, the indications given can be considered as valuable guidelines necessary for further research in the field.

Key words - perception, packaging material, consumer behaviour, Croatia, packed beverages industry

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Introduction
Packaging could be defined as a technology and the art of preparing a commodity for convenient transport, storage, and sale (Encyclopaedia Britannica, 2008). On the other hand, many marketers have called packaging a “fifth P”, along with price, product, place and promotion (Kotler, 2003), pointing out its importance in the marketing context. Therefore, packaging should be considered as an element of both product and brand. Packaging communicates and is capable of attracting consumer’s attention. It can communicate images that influence consumer perception, appeal to the consumer’s emotions, and motivate desire for the product. Packaging should be also considered as a promotional tool, especially within the retail environment (Vranesevic, Vignali and Vrontis, 2004). However, to understand how packaging communicates and influences consumers it is important to understand how consumers perceive packaging. In other words, it is necessary to define the way packaging communicates to consumers. Marketing communications related publications and research propose the concept of the communication dimensions of packaging (Kesic, 1997; Shimp, 2003; Underwood, 2003). As some of the communicational dimensions of packaging (e.g. shape, size, colour, and carried information) attention to packaging is more of academic researchers, the quantity of studies dedicated to the packaging material is very limited.

It is the purpose of this paper to provide a limited insight to generic consumer’s perceptions of packaging material. The first aim of this paper is to provide an overview of the current research related to packaging material perception, while the second aim is to further explore this area with the interpretation of the primary research results. The combination of both will provide a modest contribution to the existing knowledge and relevant marketing theory.

Perception, perceptual process and packaging
Zimbardo et al. (1995) suggested that perception is ‘the task of making sense of sensation’. Perception could be described as mental organization and interpretation of sensory information and is influenced by a variety of factors, including the intensity and physical dimensions of the stimulus, such as activities of the sense organs as effects of preceding stimulation; the subject’s past experiences, attention factors such as readiness to respond to a stimulus; and motivation and emotional state of the subject (Columbia Electronic Encyclopaedia, 2008).

In the context of marketing and consumer behaviour perception is well recognised from both the practitioner and academic perspective. Knowledge of consumer perception and the perceptual process is a necessity for successful marketing communications. The perceptual process could be approached from two main directions. The psychological approach is dealing with the conversion of ambient stimulation of sensory inputs into the electrical energy of nerve impulses (Noé and Thompson, 2002). On the other hand, the behaviour approach to perception focuses on the relationship between the physical properties of stimuli and the perceptual response to this stimuli, and just as learning, thinking and emotions are all behaviours, perception is behaviour as well (Goldstein, 2006). The perceptual process could be broken down to two main stages (see Figure 1). The first one is related to sensation collected by our senses while the second one is related to the understanding of the meaning of this sensation. The process itself begins with biological processes within our senses that are initiated by various stimuli in our surrounding. Our senses of sight, hearing, smell, taste, and touch are consisting of sensory receptors that are receiving stimulus within their reach from the surrounding and transferring electrical signals through nerves to the brain for further processing (ibid). After the sensation stage, stimuli are getting meaning through the interpretation and response.

Packaging perception is related to the communicational dimensions of packaging because consumers perceive what packaging communicates to them. The communicational dimensions of packaging are interacting with the consumer with the senses stimulation. There are two levels of analysis of marketing stimuli – perceptual and perceptual analysis. During the conceptual analysis consumers integrate information from the stimulus with pre-existing knowledge and past experiences related to the stimulus, and they actively (counter)argue with the position taken by stimulus (Payne, Bettman and Johnson, 1993). During conceptual analyses, consumers engage in perceptual analyses (Greenwald and Leavitt, 1984) when devoting focal attention to the stimulus. In perceptual analyses, consumers examine sensory features of the stimulus, such as shape, colour, and size, they decipher the stimulus into categorical code, such as brand name, pictorial and textual information for a brand package, and they select certain elements of the stimulus over others (Pieters and Warlop, 1999). Consumer’s total perception of packaging is a sum of separate perceptions of shape, size, colour, packaging material and carried information. The success of packaging design and its ability to communicate appropriate messages is, at the end, judged by consumers. It should be noticed that the move to larger supermarkets and increased segmentation of markets has led to proliferation of products, so that packaging has to cope with competitive context, both in the retail environment and in the kitchen (Thompson, 1996). Consumer’s behaviour needs to adapt to specific situations in the purchasing process.
Researchers showed quite significant interest about perception of carried information or packaging labels, especially in the context of packaged food. A study conducted by the European Heart Network (2003) identified 307 papers dealing with consumer understanding of nutrition labelling. Studies are showing that the majority of consumers read the food (and beverage) labels (MAFF, 1995), while the reading frequency is associated with the degree of uncertainty about the product (Wandel, 1999). This was also confirmed by more recent studies (e.g. European Heart Network, 2003; Cowburn and Stockley, 2004; Grant, 2006; Drijovich et al., 2006; Navigator, 2007). Nutrition knowledge relevant to the interpretation of labels was reported to be generally low and some terms used on nutrition labels are not well understood (European Heart Network, 2003). However, in majority of cases information on label is perceived as a buying aid and when it comes to the decision process (Glanz et al., 1989; Pudel, Spirk and Westenhofer, 1996; Nagya, Lipinski and Nitin, 1999). Time pressure is also having impact on the perception of verbal and non-verbal stimuli. According to Rettie and Brewer (2000), under conditions of rapid perception (i.e. time pressure), there is an advantage for verbal stimuli perceived from the right-hand side, and for non-verbal stimuli perceived from the left-hand side of the packaging (i.e. label).

The effect of the packaging shape and size on consumer’s perception was researched by many scholars (e.g. Homberg, 1975; Frayman and Dawson, 1981). In his research focused on consumer’s behaviour, Wansink (1996) found that large package sizes encourage more use than smaller package sizes. In a more recent study, Raghunath and Krishna (1999) pointed that package’s shape affects preferences, choice and post consumption satisfaction. Furthermore, consumers tend to simplify the size judgement task by using a single package’s dimension at a time (Krider, Raghunath and Krishna, 2001). Packages that have shapes that are perceived as attracting more attention are also perceived to contain a greater volume of a product than same sized packages that attracts less attention (Folkes and Maita, 2004). The research results from Yang and Raghunath (2005) showed that the more elongated a container, the lower is the purchase quantity. In the recent study, Raghunath and Greenleaf (2006) focused on the consumers’ reaction to rectangles. The results showed that the ratio of the side of a rectangular product or package can influence purchase intention and preferences.

Colour perception is a rather popular topic in marketing and consumer behaviour (e.g. Grossman and Wisenbalt, 1999; Kotler, 2003; Solomon, 2004; Hawkins, Best and Coney, 2004; Fill, 2006). Titles with more global approach and international marketing related titles are also pointing out how the colour perception is related to the culture (e.g. Mühlbacher, Lehrs and Dahringer, 2006; Doole and Lowe, 2008) and connotations that a particular colour is having in one country or region can be completely opposite in another. However, the research focused on the perception of packaging colour is very limited. In case of food products, a study showed that consumers in terms of packaging are mostly noticing the packaging colour and transparency (Dantas et al., 2004). Colour is also reported as very important element in the case of the wine packaging perception (Rocchi and Stefani, 2005).

Research with a focus on the packaging material and how it affects consumers’ perception and behaviour is sparse. However, there is a number of studies dedicated to the technological and environmental side of the packaging material (e.g. Lund, 2000; Laroche, Bergeron and Barbaro-Forcella, 2001; Madocks, Rewthinkle and Barton, 2005; Ivisica et al., 2006; Rokka and Uusitalo, 2008), or even ethics related to the usage of particular packaging material (Johnson, Sommer and Mayes, 1985; Bone and Corey, 2000). From time to time, packaging companies and associations tend to publish some results from their research studies intended to improve certain packaging material’s role among consumers (e.g. Consumer Preferences in Packaging Materials, 2006; Glass education, 2008) or are making conclusion from the findings gathered from a very limited and non-representative sample (e.g. George, 2006). Since this studies are having clear goals to be advocates for the usage of particular packaging material, their objectivity and thus the value in the scientific context is very questionable.

Research aim and methodology

The main aim of the primary research was to explore if and how consumers perceive different packaging materials in the context of soft drinks and a focus group interview was chosen as the most appropriate qualitative research method.

The research was conducted in Zagreb, Croatia with two focus groups each consisting of eight persons in which women and men were represented equally. Since the group was divided into two groups, the age is a key factor. Participants in the first group were relatively younger (i.e. age range from 25 to 40) while the second group consisted of relatively older participants (i.e. age range from 41 to 60). The focus group agenda included the following topics: packaging material, glass, polyethylene terephthalate (PET), carton and can.

Main research findings

Purchasing phase

During the purchasing phase participants are mostly focused on brand and price. Next is the product content. When it came to packaging, participants are thinking that the colour and size of container when making volume judgements (Raghunath and Krishna, 1999). Afterwards, the effect of package’s height or elongation on consumer’s perception was researched by many scholars (e.g. Homberg, 1975; Frayman and Dawson, 1981). In his research focused on consumer’s behaviour, Wansink (1996) found that large package sizes encourage more use than smaller package sizes. In a more recent study, Raghunath and Krishna (1999) pointed that package’s shape affects preferences, choice and post consumption satisfaction. Furthermore, consumers tend to simplify the size judgement task by using a single package’s dimension at a time (Krider, Raghunath and Krishna, 2001). Packages that have shapes that are perceived as attracting more attention are also perceived to contain a greater volume of a product than same sized packages that attracts less attention (Folkes and Maita, 2004). The research results from Yang and Raghunath (2005) showed that the more elongated a container, the lower is the purchase quantity. In the recent study, Raghunath and Greenleaf (2006) focused on the consumers’ reaction to rectangles. The results showed that the ratio of the side of a rectangular product or package can influence purchase intention and preferences.

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Consumption phase

Products characteristics that are important to participants differ between product categories. However, in most cases content temperature is the most important characteristics, followed by packaging size and convenience, producer/brand, price and product quality.

PET packaging seems to be in overall the most preferred packaging type, followed by glass and carton. Glass is, on the other hand, preferred as packaging material in HORECA. An overview of importance and required product characteristics and packaging material preferences is shown in the following table.

Perception of packaging in the context of product category

Packaged water

Majority of participants are buying mineral water in glass bottles and the think that this type of packaging is prestigious and is more attractive than other types of packaging. Participants noticed that glass is relatively heavy but the really downside of this type of packaging is its breakability. Since glass packaging is commonly used as returnable or refillable, scuffing marks could be sometimes visible. This visual imperfection is affecting glass packaging attractiveness. PET is, on the other hand, perceived as more convenient, especially by younger participants.

Carbonated soft drinks

In overall, participants prefer PET packaging for carbonated soft drinks. PET is perceived as more convenient packaging type than others, especially because of light weight and it can not be broken. However, participants were complaining on the PET’s occasional lack of rigidity which is especially noticeable in case of bigger packaging sizes (e.g. 2 litre Coca-Cola PET bottles). The bottle’s softness could causecontent spoilage when one is manipulating with the package with just one hand or when the pressure applied by hands to squeezes the bottle. Glass packaging is only desirable for the consumption in HORECA. Participants showed the lowest preference towards the can. According to them, can is not hygienic and it gives some kind of metallic taste to the content. Furthermore, can is not considered as convenient packaging mainly due to the lack of resealing feature.

Juices and nectars/Still drinks/iced tea

Products in this category are usually packed in carton which is mostly considered as convenient. However, there are some complaints about the lack of features that are enabling resealing in some cases (e.g. smaller packages). Due to its nature, carton is not transparent so the content is fully hidden. Participants are missing the transparency that glass and PET packaging are providing. Furthermore, participants are complaining about the inconvenience to drink directly from the carton package. Smaller size carton packages are particularly considered as appropriate for children.

PET is preferred packaging type for iced tea and is considered as very convenient due to its light weight and its ability to be resealed. As in case of carbonated soft drinks, cans are considered as unattractive and non-hygienic.

Perception of packaging types/materials

Glass

All participants think that glass looks the best and is usually related to the best quality products. It has a long tradition and is considered as nice looking, especially for special occasions. Glass is considered to have very good protective function and it does not affect the taste of content. It is environment friendly and could be reused and recycled. Participants were also stressing the overall quality of glass as a packaging material. Its transparency and design are improving the quality of product itself. Glass is considered as prestigious packaging material and a must for special occasions. Participants think that products look nicer in glass. However, participants also noticed some disadvantages of glass packaging. First of all, it is breakable and relatively heavy. It is not very convenient and it is rather difficult to transport heavy returnable bottles back to the outlet (n.b. it seems that glass packaging is mostly considered as returnable by participants). Furthermore, participants are complaining about scuffing marks that could be noted in some cases and issues with the resealing of some mineral water bottles.

Figure 2: An overview of important product characteristics and packaging material preferences depending on the consumption occasion

<table>
<thead>
<tr>
<th>Consumption occasion</th>
<th>Important product characteristics and preferred packaging material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everyday/home</td>
<td>content temperature, product quality</td>
</tr>
<tr>
<td>Fruit juices and CBDA = PET carton water, glass, PET</td>
<td></td>
</tr>
<tr>
<td>Travelers</td>
<td>content temperature, consistent packaging, price</td>
</tr>
<tr>
<td>Younger participants = PET carton</td>
<td></td>
</tr>
<tr>
<td>HORECA</td>
<td>content temperature, consistent packaging, type of packaging</td>
</tr>
<tr>
<td>On the go</td>
<td>content, brand, refreshment, content temperature, importance</td>
</tr>
<tr>
<td>Special occasions</td>
<td>type of product, product quality (more natural, without preservatives and additives), packaging size</td>
</tr>
<tr>
<td>Physical activity</td>
<td>packaging size, content temperature, convenient packaging, water is preferred over fruit juices and CBDA</td>
</tr>
</tbody>
</table>

Carton

Carton is mostly considered as a light-weighted type of packaging. Participants are finding carton appropriate for transportation and storage. There is almost a consensus among participants that carton is more environmentally friendly packaging than PET or can, which is, actually, wrong. Yet, minority of participants (especially older) noted that carton packaging is not as environmentally friendly as it was thought. Carton may look as made of paper from the outside but there are also aluminium and plastic foils inside. Carton is considered as convenient for handling, unbreakable and space saving (i.e. it could be squeezed). Participants are finding carton as a trendy packaging. In overall, carton is considered as convenient packaging but resealing is not always very convenient. Participants are thinking that carton packaging is changing the taste of the content. Furthermore, if completely covers and is not transparent so the content is not visible to the consumer, which is considered as a downside.

PET

PET is generally considered as a very convenient type of packaging. This was especially expressed by younger participants, while the older participants were not that much excited. Furthermore, PET is appropriate for transportation due to easy handling and light weight. It is appropriate for purchasing of bigger quantities (i.e. bigger volume, multi-pack options). PET is considered as unbreakable packaging material. Participants are also aware about some disadvantages of PET packaging. They are considering it as a less environmentally friendly type of packaging due to the fact that oil is main raw material for the production of PET and that is not degradable. Furthermore, participants said that PET is affecting the taste of content and that there are some migrations of gases from the package to content. Participants noticed that the carbonization level of carbonated soft drinks packed in PET is dropping during the time. One relatively important disadvantage is that the content in PET tends to heat up very quickly.
Can

Can is considered as a packaging which is convenient for transportation and storage. It is light weighted and easy to handle. Participants were asked to express their opinion towards certain packaging characteristics and to evaluate their importance. In overall, glass is mostly perceived as a material with the best characteristics, followed by PET, carton and can. Furthermore, a simple projective technique was used in order to confirm a finding that participants are preferring glass. All participants were asked to name one packaging material in which they will feel the best if they were a soft drink. The majority of participants pointed glass as a material in which they would feel the best. Participants described that they prefer the transparency of glass and the fact that it is natural. Just a minority of participants mentioned carton. This is in line with the previous ranking of packaging material characteristics but it also raises some new questions and concerns. There is an obvious gap between consumer’s attitudes and behaviour in terms of the packaging material choice.

Figure 3: An overview of perceived advantages and disadvantages by packaging type

<table>
<thead>
<tr>
<th>Glass</th>
<th>Carton</th>
<th>PET</th>
<th>Can</th>
</tr>
</thead>
<tbody>
<tr>
<td>advantages</td>
<td>advantages</td>
<td>advantages</td>
<td>advantages</td>
</tr>
<tr>
<td>quality, quality, quality, processed, processed, processed, processed, processed.</td>
<td>convenience, convenience, convenience, convenience, convenience, convenience, convenience, convenience.</td>
<td>convenience, convenience, convenience, convenience, convenience, convenience, convenience, convenience.</td>
<td>convenience, convenience, convenience, convenience, convenience, convenience, convenience, convenience.</td>
</tr>
<tr>
<td>transparency, durability, digestible, digestible, digestible, digestible, digestible, digestible.</td>
<td>low environmental impact, less packaging, low environmental impact, low environmental impact, low environmental impact, low environmental impact, low environmental impact, low environmental impact.</td>
<td>low environmental impact, less packaging, low environmental impact, low environmental impact, low environmental impact, low environmental impact, low environmental impact, low environmental impact.</td>
<td>low environmental impact, less packaging, low environmental impact, low environmental impact, low environmental impact, low environmental impact, low environmental impact, low environmental impact.</td>
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<tr>
<td>low price, low price, low price, low price, low price, low price, low price, low price.</td>
<td>high cost, high cost, high cost, high cost, high cost, high cost, high cost, high cost.</td>
<td>high cost, high cost, high cost, high cost, high cost, high cost, high cost, high cost.</td>
<td>high cost, high cost, high cost, high cost, high cost, high cost, high cost, high cost.</td>
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<tr>
<td>breakable, breakable, breakable, breakable, breakable, breakable, breakable, breakable.</td>
<td>breakable, breakable, breakable, breakable, breakable, breakable, breakable, breakable.</td>
<td>breakable, breakable, breakable, breakable, breakable, breakable, breakable, breakable.</td>
<td>breakable, breakable, breakable, breakable, breakable, breakable, breakable, breakable.</td>
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</table>

Conclusion

Consumers are aware of different types of packaging materials and different characteristics that these materials are having. Glass is overall perceived as the packaging material with the best characteristics. Yet, packaging statistics (e.g. Ingham, 2002; Business Insights, 2003; Future Innovation Today, 2006) are showing that PET and carton are much more popular packaging materials. It seems that consumers are trying to be rational while expressing their opinions but in real life packaging convenience seems to be the main motivator over the choice of a particular packaging material. Furthermore, it seems that consumers are prepared for trade-offs in order to maintain the usage convenience of the package. This leads to the conclusion that in case of packaging type preferences there is a gap between attitudes and actual behaviour.

This research also pointed out some potentially modifying variables of consumer’s perception of packaging material, like age, occasion, product category and place of purchase/consumption (distribution channel). However, on a larger scale research these variables, and maybe some other variables (e.g. sex, culture) could be revealed as important factors that could moderate consumers’ perception of packaging material.

It could be taken for granted that the role of packaging in the B2C market is important and should be considered in the context of better understanding of consumer’s perception towards the product and brand. Unfortunately, theoretical background on this rather specific area is not sufficient and studies like this one provide valuable insight on this topic. Although, due to the research methodology limitations the general applicability of findings is questionable in terms of general cross-industrial acceptance, they provide valuable guidelines for further research.

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