

Online Retailing: Open All Hours?

Fiona E. Ellis-Chadwick

The Business School, Loughborough University,
Loughborough, Leicestershire LE11 3TU, UK.

Email: f.e.ellis-chadwick@lboro.ac.uk

Abstract: Online retailing is become increasingly popular and important to retailers and consumers around the world. In the UK, during the last ten years, the online shopping spend has increased from around 0.07% to 7% of total annual retail sales and the consumers' appetite for buying online continues to grow as the Internet becomes increasingly accessible, convenient and secure. However, does the Internet provide consumers with a truly global 24/7/365, shopping experience or are there limitations? Certainly, a visit to eBay can enable bargain hunters to find almost any product ever made but some goods are likely to be second hand and this does not suit the needs of all consumers so just how comprehensive are the product ranges offered for sale online by mainstream retailers? The web is developing into an important shopping environment and yet current global Internet penetration is just under 19 per cent of the world population, which suggest there are major limitations to who can choose to shop in the virtual world. It appears, on the one hand, in certain segments there is increasing demand for online shopping but on the other hand, personal constraints and restrictions in service provision are limiting the expansion of online retailing. This paper, focuses on the specific factors which influence consumers' intentions to shop online and the extent to which retailers provide online shopping services in order to consider the future of online retailing.

Key Words: Online Retailing, Internet, Factors affecting Adoption

Reference to this paper should be made as follows: Ellis-Chadwick, F.E. (2008) 'Online retailing: open all hours', *Int. J. Business Environments, Vol. X, No. Y, 000-000*.

Biographical notes: Fiona is a lecturer in Marketing at Loughborough University. She has a PhD in Business, which focused on the commercial adoption of the Internet by UK retailers. Her current research interest focuses on e-commerce strategy and global advances in online retailing. Fiona has written chapters in leading Internet and Marketing text books and has published in International and National academic journals: *Journal of Business Research*, *European Journal of Marketing*, *International Journal of Retail Distribution and Management*, *Internet Research*.

1. Introduction

In 1995, few retailers considered the Internet to be important to the future of their businesses but by 2007 many now consider it essential to offer their customers at least the option to shop online. Moreover, recent evidence suggests consumers' appetite for online shopping is growing rapidly. In the UK, millions of customers now shop online, spending over 800 euro each in 2006 (Verdict, 2007). In the case of Tesco.com Internet sales have increased to almost £1 billion and profits to around £57 million (Tesco Plc, 2006). Tesco offers online shoppers throughout the UK a full range of products which can be found in its high street stores plus a comprehensive and expanding range of non-food goods through the recently established Tesco Direct (Tesco Plc, 2006a). Given such levels of online retail success why are all retailers not following the Tesco model and offering customers similar levels of, say product choice service and support online as they do in their offline stores. For example, Sainsbury offers online shopping services to around 83 per cent of the UK but there are limits to the product range; Waitrose (in conjunction with Ocado) supply a wide range of products online but shopping delivery services are restricted (by location) to around 40 per cent of the UK population. By contrast, Wm Morrison do not offer any form of online shopping (Ellis-Chadwick *et al*, 2007). Reportedly, UK grocery retailers offer some of the most well developed online shopping services in the world so the fact that there is variability in levels of service and product choice provided by UK retailers prompts questions further questions about the extent of online retail provision in other parts of the world. In order to explore the likely future of the global provision of online retailing the key aim of the paper is: to review the factors which affect the extent to which consumers shop online; and the factors which affect the extent of the online retail provision provided by retailers around the globe.

The paper is organised as follows; the first section explores online retailing from the consumer perspective, this is followed by consideration of online retailing from the retailers perspective. A discussion section then follows, which considers the literature presented in the first two sections in order to not only make predictions about the practical implications for online retailing but also the research implications. In the concluding section key ideas and themes are summarised and limitations considered.

2 Factors influencing the extent of online shopping by global consumers

A large number of consumers in well developed nations now regularly use the Internet to buy goods and services but according to Perea y Monsuwe *et al* (2004), it is not totally clear what drives customers to shop online or indeed what retailers should do in order to encourage more online shopping. This section will now explore a range of different factors in order to try to unpick what the key drivers are that are likely to affect the consumers' decision to shop online.

2.1 The Consumers' Choice

Research into online consumer behaviour has identified many factors likely to affect adoption rates and moreover, explain why there is variation in levels of uptake of the Internet as a shopping channel. Doherty, & Ellis-Chadwick, (2006) have identified two broad categories for within the literature, which help explain the online behaviour of consumers': I) the consumers' profile, II) consumers' experiences. Each category is now discussed in turn.

- I. **The consumers' profile:** literature has revealed many variables associated with these profiles that are likely to influence the behaviour online. According to Doherty & Ellis-Chadwick 2006, these variables can be grouped as *classification variables* and *character variables*. Moreover, the consumers' profile has been found to strongly influence the extent to which individuals' shop online (Zhou *et al*, 2007). *Classification variables* include education and race (Hoffman *et al*, 2000), gender (Slyke *et al*, 2002; Source *et al*, 2005), income (Donthu & Garcia 1999) and cultural and social circumstances (Shu and Dawson, 2004, Brengman *et al*, 2005). Internet shoppers, continue to be those with good levels of education, income

indeed whilst the Internet becomes increasingly part of many people lives for many individuals Internet access remains elusive (Hoffman *et al*, 2004). Character *variables* focus on the consumers' perceptions, beliefs and attitudes that might affect their online behaviour but unlike classification variables these variables may not only affect how an individual initially engages with the Internet but also change over time depending on online shopping experiences (Doherty & Ellis-Chadwick, 2006). A number of key conceptual models have been widely used to explore the impact of character variables on a consumer's intention to shop online: the Theory of Reasoned Action, the Theory of Planned Behaviour and the Technology Acceptance Model (Keen *et al* 2004). Such studies aim to develop understanding of the relationships between the consumer's intention to shop online, Internet technologies and the shaping of consumers' perceptions (Vijayasathya, 2004). For example, Perea y Monsuwe *et al* (2004) have examined how the Internet's ease of use, usefulness and enjoyment affect consumers' intention to shop online. Additionally, Hansen (2005) focussed on a range of variables: perceived risk, relative advantage and complexity to help discriminate between different types of Internet users.

- II. **Consumer experiences** of online shopping experiences have been the focus of a great deal of research. The actual experience of online shopping has been found to have an effect on consumers' overall assessment of the online shopping process (Doherty and Ellis-Chadwick, 2006). Positive experiences in terms of convenience, service delivery, web site security have all been found to increase customer satisfaction (Szymanski and Hise, 2000). Good levels of service and good value products have been found to increase consumer loyalty (Harris and Goode, 2004; Wolfinbarger and Gilly, 2003). Web site design and ease of navigation have also been found to enhance the customer experience (Wilde *et al*, 2004).

Despite this large and growing body of literature focussing on the online consumer behaviour it is not totally clear how actual experiences and profiles influence actual online shopping behaviour. However, is it reasonable to suggest that influencing variables are likely to have a

positive or negative influence on the intention to shop online depending on individual circumstances (Doherty, & Ellis-Chadwick, 2006) and such circumstances can be seriously affected by where an individual lives.

2.1.1 Consumer access and online user populations

Access to the Internet is important to consider as it has a profound effect on the distributions of user populations. Table 1 shows Internet access in conjunction with global population statistics to provide insight into Internet penetration.

Table 1 about here

In Africa, Internet penetration per head of population is less than 5 per cent, which in practical terms is most likely due to access to technology both at an individual and an organisation level. There has been fairly limited development of the Internet infrastructure in Africa because of geographical extremes, political instability and controls, and lack of financial investment. In Asia, especially China in the early days, consumer adoption of the Internet was severely restricted by political factors. Recently, these markets have become more liberalised and subject to less restrictions, which has resulted in rapid growth in user populations. Interestingly, Asia now has more individual Internet users than anywhere else in the world; almost double the number in Northern America (see Figure 1). The impact of the changing user base is that more web sites are becoming available in the native languages of the users and in the future English may not continue as the dominant language of the web.

Figure 1 about here

Northern European countries have a higher level of penetration per head of population than Southern European and former eastern block countries (Chaffey *et al*, 2003), with Scandinavia leading the way. Iceland continues to have the highest levels of Internet access with almost 90 per cent of the population being *connected*. National and individual wealth accounts for much of the variation in access in European countries (see Table 2). With the exception of Ireland, which

is currently 21st in the Internet penetration population rankings, the top countries in terms of GDP per capita are also at the top of the rankings in terms of Internet penetration. North America has the highest overall penetration of the seven continents, which is unsurprising given it is where consumer access to the Internet originated and arguably offers much lower barriers to access than any other part of the globe e.g., free local telephone rates, widespread use of computers. However, it should be noted, there is variation in penetration rates amongst North American users based on race, gender, age. Moreover, Hoffman *et al.* (2004) argue that although the Internet is becoming indispensable, inequities exist: *'an essential part of everyday life - and indispensable in many ways – for many individuals in our society, Internet access remains elusive'*.

Table 2 about here

The Internet infrastructure spans the globe but analysis of the penetration of user populations shows there are major variations in levels of access depending on where consumers live. Furthermore, even within nations with high levels of Internet access there are high levels of variability. Overall, the key trend is that the user base continues to grow and as a result global Internet penetration is increasing. Currently in nations with well established technological infrastructures, penetration appears to stabilise at around 60 to 65 per cent of the population. Access to suitable technology is a fairly practical explanation as to why there is variation in Internet user populations but there are other reasons why not all shoppers buy online: product choice.

2.1.2 Product choice

The sales of different types of products have been widely discussed in both practitioner and academic literature (Peppard and Rylander, 2005) but relatively little is known about the impact of product choice and availability on the consumers' intention to shop online. According to Nikolaeva (2006), *"Internet sales still represent a relatively small share of the total retail sales"* even though there has been continued growth in online sales in recent years? It is possible that it is not the customers' lack of willingness to shop online, which is a major barrier to the growth of

online sales but the choice of goods provided for sale by the retailers. Choice and availability of goods has rarely been explored *per se* within the literature as products are invariably considered in terms of, say *suitability* for Internet retailing and the extent of *intangibility* of physical goods (Doherty *et al*, 1999; Peppard & Rylander, 2005). Many retailers do not offer consumers the opportunity to transact via the Internet, which could significantly affect the *global* range of products for sale, which is likely to ultimately affect the consumer intention to shop online¹. Table 3 shows the growth of online sales of product categories in the UK. The widest choice of online retailers can be found in the following product activity sectors: consumer-electronics, wine, toys, jewellery and books and the narrowest choice: speciality foods, footwear, health and beauty ranges, sports goods and DIY. In the UK, about a third of established retailers offer goods for sale online, which could mean that a consumers' elected set of retailers are not selling online, and is therefore likely to influence online shopping intentions. However, this does not necessarily mean that specific products are not available online because online retailers often offer greatly extended ranges of products.

Table 3 about here

Indeed, most major product activity sectors appear to be represented in the online retail landscape (in the UK at least), which suggests a good breadth in range of available products. However, it is important to consider the depth of range: availability and choice at the product variant level if we are to be able to draw conclusions about online product choice. Brynjolfsson *et al* (2003), studied the economic impact of the sale of new goods via the Internet and found “...*the most important benefits of Internet retailing are not fully reflected in lower prices, but rather are due to the new goods and service made readily available to consumers*”. Their work identified the importance of choice in terms of the impact of *hard-to-find* products and suggested the increase in product variants: providing Internet customers with access to millions of products, has a much greater impact on the online shopper's willingness to purchase online than prices. Table 4 shows a comparison of product variations between on and offline retailers.

¹ It should be noted, this paper focuses on the sale of new goods via the Internet, which are important in economic terms.

Table 4 about here

This section of the paper has considered the individual, the impact of geography, and product choice and availability in order to try to determine the major factors likely to affect an individual's intentions to shop online. The consumers' choice appears to be affected by a number of different factors, which are likely to influence their overall intention to shop online. Some of these factors the consumer is in control of but in the case of product choice the retailer holds the key insofar as the consumer is greatly affected by the choice and range of product available online but they have limited influence over which goods are made available.

Indeed, it is possible to suggest the online retail provision represents a landscape similar in form to that of an archipelago, found close to a large land mass. In this analogy, sea level represents the broad level of online retail provision within product activity sectors, the large land mass represents the physical world of retailing and *hotspots* (islands) representing sites of intense product availability. Therefore, the consumers' willingness to venture off shore into the *sea* of online shopping is not only likely to be affected by individual factors such as who they are, where they live and what they think, feel and believe but also by the extent to which product *hotspots* meet their shopping needs. So how are online retail *hotspots* developed and why do some retailers offer extended deep ranges and others no products at all?

3 Factors Affecting the Development of Online Retail Provision

As discussed earlier, online retail provision remains highly variable. On the one hand some retailers have '*whole heartedly embraced the Internet*' e.g., Argos offers a full ranges of products to consumers throughout the UK and Internet sales account for over 16 percent of the company's total retail sales (Verdict, 2007). On the other hand, some retailers '*have been far more timid either developing small scale, experimental applications or completely ignoring the Internet's potential altogether*' (Ellis-Chadwick *et al*, 2002).

Table 5 shows key factors cited as affecting levels of retailer adoption of the Internet and the attributed authors. It is possible to identify key dimensions within these factors, which are likely to significantly affect online retail marketing planning and ultimately the development of online retail provision. The dimensions are:

- I. Financial Dimension** – Retailers are beginning to carefully consider the Internet’s potential to deliver economic gains. Doherty, *et al*, (1999), O’keefe *et al*, (1998) and Ashworth *et al*, (2006) have over time stressed the importance of financial factors and how the extent to which retailers can benefit from economics of scale is likely to influence rates of Internet adoption. Retailers are also likely to evaluate the cost of operations (Doherty *et al*, 2003), the availability of operational and development funding (Ashworth *et al*, 2006) and the time line of online profitability. The outcome of a retailer’s analysis of financial variables is likely to critically affect whether a retailer offers online purchasing to customers.

- II. Operational Dimension** – Grewal *et al*, (2004) highlighted the importance of the suitability of product range and the impact of logistical complexities of getting goods to the customer at acceptable costs and within an appropriate time frame as key determinants of whether retailers offer the Internet as a channel choice. For successful development of the online channel retailers also need to have in place a suitable technological infrastructure, and a supportive and technologically integrated supply chain. A retailer’s assessment of operational variables is likely to impact not only on the extent of development of online retail provision but also on the level of the online service provision. Other factors, which can be considered under the operational dimension are company size and maturity and the choice of online format. In other words the extent to which a retailer integrates the on and offline channels.

- III. Market Dimension** – A retailer’s perceptions and understanding of online market potential are cited as important indicators of the level and range of development of

online shopping provision (Lee & Brandyberry,2003; Lee & Kim, 2007). Retailers tend to develop understanding of the market potential by assessing the suitability of the customer base (Grewal *et al*, 2004). However, researchers suggest it is also important to understand the customer experience in a multi-channel trading environment if the online channel is to be seriously developed. From this view point, retailers should assess customers' perceived *ease of use*, convenience, levels of security, in order to develop a realistic assessment of the market potential (Grewal *et al*, 2004).

IV. Strategic Dimension – According to Doherty *et al*, (2003) and OKeefe, *et al*, (1998), strategic vision and leadership are critical to the development of a retailer's online sale provision. However, a clear vision needs to be supported by appropriate competencies and capabilities (Lee & Kim, 2007), say suitable technological and Internet marketing expertise (Lee & Brandyberry,2003), appropriate technological, financial and operational resources for a retailer to develop a competitive positioning.

Table 5 about here

The implications are that for retailers to engage successfully in developing transactional stores online, they need to have certain factors in place: well-resourced strategic leadership, that can navigate a course, which not only creates a clear online positioning but also a sustainable competitive advantage; a rich and fertile target market consisting of consumers who are motivated and can have their needs satisfied by shopping online; operational and financial capabilities and competencies, which can ensure a smooth and profitable passage of goods throughout the supply chain from manufacturer to consumer.

4 The Future of the Online Retail Market

In this paper we have specifically discussed consumer access to the Internet, consumer behaviour issues, the online retail provision and factors which are affecting this provision. The aim was to

determine the extent to which specific factors influence consumers' intentions to shop online and the extent to which retailers provide online shopping services in order to consider the future of online retailing. Figure 1 summaries key considerations, likely to affect the future development of the global spread of online retailing.

Figure 1 about here

Researchers have considered many factors likely to affect retailer uptake of the Internet. Many retailers now accept the significance of the Internet as a retail channel and the strategic importance of the increase in volume of online retail sales and the frequency with which shoppers buy online. E-commerce had a slow start in a retail context and few retailers offered goods for sale online but currently Verdict (2007), predict the online spend will triple in the UK during the next five years and the current rate of growth is significantly out pacing the retail sector as a whole. Furthermore, the Internet is changing the way people live their lives and as a result in certain parts of the world there is rapidly increasing demand for online retail provision. For example, the UK has become Europe's largest market for online sales (Mesure, 2006), online sales in South Africa are increasing rapidly year on year (RNCOS, 2007), and India is leading the growth of online sales in Asia due to Government support and an increasing urbanised population (Euromonitor International, 2007). However, the extent to which the Internet becomes the shoppers' channel choice in the future largely remains in the hands of the retailers. If more retailers offer greater product choice supported by high quality levels of service, the selling of physical goods online may become the *de facto* way of shopping around the world. Indeed, technological solutions are being developed all the time, which give retailers to the opportunity to enhance the customers' online experience: multimedia content, 3-d stores, social networking. Only, a small number of retailers are currently experimenting with such cutting edge technologies but the extent to which use becomes widespread will largely be dependent on the experiences of a few leading retailers.

Moreover, there are limitations in understanding of the online retail landscape, which may impede its development namely, not only is the online retail landscape uneven - consisting of

hotspots of intense product activity surrounded by somewhat bland and limited product offers - but also there are restrictions in terms of which consumers can or want to *go shopping online*. The key point is, unless retailers' develop the infrastructure, support systems, and competencies which allow the consumer to shop online and create online stores selling suitable product ranges, it will not matter what their demands, requirements or desires of the consumers are in terms of online behaviour they will not choose to shop online.

References

- Ashworth, C; Schmidt, R.; Pioch, E; Hallsworth, A. (2005) 'An Approach to sustainable fashion, e-retail: A five stage evolutionary strategy for clicks and mortar and pure play enterprises'. *J. of Retailing and Consumer Services*, Vol. 22, Nos, 6/7, 493-520.
- Brengman, M., Guens, M., Weijters, B., Smith, S. and Swinyard, W. (2005) 'Segmenting internet shoppers based on their web-usage-related lifestyle: a cross-cultural validation' *J of Business Research*, Vol. 58, No.1, 79-88
- Brynjolfsson, E., Yu, H. and Smith, M. (2003) 'Consumer Surplus in the Digital Economy: Estimating the Value of Increased Product Variety at Online Booksellers' *Management Science*, Vol. 49, No. 11, 1580-1596.
- Chaffey, D., Ellis-Chadwick, F.E., Johnston, K. and Mayer, R. (2003) *Internet Marketing: Strategy, Implementation and Practice*, 2nd Eds, Prentice Hall, London.
- Doherty, N.F., Ellis-Chadwick, F.E. and Hart, C.A. (1999) 'Cyber Retailing in the UK: The Potential of the Internet as a Retail Channel', *Int J. of Retail and Distribution Management*, Vol. 27, No. 1, 22-36.
- Doherty, N.F., Ellis-Chadwick, F.E. and Hart, C.A. (2003) 'An Analysis of the Factors Affecting the Adoption of the Internet in the UK Retail Sector', *J. of Business Research*, Vol. 56, No. 11, 887-897.
- Doherty, N.F. and Ellis-Chadwick, F.E. (2006) 'New Perspective in Internet Retailing: A Review and Strategic Critique of the Field', *Int J. of Retail and Distribution Management*, Vol. 24, No. 4/5, 389-411.
- Donthu, N. and Gracia, A. (1999) 'The Internet shopper', *J. of Advertising Research*, Vol. 39, No. 3, 52-58
- Ellis-Chadwick, F.E. (2000) *An empirical Study of Internet Adoption Among Leading UK Retailers*. Loughborough University Doctoral Thesis.
- Ellis-Chadwick, F.E., Doherty, N.F. and Hart, C.A. (2002) 'Signs of Change? A Longitudinal Study of Internet Adoption in the UK Retail Sector', *J. of Retailing and Consumer Services*, Vol. 9, No.2, 71-80.
- Ellis-Chadwick, F.E., Doherty, N.F and Anastasakis, L. (2007) 'E-strategy in the UK Retail Grocery Market: A Resource-Based Analysis', *Int J. of Managing Service Quality* Vol. 17, No. 6, 702-727

- Euromonitor, (2007) India Leads Growth in Online Travel market, Euromonitor International Plc, Head Office, 60-61 Britton Street, London EC1M 5UX.
- Grewal, D., Iyer G. and Levy, M. (2004) 'Internet retailing: enablers, limiters and market consequences', *J. of Business Research*, Vol. 57, No. 7, 703-713.
- Hansen, T. (2005) 'Consumer adoption of online grocery buying: a discriminant analysis', *Int. J. of Retail & Distribution Management*, Vol. 33, No. 2, 101-21
- Harris, L. and Goode, M. 'The four levels of loyalty and the pivotal role of trust: a study of online service dynamics' *J. of Retailing*, Vol. 80, No. 2, 139-58.
- Hoffman, D. Novak, T and Schlosser, A. (2000) 'The evolution of the Digital Divide: How Gaps in Internet Access May Impact Electronic Commerce', *J. of computer-mediated Communications* Vol. 5, No.3
- Hoffman, D., Novak, T. and Venkatesh, A. (2004) 'Has the Internet Become Indispensable?' *Communications of the ACM* July 2004/Vol.47, No. 7, 37-42.
- Internet Usage and World Population Statistics (2007) <http://www.internetworldstats.com/stats.htm> (accessed September, 2007).
- International Monetary Fund (2007) World Economic Outlook Database, April.
- Keen, C., Wetzels, M., de Ruyter, K. and Feinberg, R. (2004) 'E-tailers versus retailers: which factors determine consumer preferences' *J of Business Research*, Vol. 57, 685-95
- Lee, S. and Brandyberry, A. (2003) 'The e-tailer's Dilemma' *ACM SIGMIS Database*, Vol. 34, No.2.
- Lunce, S., Lunce, L., Kawai, Y., and Balasundrum (2006) 'Success and Failure of Pure-play Organizations: Webvan versus Peapod, a Comparative analysis'. *Industrial Management & Data Systems*, Vol. 106, No. 9, 1344-1358.
- Nikolaeva, R. (2006) 'E-commerce Adoption in the Retail Sector: Empirical Insights', *Int J. of Retail and Distribution Management*, Vol. 24, No. 4/5, 369-387.
- Mesure, S. (2006) 'UK is Europe's Biggest Online Retail Market', *The Independent*, 19th July.
- O'Keefe, R. M.; O'Connor, G. and Kung, H. J. (1998) 'Early adopters of the Web as a retail medium: small company winners and losers', *European J. of Marketing*, Vol. 32, No.7/8, 629-643.
- Perea y Monsuwe, T. (2004) 'What drives consumers to shop online? A literature review', *Int. J. of service industry Management*, Vol. 15, No. 1, 102-121

- Punakivi, M. and Saranen, J. (2001) 'Identifying the Success Factors in e-grocery Delivery', *Int J. of Retail Distribution and Management*, Vol. 29, No.4, 156-163.
- Punakivi, M. and Tanskanen, K. (2002) 'Increasing the Cost Efficiency of e-fulfilment Using Shared Reception', *Int J. of Retailing and Distribution Management* Vol. 30 No.10, 498 – 507.
- Peppard, J. and Rylander, C. (2005) 'Products and Service in Cyberspace', *Int J. of Information Management*, Vol 25, No. 2005, 335-345.
- RNCOS (2007) 'Online Retail Sales in South Africa Rising' <http://www.rncos.com/Blog/2007/07/online-retail-sales-in-south-africa.html> (accessed October, 2007).
- Shui, E. and Dawson, J. (2004) 'Comparing the Impacts of Technology and National Culture on Online Usage and Purchase from a four country Perspective', *J. of Retailing and Consumer Services*, Vol.11, No.6, 385 – 394.
- Slyke, C., Comunale, C. and Belanger, F. (2002) 'Gender Differences in Perceptions of Web-based Shopping', *Communications of the ACM*, Vol. 45, No.8.
- Source, P., Perotti, V and Widrick, S. (2005) 'Attitudes and age differences in online buying' *Int. J. of Retail and Distribution Management* Vol. 33, No. 2, 122-32
- Szymanski, D. and Hise, R.(2000) 'e-satisfaction: An Initial Examination', *J. of Retailing*, Vol. 76, No.3 , 309-322
- Tan, M., and Teo, T.S.H. (2000) 'Factors influencing the adoption of Internet banking', *J. of the Association for Information Systems*, Vol. 1, No.5, 1-42.
- Tesco Plc (2006) 'Tesco: Every Little Helps Annual Report and Financial Statement 2006', available at: http://www.tescocorporate.com/images/tesco_review_SFS_2006.pdf (accessed September 2006).
- Tesco Plc (2006a) 'Tesco Direct a New Concept in Non-Food Shopping', available at: <http://www.tescocorporate.com/page.aspx?pointerid=DA49BE38CB2142D988B436E900B44B78>, announced on 31 August 2006 (accessed September 2006).
- Verdict Research (2007) *UK e-retail 2007*, Verdict Research limited, Charles House, 108-110 Finchley Road London, NW3 5JJ.
- Vijayarathy, L. (2004) 'Predicting consumer intentions to use online shopping: the case for an augmented technology acceptance model' *Information and Management*, Vol. 41, 747-762.
- Wilde, S.J., Kelly, S.J. and Kelly, J. (2004) 'An exploratory investigation into e-tail image attributes important to repeat to Internet savvy customers', *J. of Retailing and Consumer Services*, Vol. 11, 131-139.

Wolfenbarger, M. and Gilly, M. (2003) 'etailQ: Dimensionalizing, Measuring and Predicting etail Quality', *J. of Retailing*, Vol.79, No.3, 183-198.

Zhou, L., Dai, L. & Zhang, D. (2007) 'Online shopping acceptance model; a critical survey of consumer factors in online shopping' *J. of Electronic Commerce*, Vol. 8, No. 1

Table 1 World Internet Usage and Population Statistics

WORLD INTERNET USAGE AND POPULATION STATISTICS²						
World Regions	Population (2007 Est.)	Population % of World	Internet Usage, Latest Data	% Population (Penetration)	Usage % of World	Usage Growth 2000-2007
Africa	933,448,292	14.2 %	43,995,700	4.7 %	3.5 %	874.6 %
Asia	3,712,527,624	56.5 %	459,476,825	12.4 %	36.9 %	302.0 %
Europe	809,624,686	12.3 %	337,878,613	41.7 %	27.2%	221.5 %
Middle East	193,452,727	2.9 %	33,510,500	17.3 %	2.7 %	920.2 %
North America	334,538,018	5.1 %	234,788,864	70.2 %	18.9%	117.2 %
Latin America/Caribbean	556,606,627	8.5 %	115,759,709	20.8 %	9.3 %	540.7 %
Oceania / Australia	34,468,443	0.5 %	19,039,390	55.2 %	1.5 %	149.9 %
WORLD TOTAL	6,574,666,417	100.0 %	1,244,449,601	18.9 %	100.0 %	244.7 %

Table 2 Wealth of Nations Compared to Internet Penetration: Europe

Country	Population	GDP per Capita³	% Population⁴ (Internet Penetration)	Internet Population Ranking in Europe
Luxembourg	463273	\$87,955	68.00%	6th
Norway	4657321	\$72,306	67.40%	8th
Iceland	299076	\$54,858	86.30%	1st
Ireland	4104354	\$52,400	50.20%	21st
Switzerland	7523024	\$51,771	67.80%	7th
Denmark	5438698	\$50,965	69.20%	5th
Sweden	9107795	\$42,383	75.60%	2nd

² Internet Usage and World Population Statistics are for September 30, 2007, <http://www.internetworldstats.com/stats.htm>

³ International Monetary Fund, World Economic Outlook Database, April 2007

⁴ Internet Usage and World Population Statistics are for September 30, 2007, <http://www.internetworldstats.com/stats.htm>

Netherlands	16447682	\$40,571	73.30%	4th
Finland	5275491	\$40,197	62.30%	10th
United Kingdom	60363602	\$39,213	62.30%	11th

Table 3 Growth in online sales of Products categories by UK Retailers⁵

Product Activity Sector	Total No. Retailer	No of retailers offering online sales	% penetration of UK retailer population
Electricals	36	33	92%
Alcohol	13	11	85%
Toys	16	10	62%
Jewellery	20	11	55%
Books	56	28	50%
Clothing	161	53	33%
Furnishing	60	18	30%
DIY	47	13	28%
Sporting Goods	39	11	28%
Health & Beauty	65	17	26%
Footwear	38	5	13%
Speciality foods	104	9	9%
Totals	686	225	33%

⁵ Original Source: Ellis-Chadwick (2000). Figures have been adapted and updated using data collected in the last quarter of 2005.

Table 4 Product Line Variants: A Comparison of Online and Bricks and Mortar Channels⁶

Product Category	Amazon.com	Typical Stores	Large	Bricks-and-mortar
Books	2,300,000	40,000 - 100,000		
CD's	250,000	5,000 - 15,000		
DVD's	18,000	500 - 1,500		
Digital Cameras	213	36		
Portable MP3 Players	128	16		

⁶ Adapted from Bryolfsson et al (2003)

Table Key factors affecting levels of retailer adoption of the Internet: Facilitators and Barriers

Factors	O'Keefe <i>et al</i> (1998)	Doherty <i>et al.</i> (1999)	Tan &Teo (2000)	Punakivi & Saranen (2001)	Punakivi & Tanskanen (2002)	Doherty <i>et al.</i> (2003)	Lee & Brandyberry (2003)	Grewal <i>et al.</i> (2004)	Lunce <i>et al.</i> (2006)	Ashworth <i>et al</i> (2006)	Verdict (2007)	Lee & Kim (2007)
Capabilities and Resources	✓	✓				✓	✓			✓		✓
Channel - Relative advantage		✓				✓						✓
Choice of online format								✓				
Company size	✓								✓			
Cost of operating sustainable online retail operations – economies of scale	✓	✓				✓		✓		✓		
Ease of access, use and convenience								✓	✓		✓	
Economies of scale								✓		✓		✓
innovativeness								✓				
Internal expertise	✓	✓				✓	✓	✓		✓		✓
Level and type of information provision								✓				
Levels of customer service	✓							✓			✓	✓
Logistical infrastructure complexities			✓	✓	✓	✓		✓		✓		✓
Maturity												
Online service quality												
Perceived and actual levels of Security		✓				✓		✓				✓
Product Category and range	✓	✓						✓	✓		✓	
Size and maturity of target market	✓	✓				✓			✓	✓		
Strategic vision and commitment	✓	✓				✓				✓	✓	✓
Sufficient Financial capital		✓	✓						✓	✓		
Suitability of customer base	✓	✓				✓		✓				✓
Suitable technological infrastructure			✓			✓						✓
Supply chain management issues										✓	✓	
The physicality of the shopping experience		✓				✓		✓		✓	✓	
Unique market proposition and clear differentiation									✓			

Figure 1 Key Areas of Influence Affecting the Development Global Retail Provision.



