Logistics, Marketing and Purchasing: Which Interfaces to Improve the Value Creation Process?

Nathalie Merminod¹, Hervé Fenneteau², Gilles Pachê³
CRET-LOG, Aix-Marseille University¹ &³
MRM, Montpellier University²
nathalie.merminod@univ-amu.fr¹
herve.fenneteau@umontpellier.fr²
gilles.pache@univ-amu.fr³

Abstract- Processes for creating customer offerings, and, more broadly, processes for value creation, systematically lead to underline the importance of collective inter-firm action, particularly from a supply chain perspective. Without questioning the relevance of these approaches, the paper highlights that the management of intra-organizational interfaces should now be precisely understood to support inter-organizational approaches. More precisely, it strives to fill in a gap in supply chain research by developing the role of intra-organizational coordination of marketing, logistics and purchasing to improve the customer value. An exploratory research is done on relationships that link logistics, marketing and purchasing. The nature and difficulties of interfaces are analyzed in order to identify key factors of improvement.

General Terms- Organization; Strategy; Value creation.

Keywords- Integration; Intra-organizational interfaces; Logistics; Marketing; Purchasing.

1. INTRODUCTION

Increasingly demanding customers and competition in markets lead to focus more and more on value creation in supply chains [10]. Capturing and controlling external resources are a main element to building sustainable competitive advantage [20]. Marion [32], for example, recalls that the most recent definition of marketing, proposed in 2007 by the American Marketing Association (AMA), no longer refers to the function of creating and delivering customer value but to the resources necessary to create this value. Most of the research on this topic focuses on inter-organizational relationships; published research on the intra-organizational issues remains scarce [25]. Nevertheless, inter-organizational interfaces are certainly crucial for the success of business networks, but they are not enough on their own. Indeed, the creation of customer offerings could be damaged by an internal desynchronization of goals between the various functions involved in external interfaces within each member company of a network. Purchasing and marketing are, for example, at the heart of such dissonance, especially through the trans-border approach that supply chain management (SCM) has conveyed for thirty years.

In practice, conflicts between marketing, purchasing and logistics are very common. For instance, in the new product development process, the purchasing department faces engineering’s requirements leading into a sole supplier situation, while the purchasing manager might have developed an excellent relationship with a long-term supplier with the intent that the organization becomes a preferred customer. With the marketing department, conflicts are more likely to arise in issues such as product customization: it then becomes customization vs. standardization, or said differently, seeing customization as a trade-off between making the customer loyal and savings through larger quantities; actually, mass customization creates a spare parts variety which might well be incompatible with the objectives associated to global purchasing [18]. Finally, with the logistics department, the purchasing department is often confronted to very different perceptions about the importance of costs, and this leads to opposite prioritizations, founded on non-congruent functional measures and goals.

This paper questions the difficulties of the effective management of intra-organizational interfaces between three functions guaranteeing “firm boundaries”: marketing, logistics, and purchasing. The interactions between these three key functions are very important when studying the creation process of a customer offering, among others, in making available the delivery of new products and/or innovative services to end consumers. The research question investigates which key factors could ensure a better internal integration between logistics, marketing and purchasing, in order to create customer value. First, we argue that the centrality of inter-organizational coordination overshadows the importance of intra-organizational coordination (section 2). A focus
on integration between purchasing, logistics and marketing is then done (section 3). The design of our exploratory research, the results and managerial implications are then presented (section 4), before concluding (section 5).

2. FROM INTER-ORGANIZATIONAL INTERFACES TO INTRA-ORGANIZATIONAL COORDINATION

Many researches highlight the central role that holds a constellation of firms in the value creation process [36]. Each firm gives resources and competences that fit together in a complementary manner to ensure the design, production and marketing of products (and/or services). Quite naturally, much attention was paid to how these different companies coordinate and manage interfaces to improve the value creation process. Even if these approaches are pertinent, they tend to minimize the importance of intra-organizational coordination between functions to better organize the management of external resources.

2.1 The Centrality of Inter-Organizational Interfaces

Building and monitoring a lean and agile supply chain, with several players, has become an undeniable reality since SCM was introduced in the early 1980s [9]. The SCM approach aims to increase value creation for end customers and significantly improve the economic performance of the different stakeholders, although the issue of performance measurement remains unresolved [21]. Competitive advantage is related to the supply chain’s ability to be more effective than others in terms of costs, service quality, innovation and responsiveness, at a given moment [11]. This collective ability is based on efficient management of inter-organizational interfaces. Constellations of firms, with complementary resources, are created in order to build an efficient system of customer offerings. The issues related to how players coordinate and adjust to each other in “value constellations” [36] remains crucial due to the “explosion” of collective strategies [37]. Only a coherent network of several entities, with complementary know-how, allows facing an increasingly fierce competition, as indicated in the transport sector by Seitz et al. [42]. The dominant model is now the “extended” firm, which includes suppliers of suppliers upstream, and customers of customers downstream [10].

As noted by Mentzer et al. [34], the SCM is defined as “the systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole”. Coordination is the use of an articulated set of means and resources to guide the activities of interdependent units in order to achieve a goal, in this case, supply chain

performance, similar to an extended firm [4]. Not surprisingly, issues related to the governance of supply chains have led to an extensive literature based on the different coordination theories [3]. The common feature of the analyzed works is to emphasize that value creation is realized in the framework of close, continuous and effective interactions between the members of a supply chain.

The contribution of Hollweg and Helo [24] pertinently highlights that the major problem is the analytical mismatch between the value chain approach, which focuses on the process of value creation and appropriation, and the supply chain approach, which looks at the operational and strategic processes of logistics management of inter-organizational interfaces. Under these conditions, the realization of a collective project could be affected [41], Sheth et al. [43] show that the firm’s ability to meet the demand is based on close coordination between marketing and purchasing functions. Nevertheless, a third component should be added, the logistics function, which plays a crucial role in interfaces between marketing and purchasing.

2.2 The Need to Return to Intra-Organizational Coordination

In order to start logistical operations with the correct timing, not too early, nor too late, in a new product development or in a supply chain, according to an identified (and driven) request from marketing, it is essential to steer as precisely as possible the upstream and downstream flow of products. A dual aim of continuity (through an effective programming and control) and fluidity (by eliminating logistical overcapacities as much as possible) can then be satisfied. In order to respect this dual goal, intra-organizational coordination is essential, with notably the expected “logistical norms” [12]. To achieve a satisfactory performance level, specific care must ultimately be given to informational links between internal actors to improve their real-time visibility of circulating flows [6]. Successfully managing the supply chain to create customer value requires extensive integration between demand-focused processes and supply-focused processes [15]. Two intra-organizational interfaces are particularly critical:

- *Downstream interface with marketing:* analyzing the demand to be served, ideally in real time. It seeks to satisfy with the best service quality, cost and responsiveness, and to manage potential negative critical incidents stemming from dissatisfaction with product or services [5]. Marketing focuses on demand forecast, based on its customer markets’ expertise to offer individualized and targeted commercial offerings [8][22] whereas logistics analyses the demand structure by providing flow monitoring in order to satisfy customers. An agreement must be reached regarding key points in the process of value creation for the customer: delay and frequency delivery, economic sales quantities, etc.
• Upstream logistics with purchasing: based on supplier relationships in order to enable effective and efficient operations of the production process. If the supply subsystem is close to the purchasing function, it must not be mistaken with it [35]. While the planner, in a logistical perspective, seeks to synchronize the flow of materials and production rates, the buyer selects suppliers from a precise business requirement definition and rigorously negotiates technical conditions (quality of components, after-sales services performance, etc.) and commercial conditions (price, payment terms, etc.). “Developing effective relationships with the most qualified suppliers is a prerequisite to secure the external resources that are required to create customer value and, hence, foster the firm’s competitiveness” [48].

The outsourcing of an increasing number of activities (industrial and services) suggests that customer offer creation leads to thinking only of external resources assessment, capture and stabilization by controlling inter-organizational interfaces. Yet, synergies should also be found between functions within the company [45]. Maintaining a high-standard relationship with a supplier is pointless since, at the same time, buyers and logisticians of the same company diverge in the choice of logistical interface management (for example, the supply frequency). Working on such a relationship would be equally useless if marketing, in the definition of end-customer response, does not relay its needs or changes in products/services in particular through specifications. From this point of view, SCM requires orchestrating marketing (customer offer definition from benefits sought), logistics (flow optimization for customer delivery) and purchasing (supplier market inquiry to develop customer offering). The implementation of a cross-functional integration is required, defined by Frankel and Mollenkopf [19] as “a process of interdepartmental interaction and collaboration in which multiple functions work together in a cooperative manner to arrive at mutually acceptable outcomes for their organization”.

3. LOGISTICS, MARKETING AND PURCHASING: A GOLDEN TRIANGLE

In a value chain approach, involving several actors with complementary skills, adopting a marketing vision is essential on order to give a strategic dimension to managerial decisions related to interfaces with the outside of the firm [30]. Furthermore, the authors add that an efficient marketing strategy must mobilize in-house resources and expertise to stay ahead of competitors. In other words, marketing can succeed unless if it is supported by other functions, particularly logistics and purchasing functions.

3.1 Cross-Functional Approach

An answer to this need was given in part by research on cross-functional approach. This approach can be analyzed at a tactical level, to provide quick solutions for solving small discrepancies in integration, at an operational level, to provide long-term solutions, or at a strategic level, to cover the entire organization [2]. As Allouche and Huault [1] underline, “the concrete cross-functional approach is far from a uniform conceptual vision and its construction is governed by a strong eclecticism. Thus, it appears as an ideal type, or even as a theoretical chimera, almost totally contingent, where the diversity of conditions is added to the plurality of degrees of cross-functionality”.

While the idea of being customer-oriented is increasingly developed in firms, to maintain or create a sustainable competitive advantage [26], it seems essential that this reasoning, centered on the downstream supply chain, is not done at the expense of internal supply chain in the company, or its upstream supply chain. Case studies conducted by Matthysens et al. [32] in an Italian cluster emphasize the crucial importance of this alignment to improve the value creation process. In particular level of purchasing function, and, more generally, the purchasing strategies, ultimately obey choices in terms of innovation, production processes and marketing differentiation. However, the centerpiece seems to be based on how people themselves perceive their role as an interface agent. Two elements are crucial: the central role of executive management and the support in terms of human resources (role definition, evaluation and remuneration methods). Capturing and implementing this approach calls for strategic decisions and a new approach.

3.2 Internal Strategic Relationships

Implementing external collaborative relationships, crucial for the efficient functioning of supply chains, promotes a mirror effect in internal relationships, which can be described as internal strategic relationships [39], especially in the context of demand chain management [13]. These relationships relate to functions in the interface with customers (marketing), suppliers (purchasing) and various flow coordinators (logistics). If Fabbe-Costes and Nollet [16] focus on collaboration between purchasing and logistics to improve supply chain integration, they are also mindful that this integration is essential to ensure greater efficiency of value creation process in a marketing perspective. The issue of organizational integration remains [31].

Indeed, a firm should be able to provide a high integration of its teams, even if their missions are highly differentiated. As Wagner and Eggert [49] point out, this integration requires the existence of actor bonds. In new product development projects, internal integration directly influences firm innovation capacity [27]. We can assume
that this integration also affects a company’s ability to build an efficient supply chain. Thinking a SCM process refers to a philosophy of management and a governance logic that put organizational decisions at the heart of the analysis [14].

The difficulty of establishing a high integration to better manage external resources is all the more important as the departments involved have different business cultures and are often geographically dispersed. As suggested in the case of marketing/purchasing relationships [38][40][46], buyers and marketers do not share the same values and beliefs regarding the advantages of SCM: “At many companies, it is easier to develop cooperative relationships with external supply chain members than it is to break down the silos that exist around individual functions” [17].

Yet, a shared working environment is crucial as indicated in the research on conditions for successful collaboration [23]. It enables team development because nonverbal behavior is essential in tacit knowledge transfer, as underlined by Becerra et al. [7] in inter-firm collaboration. Establishing joint projects and reconciling functions are therefore crucial to avoid “silo” behaviors and ensure that communication can lead to sufficient creativity. The purpose of this exploratory research is to understand the nature of interfaces between logistics, marketing and purchasing and to identify key factors that improve intra-organizational integration between these three functions, in order to enhance value creation for customer.

4. RESEARCH DESIGN, RESULTS AND IMPLICATIONS

An exploratory approach was carried out to better understand the hindrances to a better cross-functional dialogue. Ten semi-structured interviews were conducted with buyers, logisticians and marketers in industrial and retailing firms. For an exploratory research, less than 30 interviewed people is generally no more accepted unless the authors have reached a saturation point where interviewing more could not lead to a better information. It was the case after ten semi-structured interviews. Interlocutors of each function were asked about the nature of their relationship with the other two functions, about their communication difficulties, and the leverages that could be implemented. Each interview, lasting an average of one hour, was fully transcribed. The results will be presented on the two key elements of the interview guideline: (1) interfaces between functions; (2) major difficulties and related proposals of improvement.

4.1. Interfaces between Functions

None of the interviewees mentions strong links with both functions simultaneously. They indicate proximity to a specific function, such as purchasing and logistics. It is not uncommon that links are established via another business function. For example, the link between purchasing and marketing could be set up through relationships with engineering in a new product design: “I spend a lot of time talking with the R&D department, who communicate a lot with marketing. Basically, my internal customer is the R&D department, and the internal customer of the research department is marketing” (purchasing manager); or links between marketing and logistics, through the sales forecasting service. In some cases, purchasing and logistics functions are in the same hierarchy in a supply chain organization, which improve links and allows achieving common goals.

The corporate strategy and business environment play an important role. In companies undergoing high demand variability, interfaces between purchasing and logistics functions are strong. The marketing function often dictates procedures, asking other functions to track needs in product launch: “While marketing is often far from reality, according to its wishes, its development strategy and innovations, the sales department’s aim is to sell, so it does not care whether the clients are delivered, especially as these customers are happy, after... and however there are people who work and will do things to be sure that things will work properly and it is very important for me. And it is really the oil that will add in the gear, all information that can be given to marketing or commercial departments and which will help predict sales to the supply, the flows and the production plan, etc.” (marketing manager). In large companies, it is interesting to highlight that interfaces with other functions are segmented. For example, a project buyer states that logistical links are established via family buyers. This organizational complexity requires strong interfaces within the same function and increases the risk of misunderstanding.

Perceived roles of other functions are still very traditional. For example, respondents in the field of marketing and logistics mention that the aim of purchasing is to reduce costs, negotiate with suppliers or move towards standardisation of purchased components. They do not mention the contribution of innovation as a part of the purchasing function, even though this role is underlined spontaneously by the purchasing respondents. Therefore, there is a time delay between the roles perceived by the interface functions and the roles perceived by the function itself. This finding is significant for purchasing and logistics functions. The evolutions of these functions do not appear to have been fully integrated in firms. The marketing function is meanwhile still perceived as in an “ivory tower” and not connected to the needs/expectations of other functions: “For example, several months ago, the marketing department imposed the delivery of boxes to stores; their labels were ‘pretty’ but useless because the key information for delivery were not available. It needed to be re-packaged accordingly” (logistics manager).

4.2. Difficulties and Proposals for Improvement

The difficulties mentioned are organizational and behavioral. Respondents list, for example, the difficulty in working together when priority goals of each function are
different. The lack of process in common (and thus taking into account the needs of each function) is also highlighted. This can lead to delays in the delivery to end customers, quality defects, etc. The purchasing function highlights, for example, the difficulty of thinking in terms of “genuine need” and not with technical specifications. Finally, individual behaviors can also lead to difficulties, for example, comments like “I do not understand what you are doing” may exacerbate tensions. These difficulties are all the more meaningful when firms are subject to complex markets and strong competition because the complexity of products/services requires a strong internal coordination and constant adaptation of each function. Another element reinforces these difficulties: the complexity of the organization itself, since some purchasing respondents, for example, indicated that the interfaces between purchasing and procurement and respective roles within each function are often unclear.

The improvement proposals that are mostly mentioned by respondents are related to difficulties and therefore organizational and relational challenges. Despite the fact that project management has existed since the early 1990s, they do not seem sufficiently established as an operating cross-functional rule. The formalization of exchanges and the definition of common objectives are also mentioned. Respondents indicated that interpersonal relationships play a fundamental role. The knowledge of power games and existing networks within the company are a significant key success: “What is very important is to know who is responsible for what as we are numerous, and to know who has the power to take decisions. It's essential” (purchasing manager). Finally, the support of corporate management or financial department, as a sponsor or a referee is also indicated. The financial function seems to be able to decide when relationships are difficult because it has the knowledge of costs/goals of each function.

4.3. Managerial Implications

Which recommendations can be drawn from the foregoing, for industrial or commercial firms, in terms of management of intra-organizational interfaces in order to improve the management of inter-organizational interfaces? More precisely, what could be the positive effects of a functional “decompartmentalization” in terms of customer offering enrichment, part of which is precisely based on the management of inter-organizational interfaces? The results of our exploratory research depict an interesting finding regarding the potentially dramatic impact of the non-coherence between the choices of purchasing, logistics and marketing within the company, and its obvious managerial challenges. Two major managerial recommendations emerge:

- Establish or strengthen “organizational tools”: a project management approach or “category management” approach could be enhanced. These organizational bases are the backbone of an open-plan vision allowing an effective interface, internally and externally. Logistics, marketing and purchasing could be more intertwined in teams with a limited useful life, and dedicated to a project, such as the launching of a new product associated to a service, or the redefining of an old product. The more complex the project (regarding the number of functions involved and the necessary interactions between them), the more vital the presence of a coordinator driving interfaces within and across organizations. This approach is even more important in a project where new suppliers are implicated and where offerings overlap with each other is high. The use of information systems and common reporting tools exacerbate the understanding and visibility of other functions and prove to be indispensable.
- Beyond “organizational tools”, human dimension, and notably cultural compatibility of the different players [44], is a critical element of successful integration. In the management of intra-organizational interfaces, a legitimate leader is essential for achieving an expected level of performance. Traditionally, marketing has such a leadership due to its customer market knowledge, as it enables it to finely anticipate the return on investment [43]. However, marketing could be a leader even if a number of organizational restraints based on a well-known “marketing imperialism” are overcome (already highlighted by Tixier et al. [47]). Marketing could assume that role even if it agrees to listen to other business functions in order to avoid the creation of constraints and major risks in other supply chain links. A buyer could also assume that role. Its familiarity with its upstream markets could enable it to identify innovative capabilities of the supplier markets that ultimately should make a difference with competitors. Following this way of thinking, the leading position for driving a project could be attributed to purchasing.

5. CONCLUDING REMARKS

This paper strives to fill in a gap in supply chain research by developing the role of intra-organizational coordination of marketing, purchasing and logistics to improve the customer value. The literature review and analysis proposed highlight that inter-organizational collaboration, on which supply chain performance is built, should be based on an effective coordination between few key functions in each concerned firm. If this condition is not respect, tensions between representatives of these different functions, and specific piecemeal approaches, may undermine the achievement of the collective project. Combining value chain and supply chain approaches, the paper points out that the needed coordination is not the translation of a banal cohesion issue between the various components of a same company.
Rather, it results from the need to give priority to the operations of three critical entities: logistics, marketing and purchasing. As many activities have been outsourced, the companies’ ability to create value today is mainly based on coordination between marketing, which defines demand-tailored offerings, and purchasing that guarantees access to external resources, which are necessary for customer satisfaction [43]. The supply chain approach also shows that flow optimization, in terms of continuity and fluidity, requires close coordination between these two functions and logistics (downstream interface with marketing and upstream interface with purchasing).

In our exploratory study, the observed interfaces are contingent. Links are particularly close between logistics and purchasing when demand is highly variable, and, in large companies, interfaces are limited to certain parts of the concerned functions. It also appears that the management of intra-organizational interfaces does not receive all the attention it deserves. Strong ties observed in the field only involve two of the three key functions and their emergence is often the result of a proximity effect (complementary tasks, personal affinities). Organizational approaches such as project-based management, which could extend the coordination by deliberately including the three key functions, are rarely mobilized. The representation that actors may have of other functions is also a major obstacle. The role of other functions is often described in terms that suggest that there is no way to work together (buyers perceived as cost killer and not likely to make an innovative contribution to offerings) or that the willingness to cooperate is lacking (marketing locked in its “ivory tower”).

Detected contingency factors encourage further analysis by distinguishing several configurations. Area where environment is complex and turbulent is one of those and should be given priority due to the need of a very narrow interface between each of the key functions. Further research could also be fruitful, particularly in focusing on modalities of intra-functional collaboration, by conducting case studies in a small number of companies in which this collaboration is thorough and gives satisfaction to its actors. This would lead to review coordination mechanisms at work in the interfaces between logistics, marketing and purchasing. Mutual adjustment, with many unscheduled informal exchanges and negotiated adjustments, is often favored in this specific context. It would be also relevant to analyze the emphasis of standardization of work processes or, when one of the function dominates, the direct supervision. This will also lead to study critical operations by seeking how to define tasks which fulfillment requires priority trade with other functions, and what the content and frequency of such exchanges are.

Finally, as barriers to coordination seemed important in the exploratory survey, research should be conducted on the impact of incentive and control systems, beyond the cognitive nature of identified barriers (truncated representation of roles). Within a function, contributing to the overall optimization of flow or value creation within a supply chain may involve giving up the local maximization of one of its specific performance indicator (reduced costs for buyers, for example). However, this global contribution may actively be sought only if it is recognized or measured by the company’s appraisal system. Thus, the study of control mechanisms could enable progress in the understanding of success factors of intra-organizational coordination within supply chains.

Acknowledgements

The authors thank Professor Jean-Louis Moulins for his comments and suggestions that have helped us to improve a first draft of the article.

6. REFERENCES


Authors’ biography

Nathalie Merminod is Assistant Professor of Purchasing and Human Resource Management at Aix-Marseille University, France. Member of the Centre de Recherche sur le Transport et la Logistique (CRET-LOG), her major interests are key supplier management, purchasing and HRM strategies and buyer-supplier relationships.

Hervé Fenneteau is Professor of Marketing at Montpellier University, France. He is a member of Montpellier Research in Management (MRM) in Montpellier. In his books, articles, communications and book chapters, he is particularly interested in the marketing aspects of BtoB exchanges.

Gilles Paché is Professor of Retailing and Logistics Management at Aix-Marseille University, France. Member of the Centre de Recherche sur le Transport et la Logistique (CRET-LOG) and Director of the University Press of Aix-Marseille, his major interests are network organizations and supply chain management.