

Chapter 1

The Premises of Logistics: The Organisation of Warships in France in the 17th and 18th Centuries

Jacques Colin

Aix Marseille University, France & ESC Rennes School of Management Aix-en-Provence, France

ABSTRACT

The objective of this paper is to show how the French Royal Navy, faced with multiple challenges of different kinds, has built in the 17th and 18th centuries a particularly complex military-industrial and organisational tool, which foreshadows the most up-to-date industrial and logistical organisations. By reinterpreting this pre-industrial episode, one could not only set out the major principles that constitute the foundations of the logistical and SCM backgrounds (anticipation, reactivity, standardisation, normalisation, productivity, modularity, flexibility, interoperability, fluidity, continuity), but also some logistical archetypes (strategic control of space and strategic control of time, transport infrastructures and accessibility, global sourcing and suppliers' networks, nomenclatures and production ranges, warehouses and stocks availability).

INTRODUCTION

From the 17th Century, the main European Nations, including France under the influence of Richelieu, have created permanent war fleets. These consisted of dedicated ships and replaced the use of merchant ships, equipped urgently and with no preparation for war. Nonetheless, during peacetime, and for obvious economic reasons we will discuss later, these war fleets were not ready for action: even though the warships were well built, they remained laid-up in ports in an “*organized abandonment state*” (Meyer & Acerra, 1994, p.7). When necessary, the Navy would requisition merchant and fishing “seafarers” (to have the right to work, “seafarers” had to serve in the Royal Navy) and order to equip a war fleet by mobilizing all the necessary resources taken from the Royal Navy arsenals. Rodger (1995, p. 365) notes “*the main navies were permanent forces since they counted with a well established administration, appropriate infrastructures, and a ship fleet*”. He also underlines that “*war has always depended a lot on*

DOI: 10.4018/978-1-4666-9779-9.ch001

logistics and finance, but the 18th Century demobilized navies were especially subject to administrative systems able to put in action the huge and expensive navy force as fast and as efficiently as possible”.

Unlike the army, which can use the supplies provided by the lands it goes through, a navy squadron moves in an empty space: “since the Navy could not be supplied every day, it had to thoroughly anticipate stocks of supplies and material, organizing storage and packing for transport” (Corvisier, 1995, P. 134). The conclusion of this paper wishes to show how the French Royal Navy, facing multiple and different challenges, was very early able to establish a “military-industrial” and organisational tool, particularly complex, that prefigures the state-of-the-art industrial and logistic current organisations.

THE NAVY FACING POLITICAL, ADMINISTRATIVE, AND STRATEGIC CHALLENGES

In case of war, especially against England, the main challenge the Navy had to deal with was a fast increasing power of a very technical military tool, able to face the “structural” numerical superiority of the English Royal Navy, which was nonetheless slower to reach its full strength. In peacetime, the fleet would only count with a reduced number of ships, less than ten, with 4.000 seafarers on the eve of the American Revolutionary war in 1778 (Meyer & Acerra, 1994). In 1790, it “theoretically” reached 81 vessels and 69 frigates with 78.000 seafarers (Acerra & Meyer, 1998), and almost 8.000 cannons according to the *Tableau de la Marine Royale* (1789) and regulated by almost 1.700 officers (Acerra & Meyer, 1998). By comparison, the Great Army of Napoleon in 1812 counted with less than 1.400 cannons, for more than 400.000 men (Rey, 2012). Most vessels from this fleet in 1790 were indeed already built. Some were being built and others in “kit” in arsenals¹.

As such, the equipment of the fleet depended completely on the “naval munitions” (structural members, masts, sails, lines, cannons, munitions, powder, pitch, tar, food supplies, etc.) that were bought and stocked in advance in special warehouses to face any possibility. The Navy counted on a long-term strategic vision to enable the acquisition of all the necessary raw materials, and would it be required, to transform and package them. Simultaneously, the class system enabled to identify and quickly call the “seafarers” necessary to serve on the vessels (*Ordonnance de Louis XIV*, 1689, Chapter Eight).

France counted with many resources such as wood to build ships, but forestry was strictly regulated. The *Ordonnance* established by Colbert regarding Waters and Forests in 1669 was giving the Navy a pre-emptive right on any tree located at less than ten leagues away from the sea or two leagues away from a navigable river (this perimeter would then be broadened to the whole Kingdom in 1743). Any landowner had to ask an authorization to fell a tree to the Bureau of the Navy, which had 6 months to give its answer (Beyeler, 1997). Some trees, with ideal shapes to make specific structural members (see Figure 1) were hot-ironed branded with an anchor and a fleur-de-lys above it to the exclusive use of the Navy (Ballu, 2000). Such measure implied of course that the location of these trees was precisely known and recorded so they could be felled would it be necessary.

Other resources were mainly lacking and had to be imported from very far away, such as hemp, tar and timber for masts. Masts must meet “at their highest degree three main qualities: flexibility, elasticity and lightness” (Forfait, 1788, p. 182), and are mainly located in northern Europe (Russia, Norway, Ukraine, Livonia, etc. but also in Acadia and Canada, even though such timber with a lower quality could be found in Auvergne or in the Pyrenees (Vial du Clairbois, 1787). Importing these goods was a

10 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/the-premises-of-logistics/145616

Related Content

How Spiritual Leadership Affects Job Satisfaction and Workplace Deviant Behavior (Study at the Regional Secretariat of the City of Palangkaraya)

Benny Hutahayan (2020). *International Journal of Applied Management Theory and Research* (pp. 61-73).

www.irma-international.org/article/how-spiritual-leadership-affects-job-satisfaction-and-workplace-deviant-behavior-study-at-the-regional-secretariat-of-the-city-of-palangkaraya/244220

Blockchain in Food and Agriculture Supply Chain: Use-Case of Blockchain in Indonesia

Aidah Maghfirah (2019). *International Journal of Food and Beverage Manufacturing and Business Models* (pp. 53-66).

www.irma-international.org/article/blockchain-in-food-and-agriculture-supply-chain/234725

Wasta, the Impact of Preferment on Organizational Culture and Human Resource Management

Elizabeth Kassab Sfeir (2019). *International Journal of Applied Management Theory and Research* (pp. 16-31).

www.irma-international.org/article/wasta-the-impact-of-preferment-on-organizational-culture-and-human-resource-management/227054

A Sequential Probabilistic System for Bankruptcy Data Classification

Salim Lahmiri and Stéphane Gagnon (2016). *Analyzing Risk through Probabilistic Modeling in Operations Research* (pp. 138-147).

www.irma-international.org/chapter/a-sequential-probabilistic-system-for-bankruptcy-data-classification/140422

The Weight of the "Health War" on Economic Growth

Maria Pompò (2023). *Handbook of Research on Complexities, Management, and Governance in Healthcare* (pp. 107-114).

www.irma-international.org/chapter/the-weight-of-the-health-war-on-economic-growth/314540