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The retail world has been undergoing profound changes in Europe over the last ten years. For some observers, this represents a real disruption with major economic and societal effects. The logistical frameworks put in place to ensure the performance of the old retail formats are being called into question, and it is time to look at the new emerging frameworks. Hence, the key question posed by this article is: who will be the winners in the current changes in retail logistics?



WHO WILL BE THE WINNERS OF THE **CURRENT CHANGES** IN RETAIL LOGISTICS?

By Gilles Paché

Business logistics emerged in the 1960s in the United States within large manufacturing companies, particularly in the food industry. The major problem at the time was the efficient management of product flows to satisfy demand under satisfactory conditions of cost, service quality and responsiveness. The importance of logistics became major during the famous “Thirty Glorious Years” and the rise of mass production, consumption and distribution, especially with a radical reor-

ganisation of the urban space¹. This led to the industrialisation of logistical operations, based in particular on the standardisation of tasks. The central position taken by the standardisation of loading units, including the container and the pallet, bears witness to the implementation of what will be called “standards of circulation”, the application of which has enabled substantial productivity gains to be obtained, particularly in the supply of hypermarkets and superstores.



New entrants who do not have to bear the “burden of history”, first and foremost the pure players, are positioning themselves as dynamic players by rapidly assimilating the rules of the game resulting from the disruptions in retailing. The world of retail logistics is changing radically, and it raises questions about the future winners in the new deal.

However, profound disruptions in the retail sector are fundamentally challenging these standards of circulation from those “Thirty Glorious Years”. Three disruptions can be identified: the rise of e-commerce, the rapid development of urban convenience stores, and the dramatisation of low prices in certain traditional retail formats. They are characterised by the demand for disruptive logistical frameworks based in particular on the extreme capillarity of flows in the urban space, which calls into question the policy of standardisation at the origin of the success of powerful distribution groups, such as Carrefour in France. Conversely, new entrants who do not have to bear the “burden of history”, first and foremost the pure players, are positioning themselves as dynamic players by rapidly assimilating the rules of the game resulting from the disruptions in retailing. The world of retail logistics is changing radically, and it raises questions about the future winners in the new deal.

IDENTIFYING THE SOURCES OF STANDARDIZATION

Managing a supply chain involves taking into account a system of options at different levels, in terms of the product itself (variations, colours, sizes), but also in terms of suppliers (foreign or local, one or several for the same component), and in terms of how the supply chain is managed (a central decision-making unit or several decentralised decision-making units). The system of options must obviously take into account the cost, knowing that the more options there are, the higher the costs, under the threat of diseconomies of scale. Did you know that, while black was the only colour of the Ford model T in the 1920s, the car was available in grey, green, blue and red from 1908 to 1913? This was before Henry

Ford realised that multiple options meant smaller batches and more expensive production, despite the ability to offer customers an attractive choice². The same is true for almost all supply chain management issues, for example the trade-off between using a single national warehouse, playing on massification phenomena, or several regional warehouses, which are more expensive but have better geographical coverage.

The most significant development in logistics since the 1980s has been the formalisation of standards of circulation, the aim of which is both to make the routing of materials, components and finished products more fluid and to standardise operations in order to reduce their cost. Daniel Tixier, Hervé Mathe and Jacques Colin³ underline the production of standards through three related dimensions: (1) the determination of load units aligned with transport, handling and storage requirements, and favouring the continuity and fluidity of flows throughout the supply chain; (2) the formulation of standards of management to optimise logistical procedures and processes (stock management, production scheduling, etc.); and (3) the formulation of standards of quality of service with a view to satisfying customers while using neither too many nor too few mobilised resources. The conclusion of these authors is that “the standards and procedures established by logistics (...) make it possible to maintain and control the firm’s operating methods, in terms of both cost and service quality”. Mathieu Quet’s recent book⁴ puts this normative vision into perspective perfectly with reference to the “*technicisation*” of logistics resulting from operational research.

The importance of standards of circulation can be seen in the organisation of global value chains, the fragility of which became apparent during the COVID-19 pandemic⁵. The globalised vision of value creation processes is based on the idea that trade depends on perfectly marked routes, with totally standardised operations in the management of handling at a few worldwide or national hubs. Where many

Marxian economists have been able to speak of the accelerated rotation of capital thanks to logistical innovations, it is more appropriate to speak of the emergence and development of a managerial paradigm based on the idea that standards of circulation make it possible to reduce the “frictional forces” between links in supply chains, which are then able to participate effectively in obtaining economies of scale and scope. The entire recent history of supply chain management is therefore based on the standardisation of processes and procedures, and the retail industry has not escaped this phenomenon.

THE KEYS TO THE PERFORMANCE OF THE RETAIL INDUSTRY

For specialists in the retail industry, it is clear that this extensive mode of growth was the structuring model during the “Thirty Glorious Years”⁶. This was the period which saw the triumph of the supermarket, and then the hypermarket and the superstore. The mass retail model emphasises the importance of a



discount positioning, the key to whose success lies in massive economies of scale by playing on size effects (of the shop network). Based on the model of the wheel of retail, Marc Filser and Gilles Paché⁷ underline that the obsession of distribution groups managing supermarkets, hypermarkets and superstores is to rapidly extend their sales network in order to benefit from a significant reduction in logistical costs (unit costs) through the phenomena of massification and pooling of flows. In order to achieve a sort of

Taylorist ideal, which will lead some to present the hypermarket and the superstore as “sales factories”, the standardisation of processes and procedures is presented as a necessary step towards greater performance.

One of the most significant examples of standardisation is the widespread use of the 80×120 European pallet, the dimensions of which define the very shape of the finished products (drastically reducing the variety of

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packaging), as well as the constituent elements of the supply chain operation, whether it be delivery vehicles, storage warehouses and break-down platforms, back-up stores or shop shelves. By abandoning bulk, a whole economy of logistical performance was put in place during the “Thirty Glorious Years” in terms of the speed and cost of execution of product handling operations. Gaël Raballand and Enrique Aldaz-Carroll⁸ rightly point out that the simultaneous presence of several pallet standards around the world is one of the explanations of the high costs associated with inter-

national trade. By adopting a single standard, on the other hand, European large retailers will generate significant productivity gains which, in return, introduce a domination of the standards of circulation mentioned above.

Mass retail has quickly noted the centrality of standardisation to the automation of their warehouses, transforming them into truly high-performance industrial tools. This underlines the importance of double interoperability. The first interoperability concerns organisations. Automation requires increased rigour, because the machines installed to handle products in transit to stores have a limited capacity to adapt. It is therefore necessary to establish good practices between supply chain members in order to optimise their operation and to limit errors or blockages linked to unknown situations or situations deemed inconsistent by the machines. The second interoperability concerns the products themselves. Automation can only reach its maximum efficiency if the machines are designed to work with certain types of packaging and equipped to pick up and move in complete safety. For example, products with an atypical format cannot be handled by automated systems and require human intervention. It is this variation from standards that mass retail has progressively eliminated during the “Thirty Glorious Years”.





THREE MAIN CHANGES

The end of the “Thirty Glorious Years”, combined with a series of societal, economic and managerial transformations throughout the 1990s and 2000s, has introduced major disruption and raises questions about the “logistical crisis” that retail formats born of the period of the extensive mode of growth are now facing. In addition to the fact that the reduction of logistical costs, sooner or later, will come up against a “glass ceiling”, whatever the effort made in terms of technological innovation, the emergence of new retail formats and new ways of thinking about the management of traditional retail formats calls into question the relevance of the standards of circulation, and more broadly, the logic of standardisation that has led to the success of powerful distribution groups. Three phenomena should be highlighted:

The first phenomenon is the rise in power of e-commerce, for which the COVID-19 pandemic has multiplied the opportunities for quick development (social distancing not very favourable to human interaction, difficulty in accessing many stores during lockdown periods, teleworking eliminating “shopping stops” at the end of the day, etc.). However, from a logistical point of view, it is clear that e-commerce is turning its back on the logic of massification present in the final delivery of products to supermarkets, hypermarkets and superstores to make way for a logic of capillarity and flexibility, with the central issue of last-mile management, which requires innovative, customised solutions (yet to be found, despite advances in drone technology) to accelerate the automation and standardisation of various delivery tasks, although they exist for order processing and fulfilment⁹.

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The second phenomenon is the development of small convenience stores, located in the heart of cities, whereas the “Thirty Glorious Years”, in contrast, led to the expansion of modern forms of commerce in suburban areas. Here again, we can speak of a profound break in logistics, since it is no longer a question of delivering to hypermarkets and superstores by the full truckload, but of supplying small – or even very small – stores from delivery rounds that have to adapt to singular and often constrained urban topographies (in European historic city centres, for example). Moreover, the low unit quantities delivered make it almost impossible to palletise products on a massive scale, forcing warehouses to prepare small packages that are then placed in bulk in delivery vehicles. As Michael Hu and Sunil Chopra¹⁰ pointed out five years ago, it is essential to “redefine the role of the store in fulfilling the consumer promise”, for which customised logistics is essential.

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The third and final phenomenon is the dramatisation of the low price in certain traditional retail formats, which is no longer based on “normalised” logistics according to industrialised standards, but rather on a kind of “experiential logistics” for which in-store breakage and one-shot deliveries are part of an organised system for staging the promotion. One of the best-known examples is that of Brico Dépôt, a retailer of household appliances, which leads the customer to accept the principle of a treasure hunt in the search for good deals¹¹. The standardisation of service quality and logistical operations no longer has any reason to exist in this case, since it is a matter of surprising the customer, who will understand very quickly that they must not miss out on the good deal of the moment, which may not come around again any time soon.

TOMORROW

The three phenomena mentioned above raise the question of the agility that supply chains can – or cannot – demonstrate. As we know, the agility of a supply chain refers to its capacity to return to a stable operation after a disruption, by being able to restore all the flows as quickly as possible to minimise the degradation of the various performance indicators, particularly in terms of service quality. The COVID-19 pandemic has caused a sudden acceleration in the changes that have been taking place over the last ten years. The strength of the standards of circulation driven by logisticians is becoming a potential weakness, except perhaps for new





entrants who have immediately played the “agility game”. In this respect, we may mention certain pure players whose competitive advantage is that they are not prisoners of the exclusive standardisation and massification schemes that came out of the “Thirty Glorious Years” – pure players who, like Amazon, can instead combine the best of standardisation (peripheral mega-warehouses to centralise supplies) and capillarity (small urban warehouses to deliver to nearby customers within minutes). A revolution is underway in the world of retailing, and it will have a lasting impact on supply chain operations. In the end, is it really a surprise? 

The strength of the standards of circulation driven by logisticians is becoming a potential weakness, except perhaps for new entrants who have immediately played the “agility game”.

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