

Aligning e-service Attributes for Hedonic and Utilitarian Consumption: An Exploratory Study in the Context of Consumer Electronics



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1 Introduction

In recent years, e-services have expanded in both volume and sophistication. A growing number of company websites, across different business sectors, have evolved from having a barely supporting role to become effective new sales channels, allowing customers to engage in interactions and to place requests that used to be only available in physical stores. These developments, notably for online commerce, have led to the proliferation of studies investigating the characteristics, motivations and preferences of the e-consumer, enabling the definition of e-consumption typologies and contributing to the understanding of customer behaviour throughout their e-purchasing journeys, notably in what concerns their requirements and habits for information search and order placement via virtual channels. The effective setup of e-delivery systems, including website design decisions, builds on knowledge about consumers much in the same way physical stores adjust to the profiles of its target audience. Retailers are expected to adopt different online strategies across distinct product categories in order to adequately meet their e-consumers' needs [1]. Addend

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to customer personal profiles, it is likely that other elements, including the nature of each consumption episode, i.e. utilitarian vs. hedonic consumption, will play a role in determining the customer requirements regarding the characteristics and functions from company websites. The former refers to a practical or functional purchase intention, whereas the latter is more driven by emotional and experiential elements, often linked to self-expression desires. In order to meet hedonic consumption expectations, for example, the content of retail websites could include elements such as figurative language, and be richer in pictures' colour range [2]. In order to fit utilitarian consumption circumstances, retail websites should be able to meet consumer searches for information regarding material benefits, and other more rational elements that influence purchase decisions (e.g. price and items comparison). Website design decisions should take into account the need to meet requirements like accessibility, literal language and clarification of information and payment options [3].

The purpose of this study is to investigate whether the website attributes that are offered to e-shoppers differ for utilitarian and hedonic products. The study builds on a preliminary literature review on website attributes to put together a characterization for the array of elements that retail websites commonly include to support customer information search and order placement activities. The study then draws on knowledge about utilitarian and hedonic consumption to develop a framework concerning the distinctive characteristics that should be expected from retail websites, according to the portfolio of consumer goods that they offer. The framework is then applied to frame the analysis of the characteristics of major websites for consumer electronics, offering a discussion on the nature of the information provided for utilitarian and hedonic products in this particular retail context.

2 Literature Review

Early online service channels were, to a great extent, driven by the purpose of complementing the service of physical stores, notably by providing information and details about the provider and the products available in stores, which allowed customers to save time in the pre-purchase decision phase. In the present, online channels have evolved far beyond such informational role to become transactional systems, enabling customers to complete their purchase journeys without the need to resort to physical stores. Service providers have realized that Evidence e-shoppers, much alike physical store visitors, can have very different profiles and purchasing requirements, that, naturally, must be taken into account in the design on e-commerce systems. Online consumers make decisions building on service quality judgements and expectations that are greatly influenced by the contents and functionalities available in the providers' online presence [3, 4].

2.1 *Aligning e-service Systems and e-shoppers Requirements*

The introduction of an online service channel can have diverse effects for the performance of a retailer. Whereas often customers will use the online channel and the physical stores in a complementary manner, in other cases consumers can completely transfer their purchases to the online context. Setting up a website with the adequate constellation of attributes valued by consumers is very important for providers to capture the attention and promote repeated visits of e-shoppers [5]. Research results have suggested that users can take less than 50 s to formulate their first impressions about the usefulness of a website [6].

The intangible nature of the interactions that are involved in online shopping experiences can contribute to customers' uncertainty since customers are used to relying on information derived from the physical sensorial inspection of goods (e.g. touch, smell) that is not possible in the online setting [1]. The purchase of other (non-sensorial) items can more easily be supported by objective online information. One of the key challenges of online commerce, therefore, is the ability to enable customers to experience similar sensations like the ones enabled by the physical contact with items or at least have a perception of them. To this end, the design, functionalities, and nature of the information made available in the providers' websites assume critical importance in influencing customers' intentions to effectively place an online order. The performance of online retailing systems depends largely on the ability to communicate effectively and enable customers to access relevant information to support their decisions and judgements [7]. Online purchase decisions are very much influenced by the appearance and design of the various website elements (e.g. pictures, colours, payment options, etc.) [8].

There has been extensive research addressing the nature and the relative importance of various e-store attributes for distinct consumer groups and consumption circumstances. A recent study identified six categories of attributes for characterizing online retail [9]: 'e-Store Essentials', including interaction and delivery elements related to safety, trust, order confirmation, delivery costs, payment, and return options; 'Offline Presence', relating to the possibility of picking up merchandise in physical stores; 'Price Orientation', relating to the availability of special offers and promotions; 'Website Attractiveness', linked to the appearance and general design of the website; 'Merchandise Variety', concerning quantity, quality, and novelty of the product assortment offered by the online retailer; and 'Web Security/Certification' relating to the safety mechanisms and guarantees of the website. Other approaches have relied on a distinction between the 'General (operational) Elements' of websites and 'Marketing Mix' elements. Generic elements concern website appearance, ease of navigation, compatibility with consumer technology, level of performance of search functions, availability and relevance of links, accuracy, and reliability of information, and also customization possibilities. Marketing elements involve elements related to the products (e.g. assortment, completeness of product description, etc.); the prices (e.g. competitiveness, flexibility, payment options); location (e.g. delivery time, geographic coverage, etc.); promotion (e.g. communication, special

offers and/or benefits to users, etc.); processes (e.g. customization possibilities, ease of use, etc.); people (e.g. online support, possibilities of interaction with sales members or other peer or referral groups) and physical evidence (information and clues that help customer in assessing the quality and functionality of items, such as brand elements, pictures, etc.) [10].

When putting into perspective traditional and online shopping, research results have supported that some characteristics and drivers of consumption are specific to online shoppers [9]. For online settings authors have highlighted the existence of: ‘*e-window shoppers*’, as that are mostly attired by website uniqueness’s and the possibility of browsing across interesting pages; ‘*interactive shoppers*’, as those that search for particularly customized online services and possibilities for discounts; and ‘*risk-averse shoppers*’ that are more prone for shopping in physical stores, and exhibit very demanding requirements in what concerns website safety and guarantees. Other identified online behaviours include ‘*apathetic shoppers*’ that have relatively weak motivation for online purchase and pay very modest attention to online attributes; ‘*shopping enthusiasts*’ that, on the contrary, are highly motivated for online shopping and pay attention to a wide range of website attributes; ‘*destination shoppers*’ as consumers concerned with following the latest trends, whom appreciate variety and novelty, and are very attentive for website design and attractiveness; ‘*basic shoppers*’ that are essentially driven by shopping convenience elements, and ‘*bargain seekers*’ as those who are more practice in online information browsing about products and price opportunities. The variety of elements affecting customers’ engagement and motivation for online shopping include also: customer personal characteristics, such as level of education and degree of experience and familiarity with online systems [11], customers’ economic and purchasing power [12], customers’ orientation towards novelty and experimentation [13, 14] and customer’s attentiveness to price and quality of service delivery [15]. Some interesting insights have also emerged from empirical evidence suggesting that online shoppers are less price and brand conscious and more prone to be influenced by promotions and direct marketing actions [12].

2.2 *Understanding Utilitarian Versus Hedonic Consumption*

Regardless of the differences between online and offline purchase determinants that research has been unveiling, there is extensive knowledge about customer behaviour that must be acknowledged regardless of the type of service channels. This is the case of what we know about two fundamentally distinct types of purchasing behaviour: hedonic consumption, related to a demand for multisensorial, fantasy dimensions, and to the emotional elements in a purchasing experience; and utilitarian consumption, more associated with a rational pursuit for a concrete objective [16, 17]. The motivations for hedonic consumption include the search for sensations, and the escape from reality [17], for which it is more linked to products and services with more subjective purposes, oriented towards the search of emotions, like in the case

of music, theatre and sports [18]. Nevertheless, some common goods can also be purchased with hedonic motivations, such as the case of wine consumption that can involve fantasy and multisensorial elements, beyond taste and appearance [19]. Utilitarian consumption is usually associate to a more rational consumer attitude, translating into more efficient purchase practices, like the need to save time and resources, the preferences for fast and non-lengthy purchasing processes [20].

Hedonic consumption is, generally, very tightly linked with brand or store communication, and for this reason, in online setting elements related to the visual and sensorial virtual shopping environment will be more important to motivate this type of purchase. In the case of utilitarian purposes, relevant shopping determinants will be related to rational elements such as price information and amount of shopping and delivery alternatives.

3 Methodology

This study was driven by the purpose of investigating whether online retailers are aligning distinct website elements (e.g. information) with specific consumption characteristics across product categories. Notably, we aimed to explore if there were differences in the nature of online attributes displayed for hedonic and utilitarian goods. To this end, the study built on the literature to identify the array of website elements and attributes that would be relevant to analyse empirically across online retailers. Subscribing to some of the aforementioned research results [10], the study identified a list of attributes to be analysed in the websites of selected online retailers distinguishing among ‘General Elements’—Webpage appearance, Written Content and Ease of Navigation—and ‘Marketing Mix’ elements—those related to Product, Price, Location, Promotion, People and Processes (Table 1).

The study addressed a sample of the largest international online retailers, selected from the ranking ‘E-commerce Retail List 2016’—Amazon, Walmart and Best Buy. By focusing on large established retailers, the study aimed at being able to access a homogeneous sample of e-retailers whose practices were likely to be relevant, up-to-date and competitive. Given the extensive array of items carried by the selected retailers, and given the exploratory nature of the study, the empirical investigation was then further focused on the analysis of a subset of products, i.e. consumer electronics, that was considered to be relevant to a large volume of demanding consumers, and whose acknowledged competitiveness offered a reliable base for the researchers to get in contact with up-to-date and practices of online communication and service. Aligned with the purpose of the study, the sample specifically included a category of utilitarian products, whose purchases are often motivated for professional utilization—i.e. laptop computers—and a category of hedonic products—i.e. game consoles—that are to a large extent purchased for utilization in leisure contexts. For each product category, the selected sample of items was driven by criteria related to the volume, variety and product age in the market. To this end, the researchers firstly collected information from the online retailers about the number of models available for each brand from

Table 1 List of attributes for data collection and analysis in online retailers' product pages

General elements	Page appearance
	Number of available product pictures
	Style of product pictures
	Presence of videos about the product (Y/N)
	Title/designation of product page
	Written content
	Language style (subjective/with adjectives; objective/rational; mixed)
	Navigation elements
	Internal links
	Social presence (Y/N)
Marketing mix elements	Product
	Product customization (Y/N)
	Product availability information (Y/N)
	Additional guarantees (Y/N)
	Product comparison (Y/N)
	Price
	Discounts (Y/N)
	Payment alternatives (Y/N)
	Placement
	Delivery options (Y/N)
	Delivery package options (Y/N)
	Promotion
	Special offers (Y/N)
	Online promotions (Y/N)
	Benefits to users (Y/N)
	People and Processes
	User support (Y/N)
Online assistance (Y/N)	
Products reviews (Y/N)	
Website feedback (Y/N)	

the variable array of laptops and console brands, in order to select the most representative international sales leaders. Next, the researchers resorted to the websites of the specifics selected brands (e.g. Apple, Intel, etc.) to include in the sample of the most recent products launched in the market. This procedure resulted in a sample of 78 distinct products whose online retailers' pages where than accessed to collecting formation about the nature and the characteristics of the present e-shopping attributes.

4 Discussion and Overview of Study Findings

The empirical study addressed the analysis of a sample of 78 items from two distinct categories of consumer electronics products—computer laptops and game consoles—collected from the online product pages of three of the largest online retailers (Table 2).

The analysis of differences in the volume and nature of the website information and attributes (as listed in Table 1) in the products' webpages supported the existence of remarkable differences across their two distinct categories of hedonic and utilitarian products. Among the most salient differences, one can cite the consistent superiority in the number of words used to describe utilitarian products, as compared to hedonic items (mean difference of 12.328 (Sig 0.000)). A typical page description for a laptop product would include upfront detailed information about the product specifications (e.g. '2016 Newest Toshiba Satellite Radius 2-in-1 15.6' 4 K Ultra HD Touchscreen Flagship Laptop, Intel Core i7-6500U Mobile Processor, 12 GB Memory, 1 TB Hard Drive, Webcam, WIFI, Bluetooth, Windows 10), whereas the title of Game Consoles pages where consistently succinct and evidencing distinctive performance qualities and adjectives (e.g. Wii U Mario Kart 8 and Nintendoland 32 GB Deluxe bundle). These results were consistent across the tree retailers considered in the sample (see Table 3).

Table 2 Summary of data sample

R-retailer	No. of product pages
Amazon	31
Best buy	21
Walmart	26

Table 3 Average number of word in product page titles/descriptions for hedonic versus utilitarian products

R-retailer	Average number of words in title/page description	
	Game consoles	Computer laptops
Amazon	7	21
Best buy	8	21
Walmart	9	18

Table 4 Difference (avg. nr.) in the type of pictures displayed to illustrate hedonic versus utilitarian products

	Hedonic	Utilitarian
Product photos	5	55
Product utilization photos	17	1

Likewise, differences were found for the number and style of the pictures provided for each category of products. A superior number of photos were, in general, present for utilitarian products, together with a stronger dispersion in the distribution of the observed number of photos for this category of products. These results can, to some extent, be explained by the fact that some of the considered utilitarian products can have in some circumstances be subject to hedonic purchase behaviour, in line with what was also remarked in the literature [19]. Differences were also present in the style of the pictures offered for the two types of products. Whereas the average number of photos was superior for utilitarian items, as aforementioned, the style of the photos evidenced differences of other nature: hedonic products were accompanied by a superior number of photos suggesting scenarios related to the product utilization (e.g. presenting consumers engaged in fun and enjoyment of the consoles), while utilitarian photos, although abundant were typically devoted to display the products or product technical and functional details (see Table 4).

Overall, the exploratory findings suggest that e-retailers are aligning their online attributes with prevalent knowledge about customer behaviour, suggesting that regardless of e-shoppers specificities, some of what we have learned about determinants of purchasing behaviour, can be applied to systematically design online service systems.

5 Conclusions

The expansion of online consumption has allowed for unprecedented opportunities for companies to expand the reach of their services, as well as to achieve superior levels of quality building on increased opportunities to improve consumer convenience, and richness of service information among other benefits. Nevertheless, and despite the continuous growth in the adoption of online services, multiple empirical and research results have been showing that the performance of the online channels can be very heterogeneous depending on the characteristics of the products and services to be delivered [21]. Therefore, the managerial implications of such research results have been indicating that specification of online services and in particular the setup of the characteristics and functionalities of online service and shopping interfaces needs to take into account the specific characteristics, and differences of the various products. This study adds to this body of knowledge by exploring how the nature of consumption behaviours also needs to be taken into account when setting up service sales and delivery channels. This study explores the nature of utilitarian versus hedonic consumption processes in online settings, and discusses the differentiation

that is needed to setup corresponding services processes and outcomes. The study offers evidence on the need to deploy adequate differentiated information and online service process attributes to meet customer requirements for utilitarian and hedonic shopping motivations.

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