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Globalising Retail:

Geographies of Organisational Learning and Innovation

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ABSTRACT

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by Andrew David Currah

The globalisation of retailing remains a profoundly neglected topic in the mainstream debates of economic geography and the social sciences more broadly. In this thesis, I begin to redress this imbalance by conceptualising the geographies of organisational learning and innovation within a newly emerging breed of retail transnational corporations (TNCs). This approach is aligned with the 'new economic geography', in which there is a greater cognisance of the role of culture, knowledge and learning in the regulation of firms, and in turn, the importance of these 'soft assets' to the realisation of competitive advantage. I argue that the ability to learn and innovate is now the principal determinant of success in the globalising retail industry.

The thesis critically analyses and theoretically contextualises the 'soft architecture' to globalising retail, while also identifying important lines of future enquiry. As such, I do not provide a detailed ground-level investigation of the retail TNCs. However, case-study evidence is incorporated into the thesis to enrich and thicken the conceptual observations. This evidence has been drawn from an extensive period of fieldwork, which involved a combination of interview- and conference-based research. In chapter 2, I discuss the methodological issues involved in researching the retail TNCs. In particular, I emphasise the critical importance of the equity analyst as a 'gatekeeper' to wider networks of knowledge exchange about the retail TNCs.

The remainder of the thesis is organised in four sections. Chapter 3 conceptualises the distribution-based TNC and shows that a defining characteristic of the retail TNCs is that they are embedded, to an unusual extent relative to production-based TNCs, in local cultures and geographies of consumption. This has important implications for our understanding of the geography of innovation within the retail TNCs, which, I suggest, remains inherently store-based. Chapter 4 continues this line of enquiry by exploring the nature of 'knowledge management' inside the retail TNCs. Here, I consider the mechanisms that are being used to extract, blend and transfer tacit knowledge across the transnational space of the firm to develop an adaptive and innovative portfolio of retail formats and merchandising strategies. The focus of the thesis then switches to a new technological innovation, revolving around e-commerce and Internet-based distribution. Chapter 5 considers the organisational and managerial challenges that this innovation poses to the retail TNCs. Chapter 6 summarises the key findings of each chapter and highlights the contribution of the thesis to contemporary academic debates.

List of Contents

List of Tables and Figures

Acknowledgements

I hereby declare that this thesis was completed during registered postgraduate candidature at the University of Southampton between 2001 and 2002. While the thesis is essentially my own unaided work, the research on which it is based is part of a wider research project on 'Globalising retail and the challenge of e-commerce', in collaboration with Prof. Neil Wrigley and funded by the Economic and Social Research Council under Ropa award R02225024. The project has necessarily involved co-authored work, which has shaped the style of argument and the nature of the evidence presented here. Specifically, the direction of chapter 3 was stimulated by a forthcoming paper in *Progress in Human Geography* (Wrigley and Currah, 2002), while elements of chapter 5 evolved from my own contributions to a recent progress report in *Urban Geography* (Wrigley, Lowe and Currah, 2002 – appendix I). I should also note that the discussion of e-commerce in chapter 5 has drawn upon material from three forthcoming single authored papers (Currah, 2002a; 2002b; 2002c).

Chapter 1

Introduction

NEW ECONOMIC GEOGRAPHIES OF 'THE FIRM'

Throughout the 1990s, the 'cultural turn' refigured economic geography (Martin, 1994; Barnett, 1998). The 'new' economic geographies which emerged have endeavoured to explore the fluidity and hybridity of the space-economy. Indeed, it is now axiomatic to suggest that the economic landscape should not only be viewed through an 'economic' lens, in the traditional sense of the term, but should also be understood as the outcome of social, cultural and political influences (Barnes, 1996; Lee and Wills, 1997).[1] 'Agency, contextuality, contingency, specificity and heterogeneity': these are some of the call signs of the reinvigorated sub-discipline. Understandably, an epistemological shift of such magnitude has, by necessity, entailed a redefinition of the vocabularies typically deployed by economic geographers – for instance, words like 'market', 'industry', 'work', and 'the firm' (Thrift and Olds, 1996: 313).

In particular, the new economic geography has provoked a reconceptualisation of 'the firm'. In traditional thinking, the firm was portrayed as a homogeneous, self-contained 'black box' capable of producing measurable economic outcomes in space. This neoclassical approach to the firm is now widely refuted. The firm is not simply a 'nexus of treaties' (*cf.* Aoki *et al.*, 1990): neither is it simply concerned with the conversion of inputs into outputs according to its production function and market demand (Yeung, 2000a: 2). Rather, the recognition that "the firm is more than a processor of information and an efficient manager of transaction costs" has brought to the fore questions of organisational knowledge and the sociocultural dynamics of corporate leadership (Amin and Thrift, 2000: 6). Indeed, the direction and heading of

[1] The interfusion of the cultural and the economic in economic geography, however, has caused considerable concern as to how the sub-discipline should evolve. For instance, there is the risk that in declaring a new allegiance to sociocultural perspectives, economic geographers may unduly neglect traditionally economic emphases, which remain equally important to our understanding of the space-economy (see the debate on this topic in *Antipode*, volume 33, issue 2, in response to Amin and Thrift, 2000).

the firm in the marketplace is steered by complex social actors – or, perhaps more accurately, a micro-community of 'corporate elites' (see chapter 2). Following Gibson-Graham (1996: 15), the firm has "no invariant inside". In effect, the firm is constituted by hybridity and fluidity: by ongoing interactions between social actors at different organisational and geographical scales – interactions which, in fact, could lead to cultural conflict, instability and organisational failure (Schoenberger, 1994; 1997). Thus, recent work has sought to deconstruct 'executive talk' in order to 'decentre' and 'destabilise' notions of the firm as rational, reproductive, progressive, and unproblematic (see Gregson *et al.*, 2002; O'Neill and Gibson-Graham, 1999):

> "The normal corporation, then, is not an entity describable by a set of fixed relations at any point in time. Rather, it is a field of competing narratives, power relations, and surplus value distributions within which managers compete in order to establish their preferred sets of behaviours and flows" (O'Neill, 2001: 182).

More specifically, from a relational perspective the firm can be understood as a constellation of embedded network relations governed and regulated by social actors, whose ambitions and identities are inflected spatially and discursively by a plethora of factors (*e.g.* age, ethnicity, gender *etc.*) (see Yeung, 1994; 2000a; 2001). Below, I sketch out the types of network relations through which corporate elites may in practice govern the behaviour of the firm. These can be classified as intra-firm, inter-firm and extra-firm networks.

First, social actors may govern the firm through *intra-firm* networks. Schoenberger (1999) has drawn attention to the way in which the firm is *internally regionalised*: that is, different places inside the firm develop along distinctive geocorporate trajectories with their own evolving identities and organisational techniques. Indeed, it is widely argued that organisational knowledge (especially in the form of tacit/implicit best practices) is driven from the bottom-up, in the everyday realities of place-based work practices. Social actors in the firm are typically enrolled in 'communities of practice' (Wenger, 1998), revolving around a particular organisational process or function. It is up to the corporate strategists of the firm to stimulate, harvest, and distribute the embodied knowledges produced in these communities, which span the organisation in the form of intra-firm networks (see chapter 4). In this way, the elite social actors of the firm have the capacity to construct strong core competencies through internally coordinated and differentiated organisational structures (Yeung, 2000a: 17). However, the internal cohesion of those structures may, equally, be compromised by tensions, contradictions and even bargaining processes between different places and their social occupants (Morgan, 2001a).

Second, the firm is also regulated through *inter-firm* networks. These refer to the development of relationships between corporate elites among an array of firms. Inter-firm relationships may take the form of traded and untraded interdependencies (Storper, 1995; 1997), leading to the emergence of close-knit industrial districts and learning regions which are also bound together by aspects of what Amin and Thrift (1994) have termed 'institutional thickness'. This relates to the third type of network relation, those of the *extra-firm* variety, where the behaviour of the firm is governed by the relationships between the firm and the places in which the firm is embedded. For instance, corporate strategists may interact and negotiate agreements with the institutional elites of local government, research centres, non-profit and non-governmental entities and other quasi-organisational bodies. In a regional context, inter-firm and extra-firm relational networks (and the sociocultural dynamics of these networks) have generated a vast body of work concerned with the so-called 'new industrial spaces' and 'learning regions' of the developed world (see, for example, Bryson *et al.*, 2000; Cooke, 2002; Henry and Pinch, 2000; Pinch and Henry, 1999; Simmie and Lever, 2002). Meanwhile, research undertaken into the discursive aspects of industrial organisation outside of the manufacturing sector, notably in the financial and business/producer service sectors, has stimulated considerable interest in the less agglomerative, more amorphous, 'cultural circuits' of 'soft' or 'virtual' capitalism (see Carrier and Miller, 1998; Thrift, 1994; 1998; 1999a; 1999b; 2000; 2001).

In sum, the new economic geography has begun to reconceptualise the firm as a *sociospatial* construction embedded in broader discourses and practices, played out by social actors across multiple and overlapping network relationships (Yeung, 1998a). This epistemological shift has, in large part, been driven the dynamic changes underway in the global economy at present. To be sure, empirical realities have quickly outstripped theoretical debate, creating an urgent need for more thorough considerations of the sociocultural regulation of firms.

Indeed, the economic transformations witnessed at the end of the twentieth-century have been variously interpreted as heralding the advent of a 'knowledge-driven economy', a 'new economy', a 'network economy', or a 'digital e-conomy' (Cohen *et al.*, 2000). Whatever label one prefers, it is now clear that the ability of firms to learn and innovate is one of the principal determinants of success in the globalising economy (Asheim, 1999).

Despite the critical importance of learning and innovation in the retail industry, research into what may be termed the 'soft architecture' of globalising retail capital remains absent in the literature of the new economic geography and the social sciences as a whole. Global retailers must learn to adapt their format to differential and rapidly changing consumer landscapes, in the process using and blending knowledge from multiple locations to develop innovative retail practices and selling techniques. Moreover, the emergence of e-commerce as a potentially destabilising and 'disruptive' technological innovation poses various organisational and managerial challenges to the lead agents of the globalising retail industry. My purpose in this thesis is to address these issues, and in doing so, bridge part of the gulf separating the empirical realities of the globalising retail sector from the mainstream of academic debate. In the following chapters, I critically analyse and theoretically contextualise the geographies of organisational learning and innovation among a newly emerging breed of retail transnational corporations (TNCs). It is to these TNCs, and the landscape of global retailing more broadly, that the focus of this introductory chapter now turns.

SETTING THE SCENE: THE RISE OF RETAIL TNCs AND THE LANDSCAPE OF GLOBAL RETAILING

Amidst all of the cacophony that now surrounds economic globalisation in the mainstream debates of the social sciences, there has been a remarkable reticence about the role of distribution-based TNCs in reshaping the world economy. Strangely, there is no mention of retailing *at all* in some of the most recent edited collections on global economic change and TNCs (*e.g.* Aharoni and Nachum, 2000; Angel, 2002; Hargittai and Centeno, 2001; Held *et al.*, 1999; Morgan *et al.*, 2001). Typically, the focus of such volumes has locked on to the globalisation of manufacturing or production-based TNCs. It is in this context that Wrigley (2000a: 292) laments: "distribution industries and firms rarely merit consideration and, in particular, studies of retail-industry TNCs, despite providing some of the most potent motifs of global consumption, are notably absent".[2]

This neglect is all the more curious given that the late 1990s witnessed a powerful wave of merger/acquisition-driven consolidation in retail markets across the world. In the mid-1990s, leading retailers from Europe, and in part the US, were faced with significant pressures on the key components of their retail sales growth: that is, inflation was low, or even declining, in their core domestic markets and the construction of new retail space was limited by tighter planning and regulatory constraints (in the European context). To sustain earning's growth, leading retailers were therefore forced to use the positive free cash flow generated from these core markets to support merger/acquisitive growth in less mature economies, which in turn, helped to realise the 'hard' synergies (*e.g.* buying power, cost reductions) of global scale. This process of international merger/acquisition has led to the emergence of an elite group of retail-industry TNCs (involved in the food and general merchandise sectors) with proven international capabilities and clearly stated ambitions for further expansion.[3] By the beginning of the new century, these retailers (namely, Carrefour, Royal Ahold, Tesco, Wal-Mart) had become extremely powerful global operators, drawing a large proportion of their sales and profits from international divisions and in turn, dramatically reshaping the corporate and physical landscape of retailing across whole continents.

[2] This imbalance is now at last being redressed in the marketing and international retailing literature (see Dawson, 2000; McGoldrick, 2002; McGurr, 2002; and *International Journal of Retail and Distribution Management*, Vol. 30, No.2 – special theme issue on global retail competition), though strangely, no mention was made of the globalisation process in the agenda for future research into retailing outlined by Peterson and Balasubramanian (2002).

[3] As Burt and Sparks (2001: 1481) warn, it is equally important to investigate "... whether very different processes of internationalisation are occurring at other retail scales and away from the food sector and hypermarket style of retailing" (see also Moore *et al.*, 2000).

In a series of recent publications, Wrigley and his co-researchers have gone the furthest in documenting and conceptualising those emerging economic geographies of globalising retail capital (Wrigley, 2000a; 2002a; 2002b; Wrigley and Currah, 2002; Wrigley and Lowe, 2002). Table 1 represents the world's leading retailers, ranked by total sales revenues. Table 2 then uses market capitalisation, a much more volatile metric, to rank the top ten retailers.

Table 1. Top fifteen world retailers ranked by total revenues in fiscal 2001 (US $ billion)

Rank	Firm	2001 Total revenues
1	Wal-Mart (a)	219.81
2	Carrefour	62.54
3	Royal Ahold	59.93
4	Home Depot	53.55
5	Kroger	50.10
6	Metro	44.57
7	Sears	41.35
8	Target	39.89
9	Albertson's	37.93
10	Kmart	36.15
11	Costco	34.80
12	Tesco	34.53
13	Safeway	34.30
14	JCPenney	32.00
15	Ito Yokado	26.59

Notes:
(a) Does not include Wal-Mart's investment in Japan.
Source: adapted from CSFB (2002: 5).

Table 2. Top ten world retailers ranked by market capitalisation (US $ billion) in June 2001 and February 2002[4]

June 2001			February 2002		
Rank	Firm	Market cap	Rank	Firm	Market cap
1	Wal-Mart	230.2	1	Wal-Mart	268.9
2	Home Depot	118.4	2	Home Depot	121.6
3	Walgreen	41.8	3	Target	40.9
4	Carrefour	38.3	4	Walgreen	39.6
5	Target	34.2	5	Lowe's	36.1
6	Lowe's	28.0	6	Carrefour	32.0
7	Gap	27.7	7	Tesco	24.1
8	Safeway (US)	26.6	8	Royal Ahold	23.1
9	Royal Ahold	26.3	9	Kohl's	23.0
10	Tesco	25.0	10	Safeway (US)	21.6

Source: Wrigley and Currah (2002).

Three key points should be borne in mind when approaching the global retailing landscape, as portrayed by Tables 1 and 2 (Wrigley, 2002a: 81-82):

(i) The emerging elite of retail TNCs should not simply be equated with the world's largest retailers, some of which are still entirely based in the food, drug and general merchandise markets of the domestic USA – *e.g.* Home Depot, Kroger, Walgreen, Target, and Lowe's. Of the retailers represented in Tables 1 and 2, only four retailers (Carrefour, Royal Ahold, Tesco and Wal-Mart) can really be considered truly committed globalisers. Nevertheless, it is important to recognise that the retail TNCs and the world's largest retailers are increasingly becoming inseparable as the former continue to dominate the rankings of the latter across all metrics.

(ii) There is a general perception among the management of the retail TNCs and the equity analysts of leading investment banks that by 2010 the global retail sector will be dominated by 5-6 'mega-groupings'. During the late 1990s, the potential future corporate parents of these groupings were widely identified as Carrefour, Ahold and Wal-Mart. However, by 2001-02, Tesco was also included in that list due to a rapidly growing store base in markets which had considerable growth potential (Southeast and Northern Asia, Central Europe).

(iii) The competitive tensions between the four leading retail TNCs essentially revolve around two core issues. First, which of these firms can position themselves to become the corporate parents of one of these mega-groupings? Second, which 'corporate model' of globalised retail operation will be the most effective in realising that strategic objective? A background to the four proto-global corporate parents, together with a discussion of their economic geography (summarised in Table 3) and style of globalisation, is highlighted below.

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[4] Market capitalisation as at June 5th 2001 and February 22nd 2002. Source: Merrill Lynch, New York.

Table 3. Geographical breakdown of sales (US $ million) and stores in the retail TNCs as at end of fiscal 2001

	NAFTA			South America		
	Sales	% Total sales	Stores	Sales	% Total sales	Stores
Wal-Mart	200,231	91.1%	4,008	739	0.3%	33
Carrefour	633	1.0%	19	6,847	11.1%	631
Ahold	35,541	59.3%	1,430	4,410	7.4%	608
Tesco	0	0.0%	0	0	0.0%	0

	Europe			Asia		
	Sales	% Total sales	Stores	Sales	% Total sales	Stores
Wal-Mart	17,759	8.1%	345	1,084	0.5%	28
Carrefour	50,035	81.3%	4,500	4,046	6.6%	105
Ahold	19,626	32.7%	6,462	359	0.6%	104
Tesco	32,240	94.1%	927	2,038	5.9%	52

Source: Wrigley and Currah (2002); adapted from CSFB (2002: 11).
Company-specific notes:
Wal-Mart: sales to year-end 31st January 2002. NAFTA area sales also include rental and other income, including that from 17 stores in Puerto Rico. Total sales were US $219, 812 million, of which international sales were $35,485 million.
Carrefour: sales to year-end 31st December 2001. Sales exclude VAT. Store totals exclude franchised and affiliated stores (an additional 4,926 stores).
Royal Ahold: sales to year-end 31st December 2001. Sales exclude VAT.
Tesco: sales to year-end 23rd February 2002. Sales exclude VAT.

PORTRAYING THE RETAIL TNCs

Carrefour has the longest experience as an international retailer and was the original pioneer of the hypermarket concept during the 1960s, which has now become a "considerable war machine on both the national and international levels" (Colla and Dupuis, 2002: 105). Established in 1959 by the Fournier and Defforey families, the company began to move beyond its home base in the French market just 10 years later, when it opened a hypermarket in Belgium, followed shortly afterwards by expansion into Spain in 1973 and Brazil in 1975. Since then, and in the wake of the merger with Promodès in 1999, Carrefour has become the second largest retailer in the world with sales revenues of Euro 78 billion in 2001-2002 (forecast to exceed Euro 80 billion in 2002-2003). As the largest retailer in Europe, Carrefour holds market leadership in France, Spain, Belgium and Greece, top five positions in Italy and Portugal, and also has a significant presence in Switzerland, Poland, the Czech Republic and Turkey (Wrigley, 2002a: 85).

Carrefour now has 383,000 employees worldwide and operates over 9,300 retail outlets (including those run by franchisers and partners) in 30 countries through three principal formats (hypermarkets, supermarkets and hard discount stores). And yet, in spite of the impressive geographical coverage of Carrefour, 49.3% of total retail sales still originate from its home market, France. Carrefour has experienced a steady erosion of the first-mover advantages it enjoyed in the emerging markets of Central and Eastern Europe, Latin America and Southeast Asia from the 1980s into the early 1990s (which allowed it to realise super-normal returns on capital invested) as other retailers (notably, Royal Ahold, Tesco and Wal-Mart) began to enter these regions. To the incipient elite of retail TNCs, these emerging markets offered various attractive features: potentially rapid economic development, rising levels of consumer spending, and extremely low levels of penetration by Western-style retailing (Wrigley, 2000a: 305).

Some equity analysts have increasingly questioned the popular belief that Carrefour is *the* leading global food retail operator, attributable to its long history of internationalisation. In particular, analysts at ABN-AMRO have suggested that the strategic advantages once held by Carrefour have been transformed into weaknesses (a view that is not, incidentally, widely accepted). Their report, entitled '*From victor to victim*' (ABN-AMRO, 2001a), contends that Carrefour is now struggling in foreign markets and that the relatively benign conditions found in the emerging markets of the 1980s and early 1990s have been replaced by highly competitive conditions in a rapidly globalising food retail industry. They argue that Carrefour was too slow to capitalise on its leading position, and crucially, was held back by a flawed globalisation model that lacked the management expertise necessary to successfully integrate and manage different units through merger/acquisition-driven growth. This was reflected by the poor handling of the Pryca and Continente stores in Spain, both of which were clumsily subsumed into a single Carrefour fascia immediately following the Promodès merger. Moreover, there is a growing perception that Carrefour relies too heavily upon a centralised (and perhaps, imperialistic) corporate model of globalisation, exporting French management, under the umbrella of a single 'global brand', to international divisions rather than utilising the skills and knowledge of the local managerial labour pool.

However, the position taken by the analysts at ABN-AMRO is somewhat overstated. Although Carrefour has largely positioned its retail offering abroad on the basis of its experiences in France (*e.g.* the size and location of the store, merchandising and product display, pricing and marketing promotions) (Dupuis and Prime, 1996), the company has in fact achieved reasonable degrees of adaptability to local consumer markets by forming partnerships to merge its own global brand with indigenous knowledge of merchandise preferences, vendor relationships and human resource management issues (Kamath and Godin, 2001). Related to this, Carrefour has also begun to install local staff into managerial positions, particularly in China and Taiwan, where the difference between French and indigenous culture is perhaps the most pronounced. More generally, the company now gives considerable scope to local managers to react quickly to changing conditions, enabling its stores "to thrive in such diverse locations as Taiwan and Brazil and in such challenging economic circumstances as the hyperinflation of 5,000 percent in Argentina during 1989" (Kamath and Godin, 2001: 479). In addition, the long experience of Carrefour in international consumer markets, and its survival through a storm of economic conditions around the world, should not be understated.

Royal Ahold. Originally established in 1887 as Albert Heijn, in Zaandam in The Netherlands, the company was later renamed and listed as Ahold on the Amsterdam stock exchange in 1948. On its 100th anniversary, Queen Beatrix of The Netherlands awarded Ahold a 'Royal' designation. During the 1990s, Ahold began a rapid phase of growth via merger and acquisition in Europe, Latin America and North America. As a result, it now services the food needs of over 40 million consumers in 28 countries per week across a portfolio of over 9,450 stores, operated by 450,000 employees. In 2001-2002, total sales revenues for Royal Ahold were Euro 82.3 billion compared to Euro 7.7 billion in 1990. Saliently, the rate at which Royal Ahold has grown from a domestic retailer to a global retail TNC over the past decade has outstripped that of both Wal-Mart and Carrefour in proportional terms. As Wrigley (2002a: 87) notes,

> "with over 80% of its sales and assets outside its domestic market, [Ahold] was a committed and successful global operator – possessing a clear global vision, enjoying strong capital market support for that vision, and operating a totally different corporate model of globalised retail operation focused on local adaptation and partnership".

Indeed, the corporate mission espoused by Cees Van der Hoeven, President and CEO of Royal Ahold, is to build and integrate a synergistic *federation* of close-knit yet quasi-independent retailers, which are market leaders in their respective region and operate under local brand names (Sternquist, 1998). In fact, the 'Royal Ahold' label does not appear on any of its stores: what makes Ahold unique, then, is that the company is perceived in each of its regional markets as a local operator (Tomlinson, 2002). However, the increased focus of Ahold on US food retailing and food service (supply to commercial and institutional eating establishments) suggests that the company is perhaps emerging more as a 'food provider', centred increasingly around the US market, rather than as a general merchandise/food retailer in the model of Carrefour, Tesco, or Wal-Mart (CSFB, 2002). Moreover, its legitimacy as a potential corporate parent of the emerging mega-groupings has been weakened by a recent loss of confidence in the reliability and veracity of its accounting methods – all of which has been compounded by the climate of uncertainty surrounding the corporate fraud in Enron and WorldCom.

Tesco. Emerging as one of the retail chains that drove forward the self-service supermarket format in the UK during the 1960s (Wrigley and Lowe, 1996; 2002), Tesco is now the largest food retailer in that market and the only company of its domestic sector to be pursuing a committed strategy of globalisation. Tesco is rapidly developing a global presence (it already has access to a potential market of 280 million consumers) and has done so by implementing a highly innovative and flexible corporate model that combines multiple channels (food, non-food, financial services, and home shopping) with multiple selling formats (express stores, local stores, superstores, and hypermarkets) to extract maximum commercial value from its retail markets. In addition to its 805 stores in the UK and Republic of Ireland, Tesco operates 174 stores in 8 other markets across Central Europe (Czech Republic, Hungary, Poland, Slovak Republic) and Southeast Asia (Taiwan, Thailand, South

Korea – with 4 stores currently under construction in Malaysia, due to open in 2002-2003).[5] Tesco now employs over 260,000 people worldwide.

The company has entered these markets with a deep understanding of foreign consumer preferences, stemming from intense and collaborative on-the-ground research prior to entry and store opening. Most importantly, Tesco has ensured that the 'execution' of the store format is sensitive to its local environment. This has been achieved by installing local personnel into the executive management of its international divisions. Only one in a thousand of Tesco's total international staff are ex-pats. Clearly, the company attaches great importance to the development of capabilities and skills locally. Although Tesco remains a relatively immature global retailer by comparison to the size and international experiences of Carrefour, Royal Ahold and Wal-Mart, the speed and extent of its globalising trajectory over the past five years (leading to an upgraded equity valuation) has made it a potential corporate parent for one of the emergent mega-groupings.

Indeed, Tesco has the highest organic growth rate of any retailer in the world, with retail space projected to increase by 15.3% between 2000 and 2004. As a reflection of this, the company opened an additional 3 million square feet of retail space in its international division (and 1 million square feet in the UK business) during 2001 – leading to total selling space of 32.5 million square feet. The portfolio of stores located outside of the UK and Republic of Ireland is forecast to account for over 40% of Tesco's total retail space by 2003 and 50% by 2005. The company reported group sales revenues of £22.77 billion in 2001-2002 (85% of which originated from the UK market alone) and projects a higher turnover of £25.65 billion for fiscal 2002-2003.

Wal-Mart was established by Sam Walton in 1962 in Rogers, Arkansas USA. It rapidly expanded thereafter: in 1970 Wal-Mart Stores Inc. was listed on the New York Stock Exchange; and by 1979, total annual sales had exceeded US $1 billion (Sternquist, 1998). Since then, Wal-Mart has developed into the world's largest retailer by some distance. Not only that, but in 2002, Wal-Mart became (on the basis

[5] In mid-July 2002, Tesco acquired 13 hypermarkets, plus 2 under construction, and the accompanying shopping malls/rental income of the Hit chain in Poland, formerly owned by German operator Dohl, for

of sales) the world's largest industrial company with worldwide sales of $218 billion over 4,400 stores and over 1.3 million employees (otherwise known as 'associates'). Those sales are forecast to rise to $700 billion by 2010 – the sheer scale of which is certainly difficult to envisage (Fernie and Arnold, 2002: 92).

Wal-Mart opened its first international store in 1991, in Mexico City, in a joint-venture with Cifra, the largest local retailer of that market. The company now operates over 1100 stores in 10 other countries and serves 100 million customers worldwide per week. Taken as a separate company, Wal-Mart International would be ranked in the top ten of world retailers in terms of sales. With an unrivalled capital expenditure budget of $10 billion per annum, Wal-Mart opens on average a new store every day while also maintaining the quality of its existing portfolio. For instance, the company opened an additional 46 million square feet of retail space in its international portfolio during 2001. The international division of Wal-Mart, operating outside of the continental US, currently accounts for approximately 17% of total sales revenues.

So far, Wal-Mart has entered foreign markets using the same retail proposition that has been developed in the US over the past 40 years. Essentially, this revolves around low price, good selection, customer service, and community support (via financial contributions to local causes). Whilst Wal-Mart seeks to become the 'McDonald's of retailing', with its global brand standing in contrast to the more federal model of Ahold, it nonetheless adapts its portfolio of stores to particular circumstances – from merchandising and display to marketing and advertising flyers (Fernie and Arnold, 2002). Perhaps somewhat surprisingly, the organisational culture emphasises pragmatism, experimentation and innovation. Associates are empowered to use their own ideas to tailor the retail offering to the local environment. In this way, Wal-Mart claims that it can simultaneously be "the world's largest retailer as well as the local neighbourhood shop" (Arnold and Fernie, 2000: 429).

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around £390 million. This deal is strategically important, for it gives Tesco the benefits of scale and clear market leadership in Poland (Merrill Lynch, 2002).

STRUCTURE OF THE THESIS

The ability of the four leading retail TNCs to position themselves as corporate parents of the emergent mega-groupings will largely depend on how successfully they learn and innovate as global operators. In this thesis, I therefore examine the geographical dimensions to the 'soft architecture' of globalising retail. The analysis is completed in four stages, as outlined below.

Chapter 2 reviews the methodological issues involved in researching the retail TNCs. Here, I discuss the value of the equity analyst as a 'gatekeeper' to wider networks of knowledge about the globalising retail sector, and comment on the empirical challenges posed by engaging in close dialogue with corporate elites (not just the analysts but also the executives of the retail TNCs). Overall, I follow Yeung (2000b) by advocating a 'total method approach' to geographical research on the retail TNCs. This involves the use of multiple methods and triangulation of findings to minimise the risk of bias and uncertainty, allowing for the articulation of a balanced yet situated narrative.

Chapter 3 defines and conceptualises the distribution-based TNC, as opposed to the production-based TNC. Drawing upon existing productivist theoretical frameworks, it argues that the distinctive nature of the retail TNC, compared to the typical manufacturing firm, is its symbiotic closeness to, or spatial embeddedness within, the market. I provide evidence of this contention from two angles. First, the extent to which the collision between host and home market conditions shapes the nature of the retail TNC. Second, the intrinsic role of place to the competitive strategy of the retail TNCs – in particular, how places are inserted into the organisational networks of the retail TNC.

Chapter 4 emphasises the importance of store-based learning processes, and the transfer of knowledge between different places, to the competitive strategy of the retail TNCs. In this chapter I evaluate the challenges facing the effective management of knowledge within the retail TNCs, and the strategies that have been implemented to realise an adaptive style of globalisation which extracts and blends best practices from multiple locations to develop an innovative portfolio of formats.

Chapter 5 then focuses on the organisational and managerial challenges posed by a new technological innovation, revolving around e-commerce and Internet-based distribution networks. Here, I examine the response of the retail TNCs to the emergence of electronic space "not simply as a means for communicating, but as a major new theatre for capital accumulation and the operations of global actors" (Sassen, 1999: 49). The analysis begins by showing how the locus of competitive advantage in the new (r)etail markets of the developed world has shifted from the 'pure play' non-store retailers of the dot.com boom to a 'multi-channel' organisational paradigm, reflected by the adoption of e-commerce by the retail TNCs. I then identify five themes for conceptual debate arising from the impact of e-commerce on the landscape of global retailing and the retail TNCs.

Chapter 2

Researching the retail TNCs

INTRODUCTION

This thesis aims to *theoretically contextualise the 'soft architecture' to global retailing while also identifying important lines of future enquiry.* As such, I do not claim to provide a substantive ground-level investigation of the four retail TNCs. Nonetheless, case study evidence is incorporated into the report to enrich and thicken the conceptual observations. The information used to construct these case studies was collected between 2001 and 2002 as part of a broader research project, entitled 'Globalising retail and the challenge of e-commerce', led by Prof. Neil Wrigley and funded by the Economic and Social Research Council (under Ropa award R02225024). A co-authored paper based on the preliminary results of this project is forthcoming in *Progress in Human Geography* (Wrigley and Currah, 2002). In the longer-term, it is anticipated that the project will form the basis of a book. Our research involved two types of data collection.

First, we organised a series of recorded, semi-structured and extended interviews with the equity analysts of leading investment banks. Equity analysts of the food, drug and general merchandise retail sectors were able to offer unique insights on the process of retail globalisation, the nature of the TNCs, and the role of organisational learning and innovation within those firms, due to their close proximity to retail management and their tacit knowledge of company operations around the world. Our contacts inside the community of equity analysts meant that we were also able to obtain invitations to three prestigious global retail conferences, organised by leading investment banks Credit Suisse First Boston, Merrill Lynch and Deutsche Bank.[6]

[6] The three conferences were: Credit Suisse First Boston 'Food and Drug Retail Conference', New York, 6th – 7th February 2002; Merrill Lynch 'Retailing Leaders Conference', New York, 12th – 13th March, 2002; and Deutsche Bank 'Global Food Retailing Conference', Madrid, 18th – 19th June, 2002.

Second, whilst at these industry conferences, we were able to attend presentations by executive directors of the retail TNCs, pose questions directly to these executives at special 'break-out' sessions, acquire 'investor packs' distributed by the TNCs, access the latest equity research into global retailing, forge a durable network of contacts throughout the investment community[7], and above all, tune into the '*grapevine acoustics*' of the world of fund management and market analysis (Sidaway and Bryson, 2002: 407). The conferences also provided a unique opportunity to discuss our research with retail executives between presentations, at receptions, and in some cases, even over dinner.

In addition, we were able to build on these discussions, by ongoing one-to-one interviews (physical and telephone-based) with these executives. For example, we interviewed the Chief Executive Officer of UK-based Safeway Plc. – a former President and CEO of Wal-Mart International, who provided us with valuable knowledge of the global retail sector and of his own experiences inside Wal-Mart. And in addition, we held a telephone interview with the Director of Investor Relations of US-based Safeway Inc., who discussed, *inter alia*, the nature of their recent joint venture with Tesco in the online grocery sector.

Our research was not only based upon knowledge gleaned from equity analysts and, via the analysts, the retail TNCs themselves: rather, we endeavoured to explore the landscape of global retailing from the perspective of a *range* of corporate actors. Indeed, as I discuss below, a key part of the research involved the use of multiple methods and triangulation to compare and contrast findings – a 'total-method' approach to economic geography, which is better able to overcome the inherent weaknesses and uncertainties of individual stand-alone methods (Yeung, 2000b: 24). By necessity, this meant triangulating the data collected from interviews and conferences with secondary sources such as the business press and reports published by other stakeholders (*e.g.* management consultancies). I now review the methodological issues involved in completing this type of interview/conference-based

[7] For Neil, who has now been researching the retail sector for over 10 years, and attending such industry events since the mid-1990s, the three conferences not only provided the opportunity to forge new relationships with members of the investment community, but also were instrumental in maintaining his existing network of contacts. As I discuss below, the research very much depended upon Neil also acting as a 'gatekeeper' to the wider community of equity analysts and retail executives.

research – an instance of what may be termed 'close dialogue' with corporate elites (Clark, 1998).

THE VALUE OF THE EQUITY ANALYST AS A RESEARCH RESOURCE

Our ability to penetrate the network of equity analysts was instrumental to the success of the research – not only because of their expertise of the sector, but also because they could insert us into the wider networks of knowledge exchange in the retail sector (*i.e.* by referring us to other analysts, providing an array of research reports, and inviting us to the conferences). Equity analysts occupy a unique position in the retail industry. They perform an important role as agents in the process of corporate governance[8], and also enjoy unprecedented levels of access to the elites (*e.g.* CEOs, Chief Financial Officers *etc.*) of firms operating within their sector. In one of the few treatments of the topic, Wood (2001a: 127) notes that equity analysts are "in direct contact to the main industry actors, but situated outside the organisation and not positioned as a direct stakeholder who possesses clear interests in the success of the firm". These actors are of critical importance to the retail TNCs, since their reports and recommendations directly affect the performance of the company's stock. As Treadgold (1991: 5, cited by Wood, 2001a) has recognised,

> "The best of the retail analysts are acutely informed and insightful commentators with a deep knowledge of the companies they track, the sectors in which they operate, and the wider economic, political and consumer environments shaping their present performance and their future prospects. Analysts have an important voice in reporting on and indeed influencing the performance and perception of retail companies and retail sectors".

However, as recent scandals in the US have clearly demonstrated, equity analysts certainly do not provide a detached, objective perspective of the retail TNCs. The investment banks for which they work will frequently have important ties with the retailers, possibly by providing specialist advice to those firms on issues ranging from share flotations to mergers and acquisitions. Indeed, as our interviews confirmed,

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[8] This is explained well by Wood (2001a: 146): equity "analysts play the role of monitors of managerial performance as a means of reducing the agency costs of debt and equity. The other major role analysts play is that of making security markets more informationally efficient" (see also Jensen and Meckling, 1976; Moyer *et al.*, 1989).

each of the investment banks had certain 'loyalties' to a particular retail TNC. As a result, the equity analyst is likely to remain much more 'upbeat' about the performance of a major client than would be the case in another investment bank. Clearly, this reduces the impartiality of the analysts' responses. To an important extent, therefore, the investment banks and the retail TNCs are mutually interdependent. Moreover, the outlook of analysts is also shaped by prevailing opinions in the business press. A good example of this was how the hype surrounding business-to-consumer e-commerce in the wider financial community fuelled a speculative bubble between 1997 and 2001. The knowledge equity analysts provide, therefore, is clearly 'situated knowledge' and this (with all the risks of bias that this carries) must be clearly understood and coped with in its use for academic purposes. The key is a thorough triangulation with a range of other data sources.

Nonetheless, bearing these caveats in mind, the equity analyst may be seen as a classic example of a '*gatekeeper*' – a member of a *corporate elite* who controls access to particular social *networks*, and has "the capacity to mobilise specialist knowledge" (Hughes and Cormode, 1998: 2098) (see next section). According to Oinas (1999a: 352), the power of elites partially "comes from their extended social networks and their ability to act as connectors". Equity analysts, then, act as gatekeepers who can unlock inside knowledge of the globalising retail industry to academic researchers. It is surprising, therefore, that these sources of embodied knowledge have remained so neglected in the methodological literature to date.[9] Data from these kinds of sources is often seen as 'unconventional' in the traditional realm of economic geography, and are frequently treated with suspicion. However, using the knowledge of equity analysts represents, in the words of Yeung (2000b: 21), a form of "*in situ* research...done on the researcher's behalf by other interested parties" (original emphasis). Yeung is clearly in favour of accessing the equity analyst, as he goes on to explain: "I am thinking of people from research houses of stock broking firms, investment banks, credit rating agencies, and so on, and other institutions...who may have a vested interest in unpacking certain firms and corporations" (*ibid.*). The literature produced by what Yeung terms 'pseudo-researchers' is formed through

[9] However, there is now a growing area of debate concerned with 'elite research' in more general terms (see Cormode and Hughes, 1999; Hughes and Cormode, 1998). Nonetheless, much of the research

> "personal interviews, focus group discussion, gossip talks over lunches and dinners with executives from these corporations, and reading company files and records ...This highly important source of oral and written data can be profitably exploited by economic geographers" (*ibid.*).

However, the leading equity analysts also provide high quality, *qualitative* information on the firms' performance (financial and organisational) and Yeung, to an extent, neglects the potential value of this information to the economic geography researcher. It is clear, therefore, that the equity analyst represents an extremely valuable source of knowledge. But let us consider, in more detail, the nature of the equity analysts as a network of corporate elites, and the methodological challenges that this posed for our research.

SPATIALISING AND ACCESSING THE 'NETWORK' OF CORPORATE ELITES

> "Corporate elites...exercise control over a particular aspect of commerce – are often characterised first as consisting exclusively of those who hold senior positions within a particular industrial, financial or commercial sector; and second, can thus be unproblematically located within a particular industrial, financial or commercial institution or set of like institutions" (Parry, 1998: 2148).

Drawing upon poststructuralist theories of fluidity and interconnectedness, Woods (1998) seeks to problematise existing conceptions of what constitutes an elite. Elites should not be viewed, he argues, as the top echelon in socio-economic life; instead, they are best understood as a sub-section of wider societal networks – a *network* of individual actors bound by strong social and professional ties. In particular, he defines elites according to the following two characteristics – a typology which helps us to understand exactly how and why the community of equity analysts represent a network of corporate elites.

First, elites only possess power in the sense that they have the *capacity to act* (*cf.* Foucault, 1977). In this view, the power of elites is exercised in action, through the construction of networks and alliances between other actors and resources and the

conducted along these lines has tended to be based upon close dialogue with *institutional* rather than *corporate* elites.

ability to act as 'connectors' (Mullings, 1999). Thus, elites are "networks of individuals (of varying degrees of integration) which provide a relatively stable matrix of connections enabling the rapid and routine mobilisation of human, institutional, material and discursive resources into networks of action" (Woods, 1998: 2106). As Yeung (2000b: 15) explains, the ability of corporate elites to "reach across space and 'act from a distance' ultimately depends upon entraining other actors and the necessary material objects, procedural frameworks and so on which are required to effect the activation of power". From this perspective, then, the equity analyst exhibits the fundamental characteristic of an elite network. That is to say, equity analysts possess the power to rapidly enrol and activate knowledge about the retail TNCs – not only in the form of access to the corporate leaders of those firms, but also in the form of contacts with other influential and knowledgeable actors across the investment community.

Second, the ability of elites to exercise power and mobilise resources is also a function of their spatiality. Whilst many have pointed to the "increasingly informal, hybridised, spatially fragmented, and...invisible" nature of elite networks (Parry, 1998: 2151), our research was aided by the concentration of equity analysts in leading global financial centres – namely, London and New York (*cf.* Sassen, 2001). In these cities, the effects of proximity serve to galvanise the importance of face-to-face interaction in sustaining inter-personal networks of trust and reciprocity (Thrift, 1994). At a finer scale, the exclusivity of the elite networks of the financial community is reinforced through social gatherings in 'back-region' spaces, where access is heavily restricted – ranging from meetings at receptions, member's clubs, and restaurants, to more formally constituted events such as industry conferences, seminars or workshops. For the equity analyst, the industry conference plays a key role: for it is in this exclusive 'space-time', typically held in a luxury hotel, that analysts are able to harvest critical information about the performance of individual companies and sustain, or generate, relationships with the corporate leaders of leading retailers and other members of the investment community.

So, in what ways were we actually able to penetrate the elite network of equity analysts, and infiltrate exclusive back-regions such as the retail conferences – a space which remains relatively opaque to the wider academic community? While many have pointed to the immense challenges and 'messy empirical realities' facing academics in search of elite interviews (Herod, 1999; McDowell, 1998), in our case the task was helped by the existence of prior relations between Neil and the leading equity analysts of the retail sector. By effectively 'advertising' these contacts in our initial correspondence with the analysts when arranging meetings, we were able to identify ourselves as genuine actors within the elite network, thus endorsing the research as a legitimate reason for a meeting.

Further, we were not simply acting as 'supplicants', "requesting the time and expertise from the powerful with little to offer in return" (McDowell, 1992: 213): the research was actually of considerable value to the analysts, not least because of our combined knowledge of the retail sector and the nature of current trends. We were not there to simply to listen, but to engage in 'close dialogue': "an informal agreement to exchange information, sometimes involving an elaborate and highly choreographed process of sequential revelation that joins both sides of the dialogue" (Clark, 1998: 80). As Mullings (1999) explains,

> "given the strict…time constraints that most elites operate under, researchers often find themselves with only a brief window of opportunity *to convince those from whom they seek information that such an endeavour is worthwhile*" (emphasis added).

Proving that the analysts' time would be well spent was critical for us, especially given that institutional investors are required to pay considerable amounts of money for their advice and time. In effect, we were attending for free – while receiving the same quality of knowledge, along with the standard perquisites of corporate life.[10] Yet, Neil's knowledge of the retail sector and of the analyst community commanded the attention and respect of the respondents – both in the extended interviews and at more opportune moments, such as discussions over dinner at the conferences. Clearly, this meant it was even more important for me (as the co-researcher) to stake out a position in the dialogue in order to be recognised as a legitimate participant (albeit of a younger age, and with less experience) by the corporate elites (*cf.* Sabot, 1999). Nonetheless, as a research team we generally worked well. And by meeting a

[10] Including complimentary food, drink, and at the conferences, even rucksacks, confectionery and stationery.

range of actors across the sector, we were also performing an important and valuable role as 'knowledge brokers', mobilising and transferring knowledge of the retail TNCs across the community of equity analysts. As such, our interviews served, in part, to remind the interviewee of their centrality within that elite network. As McDowell (1998) observes, the depth and quality of the dialogue in elite interviews can often be improved if the respondent is given the latitude to 'parade' their expert knowledge of the area in question.

However, our ability to achieve all of the above, to access – and operate as actors within – the network of corporate elites, implicitly depended upon our ability to take on the forms, even the 'sartorial expressions', of respectability understood by the researched (Cochrane, 1998). This was particularly important in the context of the conferences, which constitute a performative space of display occupied exclusively by elite members from the financial community – a 'sexy greedy' (Leyshon and Thrift, 1997) environment seemingly at odds with traditional conceptions of 'geography fieldwork'. Whilst it was necessary to some extent, therefore, to downplay our status as geographers, and blend into the background as legitimate 'analysts' of the sector, our academic positionality (combined with the fact that we were clearly committed researchers, having travelled long distances to these conferences) in many cases actually acted as an informal 'ice breaker' and enabled us to more easily approach members of the elite (*cf.* Herod, 1999).

In the context of the interview, our ability to adapt – to 'take on a new skin' – was equally important (Cochrane, 1998: 2124). Indeed, it was necessary for us to become immersed within the language of the corporate world (a task that required considerable preparation on my behalf), and so avoid using any academic terms that could confuse the respondent or jeopardise the fluidity of the discussion. Although we were generally in control of the discussion, via a semi-structured framework of topics, the efficacy of the interviews was constrained by the corporate setting, in which distinct researcher-subject power relations were forged (Hammersley, 1992). That is, many of the respondents exerted a *pseudo-managerial* control over the discussion, especially given time constraints and the need to deal with impending tasks during the meeting. Despite the shift in power relations that many academics are believed to face when interviewing corporate elites, "one in which the researched is in a position of power and may set the agenda" (Cochrane, 1998: 2124), we were still able to 'choreograph' our own actions – that is, 'play act' with the interviewees – to obtain the desired information (*cf.* Clark, 1998). In particular, we *desensitised* some potentially sensitive issues in the initial stages of each interview; but as a rapport was developed, we were then able to probe the respondent for their perceptions of such controversial issues (McDowell, 1998). Indeed, in many of the interviews, respondents would sometimes informally disclose critical information relating to the retail TNCs – '…but you didn't hear that from me', or 'off the record, my real feeling about that issue is…', and so on.

SITUATED KNOWLEDGES AND THE CASE FOR A 'TOTAL METHOD' APPROACH

In recent years, feminist researchers have argued for a greater recognition of the *situated* nature of knowledge acquired through qualitative techniques such as elite close dialogue. In a review of this literature, Rose (1997: 305, 308) notes "all knowledge is produced in specific circumstances [and] thus positioned, or situated, can no longer claim universality". Researchers must therefore recognise and take account of our value-laden positionality as well as that of our respondents (McDowell, 1992). Further, the manner in which researchers present themselves to the researched undoubtedly shapes the nature of the answers given (Cochrane, 1998).

The knowledge we acquired during the course of the research was indeed very much situated – for it was contingent upon the distinct face-to-face relationships which evolved between ourselves and the researched, both at interview and at the conferences, where we interacted with the elite in a more social and tactile sense. There is much to be learnt from situated knowledges. As Schoenberger (1991) suggests, close dialogue with corporate elites through semi-structured interviews are remarkably effective for revealing the sociocultural contextuality of 'the firm' – in my case, how the geographies of organisational learning and innovation are shaped by the actor-specific discursive practices of corporate strategists (*cf.* Schoenberger, 1994; 1997). In contrast, "the standardised survey instrument must necessarily standardise and simplify a complex reality" (Schoenberger, 1991: 184).

However, there are also many challenges associated with the use of such situated knowledges to construct economic geographies (Hughes, 1999a). Close dialogue relies upon a certain intimacy between the researcher and the researched: "a level of personal commitment quite at odds with conventional notions of scientific disassociation and objectivity" (Clark, 1998: 73). Nonetheless, Clark points out that "many researchers are too idealistic about the possibility of truth in the social sciences" (*ibid*). Instead of becoming obsessed with debates about the validity of knowledge, which provide little help in devising suitable methodological strategies, it is far more instructive, in my view, to consider how situated knowledges can be woven together to construct a meaningful economic-geographical narrative. In particular, the uncertainties attached to situated knowledge can be minimised by employing multiple research techniques and triangulating findings from an array of sources. As Hughes (1999a: 372) notes, it is crucial "that corporate narratives are also triangulated with other existing data and theoretical perspectives on the issues being researched".

In our interviews, we therefore approached issues from multiple angles to test the consistency and veracity of responses, while also re-asking similar questions to each of the interviewees to broaden our perspective of an issue. Overall, our research is certainly 'data rich'. We obtained detailed qualitative evidence from the interviews and from meetings at the conferences, in addition to extensive quantitative data published in industry reports written by the analysts. All of these findings were triangulated with secondary data, in particular, reports published in the business press and by other stakeholders in the retail sector, which allowed me to position the research within the context of the latest developments of the sector, including recent mergers and acquisitions. The Internet has improved access to these secondary data sources. Many of the retail sector reports published by consultancy firms such as KPMG and M+M Planet Retail are online, as are press releases by the retail TNCs. In fact, due to recent legislative changes imposed by the Securities and Exchange Commission, whereby firms must release their information into the public realm rather than to exclusive audiences, and due to a greater cognisance of the *global* investment community, the retail TNCs have begun to broadcast their analyst conference calls live over the Internet, using streaming media software such as RealPlayer™.

Overall, the use of multi-methods and triangulation is, according to Yeung (2000b: 24), part of a 'total method' approach to economic geography research, "the logic of which rests on the fallibility of any single measure or representation of social phenomenon". This approach, he argues, allows researchers "not only to explore the micro-foundations of economic action, but also to abstract theories from the multi-scalar dimensions of economic action" (*ibid*: 4-5). Indeed, under a total method approach, data from multiple sources are woven together to construct a situated narrative – that is, a set of theoretical abstractions based on a diverse collection of findings. An understanding of organisational geographies does not

> "emerge directly from empirical observations. In other words, data do not speak for themselves. We need abstraction to distil the multiple logic(s) and mechanisms of...business from an array of messy empirical data and to facilitate theory development" (*ibid*: 33).

In the remaining chapters of the thesis, I therefore use the data collected during the research to write an economic geography of organisational learning and innovation in the retail TNCs. As noted in the introduction to this chapter, the style in which this economic geography is written remains conceptual rather than empirical. For instance, interview transcripts are not incorporated into the flow of the argument. Instead, I rely upon the use of selective case study evidence (gleaned from the triangulation of multiple types of data) to illustrate the theoretical observations.

Chapter 3

Conceptualising the distribution-based TNC

INTRODUCTION

Given the deeply rooted productivist bias of existing debates on economic globalisation and transnational corporations, the immediate question that must be posed is how, most appropriately, can the distribution-based TNC be conceptualised? And by implication, to what extent can this formidable – and as yet, uncharted – task be supported by theoretical frameworks originally developed for TNCs in the productive sectors (Aharoni, 2000: 15; Sternquist, 1998: 119)? Is the process of foreign direct investment, and the subsequent management of the international firm, fundamentally different between the retailing and manufacturing industries? Dawson (1994: 270) believes so:

> "The balance between centralised and decentralised decision-making, the relative importance of organisation and establishment scale economies, the degree of spatial dispersion in the multi-establishment enterprise, the relative size of the establishment to the size of the firm, the relative exit costs if decisions are reversed, the speed with which the income stream can be generated after an investment decision has been made, different cash flow characteristics, the relative value of stock and hence importance of sourcing; all these items, and others, serve to differentiate the manufacturing firm and the retail firm ... in the internationalisation process".

Given these differences, is it accurate to suggest that "the basic role of retailing in moving goods (and services) to the final consumer and the position of retail institutions as the final link in the distribution channel" mean that theory based "on the traditionally viewed 'productive' sectors of the economy has limited value" (Burt and Carralero-Encinas, 2000: 434) and may even draw attention "away from the idiosyncrasies of the retail process" (Alexander and Myers, 2000: 334)?

The purpose of this chapter is to address these thorny issues. I do so by interrogating the distinctive nature of the distribution-based TNC (manifested, at present, by the emerging elite of global retailers). Also, and in contrast to the largely antiproductivist stance of much of the marketing/business studies literature on this topic, I consider the merits *and* dangers of situating this particular type of TNC within extant theoretical frameworks. In short, the chapter argues that *the distribution-based TNC is best conceptualised as being spatially embedded, to an unusual extent relative to manufacturing firms, in the markets where it operates*. The chapter begins with an overview of contemporary debates relating to the role of retailing and distribution in 'buyer-driven global commodity chains'. I then explain the inadequacies of this perspective in providing a theoretical understanding of the distribution-based TNC.

THE STORY SO FAR: READING GLOBAL RETAILING THROUGH THE LENS OF BUYER-DRIVEN COMMODITY CHAINS

It is instructive to note that where there is a treatment of retail corporations and the "role of commercial capital in the globalisation process" (Gereffi, 2001a: 33), it has been to characterise that role and those corporations as the lead firms in 'buyer-driven' global commodity chains (Gereffi, 1996; Gereffi and Korzeniewicz, 1994):

> "in which large retailers, marketers and branded manufacturers play the pivotal roles in setting up decentralised production networks in a variety of exporting countries, typically located in the Third World" (Gereffi, 2001b: 1620).

Production is understood as being carried out by tiered networks of Third World contractors that make goods according to the specifications provided by large developed world retailers and marketers, who exert substantial control over how, when and where production occurs and how much profit is added at each stage of the value chain (Gereffi, 2001b).[11] Essentially, in this view, the firms leading the buyer-driven chains "design and/or market – but do not make – the branded products they order. They are part of a distinct breed of 'manufacturers without factories' that separate the physical production of goods from the design and marketing stages of the production process" (Gereffi, 2001b: 1620).

[11] Gereffi (2001a: 38) defines 'marketers' as firms who "build and commercialise their own brand names but own neither factories nor stores".

The concept of buyer-driven global commodity chains has provided a valuable perspective on the international sourcing operations and supply chains of major retailers, which have become more 'lean' or 'demand pull' in character due to radical innovations in information technology and market forecasting techniques.[12] Overall, the chain-oriented paradigm has produced a rich stream of studies exploring the spatiality of procurement by distribution-based firms across a range of sectors, stretching from horticulture and apparel to cut flowers and furniture (*e.g.* Burch and Goss, 1999; Dolan and Humphrey, 2000; Gereffi, 1999; Hughes, 2000; 2001; Leslie and Reimer, 1999). The recent plethora of studies that have employed some variant of 'commodity chains' or 'networks' in their conceptualisation of globalising firms (*e.g.* Coe and Yeung, 2001; Dicken *et al.*, 2001; Henderson *et al.*, 2002; Pritchard, 2000; Raikes *et al.*, 2000; Yeung, 2000c) has acted as an important corrective to the productivist proclivities of the mainstream globalisation debates (Wrigley, 2000a).

But to read the globalisation of retailing and distribution solely through the lens of buyer-driven chains leaves the distinctive nature of the retail TNC well out of focus. The key feature of the retail TNC (and one that is neglected from the perspective of buyer-driven chains) is that it must stretch its *distribution* activities and the assets and employment linked to those activities (in the form of store networks and warehousing/distribution centres), not simply its buying or sourcing requirements, over multiple and diverse national boundaries. From this angle, I would argue that retailers who are entirely domestic operators, in terms of their asset and sales base, but who are also centrally involved in buyer-driven global commodity chains (for the purpose of securing/upgrading their competitive position in that domestic market) should not be regarded as retail TNCs – even if they do meet the strict definition of a TNC as "a firm which has the power to coordinate and control operations in more than one country, even if it does not own them" (Dicken, 1998: 8).

The distinctive organisational challenge of the retail TNC, then, is that it is *spatially embedded* into the social, cultural, economic, political and institutional fabric of its

[12] That is, "retailers can now exchange point-of-sales information – a relatively accurate measure of consumer demand – with their suppliers and accordingly require manufacturers to replenish orders much more quickly than in the past" through the use of electronic data interchange (EDI) and other collaborative inter-firm networking technologies (Abernathy *et al.*, 2000: 6; see also Li and Williams, 1999; Malone, 1998: 266-267).

host and home markets to a far greater extent than the branch plant operations of its production-based counterpart. This can be seen in at least three ways:

(i) The sensitivity of the retail TNC to the undulations of regulatory space – in particular, the impact of regulation on the location of new stores, which ultimately determine their commercial viability (Guy, 2001), the effects of antitrust regulation on merger/acquisition-driven growth (Clark, 1992; Wood, 2001a; 2001b), and the operational issues surrounding employment law and legislative controls on store opening hours (Blomley, 1986).

(ii) The need for intensive site research prior to market entry, in terms of divergent consumer preferences (De Mooij and Hofstede, 2002), demographic trends, the distribution/logistics infrastructure (Fernie, 1995), and regulatory institutions *etc.* (McGoldrick, 2002). Such differences between countries are interpreted and mediated through the lens of corporate culture, and in this sense, may be more appropriately thought of as constituting a form of 'psychic distance' (Barkema *et al.*, 1996). It has long been argued that retailers, initially at least, and prior to any later international learning experiences, prefer to enter markets that are *perceived* by executive management as culturally and economically proximate to their domestic market (Evans *et al.*, 2000; Dupuis and Prime, 1996; Treadgold and Davies, 1988).

(iii) While a manufacturing firm may proceed cautiously through 'developmental stages' (Andersen, 1993; Johanson and Vahlne, 1977; 1990) into what it perceives as 'culturally distant' markets, retailers are required to commit a higher level of upfront investment by sinking capital into physical assets in order to simply access the marketplace – in other words, the 'set-up' and 'accumulated' costs generated by the store-base and its attendant supply chain infrastructure effectively lead to the 'grounding' of retail capital in place, with all the vulnerabilities associated with market exit that this process brings (Clark and Wrigley, 1995).

Although the branch plants of production-based TNCs must also adapt to place-based circumstances, giving rise to a 'transplant geography of hybrid factories' (Abo, 1996), it is the essential 'closeness' of the retail TNC to the marketplace, and in turn, its embeddedness in local cultures and geographies of consumption, which sets its globalisation process apart from that of the typical manufacturing firm.[13]

What, then, are the conceptual issues arising from the above perspective on the appropriate position of the retail TNC in existing (productivist) debates on economic globalisation? Here, I consider the two questions that are identified by Dicken (2000) as being crucial to understanding the geography of international investment flows. First, the '*placing firms*' question (Dicken, 2000: 276-282). In what ways are the characteristics of the retail TNCs related to the specific places and markets within which they are embedded? Second, the '*firming places*' question (Dicken, 2000: 282-287). How are places inserted into the organisational space of the retail TNCs, in innovative ways, as part of their competitive strategies?

'PLACING' THE RETAIL TNCs

> "At least in origin, TNCs are 'locally grown'; they develop their roots in the soil in which they were planted. The deeper the roots the stronger will be the degree of local embeddedness, such that they should be expected to bear at least some traces of the economic, social and cultural characteristics of their home country" (Dicken *et al.*, 1994: 34; quoted in Dicken, 2000: 279).[14]

Where firms come from remains extremely important, even in a globalising economy. The contention made by Ohmae (1990) and others (principally in the management literature) that international firms are inexorably converging towards a homogeneous global organisational form is now widely refuted. The truly global, placeless corporation is a mythical construct (Doremus *et al.*, 1998) deployed, in part, to

[13] Of course, the closeness of retailers to the marketplace is necessarily distanciated to some extent by e-commerce, as in any form of home shopping, where the market value of the commodity is realised before entering the possession of the consumer (*i.e.* when it is dispatched from the warehouse) (see chapter 5 for a more detailed discussion of the implications of e-commerce for retailing).

[14] The character of a TNC is not only determined at a national scale. For instance, the culture and organising principles of Wal-Mart are strongly tied to its Midwestern rural origins: the spirit of Bentonville, Arkansas, the company's headquarters, pervades the entire organisation (Schneider, 1998 – see the discussion of 'storytelling' in chapter 4).

naturalise and "buttress neoliberal political ambitions" (Pritchard, 2000: 791; see also Yeung, 2002).

Transnational companies are basically national companies with international operations (Hu, 1992). Global firms continue to be shaped by nationally and regionally oriented systems of innovation, regulatory frameworks, and socio-cultural characteristics (Christopherson, 1999; Dicken, 1992; 1994; 1998; Guillén, 2001; Hirst and Thompson, 1996; Lash and Urry, 1994; Rugman, 2001). As the above quote from Dicken *et al.* (1994) aptly illustrates, TNCs are effectively 'produced' in different national 'containers' – a theme that resonates strongly with the concept of *social embeddedness* advanced within the 'new economic sociology' (Granovetter, 1985; Zukin and Di Maggio, 1990; see also Grabher, 1993). Home market conditions continue to 'imprint' the internal structure and developmental trajectory of resident firms, whatever the direction or speed of their globalisation (Kogut, 1993: 150). Equally, though, the TNC is embedded within, and shaped by, the host environments in which it operates. These debates seem even more pertinent in the context of the retail TNC, due to the "need for the adaptation of management practices and processes in response to the cultural character of the host country" (Dawson, 1994: 278), and the need, reciprocally, to understand the organisational impact of that adaptation upon those firms – a theme to which I return in greater detail later in the thesis.

For Whitley (1999; 2001), it is the dialectical interplay between the characteristics of home and host environments that makes the TNC so much more distinctive and complex than domestically focused firms. By operating and managing operations across diverse national territories, TNCs learn to adapt to place-based conventions, rules, and norms of exchange, and consequently have the capacity to develop and disseminate novel forms of organisation and managerial techniques. Yet it is also important to consider how TNCs differ from one another. To this end, Whitley (2001) has articulated a valuable typology of idealised types of business environment and firms, which he uses to explore how firms from different business systems and institutional contexts are likely to manage their foreign direct investment (FDI) abroad. This framework can make a number of important contributions to the conceptualisation of the retail TNC.

Whitley (2001) identifies three types of enterprise that develop in distinctive kinds of business environment. Each of these environments are dominated by a different institutional apparatus, which controls "access to capital and skills that encourage different ways of coordinating and controlling economic activities, and hence lead to contrasting strategic priorities, forms of owner-control and authority-sharing, and varied collective competences" (Whitley, 2001: 38).

Particularistic environments are characterised by the absence of institutions conducive to cooperative behaviour between owners and managers, employers and employees, as well as buyers and sellers. Such business systems "combine a weak and/or predatory state … with weak collective intermediaries and norms governing economic transactions, and predominantly paternalist economic transactions" (Whitley, 2001: 39).

Collaborative environments comprise institutions that entwine the agendas and interests of key actors, and thus encourage cooperative behaviour by limiting the opportunities for market exit. In some of these environments, such as Japan, "the state plays an important coordinating and developmental role", while in others, such as Germany, it may be less involved in coordinating economic activities, but instead "encourages private associations to coordinate a range of activities" (Whitley, 2001: 39).

Arm's length environments differ by providing flexible opportunities for market entry and exit, but within predictable and strongly "institutionalised formal system of rules and procedures that facilitate delegation and trust …The state acts more as a regulator than coordinator, finance flows through competitive capital markets rather than banks, and training is more a matter for individual investment than for coordinated collaboration between state agencies, employers and agencies" (Whitley, 2001: 39).

In turn, each of these types of business environment is seen to produce a characteristic type of firm. *Opportunistic firms* are the products of the adversarial and unpredictable conditions to be found in particularistic environments, where the state is "poorly integrated and controlled by private rent-seeking elites. Here, dominant institutional arrangements are either antagonistic to private wealth accumulation or else too weak to provide the basis for predictable outcomes from strategic investments" (Whitley, 2001: 40). Under these conditions, corporate decision-making usually involves gaining the approval of political and other related stakeholders, but this too is inherently unstable and may only provide a source of short-term support.

Consequently, such firms rarely develop the organisational capabilities necessary for effective control of transnational divisions. Instead, the control of opportunistic firms is usually direct, personal and non-routine, with the prosperity of the owners' family at the heart of corporate decisions. Nonetheless, "flexibility and responsiveness are key competitive strategies, as these firms have to be adept at adjusting to unpredictable environmental changes" (Whitley, 2001: 41).

In comparison, firms characterised by *cooperative* and *isolated hierarchies* emerge from more institutionalised environments, where strategic investment decisions can be calculated with a greater level of certainty. This allows firms to "enter into long-term commitments with business partners on a continuing basis" and "develop complex organisations through authority relationships derived from private property rights without requiring direct owner supervision and high levels of personal trust" (Whitley, 2001: 41). More specifically, cooperative hierarchies are generated by collaborative environments in which there is considerable "interdependence between the providers and users of capital and labour power as well as the institutionalisation of strong intermediary associations between the family, the firm, and the state" (Whitley, 2001: 41). Meanwhile, isolated hierarchies are produced within environments that exhibit a high degree of pluralism and the separation of major institutional arenas and regulatory conventions. There is a low level of interdependence between the fates of these firms. "Owners tend to be remote from managers and capital is typically managed in investment portfolios with financial claims traded on highly liquid markets" (Whitley, 2001: 42).

Whitley (2001) combines the above ideal business environments and firms to construct a matrix (see Table 4) showing how firms from contrasting environments are likely to differ in terms of the management of their international investments. These differences relate to the level of direct investment, risk management strategies in the host environment, the extent and mode of parent control over subsidiaries, the extent of integration of subsidiaries into the local economy, the ability of subsidiaries to develop distinctive organisational capabilities, and whether the parent firm will learn from subsidiaries' innovative activity and apply such capabilities to its operations in other markets.

Table 4. Differences in the management of international investment by firm type and environment

	Types of foreign business environment		
Management of investment by different firm types	Particularistic	Collaborative	Arm's length
Level of investment			
Opportunistic	Low	Low	Low
Cooperative hierarchies	Low	Limited	Some
Isolated hierarchies	Low	Variable	Considerable
Risk management strategies			
Opportunistic	Flexibility, personal networks	Personal networks	Personal networks
Cooperative hierarchies	Market power	Market power, incremental alliances	Transfer domestic alliances and market power
Isolated hierarchies	Market power	Market power, short-term alliances	Market power, firm-specific advantages
Extent/mode of parent control of subsidiaries			
Opportunistic	High, direct, personal	High, personal	High, personal
Cooperative hierarchies	High, direct, resource access	Considerable, resource access	Considerable, resource access
Isolated hierarchies	High, resource control, targets	Limited, formal targets	Limited, formal targets
Extent of subsidiary integration into local economy			
Opportunistic	Limited, ad hoc, short term	Limited, ad hoc	Limited, ad hoc
Cooperative hierarchies	Limited, ad hoc	Limited, incremental	Limited
Isolated hierarchies	Some, but short-term	Considerable	Considerable
Subsidiary development of distinctive capabilities			
Opportunistic	Low	Low	Low
Cooperative hierarchies	Low	Limited	Limited
Isolated hierarchies	Low	Considerable	Considerable, where host economy differs significantly
Extent of organisational learning and change from international investment			
Opportunistic	Low	Limited	Limited
Cooperative hierarchies	Low	Limited but more complex	Limited but more complex
Isolated hierarchies	Low	Limited but more complex	Some, increased complexity

Source: adapted from Whitley (2001: 52).

The framework presented in Table 4 raises several compelling questions about the relationship between the nature of the retail TNCs and their spatial embeddedness in different foreign environments. But to what extent can this production-based framework accurately depict the characteristics of the emerging elite of global retailers? And if not, why not? The following discussion explores how the retail TNCs, as isolated hierarchies generated from arm's length business environments (France, The Netherlands, the UK, and the US respectively), are managing their investments in each of the three types of environment identified by Whitley (2001).

Beginning with particularistic markets, Whitley (2001: 51) believes it is unlikely that any of the three types of firms will "commit a large proportion of their resources to countries where uncertainty over property rights and reliability of formal institutions remains high". However, he concedes that such deterrents to international investment may be superseded by the economic growth and major cost reductions offered by such environments. This latter point certainly seems to have been the case in the globalising retail sector. Carrefour, Royal Ahold, Tesco and Wal-Mart have all invested considerable amounts of capital in unpredictable and weakly institutionalised particularistic markets across Latin America and Eastern and Southern Europe, where rising levels of consumer affluence and a poorly developed retailing sector have offered early entrants the prospect of first-mover advantages and super-normal returns. The case for this argument has been put forward, in detail, by Wrigley (2000a: 305):

> "Those firms (particularly Carrefour) which led the push into the emerging markets by the elite group of retail TNCs were initially able to achieve super-normal returns on their investment. Rapid organic growth was possible in markets in which competition to Western-style large-store corporate retailing was minimal. Licences to open new stores were easy to obtain (in marked contrast to the position in Western Europe), capital requirements for site acquisition and store construction were low, and the existing retailers in those markets typically had little purchasing scale and operated in an inefficient manner".

Still, the retail TNCs continue to face many risks by operating in these unstable environments, as reflected by recent devaluation crises in Southeast Asia and South America (Colla and Dupuis, 2002; Kamath and Godin, 2001). In this respect, two questions can be posited: *(i)* what strategies have the retail TNCs put in place to manage risk and protect their investments in these markets, and what are the implications of these strategies for wider processes of organisational learning and innovation across the company?; and *(ii)* what is the impact of the retail TNCs upon the organisational and logistical structure of the distribution sector, and the competitive landscape more broadly, within these emerging markets (see Da Rocha and Dib, 2002; Farina, 2001; Tokatli and Eldener, 2002)?

Whitley (2001) goes on to suggest that the endemic levels of uncertainty within particularistic environments leads to strong parental control of subsidiaries, across all firm types, limiting the potential for those subsidiaries to become integrated into the local economy and develop distinctive, place-based organisational capabilities. He argues that only few TNCs are "likely to change their organisational routines … as a result of investing in such societies" (Whitley, 2001: 53). However, due to the very nature of retailing – its close affinities with consumer culture and the fundamental role it plays in local communities – even in the most strongly centralised retailers such as Carrefour or Wal-Mart, the subsidiaries of the retail TNCs must, by default, embed themselves into specific markets and consumption practices to ensure local competitiveness. Moreover, as I will discuss in the next chapter, there is considerable evidence of distinctive organisational capabilities (from marketing strategies attuned to local consumer tastes through to novel store formats) being transferred from particularistic environments into the domestic operations of the retail TNCs as part of company-wide learning processes. However, the ability to transfer such capabilities clearly varies among the retail TNCs and also depends upon the specific style of globalised retail operation they choose to employ.

In the more predictable collaborative business environments, foreign firms are required to adapt to prevailing norms and practices in order to gain access to the established networks and alliances that pervade these economies. Here, the dominant business practices are marked by authority-sharing and mutual commitments. So, while cooperative hierarchies are prone to enter into collaborative business environments through an incremental process, slowly developing linkages with local actors, isolated hierarchies are less acclimatised to the benefits of cooperation and are consequently far more likely to "rely on market power to short circuit the process of building alliances as well as on their firm-specific competitive advantages to attract local business partners" (Whitley, 2001: 54). The experience of Tesco and Wal-Mart in Korea and Japan, respectively, reflects the importance of well-chosen alliances and partnerships in this environment. For example, Wal-Mart has entered Japan by acquiring a 6.1% stake (set to incrementally rise to 51% by 2005) in Seiyu, the eighth largest retailer of that market by sales turnover. Tesco's partnership with Samsung in South Korea, where it operates 17 'Homeplus' hypermarkets, provides another example of a collaborative business relationship.

With more experience in the use of formal control mechanisms for managing multi-divisional units spread across diverse environments, isolated hierarchies are seen to grant considerable autonomy to subsidiaries in collaborative markets – as long as these units continue to perform well against financial targets. This level of autonomy will encourage the subsidiaries to adapt to local conventions and, in turn, will foster the development of distinctive capabilities. But the incorporation of these collaborative organisational practices into the company as a whole will be limited because "both the domestic context of isolated hierarchies and the international business environment are antagonistic to such patterns" (Whitley, 2001: 56). The potential for organisational learning from such investments is therefore argued to be minimal; but given the recent nature of retail investment into these kinds of collaborative market, it is difficult to assess, as yet, the accuracy of this claim.

Finally, the arm's length type of environment is perhaps the most open to foreign direct investment because formal regulatory norms are institutionalised and applicable to all enterprises (Whitley, 2001: 56). Also, particularistic connections and membership to local networks are of limited significance to firms' competitive strategy. Foreign firms compete on a level playing field with domestic operators. Given their background, isolated hierarchies are more confident of managing investment in arm's length environments. Risk management strategies and the extent of parent control over subsidiaries usually follow "the logic of firms' domestic economies, since local institutional pressures to conform to a single dominant set of business practices in all functional areas are weak" (Whitley, 2001: 57).

Thus, isolated hierarchies are likely to continue to manage risks as they do domestically, through their market power and organisational skills, relying on formal control mechanisms to integrate subsidiaries. Decision-making is decentralised to the subsidiaries to facilitate adaptation and assimilation into the local economy. Whitley (2001: 60) contends that isolated hierarchies are likely to assume that "their firm-specific competitive advantages will be equally successful as at home" and may be "unwilling to learn from foreign experiences in the same environment". This stands in contrast to the learning processes initiated within Wal-Mart by the acquisition of ASDA in 1999. For instance, the 'George' brand of clothing pioneered by ASDA in the UK has been rolled out across the network of Wal-Mart stores in both Germany and the USA.

Although Whitley (2001) does recognise the scope for organisational learning by isolated hierarchies in this context, he doubts that this will instigate a wholesale restructuring of the firm's capabilities: whether the routines and practices developed by subsidiaries in foreign arm's length environments are disseminated to other units in the TNC will largely depend, he suggests, upon the "strength of the domestic business system – and so the perceived need to change – and the extent to which the new practices would replace strong entrenched practices that are closely tied to major domestic institutions such as the financial and legal systems" (Whitley, 2001: 60).

Overall, he argues that the isolated hierarchy type of TNC is a far more complex, differentiated and 'hybridised' firm than either opportunistic or cooperative firms due to its commitment to investing in multiple institutional environments and the adaptation of its subsidiaries to those environments.[15] Nevertheless, the "impact of such local learning on the basic governance and capabilities characteristic of the parent firm will be restricted by the weakly institutionalised business environment and the largely arm's length domestic institutional context" (Whitley, 2001: 63). This latter point is tested in greater detail in chapter 4, where I consider the organisational impact of cross-border knowledge transfers and the potential for 'strong convergence' in the learning processes of the retail TNCs – a situation whereby experiences abroad directly and recursively shape corporate strategy in the domestic market (Gertler, 2001).

[15] Doz and Prahalad (1993: 33) concur with this view, observing that the "some of the most interesting institutionalisation processes may occur in organisations that straddle several [organisational] fields" (*cf.* Di Maggio and Powell, 1983).

'FIRMING' PLACES

Having considered the embeddedness of the retail TNCs in particular places and markets, it is now necessary to focus on the insertion of places into the organisational space of the TNC. By being connected into the global networks of the TNCs, and assigned specific roles in those networks, places can be thought of as being 'firmed' (Dicken, 2000: 283). Consequently, it is possible to pose two questions: firstly, what is the nature of those network connections; and secondly, how are places being used by TNCs as part of their competitive strategy?

One particularly rewarding way of conceptualising the TNC is as a 'differentiated inter-organisational network' (Ghoshal and Bartlett, 1990) – that is, a complex set of *relational networks*, comprising intra-firm, inter-firm, and extra-firm relationships, which are ongoing and inscribed in society and time/space at multiple scales through evolving power relations (Dicken *et al.*, 2001; Yeung, 2000a). In this view, TNCs are "…actors that simultaneously constitute, and are incorporated within, relational networks that exist at a variety of scales and which operate across geographical space", connecting a shifting kaleidoscope of highly dispersed places (Pritchard, 2000: 791). As Morgan (2001a: 120) argues, the "structural framework of the global company opens up a new transnational space by creating multiple forms of linkages across sites" that are absent in other types of firm. However, to what extent can these perspectives on the structural organisation of the global firm enrich the conceptualisation of the retail TNC, and conversely, in what ways does the distinctive nature of the retail TNC advance our understanding of relational networks?

Situating the retail TNC within the framework of intra-firm, inter-firm and extra-firm relational networks appears to have many conceptual advantages. For example, our understanding of intra-firm networks within the retail TNCs is poorly developed – in particular, the nature of bargaining processes between subsidiaries within the 'transnational community' of the firm (Morgan, 2001a). Intra-firm bargaining in the retail TNC is mainly in the form of competition between subsidiaries for additional levels of capital investment to improve or even expand their portfolio of retail space, subject to market conditions. This type of competition for investment is intrinsically related to the *geography of trade* within the firm, in much the same way that production-based units compete for international export contracts, which permit individual factories to supply specific product lines to designated geographical markets (Pritchard, 2000: 799). In other words, the international divisions of the retail TNCs essentially seek capital investment from the corporate headquarters to widen their market by entering new and profitable areas of growth.

But what of the relational networks that bind the retail TNC with other firms? Whilst there is certainly a more developed body of work concerned with inter-firm relationships between retailers and suppliers (*e.g.* Doel, 1996; 1999; Hughes, 1996; 1999), our grasp of how these relationships vary across, and within, international business environments is actually very weak. Understanding such differences is critical to future conceptualisations of the retail TNC, given the complexity of those firms' global supply chains (*i.e.* the range of products/services offered and the spatial extent of stores and logistical networks), and consequently, the need for those firms to construct intricate 'business ecosystems' (Gossain and Kandiah, 1998; Teece, 2000) in which they develop symbiotic relations with distributors and suppliers in particular places and markets. Indeed, in order to penetrate foreign markets, the retail TNCs have had to forge strategic inter-firm alliances with the local community of vendors as well as other firms involved in the value chain (*e.g.* personnel recruitment agencies and marketing agencies). The experiences of the retail TNCs in the collaborative economies of South East Asia illustrate the importance of well-chosen inter-firm linkages, both in terms of accessing the local market and competing against other constellations of inter-firm alliances.

Any assessment of extra-firm relational networks necessarily involves a focus on the 'firm-place' relationships of TNCs as they "attempt to extract the maximum benefits from the communities in which they are embedded" (Dicken, 2000: 285). Again, studies of such relationships in the context of the retail TNCs are relatively underdeveloped – though attempts are being made to understand the firm-place relations underpinning Wal-Mart's entry into Europe (Arnold and Fernie, 2000; Fernie and Arnold, 2002; Hallsworth and Clarke, 2001; Hallsworth and Evers, 2002). What is required, then, is a more detailed interrogation of the retail TNC as a multi-locational firm which has the power to manipulate geographical space and to insert places (along with their attendant economic resources) into its organisational structure, in innovative ways, as part of its competitive strategy. The competitive advantages accruing to TNCs from place have so far been understood as fluctuating between two relatively opposed scalar imperatives: *motion* and *fixity* – a contradiction which arises from "capital's necessary dependence on territory or place and its space-annihilating tendencies" (Brenner, 1998: 461). Firstly, TNCs are widely argued to control a shifting kaleidoscope of highly dispersed places, moving their capital and resources between those locations with relative ease as and when politico-economic conditions dictate. Secondly, places act as an anchor to capital investment, providing a spatio-temporal fix and the opportunity to learn from a particular business environment. As I show below, each of these scalar imperatives has somewhat different implications for the retail TNC compared to its production-based rival.

(i) Motion. From a *portfolio theoretic* perspective (Hanink and Cromley, 1987), the TNC is, in principle, a spatial strategy of risk management: a form of business organisation which favours the ongoing spatial (re)distribution rather than the agglomeration of corporate activities as a means of diversifying risk and thus managing economic uncertainty (differential growth rates, variable costs *etc.*) across the global space-economy (Penfold, 2002). Risk diversification unleashes the mobile nature of capital by allowing firms to exploit the local economies of different places, while still retaining the ability to move on at short-term notice. However, the capacity of the retail TNC to jump between locations in this way is severely limited, due to its essential closeness to market and the fixing of capital in place (via store and logistics networks) to attain that closeness. Production-based TNCs can use modular factory designs and imported machinery to minimise the company's entry and exit costs, and can use knowledge of that flexibility as a credible threat in negotiations with the state and regional institutions over taxation and other charges. As Pritchard (2000: 797) observes, this "form of investment executes a power relationship between the company and its use of space whereby, if conditions are not to the company's satisfaction, market exit is readily achievable". In contrast, retail TNCs – because of the peculiar extent they must invest in the market, the time-lag between set-up/operation and the generation of revenue streams, and the 'exit sunk costs' (Clark and Wrigley, 1997) involved in withdrawing from their embedded relational networks – are less able to respond flexibly and rapidly to changes in the market by adjusting the spatial configuration of subsidiaries without destabilising the 'network

organisation' as a whole (Castells, 1996; Dicken, 1998). All of this effectively reduces the ability of the retail TNC to exploit the competitive advantages of spatial mobility, and hence the spatial diversification of risk, in comparison to the production-based TNC. Consequently, this increases the importance of 'fixity' in place.

(ii) Fixity. An important aspect of the TNCs' use of place is the degree of centralisation or decentralisation imposed upon innovation within the firm (Yeung, 1994: 481). Although the production-based TNC is argued to have entered a 'new paradigm of transnational innovation' over the past decade, characterised by a progressive shift towards a more polycentric architecture of globalised R&D (Cantwell and Janne, 1999; Gerybadze and Reger, 1999; Zander, 1999), the notion of dispersed learning seems to fit even more closely with the retail TNC, which routinely operates a differentiated network of 'interactive learning centres' (Amin and Cohendet, 1999).[16] That is to say, each retail store is potentially an autonomous centre of innovation, embedded in (and necessarily shaped by) a unique local context, with the capacity to learn how to adapt its format in a variety of ways to attain market leadership in its own catchment area. Indeed, as I argue in the next chapter, a key challenge for the retail TNC is how best to capture and protect this source of innovation, and to transfer the resultant knowledge through its intra-firm networks, thereby fostering a process of reflexive or hybridised retail globalisation which actively exploits place-based innovative capabilities to tailor the retail offering to local markets and realise competitive advantage.

[16] In a similar way, Jones (2002) has recently shown how the geography of corporate power and innovation in investment banks and management consultancies exhibits a multi-nodal rather than a centralised pattern.

Chapter 4

Organisational learning and adaptation in the retail TNCs

INTRODUCTION

The question of how, or whether, firms learn to adapt their operations to foreign markets has fuelled a long-running debate in organisation theory (Doz and Prahalad, 1993). The fundamental dilemma facing TNCs is how to balance the unique needs of local markets whilst also integrating global operations to reap the improved efficiencies arising from economies of scale and scope. Bartlett and Ghoshal (1989) argued that as a result of this trade-off, international firms' operational strategy abroad would be situated in a continuum between a homogenous stance towards market environments and one which is more cognisant of the contextuality of economic practices. The conceptual distinction between *adaptive* and *standardised* models of corporate expansion into foreign markets has had a considerable influence upon the models and frameworks developed within the field of international retailing (*e.g.* Alexander and Myers, 2000; Brown and Burt, 1992; Pellegrini, 1994; Salmon and Tordjman, 1989; Sternquist, 1997; 1998; Vida, 2000; Vida and Fairhurst, 1998; Waldman, 1978).[17]

Under the former model, the retailer is understood to pursue a strategy of localised differentiation, tailoring the format according to the characteristics of the individual market and in the process operating a portfolio of businesses on a country-by-country basis. International retailers fitting this description will usually promote alliances and partnerships with local players in each of their markets, and implement a federal decision-making structure which enhances the responsiveness of store management to consumer preferences. In contrast, the latter model is defined by the faithful reproduction of a core retail concept abroad, regardless of any national or regional differences that may exist with the domestic market. This kind of international retailer markets a distinctive product offering, sold within a standard store format, to globally defined consumer segments (*e.g.* Benetton, IKEA and The Gap). Such firms are often characterised by a highly centralised bureaucracy, which exports management from the home country to international divisions and therefore marginalises local expertise as well as indigenous knowledge of the market.

When it comes to the new breed of retail TNCs, however, this traditional dichotomy appears to have far less value as a theoretical framework. Whilst there is still considerable variation in the style of globalised operation pursued by the retail TNCs, each of these firms has, nonetheless, recognised the strategic importance of organisational learning and adaptation. This is because the retail TNCs are involved in sectors where consumer preferences are far less likely to converge at a global scale, as compared to sectors such as clothing, fashion and interior design, which have behaved more closely in accordance with Levitt's (1983) market globalisation thesis. As such, the retail TNCs must embed themselves, to an unprecedented extent relative to earlier international retailers, into a diverse array of places and markets.

And so, as the globalisation of retailing continues to gather pace, its lead agents will depend to an even greater extent upon *store-based* learning processes, together with the transfer of knowledge between corporate divisions, if they are to successfully adapt the portfolio of formats to particular places and develop competitive capabilities in each of the three types of business environment identified by Whitley (2001). The globalisation of retailing is essentially a behavioural and reflexive learning experience, and one in which the "retail firm explores, invests, and then reflects on individual decisions made" as both the format and management practices are gradually attuned to the rhythms of foreign markets (Clarke and Rimmer, 1997: 364; see also Alexander and Quinn, 2002; Wrigley, 2000b). Indeed, the ability of the retail TNCs to position themselves as parents of the nascent mega-groupings will largely depend on how these firms learn to "mobilise different forms of knowledge, skill, and competence" (Amin and Cohendet, 1999: 87) across "multi-channel corporate

[17] For Goldman (2001), the very notion of classifying international retailers within an adaptive-standardised dichotomy is deeply misleading, given the plethora of market-entry and format transfer mechanisms available to those firms.

networks in different cultures and on different continents" (Colla and Dupuis, 2002: 106).[18]

Any conceptualisation of the retail TNC must, therefore, be accompanied by a detailed understanding of 'knowledge management' within those firms. Knowledge management refers to the creation and/or identification, appropriation, absorption and transfer of 'intangible' assets (particularly tacit knowledge) that are embedded in intra-firm processes (Cole, 1998; Davenport and Grover, 2001; Davenport and Pruzak, 1998; see also *Journal of Knowledge Management*). The distinction between *product-based* and *process-based* knowledge here is instructive, for although the intricacies of any final product can be scrutinised (or even reverse engineered) by competitors, the investment of human and technological expertise into that product remains relatively opaque in the wider marketplace, and thus an important source of competitive advantage over rival firms (O'Dell and Grayson, 1998; Teece, 1998). What, then, are the conceptual implications of this perspective on the role of knowledge in the so-called 'informational' or 'knowledge-driven economy' for our understanding of organisational learning and adaptation in the retail TNCs?

In the retail industry, the physical store is essentially a tangible product created from an industrialised production process, extending from store construction to supply chain management, in which intangible knowledge assets play a critical role. Due to the inherently open nature of the store, the retail format is constantly at risk of appropriation and imitation by competitors in international consumer markets (Dawson, 1994; Doherty, 1999). Consequently, and to draw upon Goffman's (1956; see also Crang, 1994; Gregson *et al.*, 2002) insights, the process-based knowledge assets deployed in the 'back region' are of considerable strategic significance in the retail sector. As Goldman (2001: 223) explains, a distinction should be drawn between

> "... the *offering* and the *know-how* parts of the [retail] format. The first includes the *external* elements (*e.g.* assortment, shopping-environment, service, location and price) delivering the functional, social, psychological, aesthetic and entertainment benefits attracting customers to stores. The

[18] The term 'multi-channel' is used here to refer to the integration of online (e-commerce-based) and offline (store-based) distribution channels within the retail TNCs (see chapter 5 for more details).

> second, the *internal* part, determines a retailer's operational strength and strategic direction. It consists of the *retail technology* dimension containing the systems, methods, procedures and techniques the retail company uses and of the *retail culture*, that includes the repertoire of concepts, norms, rules, practices and experiences" (original emphasis).[19]

There is necessarily a close relationship between the offering and know-how parts of the retail format: the image emulated by a store, and by extension, its ability to attain consumer confidence in that market, is largely based on the innovative practices deployed behind the scenes, which underpin the key aspects of competitive advantage in the retail sector, such as product selection, quality of service, and everyday low prices. As such, the image of any store has a 'grounded' history and is interpreted by consumers in particular ways in different business environments (Dupuis and Prime, 1996). The competitive advantages attached to a retail format in the domestic market are unlikely to be easily reproduced in another country, due to the prism effect of 'business distance' (Dupuis and Prime, 1996):

> "The transfer of a retail format from one country to another country, or the management of a different retail format abroad, can be seen as the key feature of international retailing, setting it apart from international manufacturing and exports" (Helfferich *et al.*, 1997: 297).

Therefore, the 'experiential value' arising from a retailer's *reputation* or branded image, accumulated over years of operation, may certainly be distorted when exported into new places (Burt and Carralero-Encinas, 2000). As Dawson (2000: 126) observes,

> "[t]he nature of retailing and it close connection to consumer culture, compared to manufacturing, means that this aspect of retail brand-name recognition can be a particular difficulty in becoming established in new markets".

The retail TNCs have penetrated new markets while retaining tight control over the front region of display, in the process adapting the format (and its associated image) to complex and differential economic and regulatory landscapes. They have done so

[19] The concept of back region know-how used by Goldman (2001) is resonant with Kacker's (1988) earlier discussion of *retail technologies*, which consist more broadly of technical artefacts *and* managerial philosophies.

largely by protecting or 'internalising' (Dunning, 1999) the most valuable intangible assets embedded in the back region, via the high-cost/high-control mode of market entry offered by merger/acquisition (Doherty, 1999)[20], and then transferring these 'best practices' across the international portfolio of stores.

In this chapter, I therefore address the management of 'know-how' in the back region of the retail TNCs – in particular, the mechanisms that are used to transfer best practices, in multiple directions, across the transnational space of the firm – and assess whether these mechanisms are in fact conducive to what I referred to earlier as a process of reflexive or hybridised retail globalisation.[21] In doing so, I examine the soft architecture required for processes of strong convergence (Gertler, 2001), or what Ivarsson (2002: 240) has termed 'asset-seeking FDI', where organisational competencies "developed by foreign located affiliates are being transferred back to parent and sister firms outside the host country".[22] The chapter proceeds in two parts. First, I highlight the challenges of / for knowledge management in the globalising TNC more generally. Second, I then move on to examine the mechanisms in place to facilitate learning and knowledge transfer in the retail TNCs, bearing in mind the complexities of knowledge management borne out by the preceding discussion.

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[20] The historic absence of legal mechanisms protecting retail formats and managerial knowledge in the international retailing sector, compared to the patent system in the manufacturing sector (Dawson, 1994; Sternquist, 1997), highlights the influence of intangible assets upon the choice of retail market entry mechanisms in a global context. "Retailers copy ideas and management systems from those in other countries, there generally being little secrecy about and no copyright on many aspects of the operation of a shop" (Dawson, 1994: 267). Where a retail format can be well defined and protected in some way, as with firms such as the Body Shop or Benetton, lower-cost/lower-control mechanisms of market entry may be used, such as franchising or licensing (Doherty, 1999).

[21] Whilst the focus of this section is on the mechanisms that have been deployed by the retail TNCs to transfer knowledge *within the firm* and develop place-based formats, I also recognise that a reflexive/hybridised style of globalised operation "is not only a matter of adapting … practices and procedures to 'fit' the local contexts … it is also a matter of increasing interaction with local counterparts as a means of getting acquainted with values, incentive structures, norms and conventions that ultimately influence economic behaviour in a given country" (Zanfei, 2000: 531). As I noted in respect of the placing firms question, there is a pressing need for research into how the retail TNCs are embedding themselves into specific places/markets through inter-firm networks of learning (*cf.* Le Heron *et al.*, 2001). Indeed, as Yeung (2000c: 208) argues, if foreign subsidiaries are capable of building up strategic strength through intrafirm (spatial integration) *and* interfirm (local embedding) relational networks, this will improve the competitive advantages of the TNC as a whole. This duality is arguably "the basis of competing in an age of alliance capitalism" (*ibid.*: see also Dunning, 1997).

[22] However, it is important to note that the recent shift towards 'shareholder value-added' in corporate accounting methodologies and financial management systems has attached greater importance to quantifiable assets and the maximisation of shareholder returns. In some companies, this has led to a de-valuation of intangible organisational competencies, which, paradoxically, are absolutely critical to securing competitive advantage and, in turn, maintaining shareholder returns (see O'Neill, 2001).

By tackling the question of organisational learning in the retail TNCs, I address a wider area of neglect in economic geography concerning the exchange of knowledge through corporate networks: how different "kinds of information are being mobilised (in certain places) and how they feed into innovative activity (in other places)" (Bunnell and Coe, 2001: 580). Above all, I hope to bring a retail perspective to recent debates in industrial geography on the "role of culture, knowledge and learning in the social regulation of firms" (Yeung, 2001: 295). From a wider angle, the chapter is intended to contribute to social scientific debates concerned with the 'expressive' or 'living' organisation (Burton-Jones, 2000; De Geus, 1997; Garratt, 2001; Leadbeater, 1999; Schulz *et al.*, 2000; Senge *et al.*, 1999) and the performative impact of knowledge upon the competitive contours of the global economy (Archibugi and Lundvall, 2001; Barry and Slater, 2002; Callon, 1998; Carrier and Miller, 1998). The competitive advantages arising from knowledge management have yet to be fully explored with regard to the operations of retailers in diverse cultural and economic environments (Dawson, 2000; Harris and Metallinos, 2002).

GLOBALISATION, THE TNC AND THE CHALLENGES OF / FOR KNOWLEDGE MANAGEMENT

> "The challenge of going global is not simply to sell products wherever customers are but to take advantage of bright ideas wherever they spring up ...[and] to ensure that the smart people who dream them up don't end marooned on desert islands" (Birkinshaw and Hood, 2001: 131-132).

TNCs have long been defined according to the way they are perceived to deal with knowledge on a multi-divisional and global scale.[23] One of the earliest proponents of this approach to the TNC was Stephen Hymer (1960), who conceived of such firms not simply as "arbitrageurs of capital, moving equity from countries where returns were low to those where it was higher", but rather as agents which facilitated "the cross-border transfer of knowledge, business techniques, and skilled personnel" (Kristensen and Zeitlin, 2001: 178). Consequently, as Bartlett and Ghoshal (1989: 65) observed, TNCs could be characterised as "dispersed, interdependent and

[23] Indeed, one of the primary reasons *why* such firms exist is because they internalise intangible assets – that is, they have the ability to "transfer and exploit knowledge more effectively and efficiently in an intra-corporate context than through external market mechanisms" (Gupta and Govindarajan, 2000: 473).

specialised" with "differentiated contributions by national units to integrated worldwide operations" and "knowledge developed jointly and shared worldwide". Building upon this approach, Nohria and Ghoshal (1997) termed the TNC a 'differentiated network' which links up and exchanges distributed resources (tangible and intangible) between spatially dislocated subsidiaries. As Hedlund (1986; 1993) has argued, the structure of the TNC is more akin to a '*heterarchy*' than a hierarchy. That is, the TNC is understood as being composed of multiple learning centres, engaged in a flexible and mutual framework of knowledge diffusion (a characteristic which, as I noted at the end of chapter 3, seems even more applicable to the retail TNCs).

The ability of the TNC to penetrate multi-national markets, and in the process learn and adapt from its experiences in those environments, is believed to have instigated a process of 'convergence' between different national models of economic organisation (Martin and Sunley, 1998). Large corporate actors are allegedly learning from each other's activities on the global stage, so that "the most successful corporate practices are emulated and diffused cross-nationally at an increasingly rapid pace" (Gertler, 2001: 6). Alongside these debates about convergence and organisational learning, a 'best practice' lexicon has flourished throughout business schools, corporate rhetoric, political elites, management consultancies, the international media, and the popular press, disseminating the belief that all TNCs can – and should – measure their operational performance against universal standards (Gertler, 2001).[24] International management consultancies such as Accenture, Boston Consulting Group, KPMG, McKinsey and PricewaterhouseCoopers, have been at the forefront of the globalisation of such business knowledge, propagating an abundance of best practices, standard operating procedures, and benchmarking procedures to assess firms' practices, processes and achievements (Thrift, 1999b). Similarly, the organisational 'recipes' prescribed by a new breed of management-consultants-cum-gurus are also

[24] The 'global best practice' lexicon is allied, in part, to recent 'borderless world' theses (Yeung, 1998b) – another of those alluring spatial metaphors which are mobilised by political and economic agents to perpetuate the discursive representation (and reification) of economic globalisation as somehow separate, an external force 'out there' which (supposedly) has an inevitable impact upon self-contained places and their related business organisations – that is, to legitimise the intrusive nature of globalisation (Kelly, 1999; Yeung, 2002; compare with Amin's, 1997, earlier efforts to break down this dichotomy into what he termed 'out there-in here connectivity', or with Swyngedouw's, 1997, notion of scalar nestedness and 'glocalisation').

exerting a powerful influence over major corporate actors. "Gurus tend to develop formulaic approaches to management, which play down context for the sake of rhetorical force" (Thrift, 2001: 416).

The management of knowledge in the ways pictured above is far from straightforward. The principal challenge posed by knowledge management is the need for the TNC "to select and integrate fragmented core competencies and culture" which are dispersed between "local islands of knowledge spread all over the world" (Amin and Cohendet, 1999: 93). These islands are seen as the residue left by the intense wave of international mergers and acquisitions beginning in the 1980s (Cohendet *et al.*, 1999), but which in the case of retailing, as noted in chapter 1, was not fully underway until the mid-1990s (Wrigley, 2000a).

The task of delimiting this archipelago of organisational knowledge – of 'knowing what the firm knows'[25] – is proving increasingly problematic because many best practices are inherently *tacit* and forged in unique, localised contexts through the *embodied performances* of individual workers (Beccera-Fernandez and Sabherwal, 2001; Hu, 1995; Porter, 1990). Indeed, tacit knowledge has been argued to lie at the very heart of organisational knowledge and the dynamism of the firm (Nelson and Winter, 1982). Codified/explicit knowledge can be objectified, recorded and transmitted in a standardised format. In contrast, tacit/implicit knowledge is less amenable to any such textualisation, given that it is accumulated through individual cognition as employees observe, learn and perform organisational techniques in everyday work practices (Howells, 2000; 2002).

The situation facing globalising firms is further complicated by the volatile nature of organisational knowledge. As Nonaka and Takeuchi (1995: 6) explain in their seminal work, codified and tacit knowledge regularly "interact with and inter-change with each other in the creative activities of human beings". Crucially, workers must have an adequate understanding of, and training in, explicit/codified knowledge before they can engage in learning-by-doing and the production of tacit/implicit knowledge. In reality, tacit and codified knowledge intermesh and are mutually

[25] My phrasing here stems from Polanyi's (1966) famous phrase, 'we can know more than we can tell'.

constituted in a perpetual spiral of transformation: the former is systematised and externalised into an explicit form as employees learn and share their experiences with others; while the latter assumes implicit and embodied dimensions through ongoing work practices or 'learning by doing' (Leonard and Sensiper, 1998; French, 2000).

The 'heterarchical' structure of the globalised firm also contributes to this *fusion* of knowledge categories: in principle, the TNC fosters a process of decentralised specialisation by promoting innovation among a network of interactive learning centres while also acting as a conduit for the transfer of tacit *and* codified expertise between these localities (Amin and Cohendet, 1999). Indeed, the capacity for tacit knowledge to be transferred across national borders through intra-firm corporate networks, either through embodied or distanciated interactions, reveals the myopia of "the recent fashion in economic geography to theorise localised transactions as the source of bounded tacit knowledge, and global networks as the space of codified knowledge" (Amin, 2002: 395; see also Oinas, 1999b; Rallet and Torre, 1999; Roberts, 2001; Wood, 2002). Nonetheless, the exchange of tacit knowledge across organisational and geographical boundaries is still deeply problematic: hence "... the more easily codifiable (tradable) knowledge can be accessed, the more crucial does tacit knowledge become for sustaining or enhancing the competitive position of the firm" in the global economy (Maskell and Malmberg, 1999: 172; quoted in Gertler, 2002).

Tacit knowledge, then, has become central to knowledge management strategies. The key task for knowledge management is firstly to generate and/or discover idiosyncratic, best practices which are rooted in particular places, and secondly, to prepare this tacit knowledge for circulation throughout organisational space. Due to this cross-scalar imperative, knowledge management in the TNC is essentially determined by a 'balancing act' between *bottom-up creativity* and *top-down coordination* (Brown and Duguid, 2000). Similarly, Ahmed *et al.* (2002) see the organisational challenge of knowledge management as being defined by the interplay between the 'collection' and 'connection' of tacit knowledge throughout the firm. Let us examine each of these aspects of knowledge management with reference to the retail TNCs.

MECHANISMS OF KNOWLEDGE MANAGEMENT IN THE RETAIL TNCs

According to theorists of knowledge management, organisational innovation is driven from the bottom-up in the 'situated knowledge web', through the "ongoing interactions and improvisations that ... employees undertake in order to perform their jobs" (Nidumolu *et al.*, 2001: 119). The embeddedness of tacit knowledge in "the connection between individuals, in rules, division of labour and roles" (*ibid.*) is most discernible in what have been widely termed '*communities of practice*' (Brown and Duguid, 1996; 2000; Wenger, 1998; Wenger and Snyder, 2000). In these communities, employees are informally bound together by a shared area of expertise and/or an operational problem related to that area, which they seek to resolve by exchanging knowledge during personal, subtle, and relatively unstructured social interactions (Leonard and Sensiper, 1998). It is customary for tacit knowledge that has been harvested from, or inserted into, existing organisational routines by communities of practice to be circulated between personnel, and with other communities, at informal meeting places (*e.g.* the photocopier, water machine, cafeteria *etc.*) via storytelling and other narrative devices, which may also be constructed and propagated by top-level management (see below). For the retail TNC, communities of practice within the store environment are the principal mechanism through which tacit knowledge of more efficient operating procedures and improved merchandising techniques is initially discovered and nurtured at a local level.

However, communities of practice need not be geographically proximate to identify, appropriate and transfer innovative activities across the firm (Allen, 2002). The organisational or relational proximity afforded by intra-firm networks is often far more important in constituting the soft architecture of learning in the globalising firm than spatial co-location (Amin, 2000; quoted in Gertler, 2001). Nonetheless, it is important to note that the transfer of tacit knowledge through communities of practice, across organisational and geographical space, is ultimately constrained by nationally and regionally oriented institutional and regulatory structures (Archibugi *et al.*, 1997; Pauly and Reich, 1997), reinforcing the path-dependent nature of organisational learning and geocorporate change in different places (Gertler, 2001; 2002; Leyshon and Pollard, 2000). Given that the geography of innovation in the retail TNC is inherently store-based, and so fractured – or, using Schoenberger's (1999) terminology, 'regionalised' – across a mosaic of heterogeneous places, it is clear that a major constraint on bottom-up knowledge management in this type of firm is the integration of intangible assets spread out across *hybrid* communities, each of which is situated in different cultures and geographies of consumption (*cf.* Hofstede, 1997).

To be sure, as noted previously, one rewarding way of approaching the retail TNC is as a 'transnational community', made up of cross-cultural hybridisations between social actors located in different business environments. As Morgan (2001b: 11) cautions, "[c]reating order within such a transnational social space ... is a precarious practice. It depends upon the 'space' (social as well as a geographical) which is being encompassed and how far practices, routines, norms and values from within these spaces are different, transferable, adaptable, or resistant to change". There is considerable debate as to whether new organisational processes and technologies can be successfully adopted and implemented outside of the socio-cultural context in which they were originally conceived or designed (Gertler, 1993; 1995; Gertler *et al.*, 2000).

In particular, organisational learning and adaptation in the retail TNC, like that of production-based firms, may be constrained by the following attributes of its transnational space, or 'parent-subsidiary' relations:

(i) The differential capacity and motivational disposition of corporate units to 'absorb' best practices from other locations (Cohen and Levinthal, 1990).

(ii) The potential conflict between divergent corporate cultures and management philosophies 'on the ground', in different affiliates, after the process of merger and acquisition has occurred (Burt and Sparks, 2001; Schoenberger, 1997; Shackleton, 1996; 1998).[26]

[26] For example, incompatibilities between Wal-Mart's management philosophy and that of ASDA arguably contributed to the loss of senior management who had transformed the fortunes of the UK-

(iii) The socially and discursively constructed nature of parent-subsidiary and subsidiary-subsidiary relations by elite actors in different parts of the transnational space, who may impose their own vision and personal ambitions upon the dynamics of organisational learning at a local scale. As Yeung (2000c: 208) observes, the TNC constitutes a "mosaic of different geographies of power exercised by different social actors in these embedded transnational business networks".

(iv) The mediating role of intra-firm bargaining processes upon the transfer of knowledge between those units, especially if subsidiaries seek to exert some level of proprietary control over localised innovations (Ghoshal and Bartlett, 1990).

This latter point is significant because valuable know-how may be used (or, in fact, hoarded) by subsidiaries as 'currency' to serve their own place-based interests and acquire power *vis à vis* other units, either by winning investment or autonomy from the centre (Gupta and Govindarajan, 1991; 2000).

Even so, the development of a 'shared passion for a joint enterprise' (Wenger and Snyder, 2000: 139) is still attainable – for example, via the ongoing transfer of tacit expertise through face-to-face interactions and the reciprocal accumulation of trust, both of which can now be achieved at a distance due to the capabilities of the latest information and communications technologies (*e.g.* news groups, video-conferencing, and Groupware applications), as well as the reach of modern business travel (Leamer and Storper, 2001). Organisational devices of this kind help to foster a mutual awareness of the company's diasporic contours and of the competitive threat posed by other transnational communities to the integrity of those contours. As such, *virtual* communities of practice are now emerging from a dense web of 'peer-to-peer' (P2P) computer connections, which effectively fasten the bonds holding the transnational community together whilst also enhancing the permeability of knowledge across intra-firm networks (Cairncross, 2002; Lurey and Raisinghani, 2001; Stough *et al.*, 2000). Typically, these virtual communities consist of

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based retail chain during the 1990s. "Clearly, there is some discord between Bentonville and Leeds

> "… employees drawn from multiple locations and divisions within an organisation. Sharing electronic spaces but continuing to work in their usual locations, they join together to solve a specific problem identified by management" (Symons, 1997: 427-428).

Although self-organising to some extent, for the purpose of solving everyday practical problems, organisational innovation through communities of practice (whether virtual or proximate) also depends upon the corporate infrastructure provided by top management. "Tacit knowledge is non-transferrable without the exchange of key personnel and all the systems that support them" (Nonaka *et al.*, 2000: 5; quoted in Gertler, 2002).

As Gold *et al.* (2001) emphasise, bottom-up knowledge management must be complemented by adequate top-down investment in 'infrastructural capabilities', which formalise and sustain the cross-border transfer of best practices: firstly, a administrative or technological architecture for capturing, storing, protecting and communicating knowledge throughout the firm; and secondly, a corporate culture which promotes co-operation, participation and knowledge sharing. I now explore each of these capabilities in turn to shed some light on the role that is played by top-down coordination in shifting knowledge assets across the retail TNC.

For Cohendet *et al.* (1999: 234), 'computerised telecommunications networks' (CTNs), "based on digital processing of information and multimedia networking of workstations", are absolutely critical to the integration of fragmented and locally distributed organisational competencies. The 'virtual network' operated by Ahold is illustrative of such a technological architecture, or CTN. This corporate intranet codifies each component of the global retail operation using a standard vocabulary of intra-firm processes, generating target benchmarks and actual performance ratings for each of those components on a daily basis. The virtual network also delineates the global operations into fourteen 'knowledge areas', each of which is further subdivided into specialised 'networking groups'.

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about how to manage the British business" (Fernie and Arnold, 2002: 99).

This framework classifies and locates the expertise of each person, thus fusing tacit and codified expertise into one category and enabling employees to visualise the 'geography of knowledge' within the organisation (Earl, 2001; Stenmark, 2001). In this way, any member of the Ahold 'family' who has an operational problem can log on to the intranet, locate the related benchmark of other stores, retrieve information about the strategies in place to deal with that issue, and if necessary, contact a relevant employee for further advice. The system thereby improves access to tacit knowledge, forming new networks of inter-personal knowledge exchange and incentivising employees to accumulate 'social capital' among their peers. The acquisition of the Argentine retailer Disco in 2000, and the subsequent development of its e-commerce business, was greatly enhanced by the virtual network which allowed management in Buenos Aires to glean experience and knowledge of online food retailing from personnel in Royal Ahold's other e-commerce operations, namely Peapod in the US and Albert Heijn in the Netherlands (ABN-AMRO, 2001b).

As the Ahold network reveals, it is critical that any information and communications technologies employed for knowledge management are sensitised to the dynamic inter-personal processes through which tacit knowledge is generated (Ahmed *et al.*, 2002). Indeed, the very logic of knowledge management rests upon the management of social processes within the workplace, *in situ*, to facilitate innovative thinking, collaboration, a culture of sharing, and the incremental development of best practices (Sveiby, 1997).

Thus, despite the rich potential for non-local organisational ties, and the transmission of tacit (and codified) knowledge through space-effacing technologies, there is still a crucial role for physically proximate interactions between employees in top-down strategies of knowledge management. As Nonaka (1994) argues, face-to-face 'socialisation' between employees (in physical rather than electronic settings) acts as the principal mechanism through which tacit knowledge can be transferred between bodies and disseminated throughout the firm. So, corporate actors must be localised for tacit knowledge to be effectively shared and understood:

> "since the transmission of tacit knowledge combines language and observation, imitation and practice, individual commitment is localised and geographically defined" (Cohendet *et al.*, 1999: 232).

In particular, *storytelling* and *mentoring* are remarkably effective 'corporate socialisation mechanisms' (Gupta and Govindarajan, 2000) for transferring rich amounts of tacit knowledge throughout the company (Swap *et al.*, 2001). Storytelling is fundamental to the sociology of all large-scale business organisations. It means creating "detailed narratives of past management actions, employee interactions, or other organisational events", which serve to disseminate corporate values, norms, morals and managerial techniques in a memorable format (Swap *et al.*, 2001: 103). Storytelling plays an extremely important role in Wal-Mart. The organisational culture bequeathed by the company's founder, Sam Walton, is preserved and circulated through an assortment of stories, which are played out during daily work practices, and most notably, at the annual general meeting in Bentonville, Arkansas, where a few exemplary associates are ostentatiously rewarded for their obedient adherence to the 'Wal-Mart way' (Schneider, 1998). All of this facilitates, in effect, the ongoing recitation of a grand Wal-Martised meta-narrative:[27]

> "Retail at Wal-Mart is about scoring goals, making touchdowns and winning games. The game and team spirit is reflected in the morning cheer: 'Give me a W, Give me an A, ...And what does that spell? WAL-MART! ... And who is number one? THE CUSTOMER' ... Employees learn about this culture through on-the-job training as well as through a set of self-administered training videos" (Arnold and Fernie, 2000: 420).

Advertising flyers are also instrumental in sustaining this organisational story, with its lead character obviously at the fore:

> "The flyer is supposed to be the unified, chant-singing voice of the associates, the homogenised retail face of courteous counter help and smiling shelf stockers. Yet behind the chorus façade is a single voice leading, that of 'Mr. Sam'. Wal-Mart's deceased leader is featured as a spectral presence throughout the flyer, the wise old man's guiding 'philosophy' in the sidebars features quotations from and stories about him: his ghostly and fatherly voice permeates the flyer" (Arnold *et al.*, 2001: 250).

Mentoring, in contrast, involves a close didactic relationship between a corps of tutors and a group of employees requiring guidance in a particular area of expertise. Ahold operates a transnational mentoring system, which pairs up management in newly

[27] This is of course a contested meta-narrative. See, for instance, the comments of disillusioned former Wal-Mart employees at http://www.walmartsucks.com or http://www.walmartyrs.com

acquired businesses with an appropriate representative from an existing subsidiary (Van der Hoeven, 1999). For example, the management of Brompreço from Brazil regularly meets with that of Stop & Shop from the USA. This system is supplemented by four international support centres, which are located in The Netherlands, Atlanta, Buenos Aires, and Singapore (Wrigley, 2000a: 307). Likewise, ASDA store managers in the UK are mentored by a counterpart from Wal-Mart in the US, as part of the broader integration of the ASDA chain into the organisational culture of Wal-Mart (Burt and Sparks, 2001).

Closely related to mentors are 'best practice teams', which visit corporate sites to identify and transfer best practices to other parts of the organisational structure (O'Dell and Grayson, 1998). Such micro-communities of practice are made up of a corps of highly mobile "knowledge activists who aim to span boundaries within the ... organisation, acting as agents for the diffusion of tacit knowledge, normally with at least partial codification in the process of transmission" (Gertler, 2002: 14; see also Von Krogh *et al.*, 2000). Transnational corporate elites, or executive teams, of this kind therefore have the potential to forge intra-firm networks of embodied knowledge, "cross-cutting as well as connecting innovative locales" and resulting in the "unbounding or extra-localisation of cultural 'closeness' (Gertler, 1993; 1995) for the effective transfer of knowledge that had previously been understood in terms of (national or regional) territorial containers" (Bunnell and Coe, 2001: 582-583; *cf.* Beaverstock, 2002).

Acting as 'organisational translators' between hybrid communities (Brown and Duguid, 1998), best practice teams are one of the principal mechanisms through which strong convergence between different business environments is likely to occur. For example, Tesco operates a hypermarket management team, which is responsible for supervising the development of this retail format and diffusing best practices between countries. The knowledge gleaned from Tesco hypermarkets in the particularistic environments of Central and Eastern Europe (namely, in the Czech Republic, Hungary, Poland and Slovakia) have been transferred back to the UK, where the format, called 'Tesco Extra', has now been rolled out to over 40 stores.

Specifically, on the basis of its experience in Central and Eastern Europe, Tesco has heuristically learnt how to develop and execute the hypermarket concept, through extensions of existing stores (a skill which is critical within the context of UK planning control restraints), and how to best configure the internal ratio of food to non-food offerings according to local consumer preferences. The Eastern European management team – formerly at the heart of Tesco's growth in the UK in the 1980s – meet monthly to exchange ideas and experience, in a relatively informal manner, and in turn, seek 'best practice' solutions that will resolve operational issues across the company as a whole. For instance, in October 2001, Tesco unveiled a prototype store in Irlam, Manchester, UK, which combined best practices and innovative techniques in store design from around the world.

Similarly, the 'international leadership development program' initiated in 2001 by Wal-Mart – and the subsequent movement of executive personnel between its foreign divisions for training in cross-continental back region processes – appears to have been of considerable importance in allowing the company to exchange best practices between countries to develop a plethora of innovative formats. The program has already contributed to a number of important cross-border knowledge transfers in 2001-02. The Mexican 'Todo Dia' store concept (a low-income warehouse format designed for metro-markets and dense urban populations) is currently being transferred and adapted to the Brazilian market. Also, on the basis of its learning experience with hypermarkets in Brazil, Wal-Mart is rolling out best practices linked to that format across its international portfolio of hypermarkets (Da Rocha and Dib, 2002).

The case of Tesco and Wal-Mart therefore signal the potential for strong convergence in geographies of organisational learning and innovation. Clearly, even best practices from the relatively unstable particularistic environments identified by Whitley (2001) are able to influence the domestic strategies of the retail TNCs. Overall, I would argue that all of the retail TNCs are now converging, at varying speeds and from multiple directions, towards an adaptive style of globalised operation which extracts and blends innovative capabilities in the back region of stores – across particularistic, collaborative and arm's length environments – to tailor the front region of the format to different consumer cultures.

FUTURE EVOLUTIONARY TRAJECTORIES

As I have tried to show in this chapter, the retail TNCs are currently employing a variety of mechanisms of knowledge management (from the mapping of expertise in virtual databases to highly mobile mentoring teams) to effectively manage and share innovative capabilities arising out of particular localities. The importance of cross-border knowledge transfers, and the associated development of more distinctive retail formats, will become even more acute as the retail TNCs continue to penetrate ever more diverse kinds of business environment. To bring this chapter to a close, I therefore speculate on how the logic of adaptive globalisation is being reinforced by the movement of the retail TNCs into new geographical markets, which pose their own distinctive regulatory and embeddedness challenges.

First, China's recent entry into the World Trade Organisation has ignited a race among the global elite of retailers to quickly establish a presence in this lucrative emerging market (Deutsche Bank, 2002). The Chinese government opened the door to foreign investment as early as 1992, allowing international retailers to set up operations here as minority partners in joint ventures. For example, in 1995 Carrefour formed a joint venture with Chinese retailer Lin Hua. Similarly, in 1996 Wal-Mart entered the Shenzen market via a joint venture. Yet, the retail TNCs face various challenges in China: for example, a lack of supplier networks, insufficient distribution infrastructures, and consequently, logistical difficulties in maintaining stock levels across the store network (Sternquist, 1998). Moreover, profound cultural differences will require the retail TNCs to carefully adapt the format to Chinese markets, in areas ranging from product selection to merchandising and display (Goldman, 2000). Nonetheless, the Chinese market offers various strategic advantages. With a population of 1.2 billion, an underdeveloped local retailing system, and rapid socio-economic development, China stands to offer the retail TNCs first mover advantages and super-normal returns on investment, in much the same way that the emerging markets in Latin America and Central / Eastern Europe fuelled the earlier wave of retail globalisation during the late 1990s. Further work will be needed to determine issues such as:

(i) The impact of capital investment by the retail TNCs upon the urban landscape – in particular, the implications for labour markets, the sociospatial differentiation of the property market, food retail access issues, and urban regeneration (*cf.* Lin and Wei, 2002; Wrigley, Warm and Margetts, 2002a).

(ii) The role of the retail TNCs in transferring process-based knowledge, in the form of back-region technologies, and product-based knowledge, in the form of innovative format designs, into China and other emerging economies (Goldman, 2000; 2001).

(iii) Related to the last point, whether there is evidence of the retail TNCs 'kick starting' the food retail modernisation process in China (Lo *et al.*, 2001).

Also, apart from Wal-Mart's recent stake in Seiyu, the retail TNCs have yet to penetrate the Japanese market, which is not only highly fragmented (and hence, ripe for consolidation) but is also the second largest consumer market in the world with US $2.4 trillion in private consumption, representing 56% of the nation's gross domestic product (CSFB, 2002: 12). The entry of the retail TNCs into China and Japan will have important implications for our understanding of the nature of organisational competencies, together with the shape of intra-firm, inter-firm and extra-firm relational networks within particularistic and collaborative economies.

Second, another area of strategic concern for the retail TNCs are the world's 'mega-city' regions, many of which are larger than the entire domestic markets of some countries. Of the 20 cities with populations exceeding 10 million recognised by the United Nations in 2000, 16 are located in emerging markets; and of these, seven are in Africa and the Indian sub-continent, which remain largely untouched by the investment of the retail TNCs at present (CSFB, 2000). However, the remaining nine (Mexico City, Sao Paulo, Rio de Janeiro, Buenos Aires, Shanghai, Jakarta, Manila, and Seoul) have become the site of intense competitive tension between the retail TNCs and other leading international retailers (see table 1). For example, Carrefour, Wal-Mart, Tesco and Costco have entered Seoul; Buenos Aires is dominated by Carrefour and Royal Ahold, though Wal-Mart also has a minimal presence here; and in Rio de Janeiro and Sao Paulo, Casino, Carrefour and Wal-Mart are all in direct competition. In particular, Carrefour has made an impressive impact on the mega-city markets: by 2000, it was operating around 100 large-format hypermarkets in eight of the nine mega-cities of Asia and Latin America (CSFB, 2000). Interestingly, the entry of the retail TNCs into these mega-city markets has prompted these firms to experiment with smaller scale retail formats due to the limited availability of land for new store construction (compare with Aoyama's [2001a; 2001b] study of local store networks in Japan). Wal-Mart, for example, has been experimenting with a new high-rise format for this very reason (Sternquist, 1998: 175).

Chapter 5

Globalising retail and the challenge of e-commerce

INTRODUCTION

Just as the retail TNCs must learn to adapt to foreign business environments, so too must they respond to the challenges posed by e-commerce and Internet-based distribution channels. Indeed, the retail TNCs have responded to this new technological innovation by re-modelling themselves into a *multi-channel* organisational form, whereby the portfolio of physical store assets is complemented by distribution networks in virtual space.[28] This 'bricks-and-clicks' approach has involved a move into both business-to-business (B2B) and business-to-consumer (B2C) e-commerce (or e-tailing). The former involves the development of inter-firm relational networks, conducted over the Internet, in areas such as procurement, product supply, logistics and administration. The latter enables consumers to browse through stock inventory on a web site, place items in an electronic shopping basket, and pay for the goods by credit card, which are then usually delivered by post or courier service. The focus of this chapter is largely on B2C e-commerce. As such, it is both useful and necessary to further unpack the key characteristics of this type of e-commerce. E-tailing can be classified according to the following five criteria:

(i) *The mode of access which links the consumer with the web site.* This may be a physical kiosk, located in-store, a standard PC at home or work, or a type of wireless device (*e.g.* wap cell phones, personal digital assistants) which are leading to the formation of mobile, wandering 'e-tailing' spaces.[29]

[28] A bricks-and-clicks approach of this kind is not entirely unprecedented. Electronic non-store retailing has been predicted for some time (Doody and Davidson, 1967; Rosenberg and Hirschman, 1980) and was initially explored by geographers in the 1980s with regard to planning and retail development issues when traditional retailers piloted 'push button' or domestic 'view data' shopping services in Europe and North America (see Guy, 1985, and related papers in a special theme issue of *Environment and Planning B: Planning and Design*).

[29] Wap: wireless application protocol.

(ii) *The type of product involved in e-tailing: material items and virtual commodities*. The latter are based upon data and can be compressed/digitised for transmission over the Internet.

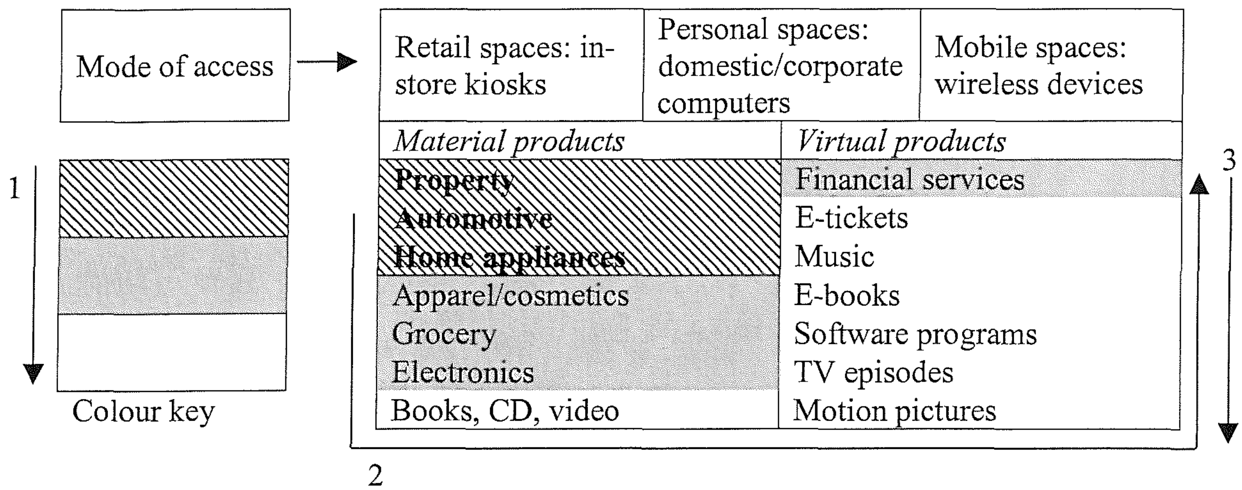
(iii) *The level of product standardisation*. In comparison to books and CDs, apparel/cosmetics and grocery items are subject to greater variability in product, price and quality, consequently increasing the time consumers must spend online if they are to find the most appropriate product for their individual needs.

(iv) *The suitability of the product for distribution to international consumer markets*. Material products are less suited to international distribution than virtual products due to higher fulfilment costs and the regulatory constraints posed by differential taxation and import laws between countries.

(v) *The level of bandwidth required for purchasing the product*. Whilst all material products can be purchased through a relatively standardised graphical user interface, virtual products require higher bandwidth for delivery to the consumer's hard disk. The informational complexity of virtual products is extremely diverse, ranging from financial services and e-tickets (measured in bytes) to motion pictures (measured in hundreds of mega-bytes).

Figure 1 combines the above criteria, outlining a potentially useful conceptual framework for future research into B2C e-commerce. Via three principal modes of access, consumers can purchase material and virtual products from a commercial web site. The taxonomy includes a selection of product categories to illustrate differences in product standardisation, suitability for international distribution, and informational complexity. First, the more complex and more variable products are denoted by a darker tone of shading. Second, as material products reduce in size and complexity, they become more suitable for international distribution, with lower fulfilment costs. Whilst virtual products can be distributed to any location, the mobility of these files over the Internet depends upon their informational complexity – for instance, music and e-books are far easier to download than motion pictures. Fulfilment costs for virtual products relate to call charges, subscription to an Internet service provider, and the opportunity costs involved in staying online. Third, related to the last point, the bandwidth required for accessing and ordering material products remains constant, via a standardised graphical user interface, whilst that required for accessing and downloading virtual products increases towards the lower end of the taxonomy (especially for audio/visual content).

Figure 1. A definitional taxonomy of e-tailing, with selected product categories



Notes:
1 Level of product standardisation: reducing consumer search costs
2 Increasing accessibility to global markets, with reducing fulfilment costs (excluding property)
3 Level of informational complexity: increasing bandwidth requirements for downloads of virtual products

By embracing B2B and B2C e-commerce, the retail TNCs have led the way in the evolution of a bricks-and-clicks organisational paradigm, developing a more robust formula for competitive advantage both online and offline. In the process, the retail TNCs have become a powerful motif of the 'multi-channel realities' facing the wider distribution sector in the early years of the twenty-first century (Dawson, 2001: 291), and more generally, of the ongoing shift towards network-based forms of corporate organisation in the informational economy (Castells, 2001). As such, it is now plain that the non-store ('pure play') retailers of the dot.com boom are unlikely to destabilise the economic geographies of globalising retail capital which developed in the late 1990s (Wrigley, 2000a: 308).

In this chapter, I focus upon the response of the retail TNCs to B2C and B2B e-commerce. The 'new retail geography' (Wrigley and Lowe, 1996; 2002) has yet to fully engage with the spatial dimensions of e-commerce. Although this area of research is only beginning to be explored through detailed ground-level empirical studies in the economic geography literature (Birkin, Clarke and Clarke, 2002; Currah, 2002a), some recent studies have already begun to map out the multi-scalar and multi-dimensional interactions that entwine space, e-commerce and corporate strategy (*e.g.* Aoyama, 2001a; 2001b; Cobb, 2002; Leinbach and Brunn, 2001; Murphy, 2002a; 2002b; Sheppard and Aoyama, 2002).[30] But what are the specific kinds of questions that need to be asked in the future when interrogating the implications of e-commerce technology for global retailing? Some possible lines of enquiry are sketched out below.

In particular, the organisational ramifications of e-commerce adoption appear to be profound and multidimensional. How are the retail TNCs addressing the logistical challenges posed by the delivery of material products to individual consumer households? In this respect, what are the relative strengths and weaknesses of store-based and warehouse-based fulfilment? From a cultural standpoint, how are these firms conceptualising and managing e-commerce technology within management philosophies and existing organisational structures? To what extent are the retail TNCs spinning off their e-commerce operations into a separate and dedicated organisational structure, where the specialised knowledge and skills required by the online operation may be more effectively nurtured? Does e-commerce adoption entail a reorganisation of existing processes of organisational learning or, more generally, of the economic geographies of knowledge (tacit and codified) within the firm? Also, at what spatial scale do innovative practices linked with e-commerce operate within the multi-channel retail TNC and how are best practices associated with the technology disseminated across space and between different communities of practice located throughout the corporate structure? What are the regulatory implications of the retail TNCs offering virtual products to international consumer markets? How might the Internet influence the market entry mechanisms of the TNCs? In what ways does the commercial web site allow the retailers to acquire strategic knowledge about foreign

[30] Interestingly, there is also a burgeoning, largely management-oriented, literature concerned with the evolution of business structures in the Internet age, particularly through processes of disintermediation and reintermediation (*e.g.* Bhatt and Emdad, 2001; Chircu and Kauffman, 1999; Tapscott *et al.*, 2001). Unfortunately, much of this work remains detached from geography and fails to fully engage with the spatial dimensions of organisational restructuring.

markets? To what extent does B2B e-commerce offer the retail TNCs the opportunity to source products on a truly global scale?

In this chapter, I address some of these questions in more detail by exploring five conceptual themes:

(i) B2C e-commerce adoption:
   a. Organisational and logistical restructuring
   b. The digitisation of cultural commodities
   c. Internet-enabled market entry strategies
   d. The virtual retail format: geographies of display and adaptation

(ii) Global sourcing through B2B e-commerce

However, before I proceed to examine these issues, it is important to sketch out in more detail the nature of the 'new (r)etail markets' (of the developed world) in which the retail TNCs are embedded, and how the locus of competitive advantage in those markets has gradually shifted from a pure play to a multi-channel organisational paradigm. This next section therefore serves the purpose of contextualising the broader 'challenges of e-commerce' which are explored in the remainder of this chapter.

THE NEW (R)ETAIL MARKETS: FROM A PURE PLAY TO A MULTI-CHANNEL ORGANISATIONAL PARADIGM

> "If e-commerce were a mad dash to the finish line, pure plays would have taken the gold medal... But it has turned into a marathon, and as dot.com start ups gasp for breath, traditional retailers, many of which stumbled out of the gate, are steadily passing the pure plays like the tortoise that whipped the hare ...In 2002 and beyond, e-commerce [will] become more and more about multi-channel selling, giving traditional retailers a huge advantage as the race continues" (Regan, 2002).

In the formative years of the Internet economy, e-tailing was dominated by pure play retailers, operating solely through web stores. By comparison, bricks-and-mortar retailers initially refrained from entering this uncharted commercial territory, fearful that a reckless foray into the online market, which they widely perceived to be an ephemeral craze offering negligible future sales growth, would actually cannibalise the revenue streams of – and undermine the sunk costs invested within – their traditional store networks (Doherty and Ellis-Chadwick, 1999). Initially, pure players were regarded as a new breed of innovative and extremely nimble firms, "committed to the new technology in a way that firms predating the technology [could] never be" (Jones and Biasiotto, 1999: 77-78).

The spectacular market valuations generated by dot.com start ups between 1999 and 2000 reflected in part, therefore, the confidence of capital markets in the ability of these pure players to "rewrite the rules of organisation, providing significant first-mover advantages to those firms in the vanguard of its development" (Leyshon, 2001: 56). By empowering any retailer, regardless of size, to immediately serve national and global consumer markets with an infinitely scalable product range, yet without bearing the 'set-up' and 'accumulated' sunk costs of physical stores (Clark and Wrigley, 1995), the pure play model was seen to promise an increase in the contestability of retail markets, and therefore, a substitution of traditional 'hierarchies' for 'hyperarchy' – an improved level of market coordination between the consumer and a wider array of economic agents (Evans and Wurster, 1999).

However, the evolution of e-tailing has reconfigured the contestability of retail markets in a highly dynamic sense, with competitive advantage being wrestled from the pure players by multi-channel operators. At the end of the 1990s, various problems with the pure play business model began to emerge. Pure players faced overwhelming difficulties in establishing a distinct brand identity among an exploding collection of rival, and often equally unknown, dot.com web stores. The acquisition of a loyal customer base was severely constrained by the logistical challenges and financial burdens of fulfilment, which often resulted in delayed or missing orders and in turn, consumer disillusionment (Ring and Tigert, 2001). It was mainly the first-movers of the Internet economy (especially *Amazon.com*), equipped with stronger brands, who were able to survive the mass exodus of pure players during 2000 and 2001.[31]

[31] Saliently, as one of the pioneer pure players, Amazon finally became profitable on 22nd January 2002.

Since the collapse of the dot.com bubble in 2001-02, it has become increasingly evident that, rather than undermining the economic vitality of traditional consumption spaces and established firms (Cope, 1996; De-Kare Silver, 1998), e-commerce actually works best in partnership with a network of bricks-and-mortar stores – a complementarity that has been associated with processes such as the 'e-materialisation of the city' (Gillespie *et al.*, 2001) or the 'co-evolution' of electronic and physical space (Graham, 1998; Thrift, 1996). That is to say, a diaspora of formerly bricks-and-mortar retailers have migrated onto the 'electronic frontier' (Adams, 1997) by operating a web store alongside the physical network of retail outlets.

As such, it is now clear that a multi-channel organisational paradigm offers a more robust formula for creating and sustaining competitive advantage on the electronic frontier, as well as in urban space, compared to organisations serving consumers via single channels (*e.g.* bricks-and-mortar establishments, catalogue and mail order agents, and the remaining pure players) (Porter, 2001).[32] This competitive advantage lies along at least three axes. First, the bricks-and-clicks enterprise is able to draw upon an established brand name and customer franchise, thus affirming the authenticity of the web store and alleviating the marketing traumas experienced by the pure players (Brynjolfsson and Smith, 2000; Ellis-Chadwick *et al.*, 2002). Second, the combination of an electronic and physical presence provides the consumer with multiple points of access to the retailer, enabling for example, offline purchases to be researched in the web store or online orders to be exchanged at a traditional store. This provides the consumer with a richer spectrum of consumptive experiences to choose between (Mathwick *et al.*, 2001) in an economy where the 'experiential value' of shopping is now arguably the ultimate source of distinction between retailers (Pine and Gilmore, 1999). Third, traditional retailers can leverage existing investments in warehousing, supply-chain management systems, customer support centres and

[32] The diaspora of traditional retailers moving online has largely been at the heart of the growth in bricks-and-clicks retailing, but it is important to note that many former pure players, such as Amazon, eBay or Gateway Computers, have also pursued a multi-channel strategy by either adding physical retail space to the business model or by forming strategic alliances with bricks-and-mortar retailers (see Enders and Jelassi, 2000; Rosen and Howard, 2000; The Economist, 2001). For example, on 24th April 2002, Amazon announced an alliance with Borders Books to distribute online orders through its extensive physical store network in the US.

product-return networks to facilitate the process of e-tailing fulfilment (Wrigley, Lowe and Currah, 2002).

As a result of these competitive strengths, the multi-channel organisational paradigm has rapidly permeated retail markets throughout the developed world. In turn, the growing dominance of a bricks-and-clicks organisational paradigm is effectively reducing the contestability of retail markets and raising entry barriers by imposing the set-up and accumulated sunk costs of *both* traditional retail outlets *and* the web store upon firms seeking a lead role in the industry. The retail TNCs have been instrumental in developing the formula for bricks-and-clicks retailing. These firms are now actively incorporating B2C and B2B e-commerce into their corporate structures, using their logistical systems, scale-related buying power, and established store networks, to exploit the commercial opportunities of the Internet economy (Wrigley, Lowe and Currah, 2002). The impact of this new technology upon the landscape of global retailing raises some important themes for conceptual debate in economic geography. Next, I discuss the five themes outlined above.

B2C E-COMMERCE I:
ORGANISATIONAL AND LOGISTICAL RESTRUCTURING

> "Just as [the] ... technologies of the railroad and telegraph enabled the transformation of small businesses into a system of corporations, ... the Internet has the potential to bring about a similar reorganisation of business structures" (Zook, 2000: 412).

As a dynamic technology undergoing recurring phases of adaptation and refinement (Holsapple and Singh, 2000), e-commerce is widely argued to be a fundamentally 'disruptive innovation' which threatens to reconfigure the economics and structural organisation of the retailing sector (Christensen, 1997; Christensen and Tedlow, 2000; Dhillon *et al.*, 2001).

The Internet has opened up a new, dynamic space of consumption, unprecedented in its level of ubiquity, interactivity, fluidity and speed (Kenney and Curry, 2001: 59): attributes that may, in principle, require traditional businesses to redefine their organisational structures and corporate strategy if they are to effectively serve the consumer in both physical and virtual space (Evans and Wurster, 1999; Li *et al.*, 2001; Rayport and Sviokla, 1995).

In the context of retailing, settling on the electronic frontier certainly seems to challenge the design and function of existing organisational and logistical structures. When compared to the traditional retailer, who uses the physical store as the place of exchange and the consumer as the mode of delivery, e-tailers are clearly responsible for an extended commodity chain – from the supplier to the consumer's home (Jones and Biasiotto, 1999). Notwithstanding the competitive advantages of mixing bricks with clicks, traditional retailers pursuing a multi-channel strategy still face the logistical challenge of developing a physical fulfilment infrastructure that can effectively deliver *single* commodities to the consumer. This scenario has the potential to disrupt the commodity chain of retailers moving onto the electronic frontier of the Internet, who are otherwise equipped to deliver *multiple* commodities (as stock replenishment) to traditional retail outlets (Peet, 2000: 16):

> "As physical retailers move online ... they also face challenges such as organisational restructuring and the adaptation of the existing distribution infrastructure to the new requirements of the online market ...This is due to the fact that their distribution systems are more geared to shifting pallets of goods from large warehouses to store shelves. Selling over the web, on the other hand, requires a ... system that can cater for the delivery of an individual package to a single household" (Enders and Jelassi, 2000: 546).

In light of this organisational dilemma, "will traditional store-based retailers ... be sufficiently flexible to take advantage of the opportunities which the new electronic channels to market represent?" (Wrigley and Lowe, 2002: 92). This dilemma is amplified for the retail TNCs due to the unique logistical challenges facing the fulfilment of online grocery orders (Punakivi and Saranen, 2001):

> "Groceries are one of the most difficult objects of trade for electronic commerce: material flows are distinct from information flows, the number of frequent customers is potentially very large, and an average purchase basket consists of many items. Furthermore, it is more local than, for example, selling digital products that are easily accessible throughout the world. It is also more difficult than e-commerce of many other physical products such as books or clothing, because of low value-to-weight ratio of groceries and shelf time limitations of perishable goods" (Raijas and Tuunainen, 2001: 255).

In response to these logistical challenges, Tesco has exploited the competitive advantages offered by its extensive store networks for purposes of picking, distribution and return/exchange. This has involved developing a relatively simple store-based picking system that requires low levels of capital investment, exploits in-store marketing opportunities for the web site, and offers consumers the full range of items available in its stores. *Tesco.com* has been rolled out to 240 stores in the UK, making it accessible to over 95% of the population. Meanwhile, the online model has been transferred to the Republic of Ireland and South Korea and is currently being rolled out in the form of a joint venture across the Safeway Inc. store network in the US (see below).

The Tesco in-store picking system operates as follows. Once the central computer server has received the online order, it is transmitted to the store closest to the consumer. Here, employees use carts mounted with computer screens to complete the picking process. The computer guides the picker to the relevant location of the product in-store (Ring and Tigert, 2001: 272). Once each individual order has been assembled, special vans (equipped with three separate and movable compartments, each with an independent temperature control in the range of –25°C to +12°C) deliver the goods to the consumer, at a flat rate charge of £5-00 (Gurău *et al.*, 2001: 240-241). Consumers can select a convenient delivery time, even up to a month in advance (Birkin, Clarke and Clarke, 2002: 97). The *Tesco.com* web site is now the most successful (and the only profitable) online grocery operation in the world, with annual sales revenues of £356 million in 2001-2002, 85,000 orders per week, and around 50% of the online business deriving from completely new consumers (expanding the overall market share of the retailer in the UK). Tesco is further developing the concept of multi-channel selling by utilising EPOS (electronic point of sale) databases collected in-store to customise the geography of display in the web store (see Currah, 2002b, and the section below, 'the virtual retail format').

Similar to Tesco, Royal Ahold has embarked upon a multi-channel strategy of store-based fulfilment in the US. Having acquired the embattled pure play grocery retailer Peapod in April 2000, the company is now integrating online fulfilment into its portfolio of Giant and Stop & Shop stores on the eastern seaboard of the US (reporting revenues of US $1 million in 2001-2002). However, in contrast, Royal

Ahold announced in August 2001 that it was abandoning store-based picking in the Netherlands and that future orders placed through Albert Heijn would instead be fulfilled from two distribution centres (with an extra centre due to open later this year) (Tanskanen *et al.*, 2002).

Interestingly, in the UK, Wal-Mart has attempted to use *ASDA @t Home* to penetrate markets where the chain currently has little or no store presence at all (thus precluding store-based picking). As part of this strategy, Wal-Mart has developed dedicated warehouses from which online orders are processed and delivered (Birkin, Clarke and Clarke, 2002: 98). Wal-Mart is still pursuing a multi-channel strategy, reflected by its plans to install kiosks throughout its stores in the UK and US, which will allow consumers to order items unavailable at the time of their visit for later home delivery (Colla and Dupuis, 2002: 110). Carrefour's *Ooshop.fr* and *Ooshop.es* service, currently in operation in France and Spain respectively, is also supported by a warehouse-based picking system (Tanskanen *et al.*, 2002).

In principle, warehouse-based fulfilment is more efficient than in-store picking: dedicated distribution centres can be specially designed for enhancing picking speed and efficiency, while labour costs are likely to be lower than in a physical store (Kämäräinen *et al.*, 2001: 42). The layout of physical stores is optimised for consumer browsing and product display rather than the productivity of pickers. As a result, operating costs tend to increase faster than sales revenues when picking is completed in-store at high volumes. Moreover, there is a risk of conflict between pickers with the management and customers of the store. Murphy (2002a; 2002b) has elaborated on some of the personal and organisational constraints underlying store-based picking, which will be magnified as online grocery orders continue to grow:

> "The home shopping picking crew are a separate team within the store, and as such are not under the direct control of the store manager. Nonetheless they require storage space, are a constant and visible presence within the store, and act as both workers and customer agents. Any conflict between the picking team and the store management, or between the team and non-virtual customers (such as space in the aisles, or for scarce items), will impact on both" (2002b: 57).

However, the appeal of warehouse-based fulfilment has been deeply tainted by the spectacular demise of Webvan. As a pure play grocery retailer, Webvan attracted more than US $800 million in venture and public capital funding between its start-up in 1999 and 2000 (Murphy, 2002a). The company had ambitious plans for expansion, planning to serve 26 markets within 2 years from giant warehouses (costing between $25-35 million), which were to be equipped with automated, artificial intelligence logistics and a total stock keeping capacity of 50,000 units in a 300,000 square foot area (Ring and Tigert, 2001). In an ideal scenario, with 8,000 orders per day, seven days a week, and an average order size of $103, each warehouse would have achieved 12% operating margin (compared to 4% in a traditional supermarket). In reality, in late 1999, Webvan was only processing 1,600 orders per day, for five days of the week (Kämäräinen *et al.*, 2001). By July 2001, having been de-listed from NASDAQ and with annual losses of $413 million in fiscal 2000-2001, Webvan was liquidated and will hereafter be long remembered as the "Internet era's equivalent of Waterworld or the Hindenberg dirigible: a disaster so epic that it becomes an American legend" (Murphy, 2002a: 1).

In spite of the failure of Webvan to successfully operationalise the fulfilment of grocery and general merchandise products from dedicated distribution centres, research suggests that if online sales volumes (and their spatial densities) increase to a sufficient level, warehouse-based fulfilment does become a more viable economic proposition than a store-based model (Kämäräinen *et al.*, 2001; Tanskanen *et al.*, 2002). Therefore, should these circumstances arise, it is likely that all of the retail TNCs will gradually shift towards warehouse-based fulfilment of some kind. For instance, Tesco has ruled out the option of implementing dedicated warehouses *until* customers per fulfilment centre reach 10,000 (Jones, 2001). Future research in this area should address two key questions. First, at what point does warehouse-based fulfilment become more financially viable for the retail TNCs, taking account of differences in sales densities, logistics infrastructure, cost of land and planning issues, *inter alia*, between markets? Second, if implemented, what mechanisms are in place within these facilities to maximise the utilisation of space and the efficiency of the picking process?

B2C E-COMMERCE II:
THE DIGITISATION OF CULTURAL COMMODITIES

> "The contemporary 'cultural turn' in thinking about economic processes has been deeply bound up with narratives of 'dematerialisation'. We might start from Veblenesque stories of status symbols, and proceed through semiotic stories of ideologies and codes, through tales of post-industrial societies and service economies, through post-Fordist segmentation and lifestyling and finally onto knowledge, information or 'weightless' economies, 'new economies', global brands and *digital commodities*" (Slater, 2002: 157; emphasis added).

A new and rapidly evolving technological assemblage, organised around software formats and Internet distribution systems (notably, P2P networking), has become a potent motif of the 'new economy' and its propensity to dematerialise commodities into flows of data bits and electronic pulses (*i.e.* the virtual products discussed earlier) (Negroponte, 1995). Cultural commodities that are based upon musical, textual and visual data can now be radically reduced in size using digital compression software to facilitate transmission and consumption through the Internet (Currah, 2002c; Kahin and Varian, 2000; Leyshon, 2001). The low or virtually zero per-unit marginal costs of reproducing and distributing these digital goods (Shapiro and Varian, 1999) is iconic of the so-called 'weightless economy': that is, the exchange of an "economic good whose ownership cannot be transferred or traded, but simply replicated – and at almost no transmission cost, in almost no time" (Coyle, 1997: 3; see also Cameron, 1998; Quah, 1997).

Although digital content of this kind has yet to become widely available for retail purchase on the Internet – and while it clearly has less relevance to the food and general merchandise orientation of the retail TNCs – it is nonetheless possible to discern a number of significant developments, linked to the rise of virtual products, which have important implications for retail space more generally, extending from a global to a local scale.

First, there are compelling spatial and regulatory issues attached to the distribution of virtual products to international consumer markets. What is the impact of a centralised Internet database, accessible globally, upon the current system of releasing cultural products (especially motion pictures and recorded music) in sequential release windows across geographic markets? In Appadurai's (1990) terms, how might this aspect to e-commerce reconfigure the existing *time-space disjunctures* of the global cultural economy? Also, what are the logistical implications of differential taxation or foreign censorship laws for the reproduction and distribution of digital musical, textual or visual content? In particular, how might the retail TNCs "learn to use the Internet to avoid taxation by redefining the point of sale and moving it towards the jurisdiction" that offers the most appealing regulatory conditions (Li *et al.*, 2001: 712)?

Second, the Internet is a 'regulatory frontier' where software formats are vulnerable to electronic piracy through P2P computer connections – as witnessed by the pioneering model of MP3 exchange developed by *Napster.com* (Leyshon, 2002; Merriden, 2001). Software exchanges through P2P systems essentially represent a high-tech gift (or moral) economy in which the 'social materiality' (Slater, 2002) of the virtual commodity is being contested and in turn, re-modelled into a more liquid and permeable form (Currah, 2002d). The rise of virtual products will therefore require cultural producers to collaborate with retailers (especially the TNCs, given their scale and financial strength) in the implementation of a technological and regulatory regime which can stabilise (or 'solidify') the virtual commodity into a more rigid and secure format, and hence preserve the intellectual property rights embedded within these informational products.

The dilemmas surrounding virtual products emblematise the multidimensional complexities of regulatory space under a regime of digital or weightless capitalism (Coyle, 1997; Schiller, 1999; Tapscott, 1996) but, as yet, the regulatory aspects of e-tailing are poorly understood. As part of a wider theoretical agenda for critical urban research in the Internet age, Graham, (2001), however, identifies an emerging trend on the regulatory landscape of e-tailing: the re-configuration of peripheral, isolated and ultra-secure locations (from offshore island states, through disused sea forts, to old cold-war intercontinental ballistic missile silos) into what Sassen (1997: 11) terms 'firewalled' spaces that can both store the web servers of e-commerce companies in complete safety from hackers and offer lower operating costs and minimal taxation liabilities.

Third, the adoption of Internet-based delivery channels by the cultural producers (already at a nascent stage) has important implications for retail space at a local scale. In particular, the legitimate appropriation of software formats by record companies, motion picture studios, and publishers, for example, threatens to disintermediate retailers offering related products from these sectors through online and offline channels (Schaefer, 2001). This has relevance to the retail TNCs, which offer physical CDs, DVDs, VHS, and the like, both in the traditional store and in the web store. Even so, retailers may be reintermediated on the Internet if they reposition themselves as 'content aggregators' which classify and distribute various types of digital content from an array of producers (Zhu, 2001). Moreover, the delivery of virtual products onto personalised disks in-store, via multimedia kiosks, is now allowing multi-channel retailers to fuse digital content with the traditional store environment. In many of the retail TNCs, multimedia kiosks of this kind are now becoming a formative component of retail space, allowing customers to research and order products unavailable in the traditional store. Thus, although a potent symbol of dematerialised consumption e-tailing is actually becoming embedded within physical places of consumption and conviviality (Wakeford, 1999; Wrigley, Lowe and Currah, 2002). Emerging cyberspatial technologies are being appropriated, negotiated, performed (Green, 2001; Holloway and Valentine, 2001), and in the process, materialised as fundamentally socio-cultural artefacts.

B2C E-COMMERCE III: INTERNET-ENABLED MARKET ENTRY STRATEGIES

The Internet has opened up a global marketplace in which the commodity can be purchased at any time from a single electronic location – in the case of virtual products, instantly deliverable across global space to the consumer's hard disk. E-commerce radically lowers barriers to market-entry and provides the retail TNCs with the opportunity to enter foreign markets through an electronic channel requiring significantly lower levels of capital investment in comparison to the globalisation of bricks-and-mortar stores (Reynolds, 2000). Tesco's relatively low-risk entry method into the US online food retailing market, in alliance with Safeway Inc., is perhaps one example. In June 2001, Tesco, recognised as operating the world's most successful Internet-based grocery home shopping service, invested $22 million, or a 35% stake, in Safeway's equivalent – GroceryWorks. Tesco is providing the technology, systems and personnel to enable Safeway to expand its Internet business: the *Tesco.com* 'HomeShopping technology' is currently on trial in Portland, Oregon and San Francisco, California, and is ultimately to be rolled out across Safeway's much larger (US $35 billion per annum) network of 1500 stores. This is providing the UK-based food retailer with valuable knowledge of (and potentially lucrative returns from) the largest food retail market in the world (Macaluso, 2001; Tesco, 2001) via a form of technologically-oriented 'inter-firm learning' (*cf.* Scott, 2000).

The retail of virtual commodities may even remove the need for the retail TNCs (and the cultural producers) to establish a physical corporate presence abroad to deliver digital content to international consumer markets, thus disintermediating overseas networks of distribution (Yip, 2000). However, a purely virtual organisational paradigm seems unlikely for at least two reasons: the multi-channel organisation clearly has various competitive strengths in the global arena, as reflected by Tesco's committed multi-channel strategy of globalisation (see chapter 1); and the fundamental appeal of books, music albums, and VHS or DVD video, as material collectibles, and as a source of social distinction, is unlikely to disappear in the wake of software formats. Moreover, in spite of all the recent hype that has surrounded the death of distance and the globalising potentialities of the Internet (*e.g.* Cairncross, 2001), market entry strategies through e-commerce *do* remain bound by geography. This is evident in at least three ways.

First, the virtual landscape of e-commerce is fractured along cultural, ethnic, legal, linguistic, political, technical and time-zone axes (Farhoomand *et al.*, 2000), with the display and selection of web stores largely reflecting the characteristics and tastes of geographically defined consumer segments (Korper and Ellis, 2000). As such, retailers have launched dedicated national web sites to create the illusion of being anchored in a specific physical space, when in fact the server is located elsewhere. Moreover, the process of e-commerce adoption, like the evolution of any new technological assemblage (Thrift, 1996), is shaped by highly contingent institutional, infrastructural and regulatory structures, stretching from an urban to national scale (Aoyama, 2001a; Graham and Marvin, 2001; Oinas, 2002: 325).

Second, the web site constitutes a new arena for the articulation of corporate identity: a discursive space in which the retail TNCs must deploy revised geographical narratives, suited to the unique spatiality of cyberspace, in order to situate corporate identity within stylised representations of the global and local (Pritchard, 1999). In this way, cyberspace and e-commerce will feed into a growing body of work in the new economic geography concerned with social and discursive representations of the firm and how such narratives can in turn be decentred, deconstructed and destabilised (Gibson-Graham, 1996; O'Neill and Gibson-Graham, 1999; Schoenberger, 1997; 1999).

Third, the domain names of e-tailers, including the TNCs, are increasingly tied to real places in a bid to differentiate the web store in cyberspace. The paucity of dot.com domain names that now remain after the initial land rush onto the electronic frontier has meant that retailers are endeavouring to obtain alternative suffixes from other countries (for example, .as [American Samoa], .tm [Turkmenistan] and .to [Tonga]), which endow the web store with a distinctive 'location' on the virtual (hyper-linked) high street and thus the ability to capture passing consumers (Wilson, 2001: 60).

B2C E-COMMERCE IV:
THE VIRTUAL RETAIL FORMAT – GEOGRAPHIES OF DISPLAY AND ADAPTATION

The Internet has provided the retail TNCs with a new and remarkably dynamic space of consumption, made visible in the "geography of the screen … a world in miniature, totally under the control of the designers" (Dodge, 2001: 173). "The commercial web site is a vehicle for promoting a company's image, and thus embodies a discourse (with attendant geographies) that is intended to support wider corporate goals" (Pritchard, 1999: 9). Related to this, there is considerable scope for analyses of how the web store, as a virtual landscape of consumption and display, is produced by the discursive practices of elite corporate actors as part of an attempt to realise the transformation of surfers into long-term exchange-partners (see Currah, 2002b; Miller, 2000a). In fact, as I discuss below, the virtual format enables the web store to be adapted to individual preferences across international consumer markets with relative ease, even if it is hosted on a server elsewhere (Li *et al.*, 2001).

The Internet forms part of a broader assemblage of information technologies in the retail sector (*e.g.* electronic point of sale, credit scoring *etc.*) that have been deployed to capture data about consumer behaviour in order to facilitate target marketing strategies and extract increased commercial value from the customer base (Wrigley and Lowe, 2002). In the web store, in contrast to the physical retail outlet, the retail TNCs are more easily able to monitor and record the spatial and behavioural patterns of individual consumers. The electronic surveillance capabilities of the commercial web site are yielding an unprecedented volume of market knowledge, which is clearly of considerable strategic importance to the TNCs in the so-called 'knowledge-driven e-conomy'.

By surveying the behaviour of surfers in the space of the web store, the retail TNCs are able to simulate 'digital personas' for each consumer, serialised within an electronic system of knowledge (Leyshon and Thrift, 1999). These surveillant-simulations can be updated after every visit to the web store using 'cookie' technology – files that are automatically implanted upon the computer user's hard disk, often without their knowing, to record subsequent activity upon the web site.

The geography of display can then be 'singularised' (Callon *et al.*, 2002) to personal preferences during later visits to the web store. Thus, cyberspace creates an unprecedented level of flexibility in retail display, facilitating a 'reach' to a large audience alongside customisation to individual 'affiliations' (Evans and Wurster, 1999). Unlike the physical retail outlet, where redesign and internal restructuring incurs unavoidably high costs, the web store can be completely re-constructed and displayed anew to satisfy the individual characteristics of each surfer.

Electronic surveillance serves the competitive agendas of bricks-and-clicks retailers such as the TNCs, who are increasingly seeking to bolster their market position by monitoring consumers and being a step ahead of consumer's own understanding of their material desires and shopping habits. Indeed, cookie technology is also conducive to 'predictive marketing', based upon knowledge of past purchases and the behaviour of similar digital personas. Thus, consumers are not simply beginning to see a reflection of the self in virtual space: on the contrary, their sense of self is itself being dynamically refigured as a result of engaging with the online environment. In this way, e-tailers are hoping to

> "base their competitive lead on the ability constantly to observe customers making choices, linking products and showing their preferences. Since they are able to record customers' previous purchases and their reactions to new offers, suppliers end up knowing as much as customers themselves do about what they want and expect. This shared knowledge, which evolves as new experiences accumulate, is based on consumers' engagement in a socio-technical device with which they interact and evolve" (Callon *et al.*, 2002: 210).

For instance, Tesco has recently begun to combine 'point of sale' data collected for individual consumer behaviour both online and offline, so as to customise the retail offering in both physical and virtual space.

The efficacy of such a strategy remains to be determined. In particular, there are some thorny ethical issues attached to the use of cookie technology (Bennett, 2001; Charters, 2002; Pennington, 2001). Who owns the digital identity of the surfer? How are personal details protected? A more disturbing issue is "how self-generated surveillant simulations, built up covertly and geared to the needs of large corporations, are also involved in the construction and control of...identities" (Graham, 1998b: 488).

Overall, the construction of a virtual retail format – and the strategic necessity of developing a geography of display which has the technical capacity to be adapted to individual preferences – has reinforced the importance of inter-firm networks of knowledge exchange between the retail TNCs and organisations offering Internet technology solutions (*e.g.* Cisco, IBM, Microsoft). That is, while the retail TNCs have the financial resources, distribution infrastructure, and above all, the process-based knowledge to support the fulfilment of B2C e-commerce, these firms remain dependent upon external agents providing specialised web-site design and maintenance services. As Oinas (2002: 323) explains,

> "Making a company attractive for customers on the web with leading-edge technology requires the mastering of increasingly complicated authoring tools, programming to create dynamic database-driven pages, and skills...to implement graphics, sound, video and special effect content. [Thus] Internet

companies and Internet consultancies may become lasting partners providing the technological competencies that complement retailers' core competencies".

GLOBAL SOURCING THROUGH B2B E-COMMERCE

If we approach the retail TNCs' engagement with e-commerce from the perspective of sourcing, particularly that of branded goods, a rather different picture begins to emerge of the global retailing landscape. While global sourcing by the world's top retailers did visibly increase during the 1990s, as a result of the TNCs exploiting the (hard) synergies linked to coordinated international purchasing decisions with major vendors (*e.g.* American Home Products, Proctor & Gamble, Heinz, Johnson & Johnson, or Nestle), these trends were almost exclusively confined to non-food products. The potential for global sourcing of food has been severely limited due to intractable differences in national tastes and the perishability of these product categories. To the extent that any kind of spatial consolidation is evident in food-oriented sourcing, it has been in the form of regional buying centres – for example, Royal Ahold's Latin American purchasing centre, located in Argentina, has enabled the firm to reduce the procurement costs of selected product categories for all of its chains in this region (Wrigley, 2000a: 308). Crucially, however, a major impediment to the globalisation of sourcing is the need for a fundamental re-configuration of established vendors' supply chains, from a country-oriented bargaining system to one that is negotiated *vis à vis* individual companies.

Given these difficulties, to what extent will B2B e-commerce enable the retail TNCs to source products on a truly global scale? Indeed, B2B e-commerce offers the prospect of a global purchasing arena in which the marginal costs of transmitting information are virtually zero, with retailers able to link up with a wider array of suppliers from around the world. Not only does B2B e-commerce theoretically create markets on a scale and with a level of efficiency not previously possible (*cf.* Daniel and Klimis, 1999; Malone *et al.*, 1987; 1989), it also reinforces the shift towards a radical 'pull' (or buyer-driven) business strategy that substitutes information for inventory, so that suppliers only ship products when retailers confirm there is 'real' demand from their end consumers (Gereffi, 2001a: 35).

Since the late 1990s, a plethora of collaborative buying ventures (or B2B exchanges) have been established across all industries. The GlobalNetExchange.org and Worldwide RetailExchange.org are two examples of B2B e-commerce in the globalising retail industry. In 2000, Carrefour and Sears Roebuck found the GNX, with Oracle acting as the technology partner. J. Sainsbury, Metro, Kroger and Coles-Myer have joined this alliance as equity partners (Reynolds, 2000). The WWRE was also formed in 2000, as a competitive response to the GNX. Its 11 founding members included: Kmart, Albertson's, Safeway Inc., Target, CVS, Royal Ahold, Auchan, Casino, Kingfisher, Marks & Spencer, and Tesco. Unlike GNX, the WWRE is open to all retailers to join.

Both the GNX and WWRE are designed to allow members to buy, sell, trade or auction goods and services over the Internet. This is intended to simplify, rationalise, automate and forecast supply chain processes, thus eliminating costs and inefficiencies and accelerating procurement transactions. B2B e-commerce also allows retailers to source an increased range of goods, particularly in the own-label variety (Reynolds, 2000). Table 5 shows the different types of procedure which match retailers' sourcing requirements with what is on offer among member suppliers. B2B reverse auctions have gained the most publicity. Here, a retailer specifies the product and order size, and then suppliers compete by offering lower bids.

Table 5. Types of order matching in the GNX and WWRE

Type	Temporal matching	Pricing	Typical products
Dynamic pricing	Real time, frequent trades	Volatile	Commodities, narrow selection, spot buys
Catalogue	Recurring orders	Standard/negotiated pricing	Standard products, broad choice, industrial markets
Reverse auction	Infrequent trades	Wide disparity depending upon bidders	Standard and non-standard, used equipment
Request for proposal	Weeks or months per transactions	Custom/negotiated pricing	Complex/tailored services and products

Source: adapted from Reynolds (2000: 428).

Wal-Mart has not signed up to either of the B2B arenas. Indeed, the incorporation of the US retail giant into either GNX or WWRE appears highly unlikely: the 'Retail Link' system that connects the company with its suppliers, together with exceptionally high purchase volumes, essentially acts as a self-contained electronic marketplace (Colla and Dupuis, 2002).

Leaving the absence of Wal-Mart in the GNX or WWRE aside, the strength of the B2B arenas is that they allow retailers to realise cost savings by (reverse) auctioning their sourcing requirements to a competitive audience of international suppliers. The WWRE is by far the largest B2B marketplace, with 61 leading retailers, over 100,000 suppliers, and estimated cost-savings to its retail partners of $471 billion as of December 2001. In particular, Carrefour was able to save Euro 40 million when it sourced workstation PCs for the company through GNX reverse auctions for the first time in 2001.

However, the potential of B2B e-commerce to unleash the potentialities of global sourcing has so far proved limited. There has been much rhetoric attached to the retail exchanges but relatively little action in reality (Reynolds, 2000: 428). The GNX and WWRE have mainly been used to source ancillary products (*e.g.* packaging materials) and specialised commodities (allowing retailers to discover new suppliers of niche-market goods at low cost). For the high-volume product lines, the retail TNCs have already forged extensive inter-personal lattices of trust, reciprocity and norms of exchange with representatives of the major vendors. Such face-to-face interactions clearly have no role to play in the asocial, electronic space of B2B arenas. Indeed, the anonymous and automated nature of B2B e-commerce is in stark opposition to the embodied knowledges and interpersonal networks of trust which characterise contemporary bargaining processes at the retailer-supplier interface (Hughes, 1999b).

There is also the related challenge of how to effectively incorporate widely divergent logistical and supply-chain systems (sometimes operated by incompatible software programs) into a standardised B2B interface. This is clearly a formidable task, incurring significant organisational disruption and requiring huge levels of capital expenditure on the behalf of retailers to harmonise their systems (if, indeed, this task is actually embraced at all). Also, B2B e-commerce threatens to expose internal process-based knowledge assets to other member firms if it is to work efficiently. Thus, the future efficacy of collaborative B2B marketplaces is likely to be problematised by retailers' efforts to protect and conceal codified information relating to their own trading negotiations and organisational practices. In spite of these internal competitive tensions, the GNX and WWRE may well be subject to future anti-trust investigations in the US and Europe, given the escalating market power of these buying forums.

Chapter 6

Conclusions

In recent years, the role of culture, knowledge and learning in the sociocultural regulation of firms has become a lively and provocative area of debate in the new economic geography (Yeung, 2001). However, as Martin and Sunley (2001) caution, the recent flurry of interest in the 'social' and the 'cultural' should not relegate the importance of 'economic' imperatives in analyses of 'the firm' and other components of the economic landscape. Rather, the ability of firms to effectively respond to traditional economic imperatives (market forces and competitive pressures) is increasingly dependent upon the deployment of 'soft' assets. In order to secure competitive advantage and realise the 'hard' returns on capital investment required to maintain investor confidence, firms (or, more accurately, their social occupants) must learn to innovate and adapt to differential business environments.

Indeed, the ability of the retail TNCs to position themselves as corporate parents of the emerging mega-groupings largely depends on how successfully they can learn and innovate as global operators. To date, however, the geographies of organisational learning and innovation within these firms (as well as the globalisation of retailing *per se*) have remained profoundly neglected in the mainstream of academic debate. My purpose in this thesis has been to bridge part of this gulf, at least from a theoretical angle if not from a detailed empirical ground-level investigation. Admittedly, the thesis represents no more than an initial conceptual foray into this uncharted territory. Nonetheless, it has made several important steps forward in the conceptualisation of the distribution-based TNC and in terms of our understanding of organisational learning and innovation in the retail TNCs. Given the rapidity of change within the globalising retail industry – the endemic importance of learning processes, the multi-directional evolution of formats, and by necessity, the rate of technological change, especially in respect of e-commerce – a sustained stream of empirical snap shots will be required to build up the bigger theoretical picture of the retail TNCs. To conclude, I summarise the findings of each chapter and identify the key contributions of the thesis to contemporary academic debates.

RESEARCHING THE RETAIL TNCs

The research presented here reaffirms the importance of the equity analyst to economic geography research into the retail TNCs, and large-scale business organisations more generally (Yeung, 2000b). Crucially, the thesis has demonstrated the role of the equity analyst as a 'gatekeeper': as a member of a corporate elite, the analyst has the potential to enrol the researcher into wider networks of knowledge exchange about the retail TNCs. In my case, the existence of cordial relations between Neil and some of the leading analysts in the retail sector meant that we were more easily inserted into the 'space-times' of a corporate elite which usually remains impenetrable to the gaze of academic enquiry. Our enrolment into this actor-network, in the form of interviews and industry conferences, yielded a wealth of data for the thesis. However, as I explained in chapter 2, accessing and operating inside of these elite networks presented some peculiar methodological challenges. The research used here, then, brings another perspective to existing debates on researching elites and elite spaces (Cormode and Hughes, 1999; Hughes and Cormode, 1998).

While 'close dialogue' with corporate elites can help to shed some light on the sociocultural contextuality of corporate strategy (Clark, 1998), notably the role of actor-specific discursive and material practices in governing the firm (Yeung, 2001), it is important, nonetheless, to retain a critical stance towards these 'situated knowledges'. Overall, I share Yeung's (2000b) enthusiasm for a total method approach in economic geographical research, which combines multiple methods and triangulation to minimise the risk of bias and uncertainty. This is especially important given the complex interdependencies that exist between equity analysts and the retail TNCs (some of whom are clients to the investment banks in question).

CONCEPTUALISING THE DISTRIBUTION-BASED TNC

The thesis also helps to take forward our conceptual understanding of the distribution-based TNC, manifested at present by the emergent retail TNCs. In chapter 3, I argued that a distinctive characteristic of the retail TNC is that it is embedded, to an unusual extent relative to a production-based TNC, in local cultures and geographies of consumption. That is to say, these firms are inextricably 'close' to market (though this is necessarily distanciated to some degree in e-commerce). On the basis of this argument, I drew upon the work of Dicken (2000) to consider how the retail TNCs might be thought of as being 'placed' and in turn how place itself is being 'firmed' by those TNCs. Firstly, I positioned the retail TNCs within the conceptual framework developed by Whitley (2001) to understand variations in the management of international investment by different firms across different business environments. This, I suggested, offered a useful lens through which to conceptualise the embeddedness of the retail TNCs in different markets. As Whitley (2001) has argued, it is as a result of their multi-locational structure that TNCs have the potential, unlike other firms, to develop distinctive, hybridised organisational competencies. Indeed, this contention seems even more applicable to the retail TNCs, which have invested considerable resources across an array of places. Even in the relatively unstable conditions of particularistic economies, the retail TNCs have been able to learn from their experiences and develop novel organisational capabilities which can be transferred to other locations. This leads us to the second point – the role of place within the organisational structure of the retail TNCs.

As I noted earlier in chapter 1, the regulation of firm behaviour by social actors in different territorial contexts is best understood from a *relational* perspective: that is, as a constellation of embedded intra-firm, inter-firm and extra-firm network relations (Yeung, 2000a; 2000d). I explored this perspective in more detail in the latter part of chapter 3 when considering the question of 'firming' place. Not only does a relational perspective help to improve our conceptual understanding of the structure of the retail TNCs, but also, by situating those firms within that framework, the thesis also helps to advance our understanding of how relational network connections vary between sectors. In particular, I argued that the extra-firm relations between the retail TNCs and place could be thought of as fluctuating between motion and fixity (*cf.* Brenner, 1998). Here, too, the retail TNCs exhibit some distinctive characteristics. Due to the inherent closeness of retailing to the marketplace, the retail TNCs are less adept at moving their investments and resources between locations to minimise risk and maximise profitability. As a consequence, the benefits of 'fixity' in place are more pronounced for the retail TNCs, which rely upon store-based learning processes to develop innovative formats, merchandising techniques, and marketing strategies attuned to the sociocultural and economic rhythms of the local context.

ORGANISATIONAL LEARNING AND ADAPTATION IN THE RETAIL TNCs

In chapter 4, I explored in more detail the implications arising from the role that the store plays as a potentially autonomous centre of innovation for wider processes of organisational learning and adaptation in the retail TNCs. Thus, my concern in this chapter was with the impact of extra-firm networks (of store-based learning) upon intra-firm networks (of knowledge exchange). Indeed, the link is a clear one: the ability of the retail TNCs to develop distinctive organisational capabilities across each of their markets is increasingly dependent upon store-based learning processes, together with the transfer of knowledge between those locations. The mobilisation of knowledge across complex and differentiated corporate networks (Amin and Cohendet, 1999; Nohria and Ghoshal, 1997) will, in large part, determine which of the four retail TNCs will be most successful in positioning themselves as the future parents of the emerging global mega-groupings. The retail TNCs are now converging, at varying speeds and from multiple directions, towards a hybridised style of globalisation which relies upon intra-firm knowledge transfers to adapt the format in innovative ways to local cultures and geographies of consumption. In this sense, the thesis contributes to ongoing debates surrounding the balance between adaptation and standardisation in models of corporate expansion, both in the wider realm of organisation theory (Doz and Prahalad, 1993) and in the more specialised field of international retailing (Alexander and Myers, 2000). Thus, the retail TNCs help to shed further light on the globalisation of firms from the perspective of a sector where sensitivity and adaptation to local demands are of paramount importance.

In chapter 4, I argued that process-based knowledge, deployed in the so-called back-region (behind the front-region of display in-store), is of immense strategic significance to the retail TNCs – especially given the ongoing threat of product-based knowledge in the store being appropriated and imitated by competitors. Specifically, I suggested that the ability to transfer implicit/tacit knowledge (that is, best practices rooted in particular places, bodies and performances) across the firm is instrumental to the realisation of competitive advantage, mainly because explicit/codified knowledge is far easier to mobilise and disseminate due to improvements in telecommunications technology.

In the remainder of chapter 4, I therefore examined the nature of 'knowledge management' within the retail TNCs – that is, how these firms are stimulating, harvesting, and transferring tacit knowledge throughout organisational space. I began by outlining, in general, some of the organisational challenges posed by knowledge management for globalising firms. The subsequent discussion of knowledge management in the retail TNCs essentially revolved around two issues. First, how are best practices discovered and developed at a local scale? Here, I suggested that communities of practice within the store environment were critical components of 'bottom-up' creativity. A major challenge for the retail TNCs is how to extract, integrate and adapt best practices spread out across these hybrid communities in the 'transnational diasporic space' of the firm (Morgan, 2001a; 2001b). Second, in what ways are the corporate elites providing 'top-down' infrastructural capabilities to manage, coordinate and transfer tacit knowledge? Following Gold *et al.* (2001), I examined evidence of both technological and cultural strategies of knowledge management. Ahold's corporate intranet illustrated the potential value of a technologically-driven strategy, whereby employees engage with a dynamic database of corporate knowledge on a daily basis. However, distanciated interactions must be complemented by proximate mechanisms. Here, I outlined the practical importance of storytelling, mentoring and best practice teams as 'corporate socialisation' techniques (Gupta and Govindarajan, 2000). In particular, best practice teams have acted as one of the principal mechanisms through which strong convergence may occur in the retail TNCs – namely, Tesco and Wal-Mart.

Overall, this part to the thesis contributes to existing debates in economic geography concerning the exchange of knowledge across corporate networks, the role of 'soft assets' in the sociocultural regulation of firm behaviour, and the potential for strong convergence through processes of adaptive or reflexive globalisation (Bunnell and Coe, 2001; Gertler, 2001; Yeung, 2001). I have tried, in the spirit of Howells (2002), to consider how geography both influences, and is influenced by, the dynamics of organisational knowledge. More generally, my treatment of knowledge management in the retail TNCs feeds into a rich and growing body of social scientific research concerned with the learning dynamics of firms in the globalising, knowledge-driven economy (*e.g.* De Geus, 1997; Schulz *et al.*, 2000).

GLOBALISING RETAIL AND THE CHALLENGE OF E-COMMERCE

As a remarkably dynamic and multifaceted technological innovation, B2C and B2B e-commerce is heightening the strategic importance of knowledge management to the retail TNCs (Holsapple and Singh, 2000). Indeed, the mutability of e-commerce and the Internet economy has required the retail TNCs to continually learn from their experiences and gradually refine the multi-channel organisational paradigm. Much more work is needed in this area to understand the implications of e-commerce for the economic geographies of knowledge and learning in these and other firms. In chapter 5, I considered the organisational and managerial challenges stemming from a multi-channel paradigm, in the process raising some important themes for conceptual debate in economic geography. To begin, I examined the shifting locus of competitive advantage in the new (r)etail markets of the developed world, where the first mover advantages of the pure players of the dot.com boom in 1997-2000 have gradually been undermined by the migration of traditional retailers into cyberspace and the growth of a bricks-and-clicks strategy.

The subsequent discussion of the impact of e-commerce upon the retail TNCs highlighted five conceptual themes for debate, centred mainly on B2C e-commerce (or e-tailing). First, I examined the potential need for the retail TNCs to restructure their logistical systems in order to accommodate the unique fulfilment requirements of e-tailing – an issue which is even more complex when grocery products are involved. The debate revolved around the relative advantages and disadvantages of store-based versus warehouse-based fulfilment. Second, I then examined the spatial and regulatory implications of virtual commodities for the retail TNCs. In particular, distribution of such goods over the Internet theoretically threatens the disintermediation of retail channels, yet, paradoxically, is also requiring retailers to work more closely with cultural producers to protect the intellectual property rights embedded within digital products. Third, I contended that the Internet is unlikely to facilitate a purely virtual paradigm for market-entry. Rather, the Internet is likely to supplement existing modes of entry into new markets, as the multi-channel approach adopted by Tesco illustrates. Moreover, the display of the web store remains bound by 'real-world' geographical considerations. Fourth, I considered in more detail the nature of the virtual retail format. The web store has presented the retail TNCs with an extremely novel space of display, which is generating massive volumes of strategic market knowledge on a daily or even hourly basis. Crucially, the web store facilitates an unprecedented level of flexibility in retail display, allowing the product selection, store structure and marketing strategy to be customised to individual consumers across international markets (see Currah, 2002b). Fifth, I evaluated the potential of B2B e-commerce to open up opportunities for global sourcing. Despite the cost-savings available to retailers through electronic marketplaces and reverse auctions, there are many uncertainties associated with the use of B2B and, as yet, there is no real evidence that B2B arenas are actually conducive to sourcing on a truly global scale.

To recap, the final chapter to the thesis makes an important contribution to the small but growing literature on space and e-commerce (*e.g.* Aoyama, 2001a; 2001b; Currah, 2002a; Murphy, 2002a; 2002b). With the scale and experience to develop a robust multi-channel organisational paradigm, the retail TNCs will surely be a prominent feature in future economic geography research into the evolution of e-commerce in both physical and virtual space.

POSTLUDE

To conclude, I discuss one final area that the thesis has not been able to examine in any detail – the impact of 'virtual' management knowledge upon the organisational behaviour of the retail TNCs in the global economy. The ways in which these retailers are learning to innovate as global operators is not only governed by their own complex structure and intangible competencies, but also by the 'multivocality' of what Callon *et al.* (2002) have termed 'hybrid forums'. The organisation and functioning of markets are increasingly shaped by discussions and debates between multiple actors, including corporate elites, political elites, the public, management consultants, business school gurus, equity analysts, and academics. So, the retail TNCs, like any other type of globalising business, are in constant dialogue with these actors as part of a broader process of experimentation, contestation, learning and innovation with corporate strategies and management techniques. This is arguably yet another manifestation of the 'reflexive modernisation' of social and economic life (Lash, 1999).

In the retailing sector, businesses have voraciously consumed the 'new organisational paradigms' packaged by management consultants (*e.g.* Accenture, Boston Consulting Group, Forrester) as normative solutions to various strategic challenges, from knowledge sharing to multi-channel selling. This is another indication of '*virtualism*' – a scenario whereby "the economy is increasingly forced to change itself in order to match the descriptions of abstracted models that are produced by academic economists" (Miller, 2000b: 201). However, the management consultant clearly does not exert a hegemonic influence over economic processes. The future evolutionary trajectories of the retail TNCs' learning processes and innovative behaviour – and related to this, which members of the elite will be able to position themselves as the corporate parents of the emerging mega-groupings – will ultimately be determined by the dialectical interplay between 'knowledge' (across intra-firm, inter-firm and extra-firm networks) and the unique 'embeddedness' of each company in the markets where it operates. Overall, much more work is required before we can begin to develop a firm conceptual understanding of the retail TNCs. The globalisation of retail capital surely provides one of the key themes for a 'new economic geography' worthy of its name (Wrigley, 2000a: 311).

Appendix I

Wrigley, N., Lowe, M.S. and Currah, A.D. (2002) Progress report 2: retailing and e-tailing. *Urban Geography* (23) in press.

INTRODUCTION

As geographers responded during the 1990s to the ever increasing interest, across a wide range of disciplines, in cultures of consumption and the consumption spaces of retail capital, curious differences began to emerge between those based in the USA and those based in Europe (particularly the UK). In the UK, by the end of the decade, most human geographers had little difficulty subscribing to the suggestion of Ritzer and Slater (2001, p.7) in their introduction to the newly launched *Journal of Consumer Culture* that not only had interest in these topics

> 'flourished in an astonishing range of disciplines, but that it has also provided a remarkably fertile ground on which to break down disciplinary boundaries ... [bringing] into dialogue virtually every intellectual area that is concerned with cultural, economic, and political production and reproduction of social life, from sociology, anthropology, cultural studies, economics and geography through humanities disciplines such as history and literature'.

In the USA, in contrast, and with some notable exceptions - Jon Goss, Nick Blomley, Mona Domosh - there was little sense of the same 'bringing into dialogue' human geography with other disciplines around a shared focus on consumption. US economic geography in the 1990s (and with notable exceptions such as the work of Erica Schoenberger) still had a broad 'productivist' bias, and in the resurgent cultural geography, the practices and spaces of consumer culture were surprisingly little explored. In particular, the consumption spaces of retail capital that fascinated a growing number of UK geographers (and particularly their students) were treated with neglect, even disdain.

So it was, as we discussed in our previous report (and as Gregson (1995) had noted with reference to the 1994 AAG Conference), that European (particularly UK) based geographers took up much of the running in developing the collaborations and fostering the cross-disciplinary impact of geographical research on the consumption spaces of retail capital in the late 1990s (see Miller et al 1998, Jackson et al 2000, and the reviews of Crewe, 2000, 2001; Lowe and Wrigley 2000, and Wrigley and Lowe 1996, 2002). Note for example how sociologist Don Slater in reviewing work on 'Cultures of Consumption' in the *Handbook of Cultural Geography* (Anderson et al, 2002) draws attention to the way work on retailing and shopping has constituted the most decisive site for the conjunction of geography and consumption studies and, in particular, how

> 'what became known in the mid-1990s as the 'new retail geography' ... sought to evade both the productivist and culturalist extremes ... correctly recognized retail as a primary site on which one could and indeed had to connect political economy and cultural process ... [and] cleared the path for new strategies of empirical engagement' (Slater, 2002)

Similarly, note how cultural anthropologist Danny Miller in his *Dialectics of Shopping* (2001) positions his chapter on the dialectics of political economy in terms of an engagement with that 'new retail geography'.

However, by the early years of the new century, there was one area of study - the implications of the emergent e-commerce for the geography of consumption - which seemed set to alter this divergence between US and UK geography. The information and communication technology explosion and the e-commerce boom of the late 1990s were rooted in the US economy. Not surprisingly, US human geographers moved rapidly to explore what Leinbach and Brunn (2001) refer to as the 'Worlds of E-Commerce'. But, curiously, as that work emerged it too developed productivist tendencies. As a result, if only by default to resist notions of the development of 'weightless economies' (Quah, 1997) and to argue that the Internet certainly does not imply the 'end of geography' (Malecki and Gorman, 2001), there was greater focus on the architecture of the new electronic spaces (Taylor, 1997; Brunn and Dodge, 2001), on the physical structure and connectivity of the Internet (Warf, 2001; Zook, 2001), on the role of cities as 'switching centres' within a network-based economy (Townsend, 2001; Wheeler et al, 2000), and on the potential of Internet-based technologies to both eliminate and generate places of economic agglomeration (Leamer and Storper, 2001; Zook, 2000) than there was on the consumption transformations implied by B2C (business-to-consumer) e-commerce. In particular, and with the exception of the work of Aoyama (2001a, 2001b), the organizational and spatial responses of retail capital in the age of e-commerce remained a neglected area in these debates amongst US geographers, and the implications of the rapid rise and fall of the pure-play dot.com retailers in the US passed almost without comment.

Our purpose in this second progress report is to fill in some of these gaps. We consider the rise, promise and crisis of e-tailing - exploring issues of disintermediation, fulfilment and reintermediation, and noting how 'multi-channel' organizational structures have rapidly permeated retail markets. In particular, we outline emerging research themes - ranging from globalization and e-tailing to new spaces of Internet consumption - which we hope will serve to tie debate about the evolution of retail and its consumption spaces more firmly than before into geographical debate on e-commerce, virtual geographies (Crang et al, 1999; Kitchin, 1998), and the networked 'e-conomy' (Pratt, 2000).

THE RISE AND PROMISE OF ELECTRONIC NON-STORE RETAILING

Estimates of B2C e-commerce sales in the USA by leading Internet consultancy Forrester Research place them at about $4.6 billion in 1998 - that is to say a minute share (around 0.2%) of total retail sales in that year of $2.7 trillion. However, forecasts by Forrester suggested a 75% compound annual growth rate in those sales to around $76 billion (or approximately 3% of total retail sales) by 2003. And, in Europe, similar forecasts were being made with B2C e-commerce predicted to rise in the EU countries from around $1.9 billion in 1998 to $48 billion (or 2% of total retail sales) by 2002 (IRC quoted in Deutsche Bank, 2000).

Disintermediation and Reintermediation

Despite remaining, even on the most optimistic of these forecasts, a relatively tiny proportion of retail sales in the early 21st Century, the potential of e-commerce to reshape the retail landscape was, by the late 1990s, clear both in the exponential nature of its forecast growth and in the threat which it posed to the existing basis of competitive advantage in retailing. Christensen and Tedlow (2000) - see also Bower and Christensen (1995), Christensen (1997), Dhillon et al (2001) - conceptualized that threat as being one of a *disruptive technology* offering innovative companies the opportunity to create new business models which altered the economics of the industry. But, more generally, the threat of e-commerce was seen to 'stem from its ability to lower barriers to entry and to short-circuit existing product and service chains (disintermediation)' (ABN-AMRO, 1999, 3). *Disintermediation*, in particular, was seen as leading to a circumvention and deconstruction of the value chains of traditional retailing (see Gereffi, 2001a, 2001b). Suddenly firms had the credible option of being able to reach national and global consumer markets without the need to establish a significant 'physical' presence and to incur the fixed and sunk costs implied (albeit that they would often attempt to create, via the launch of dedicated national sites, *Amazon.co.uk* etc, the illusion of being firmly anchored in a specific physical space – Li et al, 2001). Pure-play B2C 'e-tailers' like *Amazon.com* emerged and appeared to have spectacular prospects whilst some existing retailers (e.g. *Egghead.com*) closed their store base and migrated their entire business to the Net. Not surprisingly many geographers took the view that, in providing 'the ultimate technology for shortening channels of distribution between the supplier and the consumer', the Internet was likely to create new lead firms 'committed to the new technology in a way that firms pre-dating the technology can never be' (Jones and Biasiotto, 1999, p.77-8).

But the threat to existing retailers came not only from B2C e-tailers but also from emerging C2B e-tailers. It soon became clear that disintermediation was being accompanied by *reintermediation* (the creation of new intermediary functions in the distribution channels). In particular, a new breed of Web-based intermediary - the so-called *infomediary* (see Figure 1 and Bailey and Bakos, 1997; Sarkar et al, 1998; Scott, 2000; Watson et al, 1998) - emerged between the retailer and the consumer. In their simplest form, infomediaries operated as 'consumer champions' empowering consumers by providing the information (product specification, price, availability, and retailer-reliability assessments, etc.) needed to make fully-informed purchasing decisions. But, in addition, as the virtual retail landscape continued to expand in an explosive fashion, accompanied by the tendency towards 'hyperarchy' (Evans and Wurster, 1999) brought about by disintermediation, infomediaries were seen to be playing an increasingly vital role for consumers facing 'cybernetic' or informational overload (Huang, 2000; Kwan, 2001) in their connections with B2C e-tailers. In the process, infomediaries had the opportunity to wrestle 'ownership' of the consumer away from both retailers and pure-play B2C e-tailers and, in turn could exploit that ownership to become what have been termed C2B e-tailers - that is to say e-tailers who assume no inventory risk and whose profitability is dependent on making a commission on the transaction from either the buyer or the seller. Other closely related forms of C2B e-tailing could also be seen to be emerging - including the 'consumer aggregation' model of firms such as *Letsbuyit.com* and the 'name your price'/auction type model developed by *Priceline.com.*

The Potential of New Virtual Landscapes of Display

On the 'electronic frontier' (Batty and Barr, 1994) retail space began to be displayed in novel ways to attract the empowered consumer (Currah, 2002a). The web store not only had the capacity to stock a seemingly infinite selection of goods, but it also provided a dynamic space of consumption which could be updated in real-time according to changing levels of supply and demand (Kenney and Curry, 2001) and displayed according to customised preferences. In the process, it had the potential to foster unique forms of engagement with the consumer.

The virtual landscapes of the web store could be engineered across the principal 'experiential realms' (Pine and Gilmore, 1999) to entice and retain the web surfer (Miller, 2000). For example, entertainment features such as web-cast concerts, streamed videos or sound bites could be deployed to passively absorb the consumer, whilst live web-cams or on-line chat rooms could be deployed to immerse the consumer, as an active participant, within the landscapes of display, in the process enmeshing him/her into a 'virtual community' united by mutual consumer interests (Hagel and Armstrong, 1997; Kozinets, 1999; Balasubramanian and Mahajan, 2001). Tensions existed, however, between proponents of minimalism and sophistication in the display of the virtual retail landscape (Burke, 1998; Hoque and Lohse, 1999; Chau et al 2000; Yoo and Kim, 2000; Griffith et al, 2001). The web store sought to entrap the consumers' attention in innovative ways, but complex technologies also deterred consumers by reducing the speed of the site over home modems (Dodge and Kitchin, 2001). E-tailers soon began to learn that this tension could be resolved, exploiting the inherent interactivity of the Internet, by tailoring the geography of display to individual preferences. The behavioural patterns of the electronic consumer could be monitored in real-time to simulate personal profiles (Leyshon and Thrift, 1999; Reynolds, 2000; Rowley and Slack, 2001) which could then be updated after every visit to the web store by implanting 'cookie' files upon the user's hard disk (Graham, 1998).

And so, as the 1990s came to a close and imbued with a vision of what Gereffi (2001b, 1618) termed 'the new digital era of globalization ... characterized by a dramatic increase in connectivity that is melting the informational glue that holds corporations and global value chains together' the disruptive potential of e-tailing appeared to many to be enormous. As Murphy (2002) discusses:

> 'Market reaction to the Initial Public Offering (IPO) in November 1999 of Webvan, a start-up 'pure play' online grocer was stunning. At one part of the day the company – at the time only operating out of one centre in San Francisco – was worth in excess of US $8 billion, making it the equal of K-Mart (with over 2000 superstores). With George Shaheen at the helm, previously the head of Anderson Consulting, and a surprise capture by Webvan, it attracted more than $800 mill in total venture and private capital funding and announced ambitious plans for expansion: to be in 26 markets within two years with a $1 bill investment programme'.

Nevertheless, as Ring and Tigert (2001, 266) note: 'lost in the late dot.com euphoria were some ominous signs of trouble'.

THE CRISIS OF E-TAILING

The spectacular stock market valuations generated by the dot.com start ups between 1999 and 2000 reflected in part, the confidence of capital markets in the ability of e-tailing to 'rewrite the rules of organization, providing significant first-mover advantages to those firms in the vanguard of its development' (Leyshon, 2001, 56).

But, with the benefit of hindsight, we now know that to have been a very small part. The greater part of those valuations reflected the hysteria of the tech stock/dot.com bubble – now the focus of investor litigation against its most prominent investment bank orchestrators. The crisis of e-tailing reflected, in simple terms, the testing of the robustness of the purported 'revolutionary' business models of the pure-play operators against a reality in which the enthusiasm of capital markets to subsidize start-up losses abruptly disappeared.

The case of Webvan is emblematic. 'Its stock price sank progressively through 2000, even as the company ramped up expansion plans, including the acquisition in mid-2000 of its largest competitor ... By early 2001, with a stock price below $1, it was warned of pending de-listing from the NASDAQ stock market. In July 2001 it closed shop' (Murphy, 2002) becoming the 'Internet era's equivalent of 'Waterworld' or the Hindenberg dirigible: a disaster so epic that it becomes an American legend' (Anders, 1999 quoted in Murphy, 2002). So what went wrong with the business models of the pure-play e-tailers?

Fulfilment

Potential flaws in the pure-play e-tailer business models were well rehearsed in the late 1990s even as their IPOs were being rapturously received by enthusiastic capital markets. Rosen and Howard (2000, 80) list these rather baldly as: 'the logistics burden, cost of start-up and marketing, site differentiation, disintermediation, technology, tactility and socialization, loss of sales-tax advantage, operational flexibility, and consumer privacy'.

Sociality and tactility lie at the heart of a miscalculation by some pure-play e-tailers regarding the types of goods and sectors in which they could realistically hope to sustain competitive advantage over traditional store-based retailers, and we deal with these issues below. The logistics burden relates to the fundamental issue of 'fulfilment' which, in turn, exposes what Ring and Tigert (2001) term the 'killer costs' of the pure-play e-tailers (with the exception of those involved in distributing electronic 'immaterial' products of which more below).

As Wrigley (2000, 309) noted 'e-commerce remains bound by geography to a far greater extent than is often suggested ... an infrastructure to distribute products ordered via the Internet is essential – one which is of necessity place-bound and expensive to operate involving specialized logistics and the creation of a network of fulfilment centres'. Indeed, as analysts at Merrill Lynch (1999, 125) observed in the late 1990s:

> 'Fulfilment is very expensive. So expensive in fact that it is one of the major reasons why the catalogue industry, whose genesis goes back to the late 1800s ... only generates about $55 billion today or 9% of total US general merchandise retail sales. Fulfilment costs keep catalogue prices from being significantly different than prices at bricks and mortar retailers'.

In particular, as Ring and Tigert (2001) suggest, the two killer costs facing the pure-play e-tailers are the picking costs and the delivery. Both these operating expenses are effectively zero for the traditional store-based retailers but are high and, most importantly, *variable* for the e-tailer. That is to say, unlike many of the store-based retailer's fixed costs (buildings, fixtures and fittings, IT systems, etc.) which remain fairly constant as sales volume increase, picking and delivery costs continue to increase for the e-tailer. Finding ways to reduce these fulfilment costs per order was, therefore, critical to the success of the business models of the pure-play e-tailers as, by extension, was the issue of handling and containing the costs of dealing with the return and/or exchange of goods.

In the absence of the extensive store networks of the traditional retailers (which ironically offered major advantages in terms of the distribution and return/exchange fulfilment problems of e-commerce), the pure-play e-tailers essentially had to follow *Amazon.com* and operate variants of a warehouse-based distribution model. But the numbers and locations of warehouses required was fundamentally related to the nature/perishability of the products being distributed, and to the size and density of the markets being served. In many cases, and spectacularly in the case of Webvan's model of 300,000 sq. ft, $25-$40 million, automated-picking warehouses supporting hub and spoke distribution systems, this implied significant up-front capitalization requirements and the burden of supporting the costs of that capital alongside other significant operating expense obstacles associated with start-up – for example, systems costs of building and maintaining the web site, heavy advertising and marketing costs to established name-recognition of the web site, etc. Rosen and Howard's (2000, 81) suggestion that 'large virtual retail operation is expensive short-term and unproven long-term' proved to be an apposite summary for many of the pure-play e-tailers, particularly when set against a background in which forecast market demand for e-tailing rose much less spectacularly (for reasons relating to the cost of delivery, technology–failure frustration, privacy and security issues, etc) than some of the forecasts of the late 1990s had suggested. Indeed as Currah (2002b) notes, beneath the theoretical allure of innovative consumption operating through electronic space, the fulfilment problems of e-tailing ensured that 'behind the web store' geographies of e-tailing were of necessity far less racy than they first appeared.

Sociality, Tactility and Sectors of Competitive Advantage

Leaving to one side the particular case of what we will later term virtual or electronic products which can be 'sought out, transacted, transported and consumed' entirely within the electronic space of the Internet (Li et al, 2001, 711), it has long been recognized that the more standardised and branded the product the more likely it is to be amenable to arms-length retailing. The history of catalogue retailing (Schlereth, 1989, Wrigley and Lowe, 2002) suggests, however, that tactility and sociality remain vitally important issues

> 'Catalogue companies do not give you instant gratification of being able to take the item home when you purchase it. Nor do they enable you to touch, feel or wear the item before you buy it ... limitations (which) also apply to most e-commerce operations' (Merrill Lynch, 1999, 125).

As such, 'purchasing through the web may be convenient for certain product types, but it can also be isolating, unsatisfying and boring' (Rosen and Howard, 2000, 83). Recognizing this, e-tailers have sought in ever more creative ways to engineer sociality and tactility into their web stores enmeshing, as we noted above, the consumer into 'virtual communities' united by mutual consumption issues. Nevertheless, particular sectors of the retail industry would appear intrinsically to offer e-tailers greater potential for establishing and sustaining competitive advantage and this was rapidly borne out in the late 1990s as e-tailers began to capture an important share (between 2 and 9 per cent) of the music, video, book and computer software/hardware markets in the USA. Indeed, forecasts by Jupiter Research (reported in Deutsche Bank, 2000) suggested that on-line sales in these sectors might rise into the 10-30 per cent range by 2002 but that, in contrast, penetration levels in the food and clothing markets, where assessment of quality variation by consumer inspection and touch were far more important, would struggle to reach 1 to 1.5 per cent. At least some of the crisis of the pure-play e-tailers reflected, therefore, a misconceived over-confidence in their ability to reverse in such sectors and across more than certain niche consumer segments the entrenched advantages of store-based retailing.

Bricks and Clicks – The Formulae for Survival

But pure-play e-tailers also faced a more proactive challenge from store-based retailing – namely the ability of traditional retailers to migrate part of their business on-line and to remodel themselves in a multi-channel organizational form as 'bricks and clicks' retailers. Relative to the pure-play e-tailers who were struggling to achieve profitability because of the burden of heavy start-up costs, the problems of fulfilment, and the challenges and scale-requirements of the buying process and inventory control, the major store-based retailers held considerable competitive advantage. They had the warehouse infrastructures, supply-chain and inventory systems, distribution systems, customer-support centres and product-return networks already in place, and could seek to leverage those investments and their economies of scale (not least in the buying process) by adding e-commerce operations to their existing businesses. In particular, as Tesco (the leading UK food retailer) demonstrated in becoming the world's largest on-line grocer by 2000, it was possible to do that in a profitable way by learning from and avoiding the heavy start-up losses that the first movers into e-commerce had incurred. Not only was it able to exploit its existing customer franchise, thus avoiding the need to invest the huge sums required of the pure-play e-tailers to establish name-recognition/brand-identity (Brynjolfsson and Smith, 2000; Lindstrom, 2001; Reynolds, 2000), but it could also leverage its existing assets by adopting a low-tech, low-cost store-based 'picking' and distribution method. This it did rapidly and successfully, rolling out its Tesco.com service across its UK store network (Gurau et al, 2001; Jones, 2001). It then invested in a joint venture with Safeway in the USA – a firm similarly intent on not over capitalizing its Internet offering – to develop a comparable service (launched in early 2002) ultimately to be expanded across Safeway's much larger ($35 bill p.a.) store base.

As the pure-play e-tailers crashed into bankruptcy during 2000/201 and were absorbed, like Peapod the oldest on-line food retailer in the US, into the lower-cost/higher-return models of the global store-based retailers (Wrigley, 2002), so the 'bricks and clicks' retailer (Gulati and Garino, 2000) became the motif of the 'new commercial realities' (Dawson, 2001, p.291). Store-based retailers used e-commerce as part of a dual strategy in which the new electronic channels to market served 'both to extend and protect their customer franchise and markets, and also to drive additional customers into their existing store networks' (Wrigley, 2000, p.311). In the process they experimented with a wide range of strategies to incorporate a multi-channel format into their existing organizational structure. Although these strategies and the challenges facing the multi-channel firm are attracting considerable interest across a range of disciplines (Boston Consulting 1999, 2000; Fraser et al, 2000; Gulati and Garino, 2000; Hart et al, 2000; Lindstrom, 2001; Mahadevan, 2000; Maruca, 1999; Sauer and Burton, 1999; Timacheff and Rand, 2001) geographical research on multi-channel retailing is as yet, in its infancy. There remains a clear need for grounded but theoretically contextualized studies which investigate how incumbent retailers across a range of sectors are absorbing the challenge of e-commerce (Currah, 2002b; Murphy, 2002; Wood, 2001).

EMERGING RESEARCH THEMES

The maxim that the impacts of fundamental changes brought on by technology are often *overestimated* in the short-term but *underestimated* in the long-term must clearly be borne in mind when evaluating the rise and crisis of e-tailing. Despite the collapse of so many of the pure-play start-ups, global Internet usage continues to increase in spectacular fashion and consumer acceptance of on-line shopping continues gradually to increase (Christmas 2001 on-line trading in the USA is reported as being particularly strong). We conclude our report, therefore, by outlining four themes which we see as vital in tying research on the evolution of retailing and its consumption spaces into wider debates in the social sciences on electronic space and place, the networked 'e-conomy', and the digital era of globalization.

Virtual Products

E-tailing involves material *and* immaterial products (Verhoest et al, 1999). Material items can be purchased electronically but, as we discussed above, a physical fulfilment infrastructure is required to deliver the product to the consumer. 'In contrast, those goods and services that are [digital] in nature ... can be sought out, transacted, transported and consumed all within the electronic space' of the Internet, through direct delivery to the computer user's hard disk (Li et al, 2001, p.711). Products generated from textual, musical or visual data can now be digitalized, compressed, then distributed through the Internet in the format of 'e-books', 'MP3' music, and 'DivX' movies (Altinkemer and Bandyopadhyay, 2000; Birchall, 2000; Currah, 2002c; T. Green, 2001; Hedtke, 1999; Kahin and Varian, 2000; Leyshon, 2001; Merriden, 2001; Ronte, 2000).

Virtual products raise some important conceptual themes for debate within the 'new retail geography'. First, digital delivery threatens the disintermediation of e-tailers (Leyshon, 2001). The online distribution and sale of virtual products is likely to facilitate direct engagement between cultural producers (publishers, recording companies, or motion picture studios for example) and consumers. There is already evidence of this trend in the motion picture industry. In autumn 2001, the major studios announced the launch of Internet-based video-on-demand services to deliver digital film content to broadband computer users. However, e-tailers are also equipped to exploit the commercial possibilities of virtual products and offer a widening selection of e-books and MP3 music albums or singles.

Second, the virtual product reinforces the globalizing logic of e-tailing, theoretically removing the need for a physical corporate presence in order to deliver digital content to foreign markets (Yip, 2000). However, such a virtual organizational paradigm seems unlikely for at least two reasons: the multi-channel organization has various competitive strengths in the global arena; and the fundamental appeal of books, music albums, and VHS or DVD video formats, as material collectibles, seems unlikely to disappear in the wake of digital formats. Nonetheless, the ongoing diffusion of broadband Internet services throughout the developed world suggests that the international market for virtual products has considerable potential for growth.

Third, the Internet is clearly a regulatory frontier, where software formats may be subverted by electronic piracy through 'peer-to-peer' computer connections (Leyshon, 2000; Mardesich, 1999; Merriden, 2001; Viant, 2001). The advent of digital distribution will require both cultural producers and e-tailers to collaborate in the implementation of a technological and regulatory regime designed to preserve the intellectual property rights embedded within virtual (informational) products (Leyshon, 2001).

Regulation

The dilemmas surrounding virtual products crystallize the multidimensional complexities of regulatory space under a regime of digital or weightless capitalism (Schiller, 1999; Tapscott, 1997; Coyle, 1997) but, as yet, the regulatory aspects of e-tailing are poorly understood. As part of a wider theoretical agenda for critical urban research in the Internet age, Graham, (2001), however, identifies an emerging trend on the regulatory landscape of e-tailing: the re-configuration of peripheral, isolated and ultra-secure locations (from offshore island states, through disused sea forts, to old cold-war intercontinental ballistic missile silos) into what Sassen (1997, p.11) terms 'firewalled' spaces that can both store the web servers of e-commerce companies in complete safety from hackers and offer lower operating costs and minimal taxation liabilities.

Indeed, Internet taxation is a particularly compelling theme for future research. E-tailers 'are learning to use the Internet to avoid taxation by redefining the point of sale and moving it towards the jurisdiction' that offers the most appealing regulatory environment (Li et al, 2001, p.712; Roche, 1998), though Internet taxation itself threatens a reduction in the level of e-tail activity (Goolsbee, 2000; von Mecklenburg, 1999). As a result, since 1998, the US federal government has placed a moratorium on the taxation of e-commerce until the exact implications of such regulation are more fully understood (Nesbary, 2000; Geewax, 2001).

As an electronic frontier, the Internet promises to stimulate a radical re-thinking of traditional conceptions of governmentality and regulation. Cross-border co-operation, such as the recent accord signed between Canada and the United Kingdom (Enos, 2001), will be required to integrate nationally divergent bureaucratic and legal structures that may otherwise impede the growth potential of truly globalized e-tailing. However, e-tailing will clearly evolve along a spectrum of spatial scales from the global to the local. Its evolution is also actively being shaped by local place-based cultural and economic practices of consumption. And, as we now show it is this scale that e-tailing is carving out an interesting array of new forms of sociality and physical spaces of consumption.

New Socialities and Spaces of Internet Consumption

As noted above, the potential of the Internet as an electronic landscape of consumption remains constrained by the fundamental important of sociality to the consumption process. However, it is clear that new forms of sociality *are* emerging associated with Internet consumption. The key here is to consider consumption over the Net (as elsewhere) as a *process* as opposed to an isolated act of purchase (Miller, 1998), to view Internet consumption as far more than a click of a button. Although the Internet is unable to replicate the embodied sociality of the traditional retail environment, 'online interactions are becoming an important *supplement* to social and consumption behaviour' (Kozinets, 1999, p.253) enabling retailers to interact with customers in novel ways and generating 'electronic tribes' or 'virtual communities'.

In their simplest forms the emerging socialites of Internet consumption are illustrated in the possibilities for social and community interaction generated by web-based events, discussion groups, clubs and so on organized around retail web sites. At *Amazon.com*, for example, the company has long promoted an active involvement by its customers 'beyond simply spending money' (Dodge, 2001. p.171) – writing and posting short book reviews on the web site, etc. In a more sophisticated fashion, however, and paralleling the sociality generated by traditional catalogue shopping, in what Clarke (1997) terms 'window shopping at home', it is possible to view virtual shopping as an electronically revamped model of this traditional form of selling supplemented by ever more sophisticated displays available in the electronic stores and the possibilities of real-time interaction with staff. Indeed, an important emerging research area focuses on the work practices of staff in these circumstances and the nature of these interactions in 'virtual' consumption (N. Green, 2001).

These new socialities have both generated and been generated by new spaces of Internet consumption. A huge expansion of Internet cafés has taken place often in traditional shopping areas. Previously underutilized spaces in outmoded shopping malls and in often peripheral city centre locations have been revamped and rejuvenated as a physical expression of the Internet landscape. Here, the consumption of the machine (for e-mail/surfing the Net) often takes place alongside the consumption of food and drink (Wakeford, 1999) and, like their more 'traditional' coffee bar equivalents (Smith, 1996), Internet cafés have become important spaces to 'hang out' in town centres and shopping malls. Miller and Slater (2000) for example, reporting their ethnographic work in Trinidad, find that cybercafés are frequented by regulars, some of whom spend very little time actually online. Rather, a range of socialities are generated in these informal and convivial spaces where 'on- and offline worlds merge in interesting ways' (Miller and Slater, 2000, 73).

Another novel consumption space which has emerged in certain traditional shopping environments are the specialized collection 'stores' associated with the pick-up of goods ordered over the Internet. Currah (2002b) documents the fascinating case of the *Empori.com* outlets in Toronto that were established to act as convenient pick-up points for people working in downtown Toronto. Launched in August 2000, *Empori.com* provided a pioneering distribution service. At Internet checkout, consumers were given the option of delivery to any one of seven *Empori* outlets. On arrival at the outlet, customers used their credit card to access their on-line order from a secure locker. Although now defunct, the *Empori.com* case provides an interesting example of the way in which the re-intermediation associated with e-commerce translates into physical space.

Globalization and E-Tailing

Finally, reverting to the global scale, an important research question is the extent to which 'the economic geographies of globalizing retail capital which developed in the late 1990s are likely to be destabilized by the emergence of … non-store electronic retailers' (Wrigley, 2000, p.308). E-commerce provides all retailers, regardless of size, with access to a global market in which material and immaterial (virtual) products can be purchased at any time from a single location – in the latter case, as we noted above, instantaneously deliverable across space to the consumer. E-tailing theoretically, therefore, radically lowers barriers to market entry (Reynolds, 2000) involving significantly reduced levels of capital outlay in comparison to the globalization of its bricks and mortar equivalent. In principle, as Saskia Sassen (1997, p.13) notes:

> 'Electronic space has emerged not simply as a means of transmitting information, but as a major new theatre for capital accumulation and the operations of global capital'.

However, in practice, the threat of pure-play e-tailers to the leading retail transnational corporations (TNCs) has so far proved negligible. The rapidly expanding retail TNCs are actively integrating e-tailing into their established corporate structures, leveraging logistics systems, scale-related buying power, and store networks, to exploit the commercial opportunities of e-commerce. Nevertheless, the emergence of multi-channel retailing in a global context raises some intriguing questions for future geographical research. For example, as a 'disruptive technology', how is e-tailing being positioned and managed within the corporate philosophy and organizational structures of the TNCs? In what ways are multi-channel retailers negotiating the differential routes to value creation in physical and electronic space, and what are the implications for the transfer of knowledge within the firm? What are the geographical contours of the globalizing multi-channel enterprise?

More generally, in spite of the globalizing dynamic and rhetoric of the Internet, highlighted by Sassen and Gereffi, e-tailing remains as yet remarkably embedded in physical space and constrained by geography. Not only is the virtual landscape of e-tailing fractured along cultural, ethnic, legal, linguistic, political and technical axes (Farhoomand et al, 2000; Steinfield and Klein, 1999; The Economist, 2001), with the display and selection of web stores largely reflecting the characteristics of a geographically defined consumer segment but also, within their web sites, e-tailers are obliged to deploy geographical narratives, suited to the unique spatiality of cyberspace, in order to situate their corporate identity within stylized representations of the global and local (Pritchard, 1999).

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