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# **New Perspectives in Internet Retailing: A review and strategic critique of the field.**

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## **Abstract**

**Purpose** – *The primary aim of this paper is to critically review the literature that explicitly addresses the adoption and application of Internet technologies, by retailers, for the promotion and sale of merchandise. In particular, this study seeks to present a holistic and critical review of what is currently known, in order to help establish the gaps that will need to be addressed in future research studies.*

**Design / Methodology /Approach** – *The study adopts both quantitative and qualitative approaches to conduct the review, in an attempt to ensure that it is well focused and systematic.*

**Findings** - *The key finding of this study is that whilst the Internet retailing literature is extremely wide-ranging, and somewhat fragmented, it can be decomposed into three broad categories: 1) the retailer perspective; 2) the consumer perspective; and 3) the technological perspective. Moreover, it has been noted that whilst the strategic potential of the Internet is routinely mentioned in nearly all studies of electronic retailing, there have been very few studies that have explicitly or empirically targeted its strategic management.*

**Research limitations / implications** - *The major limitation of this study is that it has been based upon a review of a sample of journals, rather than a review of all relevant articles. However, because this sample includes those journals that have the greatest coverage of Internet retailing articles, we believe that the study should have many important implications for researchers, particularly in terms of where future studies of Internet retailing might best be positioned.*

**Originality / value** - *This research offers a synthesis of the literature, which provides significant new insights into the field of Internet retailing, and in particular its strategic importance.*

**Key words** – *Internet retailing; e-retailing; e-commerce, strategy, on-line shopping, literature review.*

**Paper type** - *Research paper*

## **1 Introduction**

The emergence of the Internet in the 1990s, and its application in electronic commerce, generated a huge amount of interest amongst academics, politicians, industrialists, bankers,

managers and entrepreneurs. As an effective, new communications channel, the potential of the Internet appeared obvious – easy access, flexibility, speed, ability to communicate large amounts of information, cost efficiency and easy maintenance – to name but a few. However, it was the Internet's unparalleled potential for global connectivity, through its ability to '*open up new avenues for business*' (Pyle, 1996), that was the primary catalyst for the explosion of interest and activity in electronic business. At the forefront of this revolution have been the retailers, who have viewed e-commerce as a new front on which to compete and gain advantage over their rivals (Amit & Zott, 2001). In particular, its ability to provide information, facilitate two-way communication with customers, collect market research data, promote goods and services and ultimately to support the on-line ordering of merchandise, provides an extremely rich and flexible new retail channel (Doherty & Ellis-Chadwick, 2003). Indeed, on-line shopping is now estimated to be the fastest growing area of Internet usage (Forsythe & Shi, 2003).

Given the Internet's potential to radically re-configure the underlying processes of retailing, and because of the highly dynamic and innovative nature of the electronic marketplace, there has been an explosion of academic interest in the application of this new electronic phenomenon, in the retail context. It is not perhaps surprising that from such a highly dynamic organizational phenomenon, an equally dynamic body of literature should emerge. Moreover, because the commercial exploitation of the Internet has technical, logistical, commercial, strategic, behavioural, social and legal implications – to name but a few – the emergent body of literature is both extremely large and highly diverse. Consequently, it is important for academics to periodically stand back, and critically take stock of this body of literature. Indeed, a small number of researchers have already risen to the challenge of reviewing the Internet literature, and three reviews, in particular (i.e. Reynolds, 2000; Barwise et al; 2002; Ngai, 2003) have been influential in shaping this study. However, there is need for another review that specifically focuses upon the current Internet retailing literature, as two of the existing reviews (Barwise et al; 2002; Ngai, 2003) have addressed the related field of Internet marketing, but without a clear retail focus, whilst the Reynold's (2000) review, which does have an Internet retailing focus, is now rather dated. The primary aim of this paper is, therefore, to present the results of a critical literature review, which seeks to highlight key themes, emerging patterns and perhaps most importantly gaps in the literature that are still to be filled. Given the growing recognition that the Internet has the potential (Porter, 2001) to significantly affect an organization's strategic positioning, we were particularly interested to explore the extent to which strategic issues have been explicitly tackled in the Internet retailing literature.

The paper is organized as follows. The following section summarizes the methods used to conduct the review. In the third section, the major themes to emerge from the review are then presented and critically evaluated. A discussion section then follows, in which a strategic lens is applied to this body of literature, to critically appraise the gaps in literature, from which a research agenda is presented. In the concluding section, the key themes of the study are summarized, and the paper's limitations, are explicitly articulated.

## 2 Research Approach

Ngai (2003) highlighted the difficulties faced, in attempting to review the Internet marketing literature, because '*the relevant material is scattered across various journals*'. In attempting to review the Internet retailing literature, we were faced with a very similar problem, and clearly it would have been impractical to try to identify and review each and every journal article ever published in this domain. Consequently, to make the task manageable, rather than attempting to survey the full population of Internet retailing articles, we decided to identify and target a coherent sample of influential journals, and then thoroughly review all articles appearing in these, over the past ten years. More specifically, the process by which this was accomplished is as follows:

1. **Identify appropriate on-line indexes:** As there is no single citation or abstracting index that covers every single academic journal, where articles on Internet retailing have been published, it was necessary to identify, and ultimately use, a range of such sources. In this context, the *Web of Science* and *ABI Inform* were found to be particularly helpful. However, even sites such as these, which provide a broad coverage, don't cover all journals where Internet Retailing articles were known to have been published. Consequently, many publisher-specific web-sites, such as *Science Direct* and *Emerald*, were also targeted.
2. **Identify appropriate search terms:** We were interested in identifying articles that primarily focused upon the application of electronic technologies, in a very clear retail context. Consequently, a range of appropriate search strings, which covered all likely possibilities were identified. Ultimately, search strings such as '*Internet AND retailing*', '*Internet and retail*', '*e-retailing*', '*on-line AND shopping*' and '*e-commerce AND retailing*' proved to be amongst the most useful in this context. It is important to note that as our review only focused upon the customer facing elements of a retailer's Internet activities, we ignored all studies relating to on-line purchasing.
3. **Construct an appropriate sample of journals:** It was envisaged that those journals where articles that explicitly address Internet retailing are most commonly published, were likely to be the most appropriate to target for our review. Consequently, having identified a range of appropriate search strings, these were systematically applied to each of the targeted on-line indexes. The numbers of hits for every different journal was recorded, and the ten journals, in which Internet retailing related articles were found to be most commonly published, were ultimately identified, and included in our target journals.
4. **Identify papers to include in review:** Having constructed a sample of ten key journals, every issue of each, in the period 1996-2005, was inspected and the titles, key words and abstracts of each paper thoroughly reviewed in order to identify relevant papers to include in the review.

The rationale for identifying a selection of appropriate journals, before conducting a systematic manual review of their contents, was to ensure that only those papers that had a clear and significant Internet retailing focus were ultimately included in this literature review. In total, this

rigorous search approach identified 265 journal articles to include in the review (see table 1). However, it is important to note that whilst this list of papers formed the focal point for our analysis, where a potentially important additional article was cited from one of our target papers, it will also have been reviewed, and where appropriate, it will have been discussed in our 'review findings' section.

**Table 1:** Break-down of Journals featuring articles on Internet Retailing

<b>Journal</b>	<b>No. of. Papers</b>
<i>International Journal of Retail &amp; Distribution Management</i>	51
<i>Internet Research: Electronic Networking Applications &amp; Policy</i>	42
<i>Journal of Business Research</i>	37
<i>Communications of the ACM</i>	28
<i>Journal of Retailing &amp; Consumer Services</i>	25
<i>Journal of Consumer Marketing</i>	21
<i>Journal of Interactive Marketing</i>	20
<i>Journal of Retailing</i>	19
<i>International Review of Retail Distribution &amp; Consumer Research</i>	11
<i>Journal of Services Marketing</i>	11
<b>Total</b>	<b>265</b>

Each of the 265 Internet retailing related papers has been reviewed and categorised. From his review of the Internet marketing literature, Ngai (2003) concluded that it could be classified into three broad areas: 1) management and planning, 2) consumer behaviour, 3) channels of distribution. It is perhaps not surprising, given the close relationship between the Internet retailing and Internet marketing domains, that our classification of the literature bore strong similarities to the Ngai (2003) categorization. However, as described below, it was necessary to modify the category names, and develop a number of sub-themes, within each category:

- **Retailer Perspective:** An important theme, within the literature, addresses the adoption of electronic commerce, from the retailers' perspective. Key areas of work, within this category include: the Internet's market potential (e.g. Rowley, 1996); the factors affecting the success of trading online (e.g. Doherty *et al*, 1999); and management issues associated with on-line operations (e.g. Punakivi & Saranen, 2001).
- **Consumer Perspective:** A second very significant body of work addresses the impact of electronic commerce, but this time from the consumers' perspective. Key themes identified in this area include: how perceptions of the Internet affect its adoption (e.g. Brown and Voges, 2003); and how experiences of on-line shopping affect its perceived quality or value (e.g. Wofinburger & Gilly, 2003).
- **Technological Perspective:** The final obvious focal point for electronic retailing research is the technology itself, which acts as a conduit between the retailer and the consumer. The

technological perspective could be decomposed into the following themes: web-site design and software tools (e.g. Etteredge, 2001; Ganapathy, 2004); and e-commerce infrastructure (e.g. Lee & Brandyberry, 2003).

The distribution of the articles within the three broad categories, showed equally large bodies of work developing in the consumer (133 papers) and retailer (107 papers) domains , but rather fewer contributions with a technological perspective (25 papers). As can be seen from the analysis of the distribution of papers, by year and perspective (see Table 2), there has been a relatively smooth build up of articles between 1996 and 2004, but in the past two years the number of publications has perhaps begun to stabilise, possibly because the field is achieving a degree of maturity. It is also interesting note how there has been a significant shift from retailer-focused research to consumer-focused research: in the period 1996-2001 there was a 53%-33% split between the retailer to consumer perspectives, but in the period 2002-2005 this position has almost been reversed, with 35% - 57% ratio now being witnessed.

**Table 2:** Distribution of Papers by Date and Research Perspective

<b>Year of Publication</b>	<b>Retailer Perspective</b>	<b>Consumer Perspective</b>	<b>Technology Perspective</b>	<b>Total Articles</b>
1996	4	0	1	5
1997	4	1	1	6
1998	2	4	2	8
1999	3	5	0	8
2000	11	10	1	22
2001	16	5	5	26
2002	17	22	1	40
2003	13	21	5	39
2004	21	30	6	57
2005	16	35	3	54
<b>Total</b>	<b>107</b>	<b>133</b>	<b>25</b>	<b>265</b>

### **3 Review Findings**

The aim of this section is to identify the key themes and concepts associated with each of the three perspectives, identified in the previous section. In so doing, the key gaps in the literature are articulated.

#### **3.1 The Retailer Perspective**

A large number of studies have sought to explore the impact of the Internet from the retailers' perspective. Whilst this body of literature covers a wide spectrum of issues, it can be broadly clustered around the following three themes:

- 1. The potential of the Internet as a channel to Market.** Mathwick *et al* (2001) argue that for retailers to be successful, they must understand the “*fundamental difference in the experience delivered by multi-channel retail environments*”. Understanding how the Internet is different has been widely researched in order to help establish how retailers can unlock its potential, either as an alternative or as a complementary retail channel (e.g. Rowley, 1996; Morganosky, 1997, Hart *et al*, 2000, Levenburg, 2005). In addition to exploring how the technology can deliver benefits, the likely growth and dispersion of online markets has also attracted significant attention from researchers, particularly at the start of the Internet revolution (e.g. Pavitt, 1997, Ellis-Chadwick *et al*, 2002). Another significant strand of research has sought to explore the likely economic impact of online markets, and how internet-based electronic marketplaces affect pricing and competition (e.g. Wood *et al*, 2005; Zhoa, & Cao, 2004; Tang & Xing, 2001). Furthermore, opportunities created by changing channel relationships are another aspect of the Internet’s potential which has been explored, particularly in terms of the effect of changing power structures within the supply chain as power shifts towards the consumer (Priluck, 2001). Finally, as on-line shopping has grown exponentially, and as a critical mass is established, the potential of the Internet has also been explored in terms of how it might effect and or replace physical retail operations (e.g. Burt & Leigh, 2003; Ring & Tigert, 2001).
  
- 2. Factors affecting the adoption of the Internet:** To date, the adoption of the Internet amongst retailers has been characterised by a high degree of variability. Whilst some retailers have been relatively aggressive, developing sophisticated web-sites that target a wide range of markets with extensive product portfolios, others have been far more timid either developing small scale, experimental applications or completely ignoring the Internet’s potential altogether (Ellis-Chadwick *et al*, 2002; Doherty *et al*, 2003). Consequently, many researchers have sought to explore the factors that might explain these differing levels of adoption (e.g. Doherty *et al*, 2003; Teo & Pian, 2003; Ashworth *et al*, 2005). Indeed, it has been suggested that there are a variety of factors that have a significant affect on the level and extent to which retailers use the Internet as a channel to market. For example, the Internet’s capacity to deliver tangible economic gains (Vijayasarathy & Tyler, 1997); the relative advantages of trading online (Doherty *et al*, 1999); the fit between company product and target market (O’Keefe *et al*, 2000); the companies’ knowledge and resources (O’Keefe *et al*, 2000, Doherty *et al*, 2003; Lee & Brandyberry, 2003); and a wide range of operational factors (Ellis-Chadwick *et al*, 2002) have all been found to influence adoption levels.
  
- 3. Managerial Challenges:** As the Internet’s potential has become clearer, and the Internet revolution has gathered momentum, it has been recognised that retailers need guidance on how to confront the many managerial challenges that it poses (e.g. Reynolds, 1997; Swinyard, 1997; Grewal *et al*, 2004). Various operational and logistical solutions have been explored individually: streamlining of the home delivery concept (Punakivi & Saranen, 2001); service provision and online service quality (Drennan & McColl-Kennedy, 2003, Forbes *et al*, 2005, Kolesar & Galbraith, 2000, Tamimi, 2003), relationship management (Geisser, 2001, Wang *et al*, 2000) and restructuring and the management of the supply chain (Simons *et al*,

2002, Rabinovich, 2003). Of particular importance in the context of on-line operations are studies of the order fulfillment process, as it has been found to raise a number of significant logistical difficulties for the retailer, particularly in terms of the picking, packing, delivery and receipt of the selected goods (Punakivi & Tanskanen, 2002).

Whilst the Internet retailer literature, offers many interesting insights, it can be criticized in a number of key respects. For example, much of the discussion of the Internet's potential has been conducted at a conceptual level, and there have been rather fewer contributions that have empirically explored the actual benefits delivered via the Internet, or the wider organizational impacts that it might engender. There are also relatively few Internet retailing contributions in areas such as: performance measurement, marketing planning and practice or the integration of off-line customer support. At a more general level, it has been noted that the literature is rather disparate, addressing a wide variety of themes, but with no clear indication of how these themes might inter-relate. For example, it would be interesting to explore how a retailer's ability to tackle specific management challenges, such as order fulfillment or relationship management, impacts upon the potential of their web investments to deliver value. It is also noticeable that whilst much of this literature highlights the Internet's strategic potential (e.g. Doherty et al, 1999; Levenburg, 2005) and concludes that it will have significant strategic implications, very few contributions have been found that have a clear strategic focus and explicitly address strategic themes. For example, the existing Internet retailing literature does not appear to substantively address: the formulation of e-retail strategy, the attainment and sustenance of competitive advantage, the role of strategic capabilities / competencies, or the alignment of on-line activities with the traditional store-based operations.

### **3.2 The Consumer Perspective**

A second very significant tranche of research relates to studies that focus on explaining the on-line behaviour of consumers. Although this body of literature addresses a very wide array of variables that affect online consumer behaviour (Chang et al, 2005), it can be grouped into two broad categories, namely studies of '*consumer profile*' and studies of '*consumer experiences*':

#### **The Consumer Profile**

The literature identifies a number of variables relating to the Consumers' profile that will strongly influence the extent to which a particular consumer or customer segment is likely to engage with on-line shopping opportunities. Moreover, it is possible to decompose this wide array of variables into the following two distinct sub-categories, namely, *classification* and *character* variables:

- ❖ **Classification variables:** Any personal attributes that tend to remain static throughout an individual's life time, or evolve slowly over time, can be defined as '*classification variables*', as they can be used to identify and categorise consumers. Whilst it is recognised that classification variables may have a significant impact on the consumers' on-line behaviour, they will not generally be modified by the consumers' experiences of the virtual shopping environment. Key elements of a consumers' demographic profile that might influence their

on-line behaviour include variables such as income, education, race, age (Hoffman *et al.*, 2000), gender (Silkye *et al.*, 2002) and life-style (Brenngman, 2005). Research studies (e.g. Shiu & Dawson, 2004) have also identified the potential of consumers' cultural and social make-up to influence their on-line behavior.

- ❖ **Character Variables:** We define any attributes of a consumer's perceptions, beliefs and attitudes that might influence their on-line behaviour, and in particular their intention to shop, as '*character variables*'. Unlike the classification variables, these variables not only affect the ways an individual engages with the on-line buying process, but they may also be modified, over time, by the consumer's online experiences. The '*Theory of Reasoned Action*' (TRA) – and its close relations the '*Theory of Planned Behaviour*' (TPB) and the '*Technology Acceptance Model*' (TAM) - have been widely used as the basis for gaining insights into the variables that are most likely to influence a consumers' intention to shop (Keen *et al.*, 2004). Such studies typically seek to understand how a consumers specific beliefs about the Internet, shape their more general attitudes towards the Internet, which ultimately influence their intention to shop on-line (Vijayasarathy, 2004). For example, George (2004) has studied how a consumer's beliefs about the privacy and trustworthiness of the Internet might ultimately shape their attitudes towards the Internet and their purchasing intentions. In a similar vein, researchers have studied how the Internet's perceived '*usefulness*' and '*ease of use*' (Bhattacharjee, 2000; O'Cass & Fenech, 2003) might ultimately shape consumers' intention to shop.

Innovation diffusion theory (IDT) has also been regularly applied within the literature (e.g. Rai, 1998). For example, Hansen (2005) recently explored how well the consumers' perceptions the Internet's risk, relative advantage, communicability, complexity and compatability helped to discriminate between different types of Internet user. Other studies have been conducted that seek to assess how the consumers' perceptions with regard to the Internet might affect their purchase intentions, or on-line shopping behavior, but without adopting either the TRA or IDT perspectives. For example, Forsythe and Shi (2003) investigated the relationship between perceptions about risk and on-line shopping behaviour, Ward & Lee (2000) analysed the degree to which purchase behaviour is determined by perceptions of brand, whilst Srinivasan *et al.* (2002) explored the affect of loyalty on the consumer on-line behavior. Finally,

Previous studies indicate that both the '*character*' and the '*classification*' variables may have an important role to play in predicting on-line consumer behavior, but it should be noted that only the character variables may be modified, over time by Internet usage. For example, the age of a consumer may influence their chances of shopping on-line (Source *et al.*, 2005) but their age will clearly not be affected by their on-line experiences. By contrast, not only will a consumer's perceptions of risk affect their likelihood of shopping, but their experiences of Internet shopping might also, over time, affect their likelihood of shopping.

## **The Consumers' Experiences of On-line Shopping**

A significant amount of research interest has now also been focused upon the consumers' actual experiences of Internet retailing, as opposed to their more general perceptions, and the degree to which these will affect their overall assessment of the on-line shopping process. A wide variety of studies have been conducted exploring the impact of a variety of independent variables, such as ease of use, perceived control, interactivity, and shopping enjoyment on a range of different dependent variables, such as site quality, customer loyalty and intent to return (Wolfenbarger & Gilly, 2003). For example, Szymanski & Hise (2000) investigated the impact that the consumers' specific experience of convenience, merchandising, site design and security might have on their overall satisfaction with a particular web-site. In a similar vein, the antecedents of loyalty, such as service quality, trust, value and satisfaction, have also been investigated (e.g. Harris and Goode, 2004; Rafiq & Fulford, 2005). Other researchers have sought to perform detailed studies of the role that the consumers' experiences of single aspects of the retailers' on-line offerings, such as '*e-tail store image*' (Wilde et al, 2004) or '*store layout*' (Vrechopoulos et al, 2004), might have on their behavior. It is noticeable that the vast majority of studies focus primarily on the consumer experience of the web-site, rather than on elements of the off-line encounter, such as marketing communications, call-centre operations, service responsiveness, order delivery / fulfillment and after sales services. Indeed, Jiang & Rosenblom, (2005) conclude that research relating to experiences and encounter-specific satisfaction is sparse and the contribution of after-delivery satisfaction in an e-retail context is virtually unknown.

A large body of literature now exists, which explicitly adopts a consumer perspective of the on-line shopping process. However, as Keen et al (2005; p. 685) note '*little cohesive organization is yet evident*', and consequently it is still possible to discern some fairly significant gaps in this literature. For example, whilst the consumers' general perceptions about the Internet and their more specific experiences of the Internet have now been studied in detail, the link between the two - how consumers' actual experiences might influence their more general attitudes and perceptions has been rather neglected. In particular, it will be important to conduct longitudinal studies that explore how the consumers' general perceptions of issues such as risk, value and ease of use are shaped, over time, by their actual experiences of using web-sites. Some of the variables described in this section have also received relatively little attention. In particular, there are relatively few studies of the consumers' experience of the off-line elements of Internet retailing, and likewise, the importance of social and cultural elements of the consumer profile has also been under-researched. In terms of research methods, this body of literature can also be criticized for its over-reliance upon convenience samples, typically of university students.

It is also noticeable that most studies of on-line consumer behavior tend to be based upon consumers' self-assessment of their experiences, rather than through the objective analysis of their on-line actions – although one recent and innovative study of a retailers' '*click stream*' was used to understand evolving consumer behavior (Moe & Fader, 2004). A further methodological criticism of consumer-focused studies lies in its dependency upon quantitative studies, with the result that we now have many insights into the statistical associations between different combinations of variables, but limited understanding of why these arise or what their implications

are. Finally, Lohse et al (2000; p. 15) argue that research into on-line consumer behavior is important as '*it will help retailers to define their on-line strategies*'. However, it is noticeable that few researchers, to date, have explicitly evaluated how their studies of consumer behavior might impact on the strategic ambitions of specific retailers.

### 3.3 The technological perspective

A third major theme to emerge within the Internet retailing literature relates to the role and effectiveness of a variety of different Internet technologies, when applied in the retailing context. More specifically, contributions in this area can be grouped broadly into the following two areas:

- ❖ **Website design and software tools:** In the context of Internet retailing, web-site designs are discussed in terms of site facilities, features and functionality (Spiller & Lohse, 1997). For example, Katterattanakul & Siau (2003) explored the components of online stores and emphasized the importance of the efficient usage of technology, in areas such as fully functional hyper-links, efficient navigation systems, which enable customers to easily locate the particular information they require. Many software tools and multimedia technologies (such as Flash and QuickTime) have been developed to enhance the users' experience of web-sites. Retailers have been quick to incorporate such technologies in their web-sites, as it allows them to present and promote merchandise in an attractive and dynamic way (Jiang et al, 2005). Moreover, tools such as intelligent agents, shopping bots and graphic visualization tools are increasingly being applied in order to facilitate on-line consumer decision-making and improve levels of customer service (Rowley, 2000; Redmond, 2002; Ganapathy, et al, 2004; Jiang et al, 2005). Moreover, web-site designers are being encouraged to ensure that their offerings foster the development of long-term customer relationships (Geissler, 2001).
- ❖ **E-commerce infrastructure:** Important themes to emerge within this body of literature include: the complexities of technology adoption (Vijayasrathy & Tyler, 1997; Wang & Head, 2001) capabilities of the technology to facilitate retail activities (Alexis *et al*, 2004; Joseph & Stone, 2003) and the impact of the hardware and infrastructure on development of consumer trading (Lee and Brandyberry, 2003). Another significant theme in the literature addresses the cost-effectiveness of different technological platforms. For example, Reardon *et al* (1996) explore whether technology affected retail productivity and concluded it can contribute as much to retail margins as investment in additional selling space.

In the retail context, it is possible to discern gaps in the literature with regard to the impact of mobile technologies. In particular, it is important that future studies are conducted to explore the design of web-pages for use on small mobile devices, such as 3G mobile phones or PDAs. Moreover, little work has been conducted to explore how the emergence of wireless infrastructures might impact upon Internet retailing. As with the studies that adopt either a retailer or a consumer perspective, the technological literature can also be criticized because it lacks any clear strategic focus. In particular, the issue of how strategic objectives influence technological choices, and how technological choices ultimately facilitate or inhibit the

achievement of objectives, receives little explicit attention in the literature. For example, how do deficiencies in the international telecommunications infrastructure, particularly in developing countries, limit the retailers' strategic ambitions to expand into global markets?

#### **4 Discussion: What happened to the Strategic Perspective?**

In a similar vein to Ngai's (2003) appraisal of the Internet marketing literature, this review of the Internet retailing literature has confirmed that most contributions, to date, can be classified according to whether they adopt a retailer, a consumer or a technological perspective. Our critique of the literature has identified many specific gaps, associated with each perspective, that need to be filled, and most of these have been articulated in the previous section. However, arguably the most significant gap in the Internet retailing literature relates to those contributions that adopt a clear and explicit strategic perspective. Consequently, the aim of the discussion section is to further review this gap in the literature, before presenting a research agenda by which it may be filled.

Herrmann (2005; p. 111) argues that in '*a new period, marked by swift advances in technology*' there is an imperative need to conceive and create new '*paradigms in strategic management*'. Unfortunately, despite the Internet's significant impact upon the retail sector, as evidenced through this review of the literature, it has not become very clear how, if at all, the paradigm for strategic management within the retail sector has been modified. It would be unfair to claim that there are absolutely no contributions with an explicit strategic focus, as an embryonic strategic literature is perhaps beginning to emerge. For example, Min & Wolfenbarger (2005) have explored the relative advantage of various positioning strategies, whilst Bensebaa (2004) has investigated how strategic actions affect the reputation of e-businesses. However, the results of our review support the previous conclusions of Grewal et al (2003), that the literature in this area is extremely limited. Despite the absence of many contributions that adopt a clear strategic focus, it can be argued that there is much, within the main body of literature reviewed that might help to inform the strategy formulation process, and will therefore be of interest to the strategist. For example, studies of the Internet's potential might help strategists, when defining corporate objectives, whilst contributions that address the adoption of e-commerce, might help organizations to determine under what circumstances the initiation or expansion of an on-line offering might be appropriate. In a similar vein, studies of customer behavior might help retailers' to target their strategies, and studies of the technology might guide strategic decisions with regard to the planning of web services, and their supporting infrastructures.

Whilst the existing literature might present many insights that will help to inform and shape the strategy formulation process, there is still an urgent need for studies that more explicitly target the strategic management of e-commerce operations, within the context of the retail sector. In particular, the following significant questions - concerning the formulation and application of electronic retailing strategy - remain to be addressed through empirical research:

- **Will the Internet change the fundamental nature of retailing?** There has been much debate in the academic literature as to whether e-commerce is a fundamentally different

way of doing business, which will need to be guided by a very different code of practice. On the one hand, we have writers such as Evans and Whurster (1997; p. 71) who claim that '*all companies will be forced to rethink the strategic fundamentals of their businesses*', whilst Porter (2001; p. 63) argues that the Internet should be viewed simply as a: '*complement of traditional ways of competing*'. Indeed, this debate has not been fully resolved either in the general sense, or with respect to the impact of the Internet within the retail sector, in particular.

- **How can an e-retailing strategy best be formulated?** It is common practice for textbooks on e-commerce to include a significant section devoted to the formulation of an e-commerce strategy (e.g. Chaffey, 2004). However, to date, there has been limited academic attention focused upon the formulation of strategies, with respect to e-commerce, in general, or with regard to the introduction of electronic retailing, in particular. Key questions in respect of strategy formulation include the degree to which it should be: formal / informal; business-led / technology-led; participative / exclusive and stand-alone / fully integrated.
- **Evolutionary versus revolutionary approaches to strategy formulation?** A debate that has been on-going in the wider strategic management literature, relates to whether the traditional approach, where strategy is formulated at well spaced intervals, should be rejected in favour of an evolutionary, and therefore more continuous, process (Mintzberg et al, 1998). Venkatraman (2000) has recently suggested that in the Internet era: '*calendar-driven models of strategy perfected under the predictable conditions of the industrial age*' should be abandoned. However, this assertion has not been subjected to significant academic scrutiny, and certainly not specifically in the context of electronic retailing.
- **What are the rules for effective strategic positioning** Porter (2001) has argued that there are six principles of strategic positioning that are applicable for the effective uptake of the Internet, namely: the '*right goal*', a clear '*value proposition*', a '*distinctive value chain*', the accommodation of '*trade-offs*', an appropriate strategic '*fit*', and the '*continuity of direction*'. Whilst all of these principles appear to be eminently reasonable, it is not clear whether these are all both necessary and sufficient for the effective introduction of electronic retailing.
- **What specific strategic resources, capabilities and competencies are required for successful electronic retailing?** A significant amount of academic effort has been devoted to exploring the applicability of the '*resource-based theory of the firm*' (Barney, 1991), in a wide variety of contexts. In brief this theory posits that organisations should invest in those resources and capabilities that they believe will best assist them in gaining a sustainable competitive advantage. However, what is less clear is the type of strategic resources, capabilities and competencies that are required for successful electronic retailing?
- **How can value be realized from e-retailing investments?** A growing strand of thought, within the information systems literature, argues that the benefits from IT investments do not primarily stem from the technology itself, but rather from the organizational change that it should engender (Ward et al, 1996). Consequently, it is likely that the strategic benefits will only be realized from e-commerce investments if they too are accompanied

by an appropriate programme of organizational change. However, this assertion needs to be tested empirically.

At a more general level, it can be argued that there is an urgent need for researchers to start making more explicit links between the various elements that comprise the Internet retailing domain. Venkatraman (2000) notes that effective formulation of an e-commerce strategy requires the management team to consider all the key elements of the plan in combination, not in isolation. The corollary of this is that strategic management, in the context of Internet retailing, must seek to align a diverse range of building blocks, such as customer requirements, web-site design, order fulfillment processes and marketing activities into a seamless and coherent whole. Unfortunately, because of the fragmented nature of the literature – which tends to focus upon fairly narrowly defined topics – it currently offers few explicit insights into how this outcome might be achieved.

The absence of a coherent and comprehensive literature with regard to the strategic management of Internet retailing is not perhaps surprising, as it has been suggested that the retailers themselves have not, as yet, fully understood the strategic implications of e-commerce (McBride, 1997; Hart et al, 2000). Indeed, as Nicholls & Watson (2005; p. 439) note: *'there is evidence that retailers have adopted a rather ad hoc approach to their e-tail activities'*, rather than being guided by clear strategic thinking. However, there is a clear role for academics to play in helping the retailers to shape their strategic thinking.

## **Concluding Remarks**

This study sought to deliver a timely and critical review of a body of literature that is growing both in terms of its breadth and depth, as well as its importance. It has been demonstrated that the literature can be divided into three broad categories: 1) the retailer perspective; 2) the consumer perspective; and 3) the technological perspective, each of which in turn can be further classified into a number of sub-themes. Moreover, it is anticipated that this will provide a useful framework, to guide future studies.

Evans & Wurster (1997; 70) argue that from the business strategists' perspective, the Internet represents the *'most important wave in the information revolution'*. Unfortunately, our review of the literature suggests that to date, in the context of Internet retailing, the literature offers few focused insights that will be of immediate use to the business strategist. Consequently, an important conclusion to be drawn from our review is the need for academics to adopt a far more explicit strategic lens when conducting future studies of the uptake and impact of the Internet, within the retail context. To this end, a research agenda has been developed which will hopefully guide researchers in their future endeavors.

It is important to conclude with a few words of warning, with respect to the study's limitations. Firstly, by its very nature, a review article has to be limited in its ambitions: it tends to pose questions, rather than answering them. Moreover, a review is typically limited by the number of articles that it can realistically accommodate: in focusing upon ten key publications we will inevitably have missed some articles that might have made a useful contribution to this paper.

However, the review was rigorous in that it targeted all Internet retailing contributions in those key journals that provided the greatest coverage of the domain, as well as some other important papers that were referenced from these. Consequently, it is envisaged that very few significant papers will have been missed, and that all the key themes of current importance will have been addressed.

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## References

- Amit, R. and Zott, C. (2001) "Value Creation in E-business", *Strategic Management Journal*, **22** (6/7), pp 493-520.
- 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. *Journal of Retailing and Consumer Services*, [in press]
- Barlow, A., Siddiqui, N., and Mannion, M (2004), "Developments in Information and Communications Technologies for Retail Marketing Channels", *International Journal of Retail Distribution and Management*, Vol. 32, No. 3, pp. 157 – 163.
- Barney, J. 'Firm Resources and Sustained Competitive Advantage', *Journal of Management*, **17**, 1 (1991), 99-120
- Barwise, P., Elberse, A. and Hammond, K. (2002), *Marketing and the Internet in the Handbook of Marketing* Barton, A. and Wensley, R. Eds. London Sage. **Pages?**
- Bensebaa, F. (2004) "The impact of strategic actions on the reputation building of e-businesses", *International Journal of Retail Distribution and Management*, Vol. 32, No. 6, pp. 286-301.
- Battacherjee, A. (2000), "Acceptance of e-commerce services: the case of electronic brokerages", *IEEE Transactions on Systems, Man and Cybernetics – Part A: Systems and Humans*, Vol.30 No.4, pp. 411 – 420.
- Brengman, 2005 JBR
- Brown, M., Pope, N. and Voges, K. (2003), "Buying or Browsing ?: An Exploration of Shopping Orientations and Online Purchasing Intentions". *European Journal of Marketing*, Vol. 37 Nos. 11/12, pp. 1666 – 1684.
- Burt, S. and Sparks, L. "E-commerce and the retail process: a review", *Journal of Retailing & Consumer Services*, Vol. 10, pp. 275-286.
- Chaffey, D. (2004) *E-business and e-commerce management*, FT Prentice-Hall: London
- Chang, M., Cheung, W. and Vincent, S. (2004), "Literature Derived Reference Models of the Adoption of Online Shopping", *Information & Management*, Vol. 42, pp 543-559.
- 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", *International Journal of Retail and Distribution Management*, Vol. 27, No. 1, pp. 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", *Journal of Business Research*, Vol. 56, No. 11, pp 887-897.
- Doherty, N.F. and Ellis-Chadwick, F.E., (2003) "The Relationship Between Retailers' Targeting and E-Commerce Strategies: An Empirical Analysis", *Internet Research*, Vol. 13, No. 3, pp 170-182
- Drennan, J. and McColl-Kennedy, J. (2003), "The Relationship Between Internet Use and Perceived Performance in Retail and Professional Service Firms". *Journal of Services Marketing*, Vol. 17, No. 3, pp. 295-311.
- 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", *Journal of Retailing and Consumer Services*, Vol. 9 No.2, pp 71-80.

### Etteridge 2001

- Evans, P. B. and Wurster, T. S. (1997), "Strategy and the new economics of Information", *Harvard Business Review*, Vol.75, No.5, Boston.
- Flavian, C. Guinaliu, M. and Torres, E. (2005), "The Influence of Corporate Image on Consumer Trust: A Comparative Analysis in Traditional Versus Internet Banking", *Internet Research* Vol. 15 No.4 , pp. 447 -470.
- Forbes, L., Kelley, S. Hoffman, D (2005), "Typologies of e-commerce Retail Failures and Recovery Strategies" *Journal of Services Marketing* Vol. 19 No.5 , pp. 280- 292.
- Forsythe, S.M. and Shi, B. (2003) "Consumer patronage and risk perceptions in Internet shopping", *Journal of Business Research*, Vol. 56, pp. 867-875.
- Ganapathy, S. Ranganathan, C. and Sankaranarayanan, B. (2004), "Visualization strategies and tools for enhancing customer relationship management", *Communications of the ACM* Vol. 47 No.11, pp 92-99.
- Geisser, G. (2001), "Building Customer relationships Online; The Web Site Designers Perspective", *Journal of Consumer Marketing* Vol. 18 No.6, pp 488-502.
- George, J. (2004), "The Theory of Planned Behaviour and Internet Purchasing", *Internet Research* Vol. 14 No. 3, pp.198 – 211.
- Grewal, D., Iyer G. and Levy, M. (2004) "Internet retailing: enablers, limiters and market consequences", *Journal of Business Research*, Vol. 57, No. 7, pp 703-713.
- Hansen, T., (2005), "Consumer Adoption of Online Grocery Buying: A Discriminant Analysis", *International Journal of Retail & Distribution Management*, Vol.33 No.2 , pp. 101 – 121.
- Hart, C.A., Doherty, N.F. and Ellis-Chadwick, F.E., (2000) "Retailer Adoption of the Internet: Implications for Retail Marketing", *European Journal of Marketing*, Vol. 34 No.8, pp.954-974.
- Harris, L. and Goode, M. (2004), "The Four Levels of Loyalty and the Pivotal Role of trust: a Study of Online Service Dynamics", *Journal of Retailing* Vol.80 No.2, pp. 139 – 158.
- Heiner, E., Gopalkrishnan, R., Hesse, J. and Ahlert, D.(2004), "E-satisfaction: a Re-examination", *Journal of Retailing* Vol. 80 No.3 , pp 239 - 247.
- Hoffman, D. Novak, T and Schlosser, A. (2000), "The evolution of the Digital Divide: How Gaps in Internet Access May Impact Electronic Commerce", *Journal of computer-mediated Communications* Vol. 5 No.3, pp.
- Jarvenpaa, S.L., Todd, P.A. (1997), "Is there a future for retailing on the Internet?", in Peterson, R.A. (Eds), *Electronic Marketing and the Consumer*, Sage, Thousand Oaks, CA, pp.139-54
- Jiang, Z., Wang, W. and Benbasat, I. (2005), "Multimedia-based Interactive Advising Technology for Online Consumer Decision Support", *Communications of the ACM*, Vol. 48 No.9.
- Jiang, P and Rosenbloom, B. (2005), "Customer Intention to Return Online: Price Perception, Attribute-level Performance, and Satisfaction Unfolding Over Time", *European Journal of Marketing*, Vol.39 No.1/2, pp 150 -174.
- Jobber, D. (2004), *Principles and practice of Marketing 4<sup>th</sup>* eds McGraw Hill, London.

### Joseph and Stone, 2003

- Katerattanakul, P. and Siau K. (2003), "Creating a Virtual Store" *Communications of the ACM*, Vol. 46, No. 12.
- Keen, C., Wetzels, M., de Ruyter, K. and Feinberg, R. (2004) "E-tailers versus retailers: which factors determine consumer preferences", *Journal of Business Research*, Vol. 57, pp. 685-695.
- Kolesar, M. and Galbraith, W. (2000), "A Services Marketing Perspective on e-retailing: implications for e-retailers and directions for future research", *Internet Research: Electronic Networking Applications Policy* Vol.10 No.5, pp 424 – 438.
- Laroche, M.; Yang, Z.; McDougall, H. and Bergeron, J (2005), "Internet versus bricks-and mortar retailers: An investigation into intangibility and its consequences", *Journal of Retailing* Vol. 81 No.4, pp. 251-267.
- Lee, S. and Brandyberry, A. (2003), "The e-tailer's Dilemma" *ACM SIGMIS Database*, Vol. 34 No.2.
- Levenburg, N. (2005), "Delivering Customer Value Online: /analysis of Practices, Applications and Performance", *Journal of Retailing and Consumer Services* Vol.12 No.5, 319-331.
- Lim, H. and Dublinsky, A. (2004), "Consumer Perceptions of e-shopping Characteristics: an Expectancy Value approach", *The Journal of service Marketing* Vol.18 No.6/7, pp.500.
- Lohse, G.L., Bellman, S. and Johnson, E.J. (2000) "Consumer buying behavior on the Internet: Findings from panel data, *Journal of Interactive Marketing*, Vol. 14, No. 1, pp 15-29.
- Martinez-Lopez, F., Luna, P. and Martinez, F. (2005), "Online shopping, the Standard Learning Hierarchy, and Consumers' Internet Expertise", *Internet Research* Vol. 15 No.3, pp.312 – 334.
- Mathwick, C., Malhotra, N. and Rigdon, E. (2001), "Experiential Value: Conceptualization, Measurement and Application in the Catalog and Internet Shopping Environment", *Journal of Retailing*, Vol.77 No.1, pp 39-56.
- Mathwick, C., Malhotra, N. and Rigdon, E. (2002), "The Effect of Dynamic Retail Experiences on experimental Perceptions of Value: an Internet and Catalogue Comparison", *Journal of Retailing*, Vol.78 No.1, pp 51-60.
- McBride, N. (1997) "Business Use of the Intrenet: strategic decision or another bandwagon", *European Management Journal*, Vol. 15, pp 58-67.
- Min, S. and Wolfenburger, M. (2004) "Market share, profit margin and marketing efficiency of early movers, bricks and clicks and specialists in e-commerce, *Journal of Business Research*, Vol. 58, pp 1030-1039.
- Mintzberg, H., Ahlstrand, B and Lampel, J. (1998) *The Strategy Safari*, The Free Press: New York
- Moe, W.W. and Fader, P.S. (2004), "Capturing evolving visit behavior in clickstream data", *Journal of Interactive Marketing*, 18 (1), pp 5-19.
- Morganosky, M. (1997), "Retailing and the Internet: A Perspective of the Top 100 US Retailers", *International Journal of Retail Distribution and Management* Vol.25 No. 1, pp.372-377.
- Morganosky, M.A. and Code B.J. (2000). "Consumer Response to On-line Grocery Shopping". *International Journal of Retail and Distribution Management*, Vol. 28 No1. , pp. 17-26.

- Montoya-Weis, M., Voss, G., Grewall, D. (2003), "Determinants of online channel use and overall satisfaction with a relational, multi-channel service provider", *Journal of the Academy of Marketing Science*, Vol. 31 No.4, pp.448-58.
- Ngai, E. (2003), " Internet Marketing Research (1987-2000): a Literature Review and Classification", *European Journal of Marketing*, Vol.31 No.1/2, pp 24-49.
- Nicholls, A. and Watson, A. (2005), "Implementing e-value Strategies in UK Retailing", *International Journal of Retail & Distribution Management*, Vol. 33 No.6 , pp 426 -443.
- Novak, T., Hoffman, D. and Yung, Y. (2000), "Measuring the customer experience in online environments: a structural modelling approach", *Marketing Science*, Vol. 19 No.1, pp.22-42
- O' Cass, A. and Fenech, T. (2002), "Web Retailing Adoption: Exploring the Nature of Internet Users Web Retailing Behaviour", *Journal of Retailing and Consumer Services*, Vol. 10 No.2 pp 81 – 94.
- 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 Journal of Marketing*, Vol. 32 No.7/8 , pp 629-643.
- Pavitt, D. (1997), "Retailing and the Super High Street: The Future of the Electronic Home Shopping Industry", *International Journal of Retail Distribution and Management*, Vol. 25 No.1, pp. 38-43.
- Porter, M. (2001), "Strategy and the Internet" *Harvard Business Review*, March, pp 63 – 78.
- Priluck, R. (2001), "The Impact of Priceline on the Grocery Industry", *International Journal of Retail Distribution and Management*, Vol.29 No.3, pp 127- 134.
- Punakivi, M. and Saranen, J. (2001), "Identifying the Success Factors in e-grocery Delivery". *International Journal of Retail Distribution and Management*, Vol. 29 No.4, pp. 156-163.
- Punakivi, M. and Tanskanen, K. (2002), "Increasing the Cost Efficiency of e-fulfillment Using Shared Reception", *International Journal of Retailing and Distribution Management* Vol. 30 No.10, pp 498 – 507.
- Pyle, R. (1996), "Electronic Commerce and the Internet", *Communications of the ACM*, Vol. 39, No. 6, pp. 22-24.
- Rabinovich, E., Bailey, J. and Carter, C. (2003), "A Transaction-Efficiency Analysis of an Internet Retailing Supply Chain in the Music Industry", *Decision Sciences*, Vol.34 No.1 , pp.131 – 174.
- Rafiq, M. and Fulford, H. (2005) "Loyalty transfer from offline to online stores in the UK grocery industry, *International Journal of Retail Distribution and Management*, Vol. 33, No. 6, pp. 444-460.
- Rai, , A., Ravichandran, T., Samaddar, S. (1998), "How to anticipate the Internet's Gobar Diffusoin", *Communications of the ACM*, Vol. 41. No. 97.
- Reardon, J., Hasty, R. and Coe, B (1996), "The effect of information technology on productivity in retailing", *Journal of retailing*, Vol.72 No.4, pp. 445-461.
- Redmond, W. (2002) "The potential impact of artificial shopping agents in e-commerce markets", *Journal of Interactive Marketing*, Vol. 16, No. 1, pp 56-66.

- Reynolds, J (1997), "Retailing in computer-mediated environments: electronic commerce across Europe", *International Journal of Retail Distribution and Management*, Vol 25. No.1 , pp 29-37.
- Reynolds, J. (2000) "eCommerce a critical review", *International Journal of Retail Distribution and Management*, Vol. 28, pp 414-444.
- Ring, L. and Tigert, D. (2001), "The decline and fall of Internet Grocery Retailers" *International Journal of Retail Distribution and Management*, Vol. 29 No6. , pp. 264- 271.
- Rowley, J (1996), "Retailing and Shopping on the Internet" *International Journal of Retail Distribution and Management*, Vol. 24 No.3, pp.26-37.
- Rowley, J. (2000), "Product Search in e-shopping: A Review and Research Proposition", *Journal of Consumer Marketing*, Vol.17 No.1, pp. 20-35.
- Shim, S., Eastlick, M., Lotz, S. and Warrington, (2001), "An online Prepurchase Intention mode: the role of the intention to purchase", *Journal of Retailing*, Vol.77 No.3 , pp.397-416.
- Shui, E. and Dawson, J. (2004), "Comparing the Impacts of Technology and National Culture on Online Usage and Purchase from a four country Perspective", *Journal of Retailing and Consumer Services*, Vol.11 No.6, pp. 385 – 394.
- Simons, L., Steinfield, C. and Bouwman, H. (2002), "Strategic Positioning of the Web in a Multi-channel market Approach", *Internet Research: Electronic Networking Applications Policy*, Vol.12 No.4, pp.339-347.
- Slkye, C., Comunale, C. and Belanger, F. (2002), "Gender Differences in Perceptions of Web-based Shopping", *Communications of the ACM*, Vol. 45 No.8.
- Solomon, M. (2002), *Consumer Behaviour: Buying Having Being*, Prentice Hall 5<sup>th</sup> eds (Upper Saddle River NJ).
- Spiller, P. and Lohse, G. L. (1997), "A classification of Internet retail stores", *International Journal of Electronic Commerce*, Vol. 2, No. 2, pp 29-56.
- Sotgiu, F. and Ancarani, F. (2004), "The Drivers of E-tailers' Price Levels", *The International Review of Retail Distribution and Consumer Research*, Vol.15 No.1, pp. 75-89.
- Source et al, 2005**
- Srinivasan, S., Anderson, R., and Kishore, P.(2002), "Customer Loyalty in e-commerce: an Exploration of its Antecedents and Consequences", *Journal of Retailing*, Vol. 78 No.1, pp. 41-50.
- Swinyard, W. (1997), "Retailing Trends in USA: Competition, Consumers, Technology and the Economy". *International Journal of Retail Distribution and Management* Vol. 25 No.8, 244-255.
- Szymanski, D. and Hise, R.(2000), "e-satisfaction: An Initial Examination", *Journal of Retailing*, Vol. 76 No.3 , pp. 309-322.
- Tamimi, N., Rajan, M. and Sebastianelli, R (2003), "The State of Online Retailing" *Internet Research: Electronic Networking Applications Policy*, Vol.13 No.3, pp.146 – 155.
- Tang, F. and Xing, X. (2001), "Will the Growth of Multi- channel Retailing Diminish the Pricing Efficiency of the Web?", *Journal of Retailing*, Vol.77 No.3, pp. 319-333.
- Teo, T. and Pian, Y. (2003), "A Contingency Perspective on Internet Adoption and Competitive Advantage", *European Journal of Information Systems*, Vol.12 No.2, pp.78.

- Tan, M., Teo, T.S.H. (2000), "Factors influencing the adoption of Internet banking", *Journal of the Association for Information Systems*, Vol. 1 No.5, pp.1-42.
- Venkatraman, N. (2000) "Five steps to a dot-com strategy: how to find your footing on the web", *Sloan Management Review*, Vol. 41, No. 3, pp. 15-24.
- Vijayasarathy, L. and Tyler, M (1997), "Adoption Factors and Electronic Data Interchange use: A Survey of Retail Companies". *International Journal of Retail Distribution and Management*, Vol. 25 No.9, pp.286-292.
- Vrechopoulos, A. O'Keefe, R. Doukidis, G. and Siomkos, G. (2004), "Virtual Store Layout: An Experimental Comparison in the Context of Grocery Retail", *Journal of Retailing* Vol. 80 No.1, pp.13-22.
- Yakhlef, A, (2001), "Does the Internet Compete with of Complement Bricks and Mortar Bank Branches?", *International Journal of Retail Distribution and Management*, Vol.29 No.6, pp.272-281.
- Wang, F, Head, and M, Archer, N. (2000), "A relationship-building Model for the Web Retail Marketplace", *Internet Research: Electronic Networking Applications Policy*, Vol.10 No.5, pp.374 – 384.
- Ward, J., Taylor, P. & Bond, P. (1996) "Evaluation and the realisation of IS/IT Benefits", *European Journal of Information Systems*, 4, pp 214-225.
- Ward, M. and Lee, M. (2000), "Internet Shopping, Consumer Search and Product Branding", *The Journal of Product and Brand Management*, 9 (1) 6-20.
- 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", *Journal of Retailing and Consumer Services*, Vol. 11, pp 131-139.
- Wolfenbarger, M. and Gilly, M (2003) "etailQ: Dimensionalizing, Measuring and Predicting etail Quality", *Journal of Retailing*, Vol.79 No.3, pp.183-198.
- Wood, C. Alford, B. Jackson, R, and Gilley, O. (2005), "Can Retailers get Higher Prices for "end-of -life Inventory through Online Auctions?", *Journal of Retailing* Vol.81 No. 3, pp. 181-190.
- Zhao, H and Cao, Y (2004), "The Role of e-tailer Inventory Policy on e-tailer Pricing and Profitability", *Journal of Retailing*, Vol.80 No.3, pp. 207- 219.