The integrated management of logistic chains in the white goods industry. A field research in Italy

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Abstract

After having devoted many efforts and investments in improving their internal capacity to produce the right product at the right price at the right time, companies are now starting to discover that much of the value they deliver to their customers depends not only on their own performance, but also on the performance of all the other companies that belong to the same logistic chain. Thus, the integrated management of logistic chains has gained a large attention in the latest years, as one of the most effective tools to achieve an overall improvement in the economic as well as in the logistic value that is embodied in each product. This paper presents some results of a field research focused on logistic chain management, carried on by means of direct interviews on a sample of Italian companies, shops and final customers belonging to the white goods industry. Questions highlight the main cost and logistic effects that arise among different tiers of the chain when they interact. Here we illustrate the used methodology. Moreover, we discuss some of the empirical results achieved, with the aim of assessing the improvement potential that a tighter integration could achieve. In particular, it is shown that wide space for improving companies profitability is available both by reducing costs and by increasing sales. © 2001 Elsevier Science B.V. All rights reserved.

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1. Background

1.1. The logistic chain concept

In many branches of industry, the last decade has witnessed an unexperienced increase in the environmental complexity that manufacturing companies have to face. This is partially due to the increased customer requirements which usually
characterises mature markets. Moreover, the con-
currence of the widening of markets and therefore
that one of an ever stronger competition has further
fostered this trend.

In order to cope with global and mature mar-
kets, manufacturers have striven not only to in-
crease their product range, but also to enrich
their products with a set of features that might
create a difference with respect to competitors.
This, in turn, has led to the need to master a
wider range of manufacturing technologies than
before. Given the considerable hurdle that has
risen by the need to be the leader in such amount of
different technological areas, many companies
have preferred to reduce their level of vertical
integration and to focus on their core technologies,
rather than trying to be excellent in all of them
[1]. A typical example of this way of doing is
supplied by the PC industry, where each com-
ponent (motherboard processor, hard drive, screen,
operating system, printer, etc.) is usually manufac-
tured by a small number of focused and global
companies.

In such a context, if customers are to obtain
a whole system (e.g. PC, screen, printer and
modem) at a reasonable price, with a good
quality and within a reduced lead time after the
order, this can be obtained owing to the combina-
tion of efforts of all the actors connected to
this system [2, 3]. Just to cite some of the well-
known brands: Intel will supply the processor and
Seagate or IBM the hard drive; Compaq will
take care of PC assembly; Sony will provide
the monitor; Hewlett-Packard will provide the
printer; 3COM the lan board or the modem,
Microsoft will supply the operating system and the
dealer will do SW installation, product packaging
and final delivery.

We will call the whole set of companies men-
tioned above a logistic chain, in that not only these
companies perform the logistic phases of the PC
value chain, but they also contribute to the “logistic
value” that is embodied in the PC. In other words,
these companies not only contribute to determine
the inherent value of the PC as a product, but they
also determine the service parameters that are con-
nected to the delivery process, such as: response
time, tardiness, etc.

1.2. Competition among logistic chains

Given the remarkable changes in the manufac-
turing industry that have been outlined in the pre-
vious section, companies have started to think how
to link themselves inside a logistic chain in a way to
generate more value for the customers and ulti-
mately also for themselves. The integrated oper-
ations management of a whole logistic chain, is
relevant due to two different competitive effects,
owing to either different types of customers or the
positioning of each industry in its life cycle.

Let us think about one customer buying a car.
For first-time buyers, the act of buying their first
car may well be considered as a “must”, due to the
mobility requirements it fulfills. Conversely, when
you have already bought your car, buying another
one could be just a matter of fashion or status. In
this latter case, which refers to a mature customer,
the act of purchasing might well be deferred to next
year, while the same amount of money might be
allocated to something else (e.g. a fashionable dress
or suit, a new piece of furniture or even a vacation)
or simply saved.

In the former case of the first-time buyer, the
question to be answered is: which car to buy?, so the
competition is within the automotive industry. Thus, each car manufacturer, together with dealers
and components manufacturers (e.g. one auto-
motive chain) compete against other ones, inside the
automotive industry. On the contrary, the latter
type of customer gives rise to a new kind of com-
petition, which is among different industries. In this
case, different automotive chains are competing
against other chains that deliver furniture, dresses,
or eventually anything else.

An additional difference between first-time cus-
omers and mature customers, is in that the first
ones will presumably make their choice based on
a combination of features and price (e.g. car within
certain dimensions, ensuring given performances,
under a pre-determined price threshold). So, given
the purchase is needed, they will go ahead search-
ing on the market, until finding the appropriate
product. On the contrary, mature customers can
give up the purchase, so they are likely to be less
focused on functions and price than on other fea-
tures like design, service or brand name. Further-
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