

# A Model for the Distribution Channels Planning Process

Marcos Fava Neves<sup>1</sup>  
Peter Zuurbier  
Marcos Cortez Campomar

UNIVERSITY OF SÃO PAULO, BRAZIL

## ABSTRACT

Research of existing literature reveals a sequence of steps for food and beverage companies that want to plan distribution channels (part of the chain starting from the company towards the final consumer). The literature review of marketing channels, transaction costs and four planning models of distribution channels revealed that almost none of these models use contributions of Transaction Cost Economics (TCE). So there is a possibility to elaborate on a “Distribution Channels Planning Model”, bringing in contributions of TCE and organizing the steps according to a sequence that would be useful for companies to use when they want to review the distribution process. Such a sequence was submitted to the private sector in interviews, which also asked for contributions and evaluations of the sequence’s applicability.

**keywords:** Distribution channels, marketing channels, chain planning, channels planning

## 1 – Introduction and Method

Several food and agribusiness companies are unsatisfied with the distribution of their products and services. *Distribution* builds stable competitive advantages, since marketing channels are of long-range planning and implementation, and to build them needs a consistent structure and due also to the fact that they are focused on people and relationships. This sequence was elaborated based on the revision of four existing models available in the literature (Stern et al., 1996; Rosembloon, 1999; Berman, 1996 and Kotler, 1997), and other contributions on supply chains (Walters & Gattorna, 1996; Ziggers, Trienekens & Zuurbier, 1998; Trienekens & Zuurbier, 1996; among others). After this sequence was elaborated, it was submitted to 10 participants in the private sector, mostly food and beverage companies, who evaluated it and suggested contributions to be added.

*What is new about this model and how does it contribute to existing literature?*

- A sequence of steps was produced in which some tools from Transaction Cost Economics, not available in the other planning models, are added to distribution channels planning.
- This sequence of steps may be more complete than other models in the literature, because it combines more parts, it adds extra steps, and even adds more analysis to some steps based on contributions from articles and other sources.

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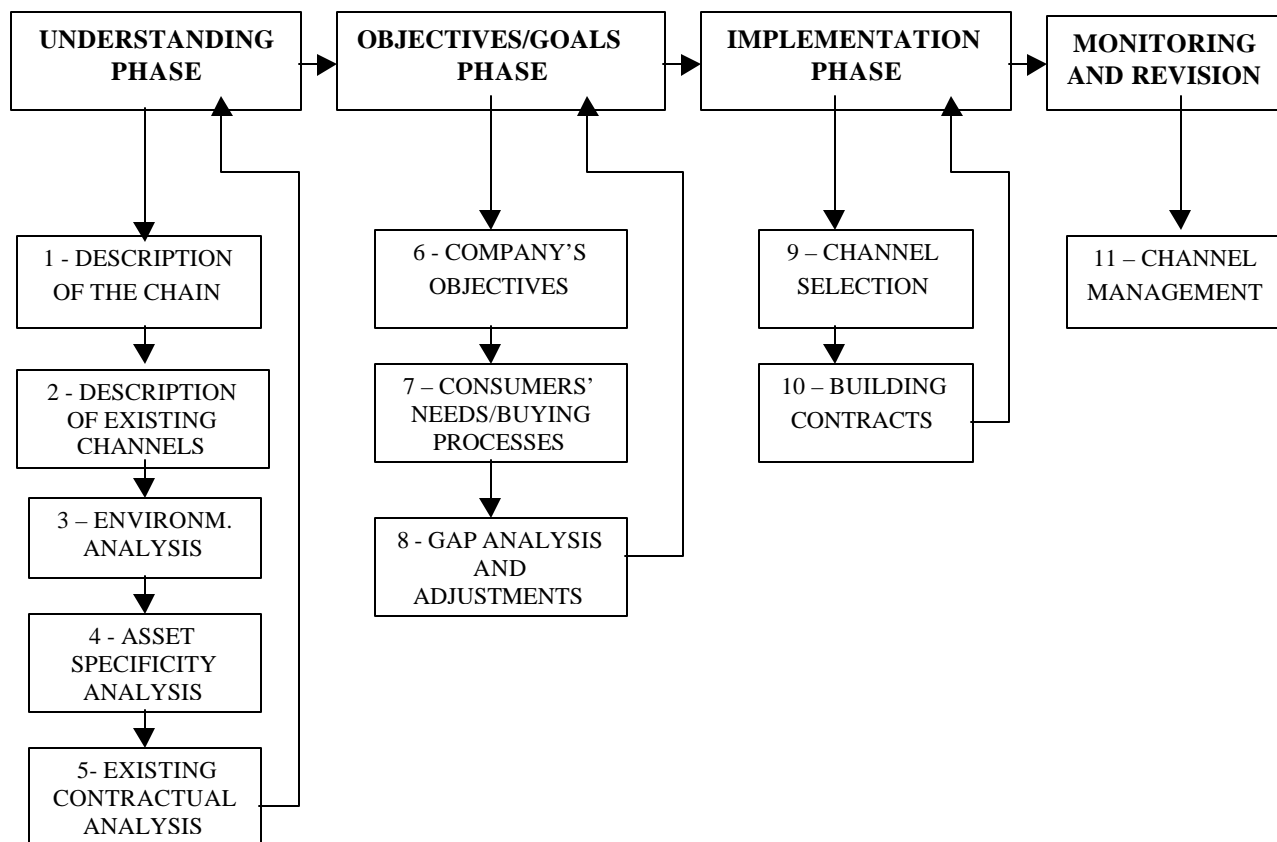
<sup>1</sup> Authors are from: Business/Marketing Department of the School of Economics and Business of the University of São Paulo (FEARP/USP), Campus of Ribeirão Preto (Brazil); Department of Economics and Management of Wageningen University (Netherlands); and Business Department of the School of Economics and Business of the University of São Paulo (FEA/USP). Email: mfaneves@usp.br

- The model adds a step of power analysis, to help in the steps of building contracts, asset specificity analysis, and others.
- It considers as a first step an analysis of the whole chain, which is not suggested in the other distribution planning models, which start by looking only at the channels (forward of the company).
- Since the model was evaluated and enhanced by the private sector and also by specialists, its possible users have already indicated that it can be applied.

## 2 - The Description of the Model<sup>2</sup>

This sequence can be organized in the following way:

Figure 1: O Model for the Food Distribution Channels Planning Process



<sup>2</sup> Due to space restrictions, a summary will be described here. The full model (around 50 pages) is one part of the PhD thesis of the first author. The complete model can be obtained electronically at the email address: mfaneves@usp.br

### 3 – Detailing the Sequence of Steps

#### 3.1 - Description of the Whole Chain

The purpose of the model is to describe, in a chart, all the agents that perform functions in the chain, from first suppliers to final consumers, in order to have a general overview of the main industries operating in the chain, and, with this systemic approach, to make an analysis of the other chains that compete with the final product(s). If a company is operating in the poultry business, red meat business, sugar business, orange juice business, milk, or beer, for example, just one system will be described. But for companies operating in more businesses, all the systems (chains) should be described, inserting the agents that perform negotiation functions (suppliers, farms, industry, wholesalers, retailers and others) at the product flow. With the recent trends of traceability, it is even more important to have this complete picture of the chain. This step will also add more insights to be discussed at the environmental analysis step.

#### 3.2 - Description of Distribution Channels of the Industry and of the Particular Company

The purpose of this step is to describe all the agents that perform functions in the channel (part of the chain) for the industry being analyzed. This allows to obtain a more accurate view, understand the agents and perform a first analysis of the functions they perform. An analysis of the consumption data, industry numbers, main companies and other information should also be addressed at this step, in order to facilitate and provide more information. After the aggregation level of the industry, the channels of the individual company should be described. The latter can be different from the industry channels, since some of these channels may not be in use. Sales and financial data should be provided, in order to understand which channels are the most important for the companies' sales and profits. The flow tables can be used for each channel participant to document whether they perform the functions, whether they could perform the functions, and possible actions or improvements related to the function.

**Table 1- Flow Table (one for each of the four flows)**

FUNCTION	ACTORS	ALTERNATIVE SOLUTIONS
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Source: Elaborated by the author using Corey et al. (1989); Rosenbloom (1999), Wilson & Vlosky, 1997; Jackson & D'Amico (1989) and interviews.

The following factors should be considered as functions, and one table for each of the flows could be built:

- *Product and services flow*: inventory management, product transportation, product modification and after-sale service, customizing a product for the specific needs, providing technical service, product maintenance and repair, procedure and handling of returned products, promote product availability, packaging, specific packaging requirements, evaluating new products, after-sales follow up, industrial consumer services, preserving quality, and others.
- *Communication flow*: (from company to final consumers) sales promotion to final consumers, information about product features, advertising, providing sales force, frequent visits/face-to-face contacts, packaging information, loyalty programs, web site participation, traceability information and others.
- *Information flow* (from consumer to company): sharing knowledge of local market, scanning data (access to computer data), complaints via web site/service line, order frequency, order formats consideration, arrange information about consumption and others.
- *Payments and financial flows*: conducting credit checks on final consumers, billing customers, caring for specific customer orders, arrange for credit provisions, price guarantees, financing and others.

### 3.3 - Environmental Analysis and Impacts to the Channel:

Environmental changes are unanticipated changes in circumstances surrounding an exchange. The bigger the uncertainties, the bigger the motivation for firms to seek governance structures that minimize transaction costs (Williamson, 1985). The purpose is to analyze some of the possible factors that could impact the industry’s channels in the future and also the company’s channels. The tool to be used here is the traditional “step” analysis, evaluating the socio-cultural, economic, technological and political (institutional) factors. The step is well described in the literature (Johnson & Scholes, 1997; Mintzberg, 1994). Some insights to facilitate the specific analysis of drivers and implications regarding distribution channels are provided, using factors listed in literature and contributions from interviews.

**Table 2- Possible Impacts of External Environment**

Drivers	Implications	Probability	Impact
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- *Possible impacts of economic environment:* income changes, education/professional level, employment, exchange rates, interest rates, economic integration, supplier concentration, buyer concentration, business life cycles, GNP trends, capital and financial availability, inflation, energy availability, natural environment input constraints (water, air), tourism expenditure and others.
- *Possible impacts of political/legal environment in the channels:* market access (protectionism), package recycling laws, antitrust policy, economic integration (commercial blocks), labeling requirement, packaging constraints, types of communication constraints, tariffs barriers, taxation policies, employment law, government stability, subsidy policies, product and/or process certification and others.
- *Possible impacts of technological environment in the channels:* new technological solutions, mail sales, phone sales, internet sales, scanners, computerized stock, just-in-time deliveries, EDI (electronic data interchange), POS data (point of sales data), electronic funds transfer, automated ordering, technological transfer, ECR (efficient consumer response), cellular phones and others.
- *Possible impacts of socio-cultural environment:* women working, age demographics, race, time-reducing, elderly, individuality, security, convenience, leisure, social mobility, income distribution, attitudes to work, lifestyle changes, family sizes and others.

What actions should the company take if those listed factors happen? The following table can be filled in to obtain an overview of the process, which has the advantage of forcing the company to consider alternative plans to deal with environmental changes.

**Table 3- Table of Impacts and Reactions**

List of All High Impacts	Company/Channel/Chain Actions
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#### *Power Analysis in the Channel:*

After the analysis of the environment, it is important and complementary to make a power analysis of the channel, power sources and others. This will bring about a better strategic understanding of the business, and of what the company should expect regarding negotiations, availability of channels, private labels, and other factors. Channel power refers to the ability of a channel member to control or influence the marketing strategy of an independent channel member at another level in the channel, possibly making them change their behavior, or perform an activity that they would normally not perform. The main sources are coercive power, reward power, referent power, expertise power, persuasion power, legitimate power and information power (Lusch, 1976; Hunt & Nevin, 1974; El Ansary & Stern, 1972).

Some tables regarding sources of power in the channels should be produced, including their impact and how to deal with them in terms of possible best strategies to follow to reduce the power imbalance. The following model can be useful. In it, the company evaluates power sources of the main agents that are used or will be used, for example, using a rating of 0-10.

**Table 4- Power: Analysis of Channels Sources**

SOURCES OF POWER	AGENT 01	AGENT 02	AGENT 03
Insert the source	Grade 0-10		

### 3.4 - Asset Specificity Analysis

This analysis will be very important for building contracts and relationships, as it will provide insights into how to organize and coordinate the transactions in the channel. Anderson (1985) and John & Weitz (1988) state that there is a relationship between asset specificity and channel integration. The most important of these are physical-specific assets, time-specific assets, information and knowledge technology, human-specific assets, location (site) specificity and marketing/transaction specificity. Filling in the following table can help in the analysis.

**Table 5 - Physical Specific Investment Analysis: Infrastructure and Facilities**

TYPE OF ASSETS/INVESTMENTS	DEGREE OF SPECIFICITY	REALLOCATION COSTS
	(High/Medium/Low)	(Impossible, High, Medium, Low)

The following lists of factors were elaborated based on Bello & Lohtia (1995), Klein et al. (1990), Kozak & Cohen (1997) and interviews.

- *Physical specific investment analysis – Infrastructure and Facilities:* general factory, cold storage, special storage structure, tailored production facility, product demonstration facilities, specialized warehouses, repair and service centers and other distribution channels investments.
- *Time specificity analysis – refers to time pressure to do the transaction (flow):* shelf life (perishable), frequent/rapid deliveries, seasonality of production and consumption (inventory needs) and other time related procedures.
- *Information and knowledge technology specific asset analysis:* EDI/equipment for electronic data exchange investments, software, management process by product category, joint logistic planning process, joint quality programs, traceability programs setting, new process joint generation, stock management process and others.
- *Specific human asset analysis:* general training of distributors, joint sales training, production process knowledge, market knowledge, product brand knowledge and others.
- *Site asset specificity analysis – refers to physical locations:* proximity needs (transport costs), energy supply, water supply, disposal of materials, strategic position of inventory, location of distribution centers, location of outlets (point specificity)
- *Marketing/transaction specific investments asset analysis:* conjoint brand development, joint planning advertising, packaging development, publicity efforts and others.

Transaction costs are costs related to the occurrence of a transaction, or costs of governing the system (Klein et al, 1990), arising before and after the transaction takes place. These costs are normally not strongly considered in business analysis, but are very important in choosing strategies. The following table can help.

**Table 6- Table of Transaction Costs: Possible Source of Transaction Costs in the Company’s Distribution Channels, The Impact (High/Medium/Low) and How to Reduce it**

TRANSACTION COSTS	Impact	How to Reduce it?
(Types)		

- *Ex-ante transaction costs*: price information search, product selling uncertainty, selection of alternatives, negotiation time, contract writing, search for quality information, search for buyers and sellers
- *Ex-post transaction costs*: monitoring performance, redesigning contracts, renegotiations, monitoring property rights, monitoring technology copy, monitoring brand use, adaptation, legal disputes, non-delivery risks (supply), risk of losing contracts.

This table can be done individually for each channel in separate forms. Then a more specific analysis of ways to reduce transaction costs could be produced, following the next table:

**Table 7- Monitoring Activities, Company's Ability, Task Observability, Cost**

<b>List of Activities</b>	<b>Ability to Monitor</b>	<b>Observability of Activity</b>	<b>Cost of Monitoring</b>
	<b>High/Medium/Low</b>	<b>High/Medium/Low</b>	<b>High/Medium/Low</b>

### **3.5- Existing Contractual Analysis and Benchmarking**

Now it is important to understand how the relationships are governed in the distribution channels of the products in the industry, the coordination forms, general contract practices, and buying procedures/processes. It is important to decide whether the company is proposing in the next steps coordination forms that are very difficult to realize, and whether they will bring a lot of negotiation and learning costs. It is also important to understand and evaluate best practices.

### **3.6 - The Objectives of the Company**

These should agree with the strategic planning program, if the company has one, or they should at least be consistent with the price, product and communication strategies. The objectives (goals) should be set in relation to several variables, like volume (\$), profit, sales margins, inventory turnover, market share, customer satisfaction, sales expenses, return on investment in channels, inventory expense, overall customer service level, volume (units) by product type, volume (\$) per salesperson, volume (\$) per quota, profit by supplier, volume (\$) by product type, profit by product type and others. In terms of behavior-based measures, the most important measures to be considered are service department, warranty claims processing, building/facilities, office systems, employee incentive plans, coverage of trade area, product knowledge/salesperson, selling skills/salespeople, dealership financial plan, dealership business plan, advertising and promotion program, number of customer complaints, buyer credit management, sales forecast-accuracy, sales call-total no., calls-current customer, calls-noncustomers, number of product demonstrations and others. At this step, the company will produce several tables, forecasts, and other kinds of goal setting tools. Some useful insights can be given by Kumar et al. (1992); Spriggs (1994); Berman (1996); Stern et al. (1996), Rosenbloom (1999), Gattorna & Walters (1996).

### **3.7 – The Consumer's Objectives, Needs and Buying Process**

This step relates to marketing research with final consumers and intermediaries to gain insights about the perfect distribution systems from the consumer's point of view. The high cost of marketing research means that the kind of research that should be done depends on each company and their objectives; but it is very important to build customer-driven distribution systems (Stern et al., 1996). According to Gattorna & Walters (1996), several methods are available to measure consumer satisfaction. First, in a design stage, it is important to establish the service and product expectations held by consumers. For this stage, a qualitative phase to generate a list of relevant service and product attributes based upon customer

experience is interesting. This list will be used for the design of a questionnaire to be used in the quantitative phase. All the functions and lists used in step 3.2 can be used here to facilitate the understanding of consumer needs. Marketing research books (Malhotra, 1996; Hair et al., 1995; Aaker & Day, 1982) provide sufficient information and techniques. The buying process of clients and consumers must be considered and analyzed.

### **3.8 – Gap Analysis and Quick Adjustments**

The company has its own ideas about what it wants as a distribution channel and about consumers' desires, and at this step all these should be confronted in order to make the best and feasible strategic decision for the company. All the goals should be confronted with market (consumer) restrictions and company restrictions. Quick adjustments refers to a step described in Stern et al. (1996) in which companies could get some insights from all the steps conducted so far and implement them immediately in existing channels, if they are clearly advantageous.

### **3.9 – Selection of Channels and Negotiation**

Once the objective is set, the company can select the channel structure and channel members, if it has the flexibility to do so, which depends on the availability of agents in the channel, the kind of relationship that will be build and several other factors analyzed in the preceding steps. For the negotiation process, several techniques are available, and a framework to build successful negotiations can be found in the work by Lynch (1993).

### **3.10 – Building Contracts and Relationships**

This step involves the design of written or other types of contracts (e.g. oral agreements) with the partners in the channels, or selling in market transactions or other forms, depending on the suggested coordination forms from the previous steps. Other aspects include contractual safeguards against opportunism in the channel, means of enforcement, adaptations to changed circumstances, building exit barriers, incentive design and monitoring. When building contracts, participants must consider the possible conflict sources, establish ways to minimize these sources, and plan actions to be taken in case conflicts arise. If the company chooses a franchise format, it can find models of contracts in the marketing channels books referenced above. If the company decides to enter a strategic alliance (joint-venture) or other kind of relationship, Lynch (1993), Gattorna & Walters (1996) and the marketing channel references can be consulted for models to be followed.

### **3.11 – Channels Management**

The last step of the process is the management of the relationships. The literature on channel management is vast and it suggest several techniques and management skills. Only some aspects relating to building successful partnerships and trust, something of fundamental importance, will be highlighted here. The suggestion is to use references and tools of the relationship marketing, commitment and trust theory to help channels management (Morgan & Hunt, 1994). The physical process and logistics should also be strongly considered. Motivation of the members is an important task that the company should address, and Rosenbloom (1999) provides a list of common motivation techniques that could be used by the

company. There is extensive literature on trust and trust development in transactions, and these works are useful at this step. A good starting point is the research done by Doney & Cannon (1997), which stresses several contributions of the literature. Kozak and Cohen (1997) bring a list of statements for companies to use to achieve the level of trust and commitment with suppliers, which can be adapted in this case to distributors.

## 4 – Final Comments

Finally, this *Distribution Channels Planning Process* should be done frequently, to effectively address competitive advantages. The first time it is completed, the process will be time and money consuming, mainly for the companies that are starting from zero. However, once the process is done, the following analyses will be easier, because data are more organized and easily available, the knowledge of the planning process is known by the company and further decisions will consider what is new in the environment. At this moment, we can say that the model is applicable, but not that it produces positive results in terms of measures taken by companies, because it has not been tested yet. The process is currently being used for a food company, and the results (to see if the sequence [model] is useful) will be presented later. Of course not all companies will complete all the steps presented here; some of the channels will not be available (retailers, for instance), and for a company with several products, the analysis is more difficult, but extremely important due to the fact that distribution channels provide competitive advantage.

## 5 – References

- Aaker, D. A. & Day, G. S.. *Marketing Research*. John Wiley and Sons, 3<sup>rd</sup> edition, 1982, 677 p.
- Anderson, E. & Weitz, B. A.. *The Use of Pledges to Build and Sustain Commitment in Distribution Channels*. Journal of Marketing Research, v. 24, 1992, p. 18-34.
- Antia, K. D. & Frazier, G. L.. *Channel Coordination and the Selective Enforcement of Contract*. Working Paper, John M. Olin School of Business, Washington University, Saint Louis, USA. Submitted to the Journal of Marketing. (not published).
- Bello, D. C. & Lohtia, R.. *Export Channel Design: The Use of Foreign Distributors and Agents*. Journal of Academy of Marketing Science, v. 23, n. 2, 1995, p. 83-93.
- Berman, B.. *Marketing Channels*. John Willey & Sons, 1996, 663 p..
- Corey, E. R., Cespedes, F. V. & Rangan, V. K.. *Going to Market - Distribution Systems for Industrial Products*. Harvard Business School Press, Boston MA, USA, 1989, 394 p..
- Doney, P. M. & Cannon, J. P.. *An Examination of the Nature of Trust in Buyer-Seller Relationships*. Journal of Marketing, v. 61, April 1997, p. 35-51.
- Dwyer, F. R. & Oh, S.. *A Transaction Cost Perspective on Vertical Integration Structure and Interchannel Competitive Strategies*. Journal of Marketing, v. 52, 1988, p. 21-34.
- El-Ansary, A. I. & Stern, L. W.. *Power Measurement in the Distribution Channel*. Journal of Marketing Research, v. 9, 1972, p. 47-52.
- Frazier, G. L. & Summers, J. O.. *Interfirm Influence Strategies and Their Application Within Distribution Channels*. Journal of Marketing, v. 48, 1984, p. 43-55.
- Gattorna, J. L. & Walters, D.W. – *Managing the Supply Chain*, New York, MacMillan, 1996, pg: 189-203
- Hair Jr., J. F.; Anderson, R. E.; Tatham, R. L. & Black, W. C.. *Multivariate Data Analysis with Readings*. Fourth Edition, Prentice Hall, 1995, 745 p..
- Heide, J. B.. *Interorganizational Governance in Marketing Channels*. Journal of Marketing, v. 58, January 1994, p. 71-85.

- Hobbs, J. E.. *A Transaction Cost Approach to Supply Chain Management*. Supply Chain Management, v. 1, n. 2, 1996, p. 15-27.
- Hunt, S. D. & Nevin, J. R.. *Power in a Channel of Distribution: Sources and Consequences*. Journal of Marketing Research, v. 11, 1974, p. 186-193.
- Jackson, D. M. & d'Amico, M. F.. *Products and Markets Served by Distributors and Agents*. Industrial Marketing Management, v. 18, 1989, p. 27-33.
- John, G.. *An Empirical Investigation of Some Antecedents of Opportunism in a Marketing Channel*. Journal of Marketing Research, v. 21, August 1984, p. 278-289.
- Johnson, G. & Scholes, K.. *Exploring Corporate Strategy*. Prentice Hall, 4<sup>th</sup> Edition, 1997, 866 p..
- Klein, S.; Frazier, G. L. & Roth, V. J.. *A Transactional Cost Analysis Model of Channel Integration in International Markets*. Journal of Marketing Research, v. 27, May 1990, p. 196-208.
- Kotler, P.. *Administração de Marketing: Análise, Planejamento, Implementação e Controle*. São Paulo : Atlas, 1997, 8<sup>a</sup> edição, 676 p..
- Kozak, R. A. & Cohen, D. H.. *Distributor-Supplier Partnering Relationships: A Case in Trust*. Journal of Business Research, v. 39, 1997, p. 33-38.
- Lusch, R. F.. *Sources of Power: Their Impact on Intrachannel Conflict*. Journal of Marketing Research, v. 13, 1976, p. 382-390.
- Lynch, R.P. . *Business Alliance Guide* – John Willey and Sons, 1993, 337 p..
- Malhotra, N. K.. *Marketing Research: An Applied Orientation*. Prentice Hall, 2<sup>nd</sup> edition, 1996, 890 p..
- Mintzberg, H.. *The Rise and Fall of Strategic Planning* – Prentice Hall, 1994, 458 p..
- Morgan, R. M. & Hunt, S. D.. *The Commitment-Trust Theory of Relationship Marketing*. Journal of Marketing, v. 58, July 1994, p. 20-38.
- Neves, M.F. *Um Modelo para Planejamento de Canais de Distribuição no Setor de Alimentos (A Model for Distribution Channels Planning for the Food Industry)* – Tese de Doutorado apresentada a FEA/USP (Ph.D. thesis presented at the School of Economics and Business, University of São Paulo, Brazil, 297 p, 1999.
- Phillips, L. W.. *Explaining Control Losses in Corporate Marketing Channels: An Organizational Analysis*. Journal of Marketing Research, v. 19, November 1982, p. 525-548.
- Rindfleisch, A. & Heide, J. B.. *Transaction Cost Analysis: Past, Present and Future Applications*. Journal of Marketing, v. 61, October 1997, p. 30-54.
- Rosenbloom, B. *Marketing Channels*. The Dryden Press, 6<sup>th</sup> edition, 1999, 688 p..
- Stern, L. & El-Ansary, A. I. & Coughlan, A. *Marketing Channels*. Prentice Hall, 5<sup>th</sup> edition, 1996, 576 p..
- Trienekens, J. & Zuurbier, P.J.P.. *Proceedings of the Second International Conference on Chain Management in Agribusiness and the Food Industry* – Management Studies Group – Wageningen University – Netherlands, 1996, 632 p.
- Vorst, J. G. A. J. van der; Beulens, A. J. M. & Beek, P. van. *Supply Chain Management in Food Chains: Improving Performance by Reducing Uncertainty*. International Transactions in Operational Research, v. 5, n. 6, 1998, p. 487-499.
- Weiss, A. M. & Anderson, E.. *Converting from Independent to Employee Salesforces: The Role of Perceived Switching Costs*. Journal of Marketing Research, v. 29, 1992, p. 101-115.
- Williamson, O. E.. *The Economics Institutions of Capitalism*. The Free Press, 1985, 445 p..
- Wilson, E. J. & Vlosky, R. P.. *Partnering Relationship Activities: Building Theory from Case Study Research*. Journal of Business Research, v. 39, 1997, p. 59-70.
- Ziggers, G.W., Trienekens, J. & Zuurbier, P.J.P.. *Proceedings of the Third International Conference on Chain Management in Agribusiness and the Food Industry* – Management Studies Group – Wageningen University – Netherlands, 1998, 963 p..
- Zylbersztajn, D. & Farina, E. M. M. Q.. *Agri-System Management: Recent Developments and Applicability of the Concept*. Paper presented at the First Brazilian Workshop on Agri-Chain Management, FEA/USP, Ribeirão Preto, SP, November 1997, p. 18-38.