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## First impressions count: exploring the importance of website categorisation

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**Abstract:** Grounded in categorisation theory, this exploratory research provides insights regarding how consumers initially perceive websites – as images rather than ‘clickable’ interfaces. According to this view, at first glance, consumers categorise websites with respect to some set of attributes, much as they categorise products or retailscapes. Similarity judgements are gathered from survey data using the Multidimensional Scaling (MDS) technique. Results show four salient attributes – uniqueness, educational value, personalisation, and trustworthiness. The main substantive contribution of this paper is the application of perceptual mapping to study and categorise static websites, and the finding that the non-dynamic attributes of uniqueness, educational value, personalisation, and trustworthiness are as important with i-branding as with retail branding. A methodological novelty is that rather than relying on consumer self-report regarding attributes of the websites, the present research utilises similarity scaling technique to capture website perceptions through indirect measures.

**Keywords:** e-tail; MDS; multidimensional scaling; website design; perceptual mapping; categorisation theory; online trust.

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**Biographical notes:** Anjala S. Krishen graduated from Rice University in 1990 with a BS in Electrical Engineering. From 1990 to 2003 (13 years), she worked full-time in Information Technology positions, and completed her MBA part-time in 1996. She completed her MS in Marketing in 2004 and her PhD in Marketing, from Virginia Tech, in May of 2007. Beginning in fall 2007, she joined University of Nevada, Las Vegas as an Assistant Professor of Marketing. Her research has appeared in journals such as *European Journal of Marketing*, *Journal of Advertising Research*, *Journal of Business Research*, and *Journal of Current Issues and Research in Advertising*.

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### 1 Introduction

Shopping on the internet is like walking through an endless mall. E-commerce websites have the perpetual challenge of differentiating themselves above the hoards of information consumers confront during their internet travels. One of the key foundations of this research effort is to deactivate the internet, an otherwise interactive medium. Recent research confirms the idea that interactivity on websites increases important consumer measures such as website liking and perceived entertainment (Reppel and Szmigin, 2010). Also, Chakraborty et al. (2003) define both transaction-related and nontransaction-related interactivity, and find that consumers rate the latter with higher importance than the former, in terms of website design. However, the implementation of this interactivity comes at a price – consumers must want to actively engage and must have ample computing resources to do so. The first few seconds of viewing a website are therefore critical for gaining a consumer’s attention, and establishing a virtual store presence which is consistent

with the consumer’s brand image for the online site (Halliburton and Ziegfeld, 2009). Consumers categorise or position brands based on multiple factors, often seeing them in groups or constellations (Lange, 2005), and in a similar fashion, when they gather initial impressions of websites, they categorise or position those also. Therefore, the goal of this research is to gain insight as to how consumers initially view websites – as images rather than ‘clickable’ interfaces. Inasmuch as consumers make rapid brand judgements when they view a static advertisement, they also categorise websites according to some basic set of attributes, at first glance. Those attributes, if further understood, can help guide the understanding and deployment of ‘effective’ websites, from a consumer-centric viewpoint.

In a sense, approaching websites from a perceptual mapping perspective is similar to taking a more ‘soft science’ approach to internet research (Tapp and Hughes, 2008). The internet is a collection of images and snapshots, put together to create a sensory experience which should be no different than what consumers experience in the retail

environment. For this reason, the present research takes a step in a different direction, rather than studying websites from a clickstream approach (Moe and Fader, 2004), an indirect perceptual mapping method is used for classifying and understanding how consumers categorise websites. Researchers have applied this technique to study brand perceptions (Johnson, 1986) and show how consumers categorise various product classes. Here, for the first time, to our knowledge, MDS is applied to e-tail in a similar way.

The fields of human factors, advertising, information systems, and marketing have all focused on the interesting implications of the internet as an interactive environment. Additionally, literature suggests something entirely unique about e-marketing environments, namely the ability to have constant interaction with the consumer (Hoffman and Novak, 1996). Consumer choice and decision making drives much of the literature regarding how a consumer can interact with the internet (Mandel and Johnson, 2002). This present research posits that traditional interactive e-commerce research, by presenting the internet in its full interactive complexity, may not be able to capture the initial categorisations which consumers make. In line with this notion, Krishen and Kamra (2008) show that the perceived complexity of a website can lead to decreased satisfaction when subjects were asked to complete a fully interactive task. This finding could be enhanced with a priori knowledge of consumer categorisations for the initial static images associated with those websites. Hence, the major contribution of this study is to break down and attempt to ascertain first impressions of consumers by using static images as opposed to dynamic interactions.

The rest of the paper is organised as follows. The next section summarises categorisation theory as the basic theoretical framework of this study along with the accompanying relevant literature detailing how e-commerce, or e-tail, can be viewed as an extension of the retail environment. This section also discusses the relevance of trust in the e-tail environment and the importance of hedonic or 'feel' considerations when designing websites. Following this, we present an MDS experiment and detail the results. Finally, conclusions, implications, and limitations are provided.

## 2 Theoretical framework: categorisation theory

Although the foundations of cognitive categorisation are principally psychological, many other fields have employed it through the use of mathematical techniques. Broken down at the lowest level, people see or discuss 'things', which they must categorise, in order to control for chaos and cognitive boundaries (Smith and Medin, 1981). Categorisation of objects essentially helps people translate the 'physical' world into their own 'mental' database. Indicators of this categorisation also span the fields of anthropology and linguistics, such as studies of how classifications for even the most seemingly obvious categories, such as food groups, can vastly differ among

communities from various cultures (Tyler, 1969). At a visual level, individuals are able to see patterns, even when they are intermixed into other patterns. Cognitive psychology literature suggests that the role of memory in deriving representations is very relevant (Baddeley, 2003). This again points to the idea that individuals tie their physical and mental worlds together by classifying external objects, locating similar objects in their mental databases, entering new ones where they fit, and forming perceptual data with which they can then react.

From a social psychological perspective, people invoke schemas, or cognitive molecules that allow them to interpret and react to events as they unfold. Schemas can guide the way a visual image is seen, based on the concepts of assimilation, i.e. altering incoming data to fit the category in the mind, or accommodation, i.e. adaptation of the internal world to the evidence with which it is confronted. Thus, we propose that, based on social cognitive theory, situational information regarding the website domain should guide the consumer categorisation of its static image.

Given the concepts of schemas and categorisations, it is logical to imagine that a consumer would base his expectations of an e-tail experience on those he has already encountered in the retail environment. Morales et al. (2005) find that consumers experience higher perceived variety and satisfaction when their internal category structure matches that of a retailer for their products of choice. Very possibly, the e-tail boom is a further extension of the wheel of retailing. Hence it is important to remember that whereas e-tail presents new and different advantages and challenges for consumers, it is still a shopping environment, and one that will always be compared and contrasted with its predecessor, retail. This fact is an important facet of the present research.

### 2.1 E-tail and the importance of trust

Trusting an e-commerce website is an overriding issue governing whether consumers will want to transact with that website (Schibrowsky et al., 2007). For example, Poddar et al. (2009) discuss the relationship consumers' form with brands as similar to their relationships with websites. Thus, just as it is important for brands to have personalities, Poddar et al. (2009) outline ways in which websites should have personalities and discuss the important characteristics of them. Among these characteristics, they identify reliability, truthfulness, and trustworthiness as important dimensions of website personality.

Thus for some consumers, shopping on the internet is riddled with many of the same problems and difficulties as shopping at a retail location. For example, whereas consumer privacy and security are considered two of the biggest hindrances to shopping on the internet (Schaupp and Belanger, 2005), many could argue that consumers have similar concerns even when shopping at retail outlets because of being faced with pushy salespeople as they make their purchases. Along these lines, convenience has been cited as the foremost motivation for e-tail shopping

(Schaupp and Belanger, 2005), because of 24 hour access, no travelling time, and access of specialised products (Wolfenbarger and Gilly, 2001), among other reasons. One could argue, though, that retail is more convenient than e-tail if the consumer's goal is immediate gratification or guaranteed product delivery. On the other hand, technological advances in the e-commerce environment are allowing for adaptive websites (Krishen and Nakamoto, 2009), tailored web portal offerings (Kanellopoulos, 2008), service-oriented architecture (Baghdadi, 2012), ubiquitous learning (Barbosa et al., 2013), and optimised product choice sets (Kheirandish et al., 2009). Again, there are differences between retail and e-tail but the similarities are important and very relevant to successful consumer e-tail experiences. The basic premise of the present study is that, just as perceptual mapping shows how consumers categorise products or retail environments as they walk through a store, this method can be applied to a consumer's view of a stagnant website to assess its salient characteristics.

## 2.2 Website design and hedonic considerations

Extant literature discusses the importance of both practical features (functional or utilitarian requirements) and affective features (feel-oriented or hedonic elements) of websites (Childers et al., 2001). The personalisation of an e-tail shopping experience is a major hedonic website design consideration for many firms (Molesworth and Suortti, 2002). In multiple empirical studies, consumers demonstrate their increased likelihood of making purchases or continuing interaction with a website because of increased personalisation or e-tail atmospherics (Parsons and Conroy, 2006), and personalised e-mails make a similar impact (Shishibori et al., 2011). Further, the ability to design websites which adapt to current consumer needs by tailoring offerings is becoming increasingly important given the proliferation of e-commerce (Sharma and Gupta, 2012).

In particular, Babin et al. (1994) identify two types of consequences consumers can gather from a shopping experience, hedonic and utilitarian shopping value. Further research into these constructs shows that both types of shopping value contribute to overall satisfaction with the shopping experience (Jones et al., 2006). In terms of websites, product types can be utilitarian or hedonic (Krishen and Kamra, 2008), consumer goals can be utilitarian or hedonic (Park and Mowen, 2007), and website design can be utilitarian or hedonic. Since the present research is focused on initial categorisations of websites, we focus on website design characteristics and chose two product types for generalisability. Therefore, we provide consumers with both functionality-oriented (such as navigability) and feel-oriented (such as friendliness) attributes when having them view website images to assess their perceptual dimensions.

## 2.3 Consumer categorisation of websites with MDS

Similarity scaling and cognitive process model determination via multidimensional scaling, at its roots, claims that "... subjects learn to associate a unique response with each member of a set of stimuli" (Nosofsky, 1992). MDS theory postulates that similarity judgements are based on rapid judgement and comparison of stimuli. These judgements can then be mathematically processed to derive the perceptual mapping of the stimuli for each individual and then collectively, and is also known as similarity space (Ashby and Perrin, 1988).

When consumers are asked to perform similarity tasks vs. choice tasks, though related, consumers do not necessarily follow the same method. However, the processing involved in making similarity comparisons and simplifying decision making have been identified as overlapping in many ways (Medin et al., 1995). Similarity has been studied in relation to features within categories (Tversky, 1977) as well as in relation to decision making. Tversky (1977) notes a difference in the representations of similarity and dissimilarity, namely that similarity can be represented by points in coordinate space whereas dissimilarity can be represented by metric distance.

## 3 Empirical study

The aim of this research is to extract the average mental model of users for the various website images presented. Using the principles of MDS, the mathematical manifold dimension(s) that the websites reside in are extracted. This manifold is created in terms of relative metric distances that the websites have with each other (Kruskal and Wish, 1984). This information is ascertained from a survey which is designed to unfold this metric manifold space. The input to the MDS algorithm to calculate the dimensions of the perceptual space is in terms of a distance matrix that shows the symmetric distances between any website and any other website from the data set. The reason for performing this analysis is to understand how consumers categorise websites, even when they are from different product domains. The result of this analysis shows the dimensionality of the space without showing what the meaning of the dimension variables are. In order to find out the meaning of the dimensions identified, the attributes presented in Table 2 are used to query the subjects and ascertain their perceived ratings. Finally, the key attributes are spanned in the finite dimensional space obtained from the first stage of the MDS analysis, using regression analysis. These attribute vectors can allow explanation of a meaningful basis for the consumer perceptual space.

Thus, the research goal of this paper is to apply the perceptual mapping technique of multidimensional scaling to the concept of e-tail by having consumers do similarity comparisons of stagnant website images.

### 3.1 Participants and procedure

Multidimensional scaling is conducted in a within-subject setting, thus data was collected in small groups of approximately ten students at a time, drawn from a pool. Each subject viewed all of the websites in randomised order. In total, 67 business students (mean age = 26.4) of all levels participated in the study by completing a two part survey. A convenience sample of various levels of student subjects is considered a realistic sample population since college students have ample internet experience and can therefore represent typical e-tail shoppers (Mady, 2011; Geissler et al., 2006). Due to the subject matter of this study, namely internet websites, and the experience level of the participants, this is considered a homogeneous sample. Given a total of ten websites (listed in Table 1 and shown in Figure 1), part 1 of the study design required a set of 45 paired similarity/dissimilarity judgements. Two context areas, cameras and tourism, were selected, within which we selected five websites each. Figure 1 depicts pictures

of the ten websites which were displayed to the subjects (full screen versions).

**Table 1** Websites presented

Website description	Abbreviation
Adorama Camera	CAD
Ritz Camera	CRI
Canon Camera	CCA
Nikon	CNI
Sony	CSO
Washington	TWA
Wisconsin	TWI
Ohio	TOH
Iowa	TIO
West Virginia	TWV

**Figure 1** Websites presented (see online version for colours)

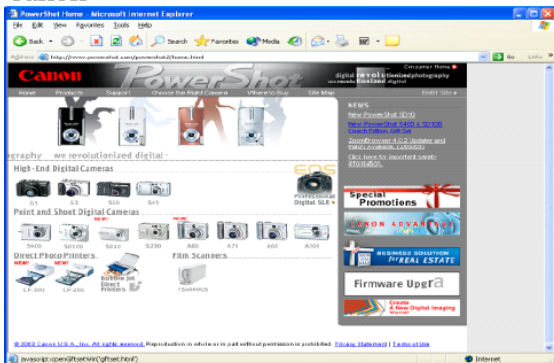
#### Adorama Camera



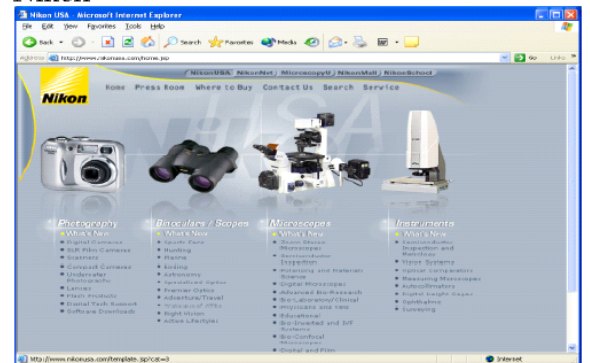
#### Ritz Camera



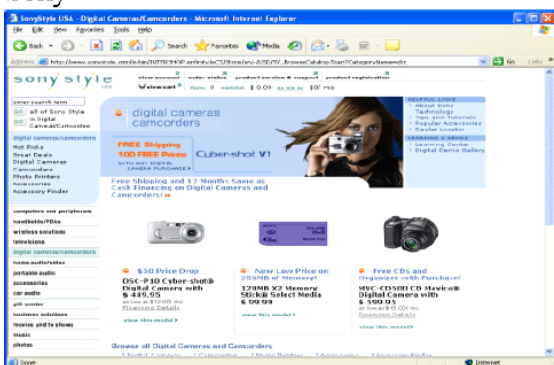
#### Canon



#### Nikon



#### Sony



#### Washington

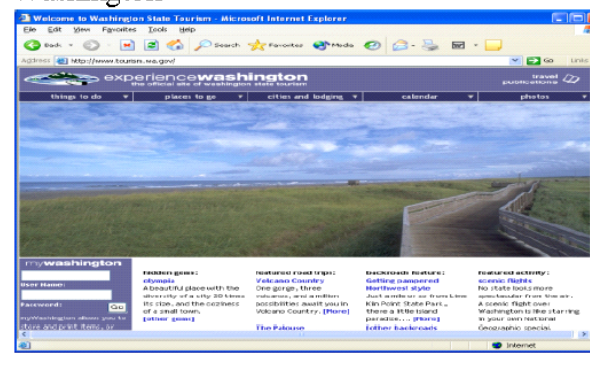
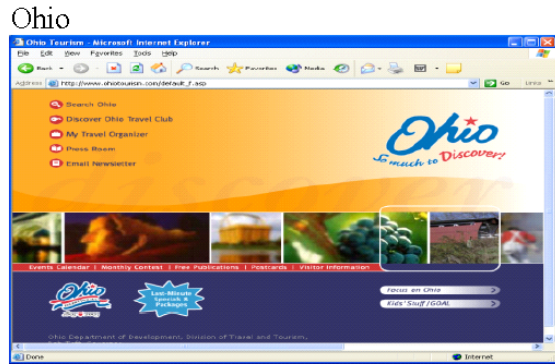
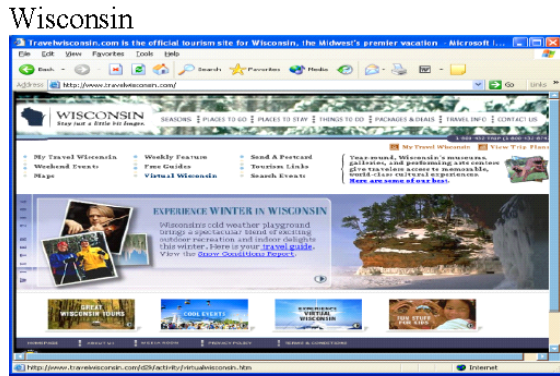


Figure 1 Websites presented (see online version for colours) (continued)



The present research conjectures that the participants in this study had approximately equal exposure to these two context areas and thus would not show significant experience or gender bias. The ratings were given from 0 to 10 with 10 being the most similar and 0 being the most dissimilar. Since ALSCAL and INDSCAL algorithms expect dissimilarity measures, the results were converted into dissimilarity measures before being entered into a matrix.

Following this, during part 2 of the study, the subjects were presented with individual pictures of each of the websites and asked to rate each of them on the attributes given in Table 2. These attributes were chosen based on existing literature and confirmed as important website characteristics in a simple pretest.

Table 2 Key attributes for perceptual mapping

Description	Abbreviation
Navigable	NAV
Interactive	INT
Credible	CRE
Informative	INF
Organised	ORG
Personalised	PER
Responsive	RES
Customised	CUS
Complex	COM
Friendly	FRI
Recognisable	REC
Popular	POP

Table 2 Key attributes for perceptual mapping (continued)

Description	Abbreviation
Exciting	EXC
Stylish	STY
Unique	UNQ
Trustworthy	TRU
Fast	FAS
Reliable	REL
Clear	CLE
Educational	EDU

### 3.2 Results

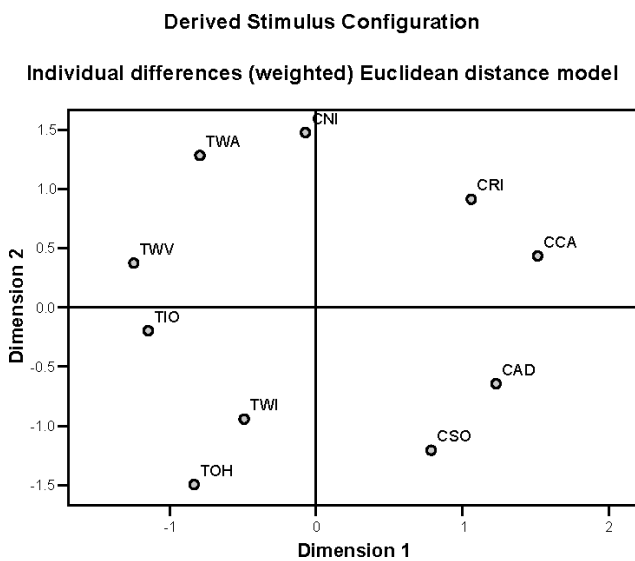
As a first step, summary statistics were calculated for all 45 of the similarity mappings. It is important to note that the standard deviations for the rating measures from the 67 participants were less than 3, and therefore, the means can be considered for the initial part of our data analysis. The data for all 67 subjects was summarised using means into a dissimilarity matrix which is given in Table 3. ALSCAL in SPSS was then performed on this matrix, to determine the stimulus configuration in Euclidean distance for the aggregate data. The resultant model is provided in Figure 2.

The next step was to calculate individual weights and determine if there were clusters among the subjects. The INDSCAL procedure in SPSS was used for this portion of the study, and separate dissimilarity matrices for all 67 subjects were input into this program. Figure 2 shows the individual stimulus configuration model and Figure 3 shows the individual weighted Euclidean distances model.

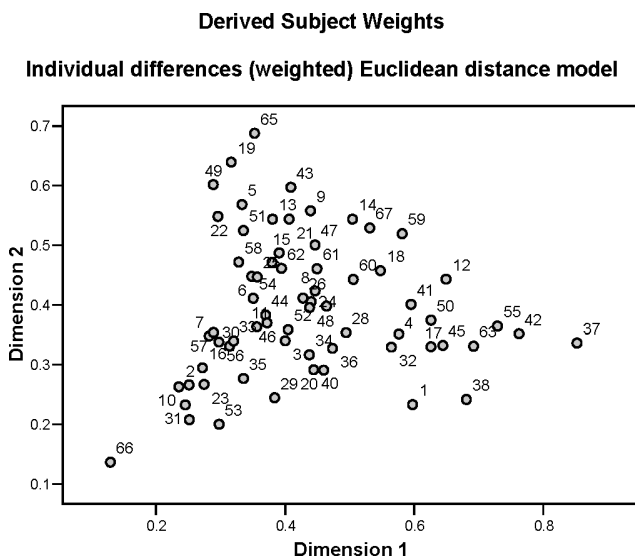
**Table 3** Aggregate dissimilarity matrix

	<i>CAD</i>	<i>CRI</i>	<i>CCA</i>	<i>CNI</i>	<i>CSO</i>	<i>TWA</i>	<i>TWI</i>	<i>TOH</i>	<i>TIO</i>	<i>TWV</i>
<i>CAD</i>	0.0000	–	–	–	–	–	–	–	–	–
<i>CRI</i>	5.9900	0.0000	–	–	–	–	–	–	–	–
<i>CCA</i>	6.8200	4.8400	0.0000	–	–	–	–	–	–	–
<i>CNI</i>	6.1800	5.0900	6.0300	0.0000	–	–	–	–	–	–
<i>CSO</i>	6.0100	5.8100	5.5700	7.1500	0.0000	–	–	–	–	–
<i>TWA</i>	6.9700	6.4800	7.0100	5.2800	6.1800	0.0000	–	–	–	–
<i>TWI</i>	5.6700	5.6400	6.2700	5.6700	5.7200	6.1200	0.0000	–	–	–
<i>TOH</i>	7.2100	7.1900	7.1800	6.4900	6.4800	6.4900	5.4800	0.0000	–	–
<i>TIO</i>	6.0700	5.6100	6.8200	6.0400	5.9100	5.7500	5.1900	5.8400	0.0000	–
<i>TWV</i>	6.2100	5.6700	6.9200	6.1900	6.0600	6.0000	5.3700	6.3400	5.6400	0.0000

**Figure 2** Individual derived stimulus configuration



**Figure 3** Individual weighted model



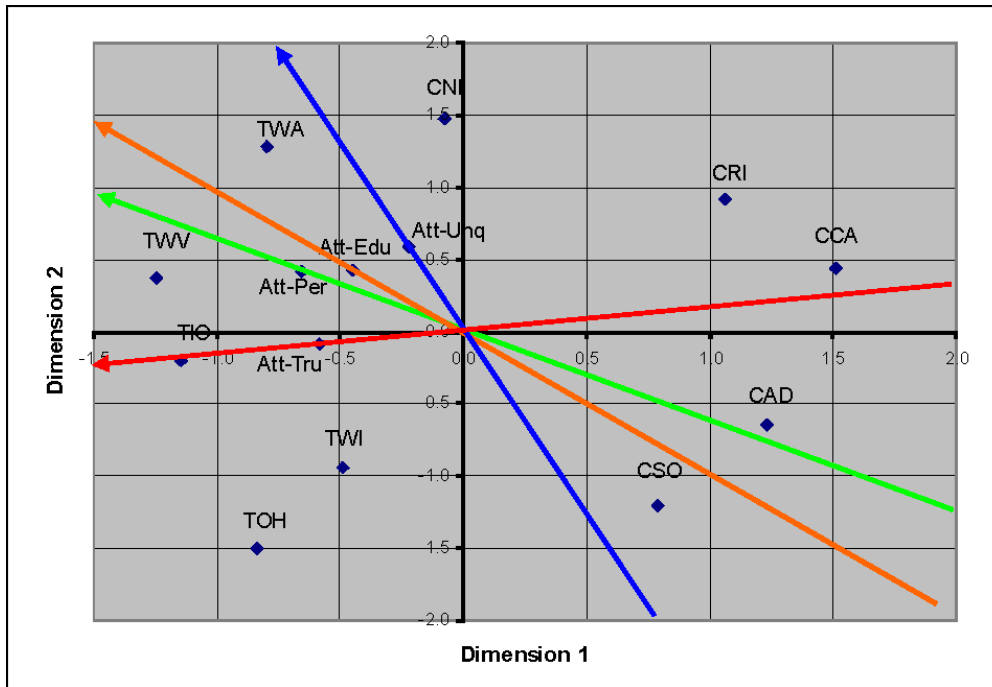
The results of the two INDSCAL outputs show that there are not multiple clusters of subjects in terms of the

dimensions. Note that the relative positioning of the various websites on the two dimensional manifold obtained by the two programs is similar. Of course, relative distance is invariant to transformations like rotations, mirror imaging etc. The 20 attributes were then regressed against the dimensional values for each stimulus which are plotted in Figure 4. Regression of each of the attribute mean values against the two dimensions yielded the data values given in Table 4. The highest R2 values and lowest significance values were given by the PER (personalised), UNQ (unique), TRU (trustworthy), and EDU (educational) attributes.

**Table 4** Attribute regression values

<i>Attribute</i>	<i>Dim 1</i>	<i>Dim 2</i>	<i>R squared</i>	<i>Significance</i>
<i>NAV</i>	-0.0060	-0.1800	0.0320	0.8910
<i>INT</i>	-0.1770	-0.0580	0.0350	0.8820
<i>CRE</i>	-0.3100	-0.1710	0.1280	0.6190
<i>INF</i>	-0.0650	0.0030	0.0040	0.9850
<i>ORG</i>	-0.2410	0.1090	0.0690	0.7790
<i>PER</i>	-0.6550	0.4130	0.5870	0.0450
<i>RES</i>	-0.3950	-0.2260	0.2120	0.4350
<i>CUS</i>	-0.0190	0.1480	0.0220	0.9250
<i>COM</i>	0.3820	-0.2230	0.1920	0.4750
<i>FRI</i>	-0.2590	0.4560	0.2690	0.3330
<i>REC</i>	0.0340	0.1410	0.0210	0.9280
<i>POP</i>	-0.0100	-0.2540	0.0650	0.7910
<i>EXC</i>	-0.0750	0.5760	0.3360	0.2390
<i>STY</i>	-0.2620	0.4240	0.2440	0.3760
<i>UNQ</i>	-0.2230	0.5840	0.3850	0.1820
<i>TRU</i>	-0.5810	-0.0880	0.3480	0.2240
<i>FAS</i>	-0.2950	-0.1710	0.1190	0.6420
<i>REL</i>	-0.4610	0.0230	0.2120	0.4340
<i>CLE</i>	-0.3100	0.2270	0.1450	0.5790
<i>EDU</i>	-0.4470	0.4260	0.3720	0.1960

**Figure 4** Attributes inlaid against dimensions (see online version for colours)



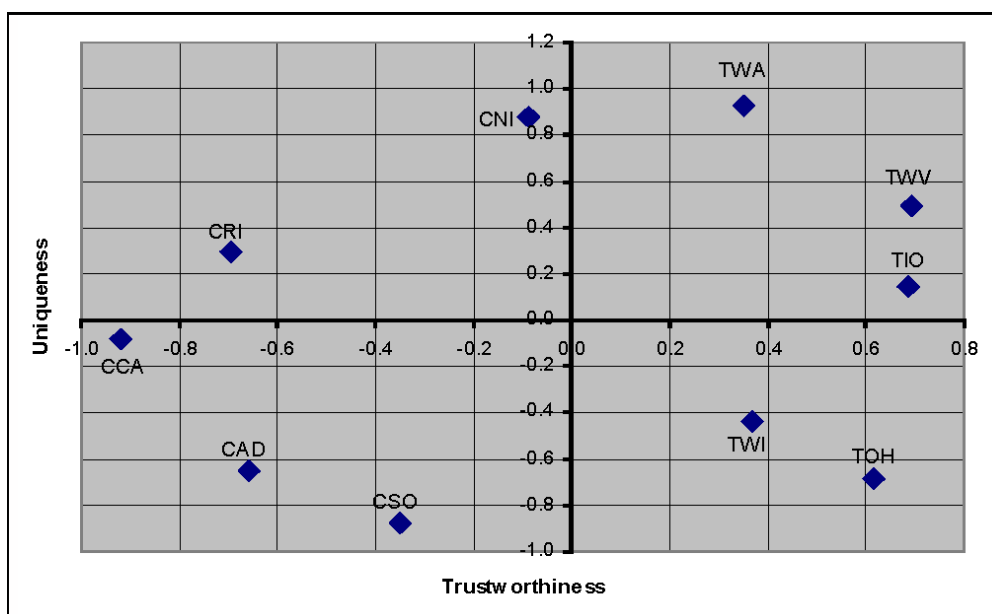
**3.3 Discussion**

The three steps completed during the analysis phase of this study, namely ALSCAL, INDSCAL, and preference mapping, allow for determination of four possible attributes which can explain the dimensionality of the derived stimulus configuration. In order to visually examine the resultant vectors, these four attributes are plotted as given in Figure 4.

Studying this plot indicates that *uniqueness* and *trustworthiness* show the closest match to two possible representative dimensions for the model. Interestingly, there

is clearly a product-domain clustering of the websites on two different sides of the uniqueness vector, i.e. the ‘C’ or camera websites on one side and the ‘T’ or tourism websites on the other. The concept of *uniqueness* as a representation of this dimension, therefore, is intuitive. The remaining three vectors, classifying the website images as *trustworthy*, *personalised*, or *educational*, are all considered as possible attributes for the second dimension. *Trustworthiness* is chosen as the second dimension mainly based on its geographic representation; further elaboration of this result follows (Figure 5).

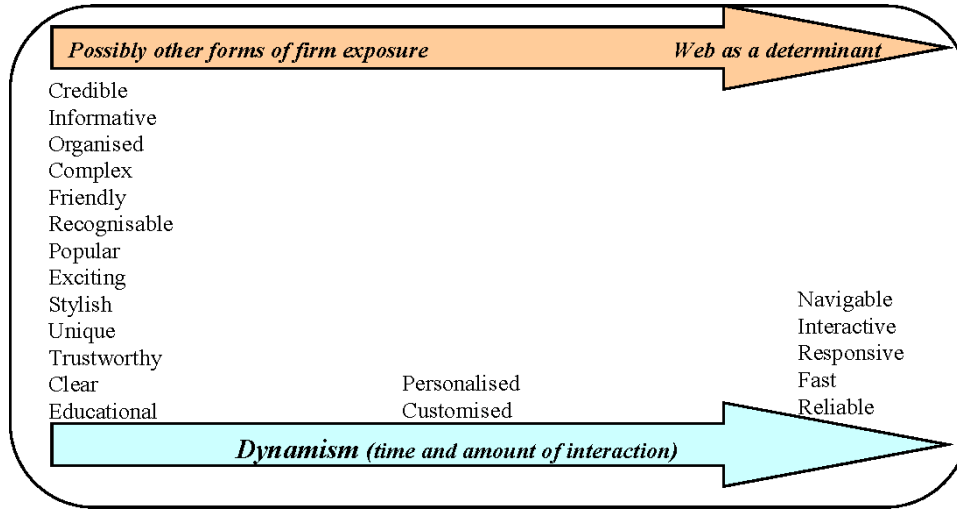
**Figure 5** Trustworthiness vs. uniqueness per stimulus (see online version for colours)



There are several possible interesting implications when thinking of these two attributes as the key dimensions. The discussion given previously on e-tailer trust as a key factor for internet shopping makes this result very fitting. As given in Table 2, one of the interesting facets of the attributes chosen is their interpretation if viewed in terms of

temporal significance, or what can be termed *dynamism*. Figure 6 provides a graphic view of the attributes if mapped in this conceptual ‘static vs. dynamic’ framework. Essentially, this paper asks the question, “Does the consumer have to interact with the website in order to gather initial information about trust?”

Figure 6 Consumer attribute dynamism orientation (see online version for colours)



Interestingly, all four of the attributes which are charted in Figure 4 do not have to be defined in a dynamic framework (shown by being placed on the left side of Figure 6 and indicated by the lower arrow). In addition to this mapping of attributes, this research also identifies the attributes in terms of whether ratings on these can be determined purely through the internet or internet images or be influenced by outside notions of the business itself.

The idea of static vs. dynamic dependence of attributes can be elaborated when this dependence on time is understood from a mathematical perspective. Assume that a variable is a function of another variable. This relationship can be shown in equation (1), where the independent variable, in turn is a function of time.

$$y(t) = f(x(t)). \tag{1}$$

This equation is a representation of a static relationship. The reason for this is that to determine  $y$  at a given time  $t_0$  we only need to know the value of  $x$  at that time. A dynamic relationship is one in which the value of  $y$  at a given time is not only a function of  $x$  at the given time but also depends on values of  $x$  at other times. Now, it is known that a derivative of a variable with respect to time can be approximated by the quotient of difference of the variable at two different times and the difference in those two time values. Therefore, if a function depends on  $x$  and its derivative, then it implies that the variable  $y$  has a dynamic relationship with  $x$ . This is shown in equation (2) as follows:

$$y(t) = f\left(x(t), \frac{dx(t)}{dt}\right). \tag{2}$$

In general,  $y$  could depend not only on  $x$  or its first derivative with respect to time but also on higher derivatives, which would imply a higher ‘dynamic’ relationship.

Two attributes are chosen to become the principal axes so that the perceptual distances can be presented in some meaningful context. Next two directions that were not close to each other had to be chosen and uniqueness and trustworthiness were chosen, since they were the closest to having an angle of 90 degrees (see Figure 4) with each other and at the same time showed statistical significance for regression equations that were used to get the directions. This allows for the analysis to be complete.

The representation of the plane in terms of these two new axes was done by noting the following relationship in equation (3) between the Dimension 1 and Dimension 2 (in Figure 5) with respect to uniqueness and trustworthiness.

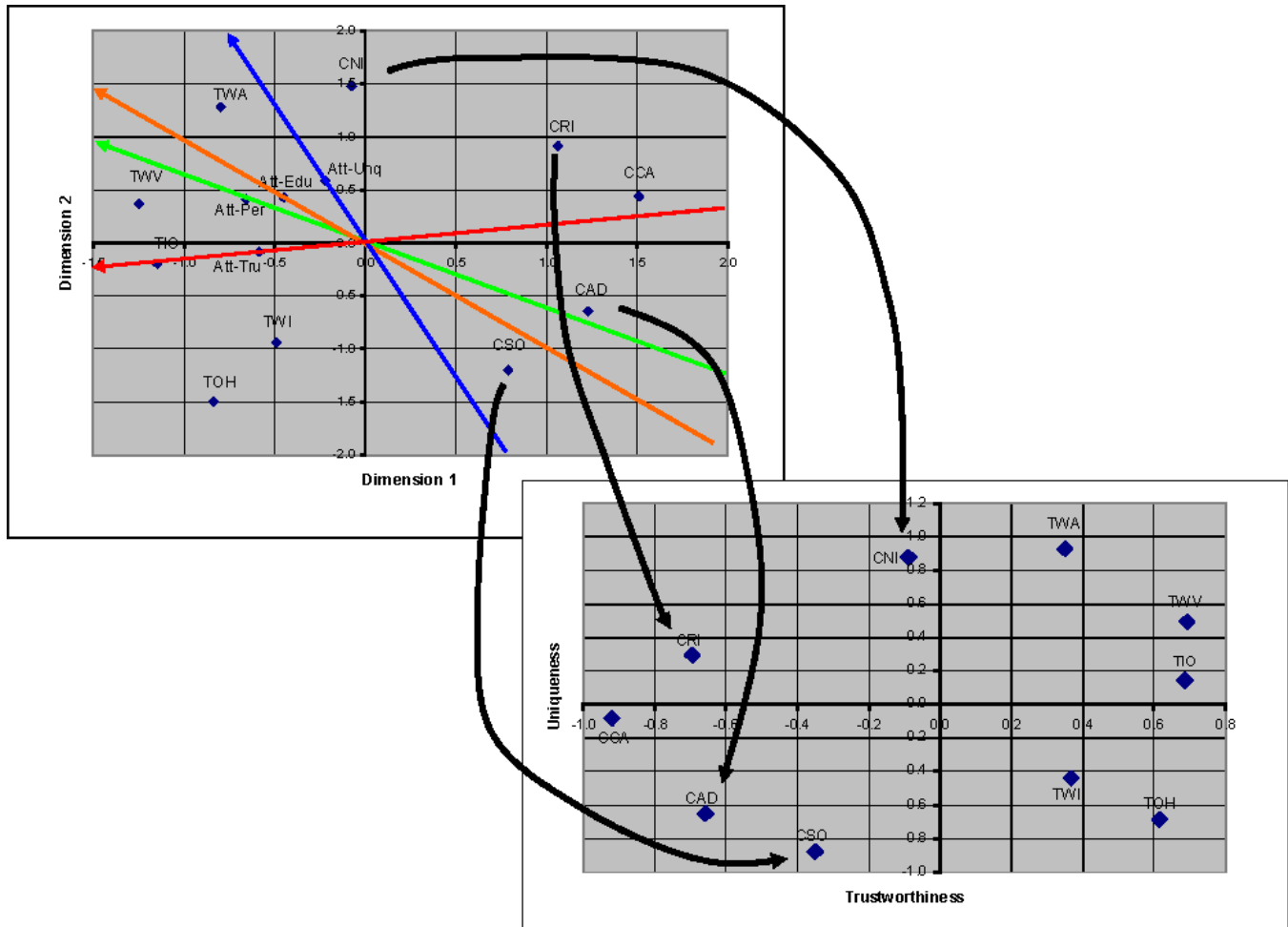
$$\begin{aligned} \text{Trustworthiness} &= -0.581 \text{ Dimension 1} - 0.088 \text{ Dimension 2} \\ \text{Uniqueness} &= -0.223 \text{ Dimension 1} + 0.584 \text{ Dimension 2}. \end{aligned} \tag{3}$$

This set of equations enables a mapping of vectors (or points) from the plane with Dimension1 and Dimension2 as the principal axes to the plane with trustworthiness and uniqueness as the principal axes. The operator that enables this transformation is given by the equation (4).

$$\begin{bmatrix} \text{Trustworthiness} \\ \text{Uniqueness} \end{bmatrix} = \begin{bmatrix} -0.581 & -0.088 \\ -0.223 & 0.584 \end{bmatrix} \begin{bmatrix} \text{Dimension 1} \\ \text{Dimension 2} \end{bmatrix}. \tag{4}$$

Now, any point in the first plane can be transformed to a point in the new plane by multiplying the vector by the matrix shown above. Samples of these transformations of points are illustrated in Figure 7.

**Figure 7** Transformation of attributes into axes (see online version for colours)



#### 4 Conclusion and implications

The quantitative analysis in this paper resulted in the finding of four salient attributes for click-free website impressions – uniqueness, educational value, personalisation, and trustworthiness. The implications of this study are that the internet, a normally interactive medium, can be frozen to allow consumers to categorise the images, and possibly use this information to help design functional (utilitarian) and feeling-based (hedonic) aspects of the website, or positioning strategies (Birtwistle and Tsim, 2005). Another application of this research lies in the vast arena of search engine site hits, i.e., the optimisation of key word densities on websites. More specifically, marketers can determine appropriate tags and key words to match the consumer cognitive categorisation of their website and increase consumer attention and attraction for the website (Bellizzi, 2000).

The main substantive contribution of this paper is the application of perceptual mapping to study and categorise static websites, and the finding that the non-dynamic attributes of uniqueness, educational value, personalisation, and trustworthiness are as important with i-branding as with retail branding. A methodological novelty is that rather than

relying on consumer self-report regarding attributes of the websites, the present research utilises similarity scaling technique to capture website perceptions through indirect measures. This, given that the website images are presented as a static interface for the present study, is an important and significant result. One may ask the question as to whether or not it is effective to freeze a website and assess a consumer's perception of it – or cognitive categorisation of it. The reasoning behind this study centres on what is seen as a very important facet of the internet as an advertising medium and the theoretical discussion provided earlier regarding categorisation theory and e-tail as an extension of retail. The fact that consumers constantly assess businesses using not only their websites, but also the entire picture they create of that firm justifies perceptual mapping as a viable technique of gathering initial consumer categorisations of websites. This assessment may consist of experience gleaned from other advertising media (television, magazines, newspapers, store presences, to name a few) as well as interaction with the website itself. Adding to this, research shows that positive consequences such as positive attitude towards a website (Mollen and Wilson, 2010) are more likely to occur when preceded by interactivity, telepresence, and engagement, all of which require

consumers to want to move past their initial static perception. But how does the consumer classify the website he or she interacts with? What motivates the consumer to interact with one website over another? The technique proposed in this paper allows for classification of key attributes consumers identify for websites at an initial, static, level.

Online trust has continually emerged as a very important consumer consideration in e-marketing research, and this concept is generally defined with three major components: expectation [dis]confirmation for the site, confidence in the site usability, and believability in the site information (Bart et al., 2005). A recent review of online trust literature suggests that online trust is an ongoing process which is related not only to consequences of interaction with the site such as perceived privacy and security, but also with early inferences regarding the site as may be gained from the website design (Urban et al., 2009). To foster and build trust over time, e-tail sites have the same challenge as their brick-and-mortar rivals; they must increase e-brand experience, familiarity, and satisfaction which will in turn increase e-brand trust (Ha and Perks, 2005). Trust in e-commerce websites can only develop if consumers feel that such environments are reliable and secure (Khong and Ren, 2007).

The importance of personalisation in webspace is echoed by the success of scores of websites such as Amazon.com and Nytimes.com, where they capture information regarding a consumer from previous interactions and then provide recommendations based on those (Sanchez et al., 2008). Personalisation has also been applied in IMC literature, with the general finding that, if done appropriately, it can lead to increased performance metrics for firms (Zahay and Griffin, 2003). The Perception-Experience-Memory (P-E-M) model of advertising claims that the role of emotions, feelings and affect are critical and that exposure to advertising is a process (Hall, 2002). A basic premise of the present research, which is confirmed by the P-E-M model, is that to encourage interaction with a website, e-tailers must first gain the consumer's perceptual attention. Once the consumer does engage in the website and begin the interaction process, findings show that increased interaction leads to trust development (Gupta et al., 2009).

As a limitation of this study, multidimensional scaling via similarity responses does have the inherent assumption of symmetry in responses (Tversky, 1977). However, due to the fact that we use images instead of words in our similarity modelling, we would posit that symmetry of judgement should be somewhat of a non-issue. This research can also be expanded by gathering non-student sample data and determining the categorisations of many other website domains and by furthering the idea of categorisations of websites with conclusive research methodology.

Finally, there are many possible venues for future research which can be pursued in the area of e-commerce and static categorisations. In particular, the impact of static categorisations of websites on i-branding is a very fruitful

area of future research (Simmons et al., 2010). Future research can take the findings of this paper regarding static website categorisations in various product and brand domains and determine their impact on perceived interactivity. Although static and dynamic qualities of websites are clearly fundamental to their overall quality, affective or emotional feelings generated by viewing them should also be explored (Park et al., 2008). Researchers continue to explore the drivers of successful websites or i-brands and identify metrics by which to measure their success (Belanger et al., 2006), so perhaps the present research offers the possibility of a simple first step in that direction.

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