

Outside the box: Enhanced forms of online packaging presentation for eCommerce

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1. Introduction

This research is an investigation into how the functions of packaging can be best used to enhance the online shopping environment. From its origins as an U.S. government research project, the internet has grown to link millions of machines and tens of millions of users around the world since the 1990's. Since 1994 the internet shopping mechanism has been in place. The World Wide Web (WWW) allows people to communicate simultaneously or asynchronously easily and effectively, shortening the distance and time between individuals. By 2002 Forrester (2002) forecasted more than \$133 billion online sales and predicted that by 2006, annual sales will increase to more than \$560 billion. As we can see this internet trading platform is becoming an important outlet for selling products, therefore the packaging of products should have new design thinking to fit the ever changing online shopping environment.

The physical packaging of a product can be used for many purposes, from the manufacturing point to the end users, such as the protective and promotive functions where it is called as a "silent protector" (Long, 1982) and a "silent salesman" (Pilditch, 1973). The packaging not only delivers product information and brand identity, it also visually appeals to consumers and due to its protective function delivers the product undamaged. Besides, Packaging plays an important role in helping consumers to recognise and understand the products.

When consumers go to retailers, they usually see the packaging of products before they can see the products themselves. Therefore, the packaging of products can be an effective tool for marketing in real shops (Stewart, 1996). However, the issue of online packaging for e-commerce has not attracted a lot of research. The author posed the question "Is the existing visual packaging working well on e-retailers?". With this in mind a pilot questionnaire was developed and a random phone survey completed for the prior research. The major finding was that 1) only five people (total forty respondents) noticed the visual packaging of the products when they were shopping online, and 2) hardly any respondent engaged in impulse shopping online. Even these respondents felt that the pictures of the products were too small and blurred to see. Some retail websites did not even provide an image of the product. Thus, consumers might not be persuaded by that kind of visual packaging. This raised the question of how the packaging could be a "silent salesman" online.

With the popularisation of the internet, online shopping is becoming more and more popular. However, there is no sense of touch and smell in the cyber environment. The consumers can usually see a small, still and blurred picture on the computer screens. This raises the question, how can the marketers, manufacturers and designers create virtual packaging for a product in the online shopping environment? And in these terms, what kind of virtual packaging will have a profitable influence to encourage the growth of online shopping?

Working from the proposition that a form of "packaging" is needed in online environment, and this is distinct from advertising and the design of eCommerce system. This research firstly reviewed the

functions of packaging through literature reviews, and secondly examined current online packaging by observing some leading online supermarkets. Finally, the authors proposed eight categories of online packaging presentation. These categories would provide primary guidelines for manufactures/retailers and packaging related industries to consider the innovative potential of online packaging, to best serve eCommerce.

2. Packaging functions for products

2.1 Functions of packaging

The various functions of packaging can be divided into three categories; primary, secondary and tertiary (Long, 1982). The primary functions, known as industrial packaging design, concerns the structural nature of packaging. The secondary functions, known as commercial packaging design, relates to the issues of visual communication, with the tertiary functions being about the additional values for the product. The basic requirements of physical packaging include: containment, protection, preservation, communication, promotion, loading and storage, as well as convenience of use (Pilditch, 1973; Long, 1982; Stewart, 1996). In this research, the secondary functions are more important than the other functions, because the idea of “online packaging” is a concept relating to the packaging of product presentation, which transfers the functions of physical commercial packaging, such as sales, promotion and information, to the virtual environment, in order to assist e-commerce sales (Huang, 2003). The following discussions are the summaries based on the above references, with a concentration on the secondary functions.

The purpose of the sales function of a package is to enable the sales process and describe the products' features, giving consumers a confidence that will 1)make a favourable impression and 2)make purchasing decisions more efficient. As mentioned in the introduction, the authors' pilot study found that online buyers were not very impulsive. A highly recognizable branding can allow consumers to identify a product or service, which can provide a specific need to the consumers. Therefore the branding has to be clearly identified. Manufacturers have to give in depth consideration to the quality of the product and equally good consideration to the branding. In most cases it is difficult to try or taste the quality and standard of a product at the sales point. Hence, buyers would concentrate on brands recognised by the packaging design.

The promotional function concentrates on the packaging, where it is additionally intended to attract the potential customer's attention, thus having a positive impact upon the purchasing decision, especially during a product's promotional drive. This promotional function of the packaging plays a particularly important role on the point of purchase (POP) packaging as it is directly addressed to the consumer and is immediately recognisable. A product with the right quality and a competitive price may not sell, just because people may not be awareness of the existence of the product as it was not properly advertised. Hence, a product package has to be immediately appealing, attractive and recognisable.

The various information printed on the packaging provide the consumer with details about the contents and usage of the particular product. Consumers gather information about the product through the label. Manufacturers need to update themselves on the packing and labeling needs of the target markets, whilst avoiding any deceptive and unfair methods of packaging. However, the physical packaging has a limited space to print relevant information, hence the manufacturer is faced with dilemma of choosing specific information to print conveys accurately all the relevant product details.

2.2 Packaging and marketing

There are many marketing tools used in marketing strategies. In the 1960's, McCarthy first suggested these tools as the 4Ps: product, price, place and promotion. Many marketers also called packaging the fifth P (Kotler, et al 1996). Good packaging can give consumers a direct recognition impact of product and brand. Kotler, et al (1996) indicated that there are more than 15000 items in an average supermarket, with 53% of customers shopping impulsively, packaging being one of the main factors in achieving this figure. Reiner and Rose (2002) provides us with three points to distinguish the

difference between advertising and packaging 1) 70% of impulse shopping without remembering advertising but packaging. 2) A product's packaging advertises the product before and after purchase. 3) The packaging of a product has a longer shelf life than the life of the product's advertisement. Visser (2002) also stated that packaging is not only the skin of a product to help to communicate with the consumers but that it is also a mirror to reflect the soul of a product. As nobody stands by the supermarket shelves to introduce the product to the customers, it is believed that packaging is a good solution as a sales promotional tool for this marketing problem (Stewart, 1996). Attractive packaging could help in enhancing sales, provided the packaging gives an intangible or tangible benefit to the customer. The benefit could be emotional or functional. Furthermore, Lox (1992: p.23) mentioned that Kotler and Mickwitz undoubtedly described that the commercial functions of packaging played an important role on saleability and / or returns for a specific product, especially when the sales of a product reach the saturation stage of the Product Life Circle (PLC). At this stage the packaging can obviously affect the increase of product sales.

The authors considered that online packaging should be able to perform the same function as it would do in the 'real shop' environment, and even more importantly it is thought that online packaging could not be replaced by online advertising. Although online packaging has not been deeply studied, the above researches could offer good references for this research.

2.3 The changing role of packaging

Much research has been done on the history of packaging (Long, 1982; Roth, 1990; Lox, 1992; Stewart, 1996), with the earliest forms utilising raw materials such as leaves, skin, hollowed out logs, and fur. However, these raw materials could not keep the food or product in the best of conditions. About 3000 B.C., the Egyptians used a specific kind of leaf, as a plate, and to wrap food. They also utilised glass to make bowls and jars as containers for daily use. The first canned package was attributed to a French industrialist Nicolas Appert (Lox, 1992) at the beginning of the 19th century. He invented the canning process, which used a glass jar to preserve food by heating it inside the sealed container. The heating process kills the harmful bacteria with the final product keeping air and moisture away from the product, until the pack is opened. Up until this point, the storage, handling and protection of a product were the main functions of packaging.

After World War II, the packaging industry has become a significant economic force in the advanced industrial nations (Roth, 1990). For one thing, the manufacture, use, and disposal of packaging accounts for a large proportion of the activities of modern businesses. For another, numerous business functions (Roth, 1990; Lox, 1992; Stewart, 1996), including marketing, advertising, the production of POP and promotional materials, were importantly dependent on the packaging. The prominence of the rise of the modern supermarket cannot be under estimated, as the visual packaging plays a very significant role in attracting and delivering information to consumers in the "self-service" shopping environment.

Now, we have already moved onto another new trading platform – that of online shopping. Interestingly though, the visual role of packaging seems not to have caught up with this new trend of shopping environment. Moreover, the internet is a "highly self-service" where the consumers cannot usually obtain an instant answer to an enquiry helping and normally do the shopping alone. Hence, they need to make decisions by themselves with the information in their hands. Therefore a new packaging design thinking that must be different from traditional thinking for gaining a greater market share of e-commerce. This niche of packaging for e-commerce should be studied for future innovation for the development of packaging.

3. Analysis of current online packaging

These observations mainly focused on the presentation of online packaging and not the technical and functional aspects of the websites. The authors chose 10 of the leading supermarket chains that had internet shopping websites from Taiwan, the UK and the USA. It was important to analyse their online packaging in order to find out if there is any conventional visual or emotional elements for internet shoppers to perceive. Normally, there were three different formats (Visser, 2002; Huang, 2003) of

online packaging among these online shops. These formats were co-existent to each other within most of the online shops. No online shop had only one format of online packaging presentation.

1) Pure text, such as the biggest online supermarket Tesco.co.uk (Fig. 1), this was the simplest format to present a product. The drawback of this format was that it had no effective “visual stimulation”. The visual element could provide a basic assistance, such as colour, branding or shape, in helping consumers to remember, recall and store a memory of specific products. At least, consumers could make sure whether they bought the correct item by seeing it on the website.



Figure 1. Pure text item’s description



Figure 2. Pictorial icons as representers

2) Pictorial icons, such as Peapod.com (Fig. 2). Some online shops wanted to add to the limitations of using pure text alone. They used some interesting pictorial icons to indicate the categories of a particular product, e.g. milk bottles represent dairy and the sun represents organic food. Although this kind of online packaging could contribute to the addition of using pure text alone, it was short of a powerful visual impact. Therefore consumers could not obtain a single product’s visual information by this format alone.

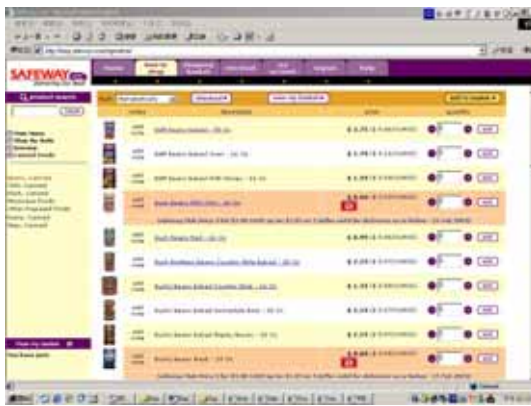


Figure 3. Product’s real images



Figure 4. Enlarged product’s image

3) Product’s real images, such as Safeway.com (Fig. 3). Basically, this format allowed consumers to browse products easily when they logged on to the online shops. This was the virtual “aisle” as a metaphor for a real shopping aisle. Therefore, consumers could see a product’s real image instantly as the products were stocked in “aisles”. Consumers could request more information about a product by clicking on an image (Fig. 4). This would help consumers to transfer their physical shopping experience into the virtual. Although there was a big difference between these two experiences, it would still help consumers to get used to adapting to the transformation of the shopping experience, from physical to virtual. However, the biggest drawback of this format was that the image was too small to see and the resolution of the image was too low. Although it had the products’ images in “aisles”, consumers still only had a limited form of visual stimulation.

It is becoming very important for manufacturers that they do not continue to treat packaging as a simple box that protects the product. One advantage of online packaging is the hyperlink, which can maximise the source of information and content. The manufacturers and retailers can produce a total catalogue of information to place beside any product, specific specifications on ingredients can be fully explained, as space is not as limited as it is on the packaging of a product in a supermarket. For example, websites can contain all the vital and peripheral information that a consumer might need to know in order to make a well informed purchasing decision.



Figure 5. The imitation of the real stocking shelves and interior layout.

Additionally, the manufacturers and retailers should constructively rethink their approach to best build a suitable online shopping environment to meet consumers' in-store shopping experience, which would assist consumers to immerse themselves in a familiar shopping environment. For example, taking the 7-11 and the FamilyMart convenient stores (Fig. 5), these websites imitate the real stocking shelves and interior layout on screen. Those details would give consumers clues to get used to buying online and to find the products easily. In other words, firstly, it is important to enhance the emotional value of online packaging, which can be delivered to consumers as it is an essential method in capturing consumers' recognition (identification). Secondly, to reinforce the visual impact to consumers is another method to effectively interact and communicate with consumers, e.g. 3D presentation, animation and high quality images.

4. Proposal for enhanced online packaging

The biggest drawback of online packaging is that consumers cannot touch the physical product. Apart from that though, consumers might have many benefits that they do not have a chance to obtain from the physical packaging. Here the authors propose eight categories of enhanced online packaging.

Category 1: *Quality images with auxiliary animated text or images.* This category would use high quality images and text to compose still and animated pictures to best present products, which can give consumers a basic visual impact of products.

Category 2: *Branding image reinforcement.* The aim of this category is to use some branding design to give consumers a deeper branding impression, e.g. the standard colours of branding and enhanced logo, alongside any kind of online packaging presentation.

Category 3: *3D and Multimedia presentation.* The three dimensions presentation can compensate the biggest drawback for virtual packaging presentation more or less on screen. This might fit the "real product" shopping experience. The multimedia presentation, such as sound, animation and films, could be an emotional reinforcement to best encourage consumers to make purchase decisions while they are browsing products.

Category 4: *Persuasive (Intimidatory) information.* The aim of this category wants to manipulate experts' opinions or recommendations and various technical, scientific even emotional information, alongside any kind of online packaging presentation. For example, the packaging of organic food would tell consumers that the experts suggests that people do not consume the foods which are fertilised by artificial chemical fertilizer, these foods will

harm your health.

Category 5: *Reporting style (Column insertion) presentation*. This category of online packaging can be presented as a report, like a special column in a newspaper, as it could enhance the quality and reliability of the product in the consumers' mind.

Category 6: *Scenario (Narrative) presentation*. Story telling is a good way to tell consumers what benefits they can have from the product, as well as telling consumers how to use the product.

Category 7: *Environmental immersion presentation*. Some people might dislike the idea of shopping in the virtual environment. Simply, they might be not familiar with the virtual shops. To help the consumers themselves to immerse in the online shops is a good way in the future to encourage them to shop online.

Category 8: *Rich information hyperlinks*. As mentioned in this research that the online packaging can provide an unlimited resource of information for consumers to make an informed purchasing decision, e.g. manufacturer, recipe, mail to a friend, news letter, technical information and peripheral products

5. Conclusion

The aim of secondary packaging design is to provide relevant information that can fulfill consumers' need as well as encouraging impulse or planned shopping with attractive presentation and persuasive information. Typically this co-exists with the advertising function of the pack. However we have to emphasize that advertising and packaging might exist together on one body, nevertheless, they work for different purposes. The advertising can convey an awareness of a product, a service and even a concept to consumers, but it does not carry full information for a product. The duty of online packaging is not only needed to provide sufficient information for products but also to well play the role of the "silent salesman" to consumers. As we mentioned in the chapter 2.3, packaging is now facing a time of innovation where its conventional functions need to be converted into the virtual world. Therefore the quality of online packaging must be enhanced in terms of information providing and product presentation in order to satisfy the needs of eCommerce for both consumers' purchasing and retailers' sales. Furthermore, the authors will design a 'laboratory online shop' for these categories of online packaging to better evaluate their effectiveness for consumers for future research.

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