The provision of delivery information online: a missed opportunity

Kelly Page-Thomas
Cardiff Business School, Cardiff University, Cardiff, UK

Gloria Moss
Glamorgan Business School, University of Glamorgan, Pontypridd, UK

David Chelly
Paris Graduate School of Management (ESG), Paris, France, and

Song Yabin
European Business Management School, University of Wales Swansea, Swansea, UK

Abstract

Purpose – The purpose of this study is to investigate Western and Central European consumers and web retailers with respect to the importance and accessibility of delivery information online prior to purchase.

Design/methodology/approach – To investigate the importance and accessibility of delivery information online, a survey was conducted of 715 internet consumers from the UK, Hungary and the Czech Republic to explore how important they rate online delivery information. In addition to this, retailing web sites from leading retailers in the UK, Hungary and the Czech Republic were content analysed in order to establish the extent to which they provided online delivery information.

Findings – The research identifies that consumers rate delivery pricing guides, delivery guarantees and delivery schedules as the most important delivery information they expect online prior to purchase. However, content analysis of retailer web sites reveals that many retailers do not adequately provide information about how they "guarantee product delivery".

Practical implications – It is recommended here that prior to purchase online retailers should make detailed delivery information more accessible to consumers (e.g. pricing guides, timing schedules, etc.) and should consider using delivery service guarantees to assure consumers of delivery service standards and retailer responsibilities.

Originality/value – This paper makes a decisive contribution to e-shopping behaviour and online retailing by providing insight into why visits to retailing web sites may not be followed up by purchase. This insight results from an examination of an often neglected area of the online buying process, namely "order delivery and fulfilment". By examining the expectations of e-consumers across Europe it investigates the role access to delivery information can have in managing customer delivery service expectations and in building trust in online retailers.

Keywords Internet shopping, Electronic commerce, Delivery, United Kingdom, Czech Republic, Hungary

Paper type Research paper

Introduction

Retailing today involves selling not only in stores, but also through the web and other non-store electronic channels, termed e-services or e-retailing (Mathwick *et al.*, 2002).

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According to Forrester (2004), more than 60 million Europeans shopped online in mid-2004, an increase of 50 per cent from early 2003. The Internet Media Research Group (IMRG, 2005) more recently reported that in the UK alone, consumers purchased £1.5 billion worth of goods on the internet in May 2005, 36 per cent more than they did in 2004. Although these statistics present a positive picture of B2C online retailing in Europe, industry analysts warn that dissatisfaction with delivery services is costing the online retailing industry a significant loss of orders (IMRG, 2005). In essence, home delivery remains the Achilles' heel of online retailing.

Earlier researchers have highlighted the impact of delivery and fulfilment on customer evaluations of service quality, service satisfaction and purchase intent in traditional retailing (Douglas *et al.*, 1998) but these studies neglect empirical investigation with respect to online retailing. To fill this need, industry analysts have identified that online shoppers have many questions about the delivery costs, shipping, returns and privacy of online purchases (Forrester, 2005). Despite this apparent concern on the part of consumers for matters relating to delivery, consumers online often have to settle for a "take it or leave it" approach to delivery services. This is evinced by a review of five major US online retailers in which none of the retailers were able to answer all the questions posed online about delivery (Forrester, 2005). Another industry review of 100 prominent UK retailing sites revealed that: 80 per cent did not make it possible for the customer to specify delivery instructions; 46 per cent offered no delivery time options; 75 per cent did not let customers choose a delivery date or offer Saturday delivery; 26 per cent made the customer register or log-in before delivery costs were shown; and 54 per cent did not make it clear if a signature would be required at point of delivery (IMRG, 2005). All these accounts of vague delivery times, uncertain delivery costs and sketchy delivery information appear to be deterring millions from shopping online and inhibiting future repeat purchase activity.

This paper provides a brief review of consumer trust and uncertainty in online retailing and the importance of information, specifically delivery information for building consumer trust online. Following this review, an empirical study of consumers and web retailers from Western and Central Europe is presented, examining the importance consumers ascribe to the provision of delivery information and the extent to which online retailers make this delivery information accessible to consumers prior to purchase.

Literature review

Despite growth in the penetration of the internet in households throughout Europe, and recent growth in B2C e-commerce, there are elements in online retailing that could occasion feelings of uncertainty amongst consumers and impact on consumer perceptions of service satisfaction, trust and perceived risk. These factors, in turn, could influence future customer purchase intentions, loyalty and word-of-mouth communications. It is crucial, therefore, to understand what creates a satisfying and quality customer service experience online (Szymanski and Hise, 2000; Srinivasan *et al.*, 2002; Pavlou, 2003). Here we focus on consumer perceptions of trust in online retailing. Previous research shows that trust directly or indirectly influences e-retailing adoption (Lee and Turban, 2001; Palmer *et al.*, 2000); online purchase intentions (Grazioli and Jarvenpaa, 2000); repeat transactions (Jarvenpaa *et al.*, 2000); web site traffic and visits

(Pan *et al.*, 2002); perceived service quality as well as loyalty and satisfaction (Gefen, 2002; Gummerus *et al.*, 2004; Ribbink *et al.*, 2004).

Perceived risk is a basic tenant of trust, if there was little risk and complete certainty of transaction performance online, trust would not be needed. Uncertainty in online purchasing may be driven by:

- defects in the system (i.e. system dependent uncertainty); and
- actions of the parties (e.g. retailers) involved in the exchange (i.e. transaction specific uncertainty) (Lee and Turban, 2001; Bart *et al.*, 2005).

There is much research that discusses the role of security and privacy on determining trust in e-retailing, as a result of system performance (Bhimani, 1996; Benassi, 1999; Warrington *et al.*, 2000; Yousafzai *et al.*, 2003). This research shows that retailers can have a substantial influence on reducing system-based uncertainty by ensuring that the electronic infrastructure performs as consumers expect (e.g. through encrypted transactions, installing firewalls, utilizing authentication mechanisms, etc.). However, Bart *et al.* (2005) specify that online retailers need to go beyond privacy and security as influential drivers of trust and especially trustworthiness of an online retailer. The following have been identified as antecedents of retailer trust: virtual advisors, unbiased information, keeping promises and reliable order fulfilment (Urban *et al.*, 2000); web site appearance, recognition of company, extended warranties (Warrington *et al.*, 2000); site reputation, information (Zeithaml *et al.*, 2000); and structural assurance, site reputation and quality (McKnight and Chervany, 2002). Of particular interest here are the findings of Urban *et al.* (2000) who identified that the quantity, quality and timeliness of information provided to consumers online can enhance trust in an online vendor.

In an offline service context, it has been found that consumers will seek out information to reduce the risk probability of purchase (Murray, 1991) and that making informed decisions can increase the probability of purchase satisfaction (Glazer, 1991). In an online context, the findings are not that much different. Access to product information online results in consumers making better quality decisions (Cook and Coupey, 1998) and significantly influences consumers' e-satisfaction (Szymanski and Hise, 2000; Ballantine, 2005). Industry analysts further advise that to build trust, e-commerce sites need to provide answers and information to the specific questions shoppers have at each step in the buying process (Forrester, 2005). This is supported by Ha (2004), who in the context of online book retailers, found that retailer trustworthiness (i.e. brand trust) was significantly influenced by the quality of the information offered by the retailer's web site. Of interest to this study is the importance and accessibility of delivery information on retailing sites.

With respect to offline purchasing, where home delivery is required, timely and accurate order and delivery information are viewed by consumers as essential part of customer service (Bowersox and Closs, 1996). With specific reference to online retailing, fears associated with delivery fulfilment rank fairly high in a list of dimensions of online purchase risk (Cases, 2002). Through the provision of delivery information, online retailers may mitigate the perceived risk of shopping online and delivery in particular (Burt and Sparkes, 2003). This position is supported by the recent work of Bart *et al.* (2005) who identified that for purchase-orientated sites (e.g. travel and e-retailers), from a list of 12 site characteristics, the most influential on online trust

was order fulfilment and privacy. However, despite its importance, little research has been undertaken to examine the specific types of pre-purchase delivery information that consumers rank as important and also, the delivery information that online retailers are providing.

The aim of this study is to explore the importance and accessibility of delivery information online and specifically examine:

- The importance consumers ascribe to differing types of pre-purchase delivery information provided online.
- The types of pre-purchase delivery information web retailers currently make accessible to consumers online.

Method

As electronic retailing becomes more international throughout Europe and as countries in Central Europe engage in increased trade with Western Europe, there is a growing need to profile European online retailing activities and national market expectations. Of interest to this study is the Western European country of the UK (Britain) and the Central European countries of Hungary and the Czech Republic. These countries were selected because of economic (EB, 2005) and cultural differences (Kolman *et al.*, 2003; Tse *et al.*, 2004), and differing rates of national internet penetration and e-commerce adoption (Table I).

Consumer survey

To profile the importance consumers from the Czech Republic, Hungary and the UK attach to the accessibility of pre-purchase delivery information online a cross-sectional survey design is used. The survey consisted of items measuring the perceived importance of delivery information, web usage frequency, past shopping experience and sample characteristics (e.g. gender, age). To measure the perceived importance, participants evaluated seven types of delivery information (Table II) using Likert scales (i.e. 1 = very unimportant to 7 = very important).

With comparative international research such as that undertaken here, the primary emphasis is to ensure that any observed differences between the countries or cultures sampled is a direct result of country or cultural differences and not the effect of other extraneous variables or sample differences (e.g. age, education or income) (Reynolds *et al.*, 2002; Sin *et al.*, 1999). To control for sample differences and ensure between-country comparability, non-probability convenience sampling of university students (Reynolds *et al.*, 2002) and a matched sampling technique based on sample

	UK	Czech Republic	Hungary
Internet penetration 2005 (per cent population)[a]	58.7	34.5	30.2
User growth rate 2000-2005 (per cent)[a]	128.4	253.0	326.6
Total e-readiness ranking 2004 (out of 64)[b]	2	27	30
e-Readiness category score: consumer and business adoption (out of 10)[b]	8.85	6.81	6.49

Sources: [a]InternetWorldStats (2005); [b]EIU (2005)

Table I.
Internet adoption and usage indicators

Attribute	Description	Example
Terms and conditions	General terms and conditions about the sale and/or delivery of the products purchased	Seven-day return policy
Vendor	Information about the company who will be delivering the products purchased to end customers	FedEx, Royal Mail, retailer, third party courier
Method	Information about the different methods for delivery	Retailer, courier, postal service, electronic delivery
Pricing guide	Information about how much delivery of the product will cost and how this cost is calculated	Pricing guide by weight, location, number of items
Timing or schedule	Information about estimated or scheduled time delivery "might" occur	Monday to Friday, weekends, between 9 a.m. and 5 p.m.
Geography	Information about where the retailer delivers to	National or international
Guarantee	A written assurance that the products purchased will be delivered according to that specified by the retailer and the responsibility assumed by the retailer if problems in delivery occur	What will happen if goods not delivered, or there is a delay in delivery or faulty goods arrive

Table II.
Pre-purchase product delivery information

characteristics of age and education (i.e. degree classification and year enrolled) was used. Three Universities were selected through cross-institutional links, one each in the UK, Hungary and Czech Republic and convenience samples recruited and surveys administered during first, second and third year undergraduate business classes. One-way analysis of variance (ANOVA) was used to test for significant differences in importance ratings between consumers in the three countries sampled.

Web site content analysis
To profile the accessibility of delivery information on retailing web sites, content analysis (CA) was conducted. This method is increasingly being used and recognised as a stable research technique for investigating the dynamic communication environment of the web (McMillian, 2000; Weare and Lin, 2000). Recommended CA procedures were followed in general (Kolbe and Burnett, 1991) and as applied to the specific web context (McMillian, 2000; Weare and Lin, 2000).

Sample. Selecting a true random sample of web sites is near to impossible given the growing number of web sites and incomplete search engines or site listings available (Bates and Lu, 1997). The most popular methods for defining a sampling frame include:

- a recognised category listing of web sites (i.e. fortune 500 companies); and
- the use of search engines to identify sites that meet certain criteria (McMillian, 2000).

As the sites of interest here are retailing sites and the geographic context is the UK, Hungary and the Czech Republic, in the absence of an established category list for each country, a sampling frame of retailing web sites for each region was compiled using leading search engines and directories (e.g. www.yahoo.com, www.google.com as

based on www.dmoz.org). Weare and Lin (2000) further support this technique highlighting that sampling frames based on search engine results lead to samples that are skewed to the most heavily trafficked parts of the web, thus representing what the average user finds.

Web sites were selected for inclusion in the sampling frame if they met the following criteria:

- the site was listed in the first or second page of search results (Jansen and Spink, 2006);
- the site had e-commerce functionality (i.e. consumers can purchase online); and
- sites fell into one of 11 retailing categories (i.e. grocery, book, music, fashion, consumer electronics, furniture, DIY or hardware, sports, travel, computing, and multi-category or department store).

These categories were selected to provide a general snapshot of delivery and fulfilment options used in the retail industry and to reflect the specifications of products that can be delivered using both offline (e.g. postal, courier) and online delivery methods (e.g. email, network downloads). A minimum of five web sites within each category were selected with at least one pure online retailer (i.e. no offline presence) and one online/offline retailer per category. A sample was not selected from the list compiled, but all sites selected from the search engine results were content analysed (Appendix).

Units of analysis. Coding units and context units are recommended as measurement tools in CA (Budd *et al.*, 1967). The context unit for coding in this study is defined as pages at the web site, however, given that could span into hundreds and thousands of web pages, a core web site design principle, the three-click rule, was used. This rule denotes that visitors should be able to navigate to anywhere on a site from the home page, including making a purchase, in three clicks (Nielsen, 1999). In accordance, the context unit was constrained to an average of five web pages per web site for CA. The framework developed to guide web page analysis was based on seven content-category coding units that were derived from the literature about delivery information. These are described in detail in Table II. Latent coding (i.e. subjective assessment) was used to assess the item counted as being a true representative of the variables of interest and manifest coding was used to record the accessibility (i.e. $1 =$ yes accessible or $0 =$ not accessible) of the delivery information within the five-pages analysed on each web site.

Coding procedures. In this study, to retain independent reliability, the key investigators were not involved in data collection (Krippendorff, 1981), with three researchers recruited to gather and code the data from each respective country-list of web sites. Unaware of the purpose of the study and working independently, each coder was provided with detailed coding instructions and discussion about the coding units to ensure consistency of interpretation. Given the use of a nominal coding response (i.e. $1 =$ yes accessible or $0 =$ not accessible), Cohen's κ was used to test intercoder consistency with a majority of the reliability indexes reporting satisfactory levels of consistency between 0.7 and 0.8 (Kolbe and Burnett, 1991; Perreault and Leigh, 1989).

Results

Importance of delivery information online

A profile of the survey participants is provided in Table III. The sample consisted of 715 business students, with 34 per cent from the UK ($n = 230$); 34 per cent from

Table III.
Profile of survey
participants

Variable	Czech Republic (n = 240)		Hungary (n = 245)		United Kingdom (n = 230)		Total sample (n = 715)	
	n	Per cent	n	Per cent	n	Per cent	n	Per cent
Age (years)								
17-20	66	28	133	54	44	19	243	34
21-25	173	71	111	45	180	78	464	65
26 +	1	1	1	1	6	2	8	1
Gender								
Male	81	34	89	36	148	64	318	45
Female	159	66	156	64	82	36	397	55
Degree level studying								
Year 1	80	33.3	80	33	77	34	237	33
Year 2	80	33.3	85	34	73	32	238	33
Year 3	80	33.3	80	33	80	35	240	34
Web usage frequency								
Once a month	–	–	5	2	4	2	9	1
Twice a month	–	–	2	1	7	3	9	1
1-2 times a week	9	4	16	7	1	1	26	4
3-5 times a week	81	34	68	28	20	9	169	24
Once a day	35	15	52	21	44	19	131	18
Twice a day	59	24	50	20	75	32	184	26
3-5 times a day	36	15	29	12	36	16	101	14
5 or more times a day	20	8	23	9	43	18	86	12
Web purchase experience								
Yes	106	56	71	29	228	99	405	57
No	134	44	174	71	2	1	310	43

Hungary ($n = 245$); and 32 per cent from the Czech Republic ($n = 240$). The participant profile was equally distributed across students studying in their first, second and third years in university education. The participant profile is very young with 65 per cent of total respondents aged between 21 and 25 years of age and has an equal gender distribution with 318 male (45 per cent) and 397 female participants (55 per cent). Examination of the participants' web usage and web purchase experience reports medium to high level of web usage frequency, with 58 per cent using the web on average between once-a-day to 3-5 times a day. About 57 per cent of the sample reported past experience with purchasing or shopping online.

Survey results indicate that overall the majority of consumers rated each type of delivery information accessible on retailing web sites as either mildly important, important or very important when shopping online (Table IV).

Closer examination of mean scores for the total sample shows that in descending order, participants rate information about delivery costs as the highest in importance (mean = 6.44); followed by a delivery guarantee (mean = 6.37); a delivery schedule or time (mean = 6.26); a general purchase or delivery terms and conditions (mean = 6.18); the geographic area for delivery (mean = 5.88); information about the differing delivery methods (mean = 5.75); and lastly information about the delivery vendor (mean = 5.51). When asked at what stage in the buying process they would prefer to have access to the above information (e.g. before purchase occurs, after purchase

occurs, at point of delivery), over 96 per cent ($n = 685$) indicate that this information should be available to consumers prior to purchase.

Further examination of these results using a one-way ANOVA and Tukey's HSD multiple comparison test, reports that significant differences do exist between participants in the three countries as to the level of importance they place on the accessibility of delivery information on retailing web sites prior to purchase (Table V). Further examination of the *post hoc* comparison tests actually showed that in fact, participants in the Czech Republic generally place greater importance on the ability to access pre-purchase delivery information than participants in either Hungary or the UK.

Specifically, it was identified that participants in the Czech Republic place greater importance on the accessibility of terms and conditions, delivery vendor information and information about the delivery method used than participants in Hungary and the UK. Significant differences were also reported between the three countries with respect to the importance they placed on the accessibility of a delivery guarantee, information about delivery costs and pricing and delivery geography on retailing web sites. These results show that participants from the Czech Republic rate these types of delivery information as more important than participants in Hungary and the UK, however, no significant differences were evident between participants in Hungary and the UK. With respect to the accessibility of delivery timing information or schedules, the Czech Republic rated these as more important than participants from Hungary and the UK, however, only significant differences existed between participants in the Czech Republic and Hungary. No significant differences were reported between the Czech Republic and the UK or between Hungary and the UK.

In summary, it is evident that significant differences do exist between participants in the Czech Republic, Hungary and the UK as to the level of importance they place on the accessibility of different types of delivery information from retailing web sites. Of further interest is the finding here that participants in the Czech Republic significantly place more importance on accessing six of the seven types of delivery information from retailing web sites than participants in both Hungary and UK. Participants in Hungary and the UK only differed significantly in their importance ratings for three out of the seven types of delivery information.

Web site attribute	Total sample ($n = 715$)		Czech Republic ($n = 240$)		Hungary ($n = 245$)		United Kingdom ($n = 230$)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
General sales terms and conditions	6.18	1.139	6.50	0.678	6.19	1.158	5.83	1.378
Delivery vendor information	5.51	1.240	6.01	0.860	5.49	1.308	5.03	1.305
Delivery method information	5.75	1.178	6.21	0.764	5.82	1.127	5.19	1.350
Delivery guarantee	6.37	0.984	6.60	0.671	6.30	1.104	6.22	1.080
Delivery pricing information	6.44	0.927	6.67	0.617	6.27	1.065	6.37	0.992
Delivery timing or schedule	6.26	0.881	6.41	0.600	6.13	0.979	6.29	0.991
Delivery geography or region	5.88	1.150	6.32	0.777	5.72	1.115	5.58	1.358

Notes: SD = Standard deviation; [a] rating score 1 = least important to 7 = very important

Table IV.
Means of attribute importance rating scores and standard deviations for the UK, Hungary and Czech Republic[a]

Delivery information (df)	Mean (range)	SD	F-value/Tukey HSD	p
General sale terms and conditions (2,712)			22.052	0.000**
Czech Republic (CR)	6.50 (6.42-6.59)	0.678	CR × H	0.005**
Hungary (H)	6.19 (6.04-6.33)	1.158	H × UK	0.001**
United Kingdom (UK)	5.83 (5.65-6.01)	1.378	UK × CR	0.000**
Delivery vendor information (2,712)			41.457	0.000**
Czech Republic (CR)	6.01 (5.90-6.12)	0.860	CR × H	0.000**
Hungary (H)	5.49 (5.32-5.65)	1.308	H × UK	0.000**
United Kingdom (UK)	5.03 (4.86-5.20)	1.305	UK × CR	0.000**
Delivery method information (2,712)			50.663	0.000**
Czech Republic (CR)	6.21 (6.11-6.31)	0.764	CR × H	0.000**
Hungary (H)	5.82 (5.68-5.96)	1.127	H × UK	0.000**
United Kingdom (UK)	5.19 (5.02-5.37)	1.350	UK × CR	0.000**
Delivery guarantee (2,712)			10.233	0.000**
Czech Republic (CR)	6.60 (6.51-6.69)	0.671	CR × H	0.002**
Hungary (H)	6.30 (6.16-6.44)	1.104	H × UK	0.638
United Kingdom (UK)	6.22 (6.08-6.36)	1.080	UK × CR	0.000**
Delivery pricing information (2,712)			12.523	0.000**
Czech Republic (CR)	6.67 (6.59-6.75)	0.617	CR × H	0.000**
Hungary (H)	6.27 (6.14-6.41)	1.065	H × UK	0.517
United Kingdom (UK)	6.37 (6.24-6.49)	0.992	UK × CR	0.001**
Delivery timing information (2,712)			6.321	0.002**
Czech Republic (CR)	6.41 (6.34-6.49)	0.600	CR × H	0.001**
Hungary (H)	613 (6.01-6.25)	0.979	H × UK	0.127
United Kingdom (UK)	6.29 (6.16-6.42)	0.991	UK × CR	0.266
Delivery geography information (2,712)			30.269	0.000**
Czech Republic (CR)	6.32 (6.22-6.42)	0.777	CR × H	0.000**
Hungary (H)	5.72 (5.58-5.86)	1.115	H × UK	0.352
United Kingdom (UK)	5.58 (5.40-5.75)	1.358	UK × CR	0.000**

Table V.
ANOVA and Tukey HSD
multiple comparison test
results: perceived
importance of delivery
information in the UK,
Hungary and
Czech Republic

Notes: * $p < 0.05$; ** $p < 0.01$

Accessibility of delivery information online

A total 159 web sites spanning across 11 product categories were content analysed, with 55 retailing web sites in the UK, 53 from the Czech Republic and 51 from retailing sites in Hungary. Descriptive results from the CA indicate that for the aggregate sample ($n = 159$), 23 per cent did not have a pricing guide; 28 per cent did not have a delivery schedule; 33 per cent did not report information about the differing delivery methods used; 37 per cent did not have general terms and conditions of sale accessible; and 45 per cent did not provide information about geographic area for delivery. However, even more alarming, over half of the leading retailing web sites sampled did not provide or make accessible to consumers online prior to purchase information about the delivery vendor (55 per cent) or provide a delivery guarantee (54 per cent) – an assurance of the retailers' responsibility and service response as a direct result of failure with service delivery.

χ^2 analyses were used to test if accessibility of the delivery information on a retailer's web site is independent of the country of origin. Results are reported in Table VI. For the accessibility of a pricing guide and delivery schedule information, country of origin had no statistical effect on accessibility. However, country of origin

Types of delivery information	Total sample (n = 159) Per cent	United Kingdom (n = 55) Per cent	Czech Republic (n = 51) Per cent	Hungary (n = 53) Per cent	n	χ^2	df	p
Terms and conditions						12.668	2	0.002**
Not accessible	37	50.8	30.5	18.6	59			
Yes accessible	63	25.0	35.0	40.0	100			
Delivery vendor						65.375	2	0.000**
Not accessible	55	23.9	60.2	15.9	88			
Yes accessible	45	47.9	–	52.1	71			
Delivery method						12.399	2	0.002**
Not accessible	33	53.8	23.1	23.1	52			
Yes accessible	67	25.5	38.7	35.8	106			
Delivery guarantee						39.127	2	0.000**
Not accessible	54	54.7	30.2	15.1	86			
Yes accessible	46	11.0	37.0	52.1	73			
Delivery pricing						3.853	2	0.146
Not accessible	23	24.3	45.9	29.7	37			
Yes accessible	77	37.7	29.5	32.8	122			
Delivery timing						4.123	2	0.127
Not accessible	28	22.7	36.4	40.9	44			
Yes accessible	72	39.1	32.2	28.7	115			
Delivery geography						36.350	2	0.000**
Not accessible	45	16.9	57.7	25.4	71			
Yes accessible	55	48.9	13.6	37.5	88			

Notes: * $p < 0.05$; ** $p < 0.01$

Table VI.
χ^2 analysis of delivery
information accessible on
retailing web sites in the
UK, Hungary and Czech
Republic

did have a significant effect on the accessibility of the remaining types of delivery information. Further examination of the contingency tables identified that retailers from the Czech Republic and Hungary provided more information to consumers online about general terms and conditions of sale and the differing delivery methods they use than UK web retailers. By contrast, retailers in the UK and Hungary provide more information to consumers online about the delivery vendor they use and the geographic location to where they can deliver than retailers in the Czech Republic. Of further interest from the results is the provision of a delivery service guarantee to consumers online prior to purchase. χ^2 analysis indicates that country of origin has a significant effect on the provision of a delivery guarantee, and that web retailers in Hungary and the Czech Republic provide more assurance to consumers through a delivery service guarantee, than retailers in the UK. In fact, of the 86 web sites sampled that did not have a delivery guarantee, over half (55 per cent), were retailing web sites in the UK.

Importance and accessibility of delivery information online
A comparative assessment of the above results was conducted comparing the mean scores of consumer ratings of the importance of delivery information and the accessibility of delivery information online at leading retailing web sites (i.e. most to least accessible). This comparative assessment is presented in Table VII and reveals that large gaps exist between what delivery information consumers rank as most important and what delivery information retailers make most accessible to consumers on their retailing web sites. Overall, consumers rank pricing guides, delivery guarantees and a timing schedule as the three most important delivery information items when shopping online. Although, expectations are met with respect to the accessibility of pricing guides and timing schedules, delivery guarantees are the second least accessible type of delivery information item on retailers' web sites. For the UK sample, this gap is even wider with delivery guarantees ranked as the least accessible, although ranked as the second most important delivery information expected by UK consumers. This result is also consistent with the Czech Republic, although in Hungary, guarantees were ranked as the most important delivery information item, and was the fourth most accessible item on a retailer's web site.

Conclusion
Delivery service is a vital component of customer service as customer expectations relate to both the goods delivered and the delivery service received. Nowhere is this more evident than online. For customers on the web, expectations of reliable product delivery are key and delivery information available prior-to-purchase strengthens customer service confidence and perceived retailer trustworthiness. The provision of delivery information through retailing web sites is one way by which online retailers can help to manage consumer delivery expectations and build trust before purchase even occurs. However, e-retailers in Western and Central Europe not only significantly differ in the delivery information they provide to consumers, but consumers in these countries differ in the delivery information they perceive as important. Common to all three countries is the fact that online retailers are failing to match consumer expectations concerning the delivery information that should be available online.

	Total sample		UK		Czech Republic		Hungary	
	Important	Accessible	Important	Accessible	Important	Accessible	Important	Accessible
Pricing guide	1	1	1	1	1	3	2	1
Guarantee	2	6	3	7	2	5	1	4
Timing schedule	3	2	2	2	4	2	4	6
Terms and conditions	4	4	5	6	3	4	3	2
Geography	5	5	4	3	5	6	6	7
Method	6	3	6	5	6	1	5	3
Vendor	7	7	7	4	7	7	7	5
n	715	159	230	55	240	51	245	53

Note: [a] Mean score ranking 1 = most important or most accessible to 7 = least important and least accessible

Table VII.
Comparison of mean
score rankings of delivery
information importance
and accessibility online
prior to purchase[a]

In this study, the results indicate that consumers rank delivery pricing guides, delivery guarantees and delivery schedules as the three most important types of delivery information they expect to have access to online. However, what is surprising is that very few online retailers, especially in the UK and the Czech Republic, provide consumers with the necessary information about how they guarantee product delivery. Online retailers in Hungary, provide consumers far more with the delivery information they expect to aid the buying process. Consumers expect their goods to be delivered wherever they are, whenever they need it. However, the uncertainty of online shopping is a major inhibitor of e-retailing adoption. Delivery service guarantees – a written assurance that the products purchased will be delivered according to that specified by the retailer and the responsibility assumed by the retailer if problems in delivery occur – may be one way to increase consumer confidence in online shopping. Previous research suggests that a service guarantee is a helpful positive cue that may enhance the certainty that a service will perform as expected (Boshoff, 2003), especially in situations with greater service heterogeneity and risk (Boshoff, 2003; Ostrom and Iacobucci, 1998). However, it should be noted, that research also suggests that the effectiveness of a guarantee in reducing uncertainty is co-dependent on characteristics of the product, the consumer and conditions of the offer (Heiman *et al.*, 2001). Since, factors relating to delivery from retailers online are perceived to be high risk (Cases, 2002), and consumers in this study from both Western and Central Europe rate delivery information as "very important" prior to purchase, online retailers need to go beyond consumer perceptions of privacy and security and also focus on consumer expectations of delivery information as influential drivers of retailer trustworthiness – reducing the transactional uncertainty of purchasing online.

This study brings to the forefront further questions for investigation about the role of web sites in the provision of delivery information as a means to manage consumer expectations and satisfaction with online retailing. Future research might focus on the role of order and delivery information as a dimension of e-retailing service quality; a more in-depth study might examine one category of online retailers (e.g. bookstores) and a matched sample of customers to further explore the types of delivery information relating to e-trust, purchase intent and e-loyalty. It also raises questions about the temporal effect of e-retailing quality and satisfaction and the stage at which it is measured in the purchase process (i.e. prior to purchase or at point of delivery).

However, every study is not without its limitations. In the study reported here, a student sample was used which may not be representative of the general population of online shoppers in the UK, Czech Republic and Hungary. Thus, the results presented may be limited in generalisability. Further research should apply the research questions investigated here to a more representative sample of the online user population. Secondly, site selection for the CA was limited to retailers with prominent site listing on leading web search tools, and thus might not be representative of the information provision activities of the retailing industries in each respective country. In future research, use of independent traffic rankings, like that provided by Alexa Internet services (www.alexa.com), might result in a more accurate snapshot of web site activity. Thirdly, the samples collected were in the

UK, the Czech Republic and Hungary and thus generalisability to other countries may be limited.

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Appendix. Retailing web sites sampled

United Kingdom (n = 55)		Hungary (n = 51)		Czech Republic (n = 53)	
Company	URL	Company	URL	Company	URL
samedaybooks	www.samedaybooks.co.uk	Bookline	www.bookline.hu	Vltava	www.vltava.cz/
Seekbooks.co.uk	www.seekbooks.co.uk	Libri	www.libri.hu	Mall	www.mall.cz/
BCA	www.ukbol.com	Antikvárium	www.antikvarium.hu	Electrohall	www.electrohall.cz/
Waterstones	www.waterstones.co.uk	Puzsó	www.puzso.hu/	Cybex	www.cybex.cz/
Hammicks Bookshops	www.thebookplace.co.uk	Fókusz	www.fókuszonline.hu	Aaafoto	www.aaafoto.cz/
Use Your Brain Ltd	www.useyourbrain.co.uk	Depo	www.depo.hu/	Wifiobchod	www.wifiobchod.cz/
DSG Retail Limited	www.pcworld.co.uk	3Testor Comp.	www.3t.hu	Kournka	www.korunka.cz/
Genex Direct Ltd	www.genex.tv/	Amp	www.amp.hu	Hifishop	www.hifishop.cz/
Micro Warehouse Ltd	www.microwarehouse.co.uk	Aqua	www.aqua.hu/	Ecl	www.ecl.cz/
Dell, Inc	www.dell.co.uk	Lord	www.lord.hu	Nakupujme	http://chladnicky.nakupujme.cz/
B&Q	www.diy.com/	Interépítoanyag	www.internetepitoanyag.hu/	Obchodni dum	www.obchodni-dum.cz/
Argos	www.argos.co.uk	Prenker Bt	www.prenker.hu	Mshop	www.mshop.cz/indexhtml.php
Taylor Bros	http://diytools.co.uk/	Bálintker	www.balintker.hu	Omegaeng	www.omegaeng.cz/
Littlewoods Index	www.littlewoods-index.com	Alby	www.alby.hu/	Nomatica	www.Nomatica.cz/
Lee Industrial Ltd	www.tooled-up.com/	Briver	www.briver.hu	Satplus	www.satplus.cz/
Cliffwalton	www.cliffwalton.co.uk	Ebolt	http://ebolt.hu	Mobilni-telefony	www.mobilni-telefony.cz/
Dixons Group	www.currys.co.uk	Whirlpool	www.whirlpoolbolt.hu	Elektrosvet	www.elektrosvet.cz/
Comet Group Plc	www.comet.co.uk	Procontrol Webshop	www.procontrol.hu	Musickatalog	www.musickatalog.cz/
Electric Shop UK Ltd	www.electricshop.com	Electrolux Shop	www.electroluxshop.hu/	Nofra	www.Nofra.cz/
Empire EC Plc	www.empiredirect.co.uk	Havaians	www.havaianas.hu/	Mp3 Shop	www.mp3shop.cz/
Mailorderworld.com	www.agosaddition.co.uk	Otto	www.otto.hu/main.php	Audio	www.audio3.cz/

(continued)

Table AI.

United Kingdom (n = 55)		Hungary (n = 51)		Czech Republic (n = 53)	
Company	URL	Company	URL	Company	URL
Dorothy Perkins	www.dorothyperkins.co.uk	Taylor Kellék	www.taylor-kellek.hu/	Cdcentrum	www.cdcentrum.cz/
Browns Ltd	www.browns-fashion.co.uk	Converse Shop	www.converseshop.hu/	Cdmusic	http://cdmusic.cz/inshop/
Evans	www.evans.ltd.uk	Quelle	www.quelle.hu	EtNo	www.etNo.cz/index.html
Thomas Pink	www.thomaspink.co.uk	Atlantic Design	www.atlantic-design.hu	Knizni web	www.knizniweb.cz/
Your Price Furniture.co.uk	www.yourpricefurniture.co.uk	Interstore	www.interstore.hu	Knizni klub	www.knizniklub.cz/
MFI UK Ltd	www.mfi.co.uk/	Biofarm	www.biofaktor.hu	Fantasyshop	www.fantasyshop.cz/
Furniture123 Ltd	www.furniture123.co.uk	Bútor Üzlet	www.butoruzlet.hu/	Kosmas	www.kosmas.cz/
Gimme Limited	www.gimmefurniture.co.uk/	G'robi	http://groby.hu	Vsechny knihy	www.vsechnyknihy.cz/
John Lewis Partnership	www.johnlewis.com/	Internet Abc	www.internetabc.hu/	Sevt	www.sevt.cz/
Tesco. Plc	www.tesco.com	Bortársaság	www.bortarsasag.hu/hu/	Autocont	www.autocont.cz/default.aspx
The foodferry.com	www.foodferry.com	Zwack Webshop	www.zwackunicumic.hu	Hpworld	www.hpworld.cz/
Partridges	www.partridges.co.uk	Torta.Hu	www.torta.hu/	Shop	www.shop.cz/
ASDA	www.asda.com	I-Shop Plaza	http://plaza.i-shop.hu/	Digisoft	www.digisoft.cz/
Sainsbury's	www.sainsburystoyou.com	Interstore	www.interstore.hu	Dexx	www.dexx.cz/index.asp
Freemans Plc	www.freemans.com	Net Áruház	www.netaruhaz.hu	Pdaonline	www.pdaonline.cz/
Debenhams Retail Plc	www.debenhams.com	W3 Plaza	www.w3plaza.hu/	Hslogic	www.hslogic.cz/
Allders Depart. Stores Ltd	www.allders.com/	Cd Rendelés	www.cdrendeles.hu/	Kravata	www.kravata.cz/
John Lewis Plc	www.johnlewis.com/	Cantara Music	www.cantaramusic.com/	Jeans	www.jeans.cz
Amazon.com Inc.	www.amazon.co.uk/	Carmen	www.storeline.hu/carmen/	Bonifac	www.bonifac.cz/inshop/

Table AI.

United Kingdom (n = 55) Company	URL	Hungary (n = 51) Company	URL	Czech Republic (n = 53) Company	URL
HMV UK Ltd	www.hmv.co.uk	Cd Prince	www.cdpince.hu/	E-butik	www.e-butik.cz/
MVC Entertainment Limited	www.mvc.co.uk	Cédé Bt	www.cdbt.hu/	Hurt	www.hurt.cz/
CD WOW!	www.cd-wow.com	Thule	www.thulewebaruhaz.hu	Francouz	www.francouz.com/
Musicroo.com Ltd	www.musicroom.com	Xxl Sport	www.xxlsport.hu	Obuv	www.obuv.net/
101cd.com Ltd	www.101cd.com	L&H Sport	www.lhsport.hu/	Esatna	www.esatna.cz/
Greenwood Sports	www.greenwood-sports.co.uk	Ebike	www.ebike.hu/	Forliving	www.forliving.cz/
Boardwise	www.boardwise.com/	Builder	http://shop.builder.hu/	Houpaci site	http://houpacisite.netdirect.cz/
Titan sports	www.titansport.co.uk/	Air-Port Travel	www.air-porttravel.hu/	Unis-n	www.unis-n.cz/
Cotswold Outdoor Ltd	www.cotswold-outdoor.com	Inter Jegy	www.interjegy.hu/	Multimarket	www.multimarket.cz/
Field & Trek Plc	www.fieldandtrek.com	Sky Europe	www.skyeurope.com/	Racio internet shopping	http://racio.internetshopping.cz/
Ryanair Holdings Plc	www.ryanair.com/	E-Jegy	www.ejegy.hu/	Koreni	www.koreni.cz/
The First Resort Operations	www.thefirstresort.com/			Messenger	www.messenger.cz/
Travelcare	www.travelcare.co.uk			Vinium	www.vinium.cz/
Last Minute Network Ltd	www.lastminute.com				
Thomas Cook Retail Ltd	www.thomascook.co.uk				

Table AI.

About the authors
Kelly Page-Thomas is a Lecturer in Marketing in Cardiff Business School at Cardiff University, Cardiff, UK. Kelly has a background in marketing research and was awarded her PhD from the University of New South Wales (UNSW) in Sydney, Australia and currently researches consumer psychology and sociology of the adoption and use of electronic technology. Kelly Page-Thomas is the corresponding author and can be contacted at: page_thomaskl@cardiff.ac.uk

Gloria Moss is a Research Fellow at Glamorgan University Business School and Visiting Professor at the Ecole Superieure de Gestion, Paris. She combines a background in Human Resources, having held Training Manager positions with Eurotunnel and other bluechip companies, with a fresh approach to segmentation marketing.

David Chelly is a Professor of European Management with the Ecole Supérieure de Gestion de Paris. He is currently running Centreurope.org, an academic and business portal for Central and Eastern Europe.

Song Yabin, is a graduate student from the European Business Management School, University of Wales Swansea, Swansea, UK.