

# **Enhancing Supply Chain Cross-Functional Collaboration between Marketing and Logistics**

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### **ABSTRACT**

Neither the intrafirm behaviours that may improve collaborative marketing/logistics integration nor the potential payoffs of such a major undertaking are well understood at now. In a nutshell, what actions could businesses take to encourage cross-functional integration between marketing and logistics? What are the possible benefits? This article seeks to answer these issues by investigating the connections between the effectiveness of marketing and logistics departmental integration, cross-functional collaboration, and distribution service performance.

### INTRODUCTION

Many businesses are putting significant effort into enhancing their supply chain management (SCM) in an effort to strike a balance between satisfying their consumers and achieving sustainable development. The supply chain encompasses "all activities associated with the flow and transformation of goods from the raw material stage, through to the end user, as well as the associated information flows" [1]. Sustainable competitive advantage may be attained via SCM by integrating these processes with better inter- and intra-firm relationships.

Firms' ability to integrate beyond conventional functional boundaries to deliver superior customer service has been cited as a key to success in today's competitive business environment[2-4]. Companies now put a greater focus on customer service because consumers have become more demanding. Cooperation across divisions or roles is necessary to provide superior service to customers.

Marketing and logistics are the primary departments responsible for meeting the needs of

supply chain customers. If a company wants to make the most of opportunities to enhance its services, it must integrate its marketing and logistics departments together [5-7]. However, such joint marketing/logistics integra- tion may involve the spending of large manage- rial and financial resources. It's not uncommon for significant shifts to be needed from standard procedures.

Neither the potential advantages nor the internal (intrafirm) behaviors that may favorably effect collaborative marketing and logistics integration are well understood at this time. In other words, what actions can businesses take to encourage collaborative integration between marketing and logistics? What are the possible benefits? This research seeks to answer these questions by investigating the connections between organizational factors including assessment and reward, cross-functional teamwork, seamless marketing and logistics departmental integration, and distribution service output.

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#### **BACKGROUND**

It is widely agreed that task interdependence is the cata- lyst for interdepartmental integration. In simpler terms, customer satisfaction is dependent on the output of more than one worker, or one functional area. Numerous empir- ical studies suggest that collaborative cross-functional in- tegration is positively associated with performance [8– 10]. Although cross-functional integration is an important issue, most of the research to date has focused on market- ing/research and development (R&D) integration and the benefits associated with such integration. Empirical stud- ies are needed to examine the potential for marketing/lo- gistics integration and its impact on performance.

Effective marketing/R&D interdepartmental integra-tion is still relatively rare in organizations [11, 12]. This also appears to be the case with marketing/logistics cross-functional integration. The limited studies that were identified indicate that marketing and logistics man-agers have tended not to consult and coordinate with eachother [13–16]. In fact, marketing/logistics interdepart- mental relations tend to be characterized by conflict and lack of communication rather than by collaborative integration. Research is needed to examine the potential con- tribution if marketing/logistics relationships are charac- terized by more collaborative interactions.

# **Collaborative Cross-Functional Integration**

Collaborative interdepartmental integration involves predominantly informal processes based on trust, mutual respect and information sharing, the joint ownership of de-cisions, and collective responsibility for outcomes [8, 9]. In short, collaborative integration is how well departments work together when their jobs require them to do so. Thus, collaboration between departments is often needed to ensure delivery of high quality services to cus-tomers, and involves the ability to work seamlessly across the "silos that have characterized"

organizational structures" [17]. Collaborative behavior is based operation on co-(willingness), rather than on compliance (requirement). Its success is contingent upon the ability of individuals from interdependent departments to build meaningful relationships [18, 19]. The fundamental chal-lenge for managers focusing on improving customer service in the supply chain is to gain a better understanding the antecedents of consequences of cross-functional collaboration.

# Organizational Evaluation and Reward Systems, Cross-Functional Collaboration, and Effective Interdepartmental Relations

Evaluation and reward systems mechanisms that a firm can use to stimulate or foster cooperation between functional areas. Adequate incentives can bring together disparate individuals to achieve common goals [20]. Conversely, short-sighted evaluation and reward systems can create disincentives for collaboration. Firms must ensure that their evaluation and reward systems are aligned with their business strategies. If functions are very interdependent in their work, it is counterproductive to base evaluation and reward systemson individual performance. The nature of such work de- mands compatible systems such as team-based pay compensation, performance appraisal accountability at the team level, and recognition team results To promote [21]. interdepartmental collaboration, marketing and logistics personnel must be encouraged to think

pro- actively about processes rather than discrete job func- tions. Thus, firms whose evaluation and reward systems recognize cooperation and teamwork may experience higher levels of marketing/logistics crossfunctional col- laboration and more effective marketing/logistics interdepartmental relations. Effectiveness of interdepartmental relations involves the perceptions of personnel who interact with people in another functional area, that their relationship is worth- while, equitable, productive, and satisfying [22, 23]. The effectiveness construct is often used to confirm that man-agers' attitudinal perceptions of behavioral initiatives are as expected. For example, in the current context, logistics managers reporting high levels of crossfunctional col- laboration are also expected to perceive that their depart-ments' relationships with marketing are relatively pro- ductive and

worthwhile.

Cross-functional integration is also important because it affects cycle time reduction, perceptions of customer value, and customer service [24]. Therefore, it is also an-

ticipated that cross-functional collaboration and effective interdepartmental relations will be associated with better distribution service performance.

# Cross-Functional Collaboration, Effective Interdepartmental Relations, and DistributionService Performance

As more firms have discovered the significant opportunities for differentiation presented by managing theflow of product to the customer in better, more efficient ways, much attention has been focused on the measurement of distribution service performance. For example, the ability to meet quoted or anticipated delivery dates and quantities on a consistent basis, the ability to respond to the needs and wants of key customers, and the ability to notify customers in advance of delivery delays or product shortages are identified as key distribution ser- vice performance areas [25].

Many successful firms are focusing on distribution competency to build relationships with key customers bycustomizing their basic service offering until it is "just different enough to fit exactly what the customer needs" [26]. The proliferation of quick response systems (QRs), efficient consumer response (ECR) initiatives, and just- in-time (JIT) supply programs are tangible examples of how a distribution service can offer customers added value. These programs tend to position a distribution ser-vice as the core capability that achieves customer satis- faction through inventory availability, timely delivery, lower product failure rates, and thus fewer lost sales

or returns/complaints [27].

Successful distribution service performance is often dependent on the level of collaboration that exists be- tween the firm's marketing and logistics functions. The absence of crossfunctional collaboration may result in promises made by the firm's sales force that have not been coordinated with logistics, promotions that are not synchronized with delivery schedules, and failure to de-liver product in a specific, requested format because it is not the most efficient way to do so. Without marketing/ logistics cross-functional collaboration, firms cannot be expected to respond optimally to customers' require- ments. It is, therefore, expected that effective interdepart- mental relations-the product of cross-functional collabo- ration-will be positively associated with distribution service performance.

In summary, this study proposes that crossfunctional collaboration and effective interdepartmental relations are influenced by the organization's evaluation and re- ward system, and that cross-functional collaboration and effective interdepartmental relations are positively asso- ciated with distribution service performance. The pro- posed relationships are summarized in Figure 1.

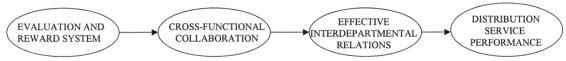


FIGURE 1 Proposed relationships.

### METHODS Sample Design

The sampling frame consisted of logistics managers employed by U.S.-based manufacturers listed in the Council of Logistics Management (CLM) membership roster, where 2,046 potential candidates were identified. A mail survey methodology was employed.

A preliminary survey instrument was

pretested with 12 logistics managers and educators who were asked to comment on the wording, presentation, and face validity of items in the instrument. Suggestions for the rewording and repositioning of items were incorporated into the fi- nal instrument. Next, researchers telephoned 360 logis- tics managers

randomly drawn from the sampling frame, to ask for permission to mail out the questionnaire. One hundred and fifty-two logistics managers that were origi-nally selected had to be replaced (17 had moved on; 22 were out of the office for the duration of the calling pe- riod; 7 no longer worked as logistics managers; 20 de- clined the opportunity to participate; and 86 had not been reached after 6 call attempts). The prenotification pro- cess continued for 10 days, until 360 managers agreed to participate.

The initial mailing was comprised of a personalized re-quest on university letterhead. In addition, a \$2 bill was included with each questionnaire (the inclusion was not mentioned in the prior telephone conversations). To further facilitate the process, return postage was also pro- vided. Two hundred and sixty-one managers responded to the first mailing. An

additional 48 managers responded to a second mailing that was sent to the 99 managers who had not responded after 4 weeks—for a total of 309 re- sponses (60.4%). Table 1 provides descriptive statistics of the sample.

Non-response bias was assessed using procedures rec-ommended by Armstrong and Overton [28]. The lastone-quarter of responses received were assumed to be most similar to non-respondents, since their replies took the longest time and the most effort to obtain. Therefore, the last quartile was compared to the first three quartiles. The comparisons of group mean responses to survey ques-tions revealed no significant differences on the 20 vari- ables analyzed, suggesting that non-response bias is un-likely to be an issue in interpreting the results of this study.

TABLE 1
Sample Characteristics (309 Logistics Managers)

Annual divisional sales for the last financial year	
\$100 million or less	10%
Over \$100 million to \$500 million	37%
Over \$500 million to \$1 billion	20%
Over \$1 billion	33%
Number of full-time employees	
250 or less	16%
251 to 500	17%
501 to 1,000	16%
1,001 to 2,000	19%
Over 2,000	32%
Industry description—leading categories	
Food	52 managers (16.8%)
Consumer goods (non-food)	44 managers (14.2%)
Chemicals	43 managers (13.9%)
Computers/communications	36 managers (11.6%)
Pharmaceuticals	24 managers (7.8%)
Automotive	19 managers (6.1%)
Paper/packaging	16 managers (5.2%)

### **Measure Development**

Measures were selected based on past research and, where necessary, were adapted to fit the current context. Items from Barclay's study were utilized to assess mana-gerial perceptions of organizational evaluation and re- ward systems [29]. Cross-functional collaboration was examined with a series of items adapted from Kahn's re- search that examined the impact of R&D, marketing, andmanufacturing cross-functional integration on perfor- mance [9]. The items for perceived effectiveness of

inter-departmental relations were adapted from Van de Ven and Ferry's work on the evaluation and assessment of or-ganizations that has been employed in numerous more re-cent studies [30]. Finally, distribution service perfor-mance was measured using items from the Michigan State Global Logistics research study [25]. All scale mea-sures had Cronbach alpha values equal to or greater than 0.70 and were considered reliable according to Nun-nally's guidelines for reliability [31].

### **ANALYSIS AND RESULTS**

First, the mean scores for the scales, and for the indi- vidual items in each scale, are presented in order to eval- uate current perceptions of organizational reward and evaluation systems, marketing/logistics cross-

### **CONCLUSIONS**

The results of the current research suggested that there are performance benefits associated with encouraging ef-fective marketing/logistics interdepartmental relations, and that an appropriate evaluation and reward system that recognizes teamwork and cooperation is a significant cat-alyst for the promotion of crossfunctional collaboration. The positive link between interpersonal communication strategy and distribution service performance indicated by the results of this research should be of particular in- terest to supply chain managers and academics. Re- searchers have often suggested that the integration of interdependent functions improves performance. However, studies that empirically support this

functional collaboration, the effectiveness of interdepartmental rela-tions, and distribution service performance. Following this, the tests for the proposed relationships are de-scribed, and the results are presented and discussed.

association are scarce–particularly in the marketing/logistics area.

As the supply chain perspective makes distributionservice even more critical for longterm success, firms will need to develop a better of understanding marketing/ logistics interdepartmental integration. Future research should further investigate the antecedents and conse- quences of marketing/logistics crossfunctional collabo- ration. For example, managers' perceptions of their interdepartmental integration could be linked to secondary financial measures performance to fur-ther validate the findings presented in this study.

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