

## **LOGISTICAL PERFORMANCE IN THE FRENCH FOOD RETAILING INDUSTRY: TOWARDS A NEW TRADE-OFF BETWEEN COST AND SERVICE QUALITY?\***

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### **ABSTRACT**

The article examines developments in the French large food retailers' logistical systems and questions the validity of the conventional pattern where the maturation of logistical systems leads firms to grant priority to service quality, by continuously improving their performances in this area. The authors show that the French large food retailers have for some years developed a low price strategy together with a deliberate degradation of customer logistical services. There exist several analyses to explain this apparent paradox. First, it seems that service improvement is compatible with cost control in specific circumstances only, which prevailed in the 1990s and disappeared later on. Looking at competition also shows that the pressure from hard discounters played an important part. Finally, the use of McNair's (1957) wheel of retailing theory and its adaptation to the logistical field enable the authors to apply general rules to the phenomena today observed in France.

Key Words: Logistical services, French food retailing, hard discount format, wheel of retailing theory.

### **1. INTRODUCTION**

Since their emergence, at the turn of the 1970s, and their inevitable ascension in the 1980s and the 1990s, the major food retailing firms in Europe and in the United States have become aware of the importance of an efficient logistics

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(supply chain) management in the development of a sustainable competitive advantage (Harrison and van Hoek, 2005). This is not really surprising. In a business context shaped by ever increasingly fierce competition, organizations, like individuals, must constantly excel or sink. Logistical management does not escape the trend and logisticians frequently point out how essential it is for their firms to continuously improve their performance in supply chain operations. In their view, customer service is a key factor for achieving a better positioning in the strategic arena: having too frequent stock-outs along a supply chain means taking the (intolerable) risk of losing sales and of eventually seeing frustrated customers desert their stores.

Some research studies have reinforced this approach (for a recent summary, see Sparks and Fernie, 2004). They present the development of logistical systems as a linear sequential process which translates into a gradual improvement of service quality in the hope of winning the loyalty of customers who are increasingly reactive to stock-outs in store, and also to a discount strategy for convenience goods. At first, large food retailers left the task of ensuring direct delivery to stores to manufacturers and wholesalers. Then, they developed transit through regional distribution centers (RDCs) to reduce costs thanks to economies of scale. Finally, information systems became the backbone of the re-assortment system to improve service and reactivity, particularly to spread systems of efficient consumer response, which correspond perfectly to variations in demand (Paché and Colin, 2001).

However, the rise of new retail formats, low price oriented rather than service oriented, seems to question the quest for logistical excellence. This questioning should not be underestimated as the partisans of new retail formats are not the only ones to depart from the conventional pattern. For a number of years in France, some large food retailers have been paradoxically adopting a process of deliberate degradation of logistical services. For groups such as Carrefour, Auchan or Casino, following Wal-Mart's strategy in the United States, the issue is no longer to continuously improve the reactivity of the supply chain to reduce the level of stock-outs in store, but to invent less expensive solutions to develop a competitive advantage based on a return to a low price strategy: direct sales from pallets standing on the floor, reduction in the size of product assortments to cut down storage costs, multiplication of once-off promotional offers without worrying about the perfect availability of products, etc. Badot and Paché (2006) mention a "theatralization of low prices" in stores where deliberate disorder replaces the conventional logistical discipline.

How can it be explained that the patterns of permanent progression and linear evolution, generally admitted in the logistical field, are thus at variance with the large retailers' new practices? This exploratory contribution aims at explaining this apparent contradiction by examining the French case. The article first shows that the idea of continuous improvement of services relies on a superficial analysis of the trade-off between cost and service quality. It then continues by underlining the importance of a confrontation between retail

formats and analyzes the reversal of trends caused by the ascent of hard discount format in France. The deliberate degradation of customer services strategy adopted by firms such as Carrefour and Auchan thus becomes clear; it is not a deterioration but a return to sources imposed by the rise of logistical costs and the pressure of hard discount format. This development is analyzed in the light of some theoretical models, particularly McNair's (1957) wheel of retailing theory. The wheel of retailing theory, and its adaptation to the logistical field (Filser and Paché, 2006), can explain the evolution of behaviors observed in the French food retailing industry. While it is a major explanatory factor, McNair's (1957) model proves to be too rigid and linear; the article concludes by examining its limits and suggests new research approaches.

## **2. THE RISE AND FALL OF LOGISTICAL EXCELLENCE**

The quest for logistical excellence resulted in the 1990s in spectacular advances in retailing firm management. The ensuing improvement in service performance was first accompanied by a reduction of logistical costs. Later, two phenomena modified the situation. Costs rise exponentially when you try to improve an originally high service performance and the quest for excellence ends up by proving very expensive. The increase in costs was also reinforced after the turn of the mid-2000s by a reversal of trends in the oil market and the following continuous rise in fuel prices.

### **2.1. Balancing cost and service**

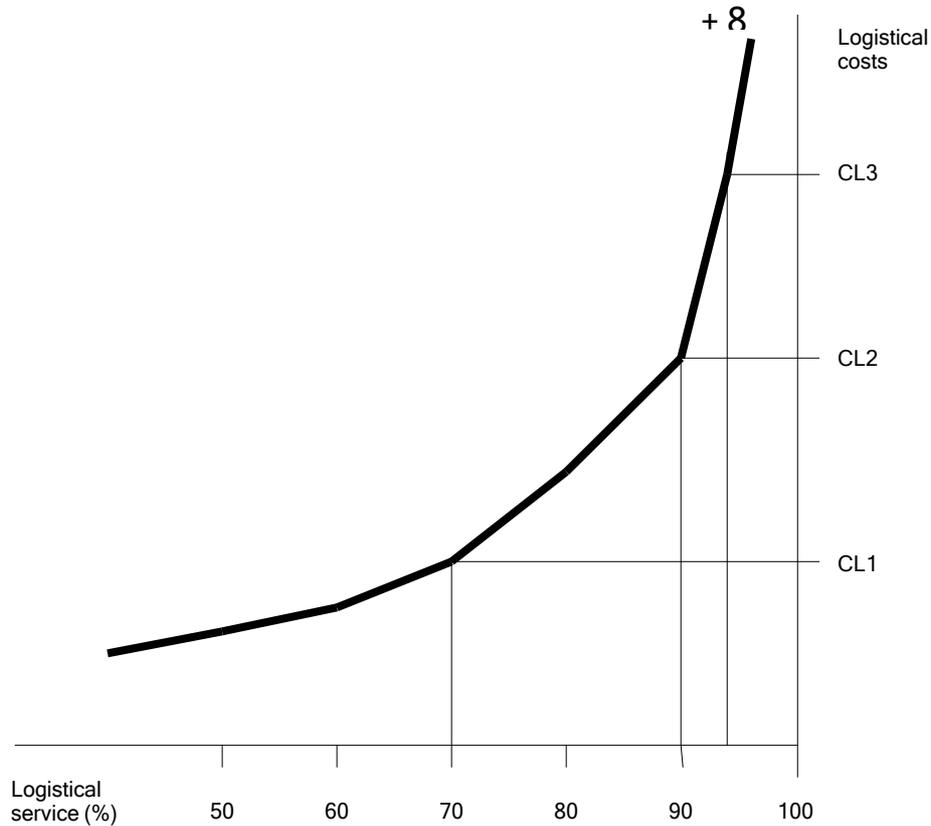
The control of logistical operations by the French large food retailers is now an undeniable managerial reality. Until the mid-1990s, firms like Carrefour or Leclerc remained timid and retained a major system of direct supply from their suppliers and/or indirect from wholesalers' warehouses. This is no longer the case, with the generalized implementation of more or less dense networks of RDCs, in own-account or managed by logistics service providers. Large retailers obtain significant advantages from them, as listed by McKinnon (1989): (1) increased power of negotiation for large retailers in relation to manufacturers, particularly in terms of discount; (2) increased productivity of retail operations, in store and in the distribution channel; (3) improved customer service, particularly thanks to a significant extension of the product assortment. Throughout the 1990s, the implementation of new management tools, such as vendor-managed inventory (VMI) and collaborative planning, forecasting and replenishment (CPFR), steadily progressed with the priority objective of increasing the level of logistical services and of reducing the number of stock-outs in store.

The purpose of these management tools is to obtain a better synchronization of flows along the distribution channel, by thoroughly involving large retailers and their suppliers in a shared supply chain strategy (Skjoett-Larsen, Thernøe and Andresen, 2003). Originally, the collecting of products into RDCs, before

dispatching them to stores, tried to achieve a triple level of performance: costs, service and reactivity. Under the pressure of increasingly demanding and inconstant consumers, the French large retailers finally favored the last two dimensions. This is particularly obvious when promotional operations are organized in store; the supplier's reactivity, that is his capacity to mobilize enough resources to deal with the increase in sales, has become a major criterion for measuring performance. This is what Lawson (2001) presents as the supremacy of a strategy based on operations management, whose main purpose is to create flexible and reactive logistics where the cost reduction aspect becomes secondary. But this is downplaying one of the central issues in logistical management: the ideal balance between cost, service and reactivity in function of environmental factors.

As shown in Figure 1, it is traditionally admitted that as a company tries to improve its level of customer service, logistical costs increase, for example storage and transportation costs; this increase is exponential when approaching the maximum (100%) level of logistical services. To make a logistical organization as reliable as possible requires increasing material and human resources to deal with any type of hazard (Paché and Sauvage, 2004). For example, to avoid stock-outs in store, it may be necessary to resort to expensive express transportation to correct within the day a mistake in order planning resulting in an incomplete delivery to the store earlier in the morning. Thus, increasing the level of customer service by 20%, increasing from 70% to 90%, will push logistical costs from LC1 level to LC2 level; but the difference between LC3 and LC2 is almost identical to the difference between LC2 and LC1 whereas the increase in the level of customer service is only by 5% (from 90% to 95%). It is easy to understand that degrading a level of customer service on purpose can very quickly lead to significant savings.

Figure 1- The link between the level of logistical services and logistical costs



## 2.2. A new economic context

Following investigations conducted in Europe by AT Kearney and ELA, some observers question the pertinence of this reasoning: between 1993 and 1998, the level of logistical services, assessed on the basis of reductions in timing, experienced an improvement of more than 60%, while logistical costs decreased by 40% (Paché and Sauvage, 2004). The reasons are well known: implementation of continuous quality improvement programs, high-performing information systems to facilitate operation management, advanced logistical cost control techniques, or long-term logistical planning. But if logistical costs dropped so drastically, this obviously means that manufacturing and retailing firms first made the most of their forcing transport firms into competition, as these carriers could reduce their prices thanks to a constant decrease in the real price of energy throughout the 1990s, without sacrificing the service quality offered to their customers.

Shouldn't we then conclude that the level of customer service and logistical costs can experience a significant improvement at the same time, which would question the link presented in Figure 1? The answer is yes if one refers to the trends of the past decade, but the logistical approach does not escape the pattern of diminishing returns. The reduction in logistical costs became very low in Europe as soon as the end of the 1990s (they declined from 7.2% to 6.3% between 1997 and 2000 according to the ELA survey), then marginal from the 2000s onward, with even a 14% increase in France between 2001 and 2003 according to the ASLOG survey. The rise in oil prices in 2005-2008 amplified the phenomenon, reminding us that the parenthesis of the 1990s originated in a specific business context.

The business environment, that has a direct impact on logistical organizations, is changing before our eyes. There will be a complete revision of company management methods, and more generally of human societies, something Georgescu-Roegen (1971/1999) anticipated quite early in reference to the entropy law without meeting with a specific response within the scientific community. The retailing industry relies completely on road transport to supply stores. In other words, it depends on the ups and downs in oil prices, in the absence of alternative and credible sources of energy. The parenthesis of the 1990s, when better logistical services could be offered with increasingly lower supply costs, basically relied on abundant and cheap energy. Such a context now belongs to the past, something some business and political observers are sometimes reluctant to admit.

Even if experts differ as to the exact date when it will occur, in the years to come, we are going to reach an oil peak before the daily conventional world oil production inexorably starts declining. This process will result in a continuous increase in fuel prices whose effects will probably be catastrophic for large retailers (transport costs represent more than 50% of their logistical costs, well above storage costs). It is still difficult to foresee today how the retailing industry will adapt to this irreversible mutation; several prospective studies on the subject are under way in Europe. During an undetermined period of transition, to maintain enough competition, it can be imagined that all possible solutions will be considered by large food retailers, particularly through a drastic policy of energy savings based on fewer trips to stores, even if this means degrading the level of service, and having customers accept that. The time has once more turned towards a fine arbitration in favor of the lowest possible logistical costs to attract consumers with low prices, even if this means making them discover the virtues of a low level of customer service (passing from level LC3 to level LC2 in Figure 1).

### **3. IMPACTS OF THE HARD DISCOUNT FORMAT ASCENT**

The changes brought about by French large food retailers to their strategy do not arise solely from difficulties due to the excessive rise in costs. They are also

due to a major break in the competitive dynamics of the retailing industry during the 1990s. At that time, hard discounters managed, at least in France, to attract a significant portion of consumers by proposing very competitive prices. Conventional large food retailers specialized in the hypermarket format were forced to react to this threat by fighting hard discounters on the battlefield of prices.

### 3.1. A major factor of rupture

The quick growth of hard discount format in France (and more generally in Europe) represents a major break in the dynamics of the food retailing industry. The hard discount format was born in post-war, devastated Germany at the initiative of the Albrecht brothers, creators of Aldi. Their wish was to propose food products to consumers in small-size stores, with a plain and very simple presentation. Hard discount format made its appearance in France only at the end of the 1970s, with the opening of the Ed stores belonging to the Carrefour Group. The Ed stores were then located around Paris, and on the model of the hard discount format invented by the Albrecht brothers, they offered a product assortment reduced to 550 references. The real birth of hard discount format in France was in fact the arrival of Aldi at Croix, near Lille, in 1988, followed by Lidl and Norma in 1989. A few French large food retailers managing hypermarkets and supermarkets reacted very quickly and opened their own hard discount stores (CDM then Netto for Intermarché, Le Mutant for the Coopératives de Normandie, Dia for Promodès then Carrefour), but the growth of the retail format depended essentially on the German hard discounters.

Throughout the 1990s, the hard discount format developed at an unrestrained pace, with an average of one store opening per day! At the same time, the opening of hypermarkets in France was slowed down by the Royer Act (1973) and then the Raffarin Act (1996), as the political objective was to give the illusion of a protecting single-unit independent stores ("corner shops") threatened with disappearance. The hypermarket format, the symbol of commercial revolution in France, is a "shopping factory" of imposing dimensions (a little over 5,000 m<sup>2</sup> in general, with stores sometimes larger than 15,000 m<sup>2</sup>), while hard discount stores, with their average of 600 to 700 m<sup>2</sup>, often escape from the provision of these laws, all the more so as they are often located in underprivileged areas. While authorizations to open hypermarkets have become scarce, authorizations to open hard discount stores have multiplied.

Since the beginning of the 2000s, the hard discount format has been the uncontested winner of household consumption changes. Buying convenience goods at a hard discounter's was perceived as shameful for a long time; this retail format was reserved for the poorer households, for whom hypermarkets and their high prices were becoming inaccessible. This is no longer the case. According to a study conducted by TNS Secodip, 67.7% of French households said they shopped regularly at a hard discounter's in 2005 (compared to 38% in 1998), and 9% of households said that a hard discounter was their main store.

According to the same study, from December 1992 to June 2005, household expenditure in hard discount stores increased from 1.6% to 13.4% of the total of purchases of convenience goods and fresh products. The reasons for this success are known: the stagnation of wages, massive unemployment among the young, a growing social exclusion, but also, paradoxically, the desire of the wealthy classes to save on convenience goods and spend their money instead on travel, sophisticated multi-media services (Internet access, mobile phones, etc.), or on entertainment, etc. As the hard discount format flourishes, the hypermarket format unavoidably suffers.

### **3.2. What have been the reactions from the hypermarket format?**

For more than thirty years, the hypermarket has been the retail format best symbolizing the international success of the “French exception,” that of a typical store stocking food and non-food products under the same roof. Although French consumers have become blasé faced with the diversity of the product assortment offered by a conventional hypermarket, foreign visitors are surprised. At least 30 to 40% of the sales area is dedicated to non-food products such as household appliances, jewelry, mobile phones, books and DVDs, PCs and printers, not to speak of gardening products. It is even possible sometimes to buy tickets for rock concerts or plays, to subscribe to an Internet operator, even to book a trip to the Caribbean for your next holidays. Each category of products is presented in a homogeneous little world of its own a “univers de consommation” (“consumer ecosystem”) whose polished decor and adapted merchandising create a pleasant and friendly atmosphere. For some observers, this is even a unique model whose success is explained by the fierce wish to offer a multitude of products and services to consumers, in a pleasant commercial environment transforming the shopping activity into a gratifying experience (Filser, 2001).

Of course, the rise of the hard discount format has deeply modified the rules of the game. It means that French consumers have finally accepted being “disenchanted” when they shop in plain, bare stores, offering a limited product assortment and few marketing customer services, if this enables them to get good bargains. Hypermarket managers understood this quickly, and even if hard discounters continue to gain market shares, the signs that they are running out of steam have been discernible since mid-2005. For example, the average sum spent during each visit has decreased for the first time in ten years (21.3 €). According to some observers, the current reversal is explained by the first effects of the counter-attack of hypermarkets developing their own low price private labels and, for some of them, launching a hard discount space directly in their stores (Auchan, Casino).

An interview given by the Director of Marketing of Auchan confirms that this is perhaps the time for the return of a sort of disenchantment (Cuthbertson, 2005). Auchan now wishes to “make it simple” to compress costs as much as possible and to efficiently compete with hard discounters, a retail format that large food

retailers do not possess. The declared objective is to shorten customers' comings and goings in the hypermarket by reducing the assortment, after a golden age during which Auchan presented itself as the specialist of choice and variety. If reducing the complexity of the offer is felt by the Director of Marketing as an advantage for consumers (make their buying process easier), it is clear that the issues for Auchan lie elsewhere: a greater buying power with suppliers and a massification of flows through warehouses so as to obtain a better quantity discount, and consequently to reduce selling prices in stores. We will come back to the Auchan case, which symbolizes for us the now emerging model of "experiential logistics" (Badot and Paché, 2006).

#### **4. TOWARDS A DELIBERATE DEGRADATION OF CUSTOMER LOGISTICAL SERVICES**

Retailing companies such as Carrefour and Auchan have made efforts to parry the offensive of hard discounters by going back to sources and adopting, as at their beginnings, a low price strategy. To reduce their costs, they were forced to reduce the quality of customer logistical services. And so as not to be penalized by this deliberate degradation, the French large food retailers present and stage it so that consumers consider it as the necessary compensation for lower prices and see a signal announcing that very advantageous offers are made in stores. The theatricalization of low prices thus comes with a theatricalization of the reduction of logistical services.

##### **4.1. Back to a low price strategy**

Even if the current reaction of the hypermarket format faced with the rise of the hard discount format remains wavering, it seems to correspond to a strong return to the low price strategy to make lost customers return to stores, with for example the creation of a new generation hypermarket, adopting merchandizing techniques and a product assortment close to the original hard discount format, as invented by Aldi in Germany. It looks as if it was time to rediscover the basics of the cost leadership strategy, integrating a very summary, but finally inexpensive logistical management. Some French large food retailers managing a large network of hypermarkets, have implemented totally new strategies –at the level of supply management procedures– so as to win the battle of costs, rather than the battle of the maximum customer service.

The academic literature often suggests that the harder the competition between firms in a mature market, the higher the place occupied by the service offered to customers in a winning strategy. It is true that an in-depth study on developments in retail logistics in France showed that, for example, the number of errors tolerated while preparing orders in warehouses never stopped decreasing throughout the parenthesis of the 1990s (Duong, Mattiuzzo and Paché, 1998). But no one really mentions the possibility of seeing a supply chain manager sacrifice service and reactivity to reduce costs. If this idea is not

successful, it is certainly because the common belief is that consumers will always take logistical services into account in their purchase decisions, and will even be increasingly mindful of the quality of logistical services.

But this idea must be questioned because the success of the discount format means that a significant proportion of consumers are now very susceptible to low prices, because of the erosion of their purchasing power. These consumers are increasingly better informed on the strategies of large food retailers. They are becoming aware that low prices have a low level of service as counterpart, and they are not surprised by the Spartan nature of a hard discount store. It is even possible, as Christopher (1986) suggested, that a high level of service in store paradoxically sends a negative signal to consumers. If the level of service is high, consumers may think that this must be passed on to prices, and that consequently they will be tempted to frequent another retail format offering a low level of service, but really applying a low price policy.

This is the game that Wal-Mart in the United States seems to be playing by leaving half empty pallets along the aisles; this is perceived by consumers as the symbol of a warehouse-looking store, where attractive prices make it necessary to save money wherever this is possible, for example on handling operations (Badot and Paché, 2006). Consumers get the pleasant feeling that they obtain bargains amid complete disorganization. Carrefour has also adopted this style in France since 2005. The retailing firm decided to stop the implementation of new logistical partnerships with its major suppliers, the purpose of which was to increase the level of logistical services. Carrefour's priority objective today is to reduce logistical costs to reassert the competitiveness of its hypermarkets, for example by forcing suppliers to put their products into over-packages putting an end to any useless (and costly) handling in store. By doing this, Carrefour has tried to reproduce in its hypermarkets the basic principles of the hard discount format.

#### **4.2. From theatralization of low prices to experiential logistics**

The about-turn of Carrefour shows the limits of management systems supposed to offer better service with lower supply costs. For the new Carrefour logistics team, reducing stock-outs in store is no longer the first objective. It is rather to examine the different steps in the supply chain process and to reduce all overcosts. Carrefour decided to take logistical activities in hand again, whereas the VMI and CPFR approaches had resulted in an increased participation of manufacturers in daily deliveries to stores. As well as Carrefour, this is the strategy now chosen by other firms managing hypermarkets and supermarkets, like Leclerc, Système U, Intermarché and Auchan. The Auchan case, one of the major large food retailers specialized in the hypermarket format in France, clearly symbolizes the fact that a purposeful degradation of service to favor low costs (and prices) goes with a complete reformulation of corporate strategy.

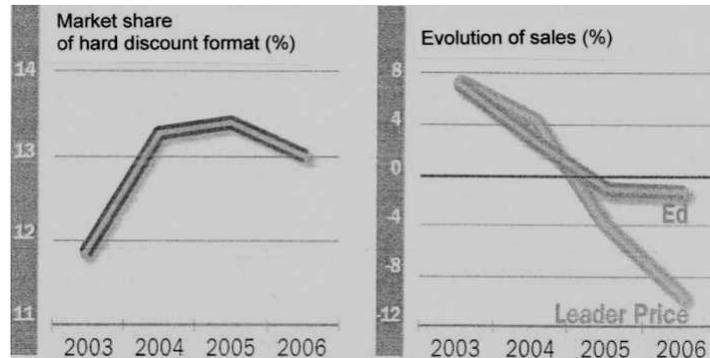
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The time has come for Auchan to instill the spirit and practices of the hard discount format into its hypermarkets. Customers can now find consignments of products summarily placed in the aisles, on simple palettes, and late comers often find out that the good bargains have already made earlier consumers happy. Products in bulk, not packaged, can also be found in an area called self discount where each consumer has to bag the quantity he or she wishes to buy him(her)self. This practice is not new for fruit and vegetables, but is now being generalized to food products formerly bought in sophisticated packaging; such a practice also fits in with environmental concerns to see a reduction in excess packaging that ends up in landfill sites. No longer systematically caring for the level of stock-outs in store, leaving customers dealing with a maximum of logistical tasks themselves in a drastically reduced product assortment: aren't we confronted with the emergence of a new model of management distancing itself from the parenthesis of the 1990s?

The so-called "experiential logistics" strategy seems to correspond to this trend. It is based on a deliberately organized disorder and a stimulation of consumers based on the search for bargains made possible by this disorder. In this new model, the theatricalization of low prices now comes with a theatricalization of service reduction to reinforce it and make it more convincing. One can even speak of disenchantment staged by retailing firms to once more attract consumers tired of walking around the "cathedrals of consumption" magnified by Ritzer (2005). Now whole parts of some of the French hypermarkets are occasionally or permanently transformed into warehouses or hangars, with an incredible accumulation of podiums, palettes, cut cases, racks, etc., that seem to be staged on purpose to create a discount image. The presence of piles of products or bulky packs creates a store atmosphere visually symbolizing the principle of economies of scale for consumers: very low selling prices made possible by mass purchases by large retailers. Similarly, the placing of trolleys of products in aisles or of products out of their packaging creates the impression of a clearance sale, and therefore once again, lower prices and good bargains, as in the hard discount format.

In a way, the theatricalization of low prices no longer tries to rely on excellent logistics, but on a staging of product assortments, together with promotional, selective operations. The 2006 statistics on the evolution of the hypermarket and hard discount formats market shares seem to indicate a reverse of trend. The hypermarket format, after three difficult years, is seeing its sales picking up while some hard discounters, like Ed and Leader Price, are obviously losing speed (see Figure 2). But the fierce fight between the hard discount format and the hypermarket format is far from over in France. The slight decline of families' purchasing power in 2007 and 2008 has already resulted in a significant new increase in convenience goods sales in hard discount stores, as was easy to foresee.

Figure 2- The running out of steam of the hard discount format in France



Source: Challenges, 66, February 8, 2007.

## 5. EXPLANATORY PATTERNS TO UNDERSTAND WHAT IS AT STAKE

What theoretical patterns can explain the developments analyzed above? How can it be explained that, unlike what the theory of continuous progression assumes, there may be periods marked by the improvement of logistical services and periods when priority is simultaneously given to cost control to the detriment of services? McNair's (1957) model enlightens these questions pertinently. It supplies a convincing explanatory pattern when adapted to study the evolution of logistical systems. But it has limits requiring more additional research.

### 5.1. Application of the McNair's (1957) model to retail logistics

The wheel of retailing model, originally created by McNair (1957) and later developed by Hollander (1960), resorts to an approach based on the notion of the life cycle (Fenneteau, 1998). It provides an original pattern for analyzing the evolution of retail formats. More sophisticated approaches were later proposed (for example the model of natural selection) but the McNair's (1957) pattern, in spite of its simplicity, has a significant explanatory power which is worth remembering as a priority. This explains its remarkable pervasiveness in a substantial body of marketing literature (Kaynak, 1979; Brown, 1991). In McNair's (1957) view, the basic determining factor of the evolution of retail formats has a business nature; it relies on the prices proposed to customers and on the margin rates applied by large retailers.

According to this theory, a new retail format can start developing only by asking lower prices than those asked by firms already on the market. To benefit from such an advantage, the originators of a new retail format must develop innovations resulting in a reduction of distribution costs. This generally leads

them to conquer the market with an offer having a limited level of service. When the new retail format begins to take hold, success attracts competitors who copy the originators' methods and fight over customers. Firms using this retail format then try to differentiate themselves from one another. According to McNair (1957), they can do this only by extending their product assortment and offering more sophisticated customer services, the result being an increase in distribution costs. This increase is first hidden by the economies of scale derived from the success of the retail format and the resulting larger sales volume. When all customers likely to be attracted by the retail format are finally conquered, the beneficial effects of growth disappear and differentiation costs force firms to raise their prices to preserve their profitability. At this stage of its development cycle, the retail format becomes vulnerable. It may be questioned if innovators take advantage of a new source of cost reduction and attract customers by offering them a decisive advantage in matters of price. When this happens, a new retail format appears and a new development cycle starts.

Logistical management is closely linked to the manner of managing stores; it takes a significant part in strengthening a retailer's competitive advantage, particularly in cost leadership. It is natural to try and export the development pattern established by McNair (1957) to apply it to the organization of logistical systems. This leads to the definition of a kind of wheel of retail logistics, copied on the wheel of the retailing model (Filser and Paché, 2006). When a new retail format is introduced, logistical management is rudimentary, with no real desire to be a tool of differentiation. As the number of competitors managing the same retail format increases, large retailers try to win consumers over by improving their customer logistical services. They enter a pattern of permanent service improvement, for example in the reduction of stock-outs in store. This effort ends up with a cost increase; large retailers are then threatened by a new retail format whose logistical management is again very rudimentary and thrifty.

## **5.2. Limits of the linear pattern**

The evolution described above, and the innovations recently introduced by the world leaders of the retailing industry, prove the fruitfulness of the thought pattern developed by McNair (1957) fifty years ago! The wheel of retailing model helps us understand the reasons why the hypermarket format developed in France and analyze the way it is now challenged by the hard discount format. As soon as it appeared, the hypermarket format stood out by proposing advantageous prices to consumers. It was later threatened when the hard discount format managed to go further in that direction by developing a less expensive retail format. As we suggested, this pattern can also apply to logistical management (Filser and Paché, 2006). The development cycle of a distribution formula is accompanied by a maturation process of the associated logistical systems, with a gradual reinforcement of customer logistical services to the detriment of logistical costs.

McNair's (1957) pattern throws an instructive light on services and costs dynamics in the retailing industry. It admits the existence of a services improvement process but shows that this process does not correspond to an endlessly spiraling progression. In this approach, services improvement must be analyzed within the cycle of a retail format. Improvement emerges from competition between large retailers using the same format; it is but temporarily compatible with cost reduction, during the growth phase of the retail format, when economies of scale are important. The cycle of each retail format is part of a wider process opposing the different retail formats between them and based on competition in the costs area. Consequently, there is no stable trade-off between cost and service quality. A phase of logistical services improvement may be followed—as we demonstrated—by an amount of backtracking. This reversal of trend does not cancel all previous advances, but marks a pause, resulting from the impossibility of continually improving services while controlling costs. It also stems from a modification of competition, as confrontation between retail formats overcomes rivalry between firms using the dominant retail format.

Although the linear pattern described by McNair (1957) remains enlightening, it requires some adaptation. The process is not necessarily linear, with a standard path and a pre-ordained end. A retail format threatened by a more economical alternative retail format is not ineluctably condemned to disappear, like animal species supplanted by others within the natural evolution process. The life cycle may continue with the start of a second life cycle characterized by a return to the initial action pattern (Cox, 1967). This does not question the explanatory pattern formulated by McNair (1957), because this return to sources highlights the importance of the price factor underlined by this author. However, the linear pattern must be abandoned in favor of a new vision in which the regeneration of a retail format becomes possible. The French case shows that there exists a logistical services life cycle, but it also shows that the life cycle must be unlocked to account for the recent innovations adopted by retailing industry firms. We saw that Carrefour and Auchan were able to counterattack the offensive of hard discounters by giving priority again to the price variable. The introduction of non-branded products sold at very low prices is one of the essential reasons of the return in force of the hypermarket format, if one is to believe the professional trade.

Examining the French case also shows that the situation is more complex than what models show. It is obvious that if non-branded products play a significant part, it is within the framework of a new marketing and logistics strategy implemented by large food retailers. It is based on a dual pattern associating excellent logistics for some products and a deliberate degradation of the level of logistical services for other products. Models based on the notion of life cycle do not include the existence of these hybrid forms. The dual system may be transitory, but it is currently prevalent in France and its existence gives rise to numerous enquiries. There are a number of essential questions, in particular

on the most efficient way of making the world of order and the world of disorder coexist within the same hypermarket, and consequently two ways of managing supply chains.

## 6. CONCLUSIONS AND IMPLICATIONS

In contrast to what is commonly thought, the evolution of retail logistics does not necessarily results in a continuous improvement of services. A study of the French food retailing industry during the last fifteen years shows in fact that the search for excellence in logistical services gave way to new practices aiming in priority at reducing costs. This reversal of trend is due to several phenomena. It firstly originates from the fact that improving logistical services and controlling costs are compatible in some specific circumstances only. The 1990s proved to be exceptionally auspicious in this area, but since the beginning of the 2000s, French large retailers were forced to favor one of the two parameters. They are now above all trying to minimize costs. This change of strategy was also due to the pressure from hard discounters who threatened the supremacy of hypermarkets by fighting them on the field of prices. Over the past few years, the combined effects of these different constraints led French large food retailers to introduce a deliberate degradation of customer logistical services.

The McNair's (1957) wheel of retailing theory provides tools for analyzing these transformations pertinently in a dynamic perspective. It leads to the notion of wheel of retail logistics proposed by Filser and Paché (2006); this notion explains the evolution which led large food retailers to seek logistical excellence after having given priority to a strategy of cost leadership through flow massification. The wheel of retail logistics also explains why large food retailers lost market shares when hard discounters developed a new retail format offering significant price decreases to consumers. The linear pattern underlying McNair's (1957) model is however questioned by the new policy of the major French large food retailers who have returned to practices developed during the first phase of their development.

Further research is necessary to refine the analytic model proposed in this article. They mainly bear on a further application of the innovative practices adopted by Carrefour and Auchan in France. These practices currently give rise to a dual thought pattern. Actions based on the theatricalization of low prices coexist with systems which have accustomed consumers to benefit from a high level of logistical services. Can consumers eventually get used to this duality? Do they tend to return to the hypermarket format because they find hard discount format shelves there and benefit from the advantages of both retail formats in the same place? Will they accept a generalized degradation of the level of logistical services that could mean an intolerable loss of time by repeatedly coming and going between stores? But won't they be forced to accept it all in the end with the continuous rise of oil and other commodity (wheat, milk, etc.) prices and consequent rise in logistical services cost? These

numerous questions militate in favor of a research agenda closely associating analyses on logistical management, consumer behavior, retailing and distribution channels.

## REFERENCES

Badot, O., and Paché, G. (2006). "Une logistique expérientielle pour la firme de distribution: du 'zéro défaut' au 'zéro ennui'," *Management & Avenir*, 11: 11-28.

Brown, S. (1991). "Variations on a marketing enigma: the wheel of retailing theory," *Journal of Marketing Management*, 7(2): 131-155.

Christopher, M. (1986). *The strategy of distribution management*, Heinemann, London.

Cox, W., Jr. (1967). "Product life cycles as marketing models," *Journal of Business*, 40(4): 375-384.

Cuthbertson, R. (2005). "Quick, flexible and smart: interview with André Tordjman, Director of Marketing, Auchan," *European Retail Digest*, 45: 31-35.

Duong, P., Mattiuzzo, N., and Paché, G. (1998). *La logistique de la grande distribution*, Editions Eurostaf, Paris, 2<sup>nd</sup> ed.

Fenneteau, H. (1998). *Cycle de vie des produits*, Economica, Paris.

Fernie, J. (2004). "The internationalization of the retail supply chain," in Fernie, J., and Sparks, L. (eds.), *Logistics and retail management: insights into current practice and trends from leading experts*, Kogan Page, London, 2<sup>nd</sup> ed., 48-61.

Fernie, J., and Sparks, L., eds. (2004). *Logistics and retail management: insights into current practice and trends from leading experts*, Kogan Page, London, 2<sup>nd</sup> ed.

Filser, M. (2001). "Re-enchanting the shopping experience: case studies from France," *European Retail Digest*, 40: 39-40.

Filser, M., and Paché, G. (2006). "La dégradation du service logistique comme source d'avantage concurrentiel: l'étrange paradoxe de la distribution française," *Gestion: Revue Internationale de Gestion*, 31(3): 36-45.

Georgescu-Roegen, N. (1971/1999). *The entropy law and the economic process*, Harvard University Press, Cambridge (MA).

Harrison, A., and van Hoek, R. (2005). *Logistics management and strategy*, FT Prentice Hall, Harlow, 2<sup>nd</sup> ed.

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TOWARDS A NEW TRADE-OFF BETWEEN COST AND SERVICE QUALITY?

- Hollander, S. (1960). "The wheel of retailing," *Journal of Marketing*, 25(3): 37-42.
- Kaynak, E. (1979). "A refined approach to the wheel of retailing," *European Journal of Marketing*, 13(7): 237-245.
- Lowson, R. (2001). "Retail operational strategies in complex supply chains," *International Journal of Logistics Management*, 12(1): 97-111.
- McKinnon, A. (1989). *Physical distribution systems*, Routledge, London.
- McNair, M. (1957). "Significant trends and developments in the post-war period," in Smith, A. (ed.), *Competitive distribution in a free high level economy and its implications for the university*, University of Pittsburgh Press, Pittsburgh (PA), 1-25.
- Paché, G., and Colin, J. (2001). "Period changes and inventory management: the three ages of retail logistics," *Supply Chain Forum: An International Journal*, 2(2): 58-67.
- Paché, G., and Sauvage, T. (2004). *La logistique: enjeux stratégiques*, Vuibert, Paris, 3<sup>rd</sup> ed.
- Ritzer, G. (2005). *Enchanting a disenchanted world. Revolutionizing the means of consumption*, Pine Forge Press, Thousand Oaks (CA), 2<sup>nd</sup> ed.
- Skjoett-Larsen, T., Thernøe, C., and Andresen, C. (2003). "Supply chain collaboration: theoretical perspectives and empirical evidence," *International Journal of Physical Distribution & Logistics Management*, 33(6): 531-549.