

Chain marketing of agricultural products

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Introduction

In the classic textbook on marketing of agricultural products by Kohls and Uhl (1990, p. 5/6) food marketing is defined as: 'the performance of all business activities involved in the flow of food products and services from the point of initial agricultural production until they are in the hands of consumers.' Traditionally activities of different companies and institutions in the marketing channel are co-ordinated through market prices. At present in many channels, these activities have to be co-ordinated in a more precise way than the 'invisible hand' of market prices can bring about, e.g. contract farming is familiar in raising pigs and poultry, account management creates relationships, contracts between food industry and food retail chains are a co-ordination device in private label operations. Vertical integration is familiar to agricultural marketing and has often international dimensions, e.g. 'Multinational corporations are beginning to assemble cattle the way they assemble cars, bringing together inputs - seeds, grain, pharmaceuticals, cattle embryos, cattle, automated slaughtering processes, wholesale marketing, and retail distribution- from various countries into a single coordinated operation.' (Rifkin 1992, p. 148), or 'In the United States, Cargill, Continental, and Bunge have all moved aggressively into domestic grain 'refining' with their investments in flour-milling, soybean-crushing plants, and ultra-modern facilities for manufacturing feed ingredients or corn sweeteners.' (Morgan 1980, p. 305).

While a host of co-ordination mechanisms are applied in agricultural marketing channels, there is no theoretical framework on marketing co-ordination in agricultural marketing channels. In marketing and economic theory and in organization sociology, many concepts and theories on co-ordination of business activities in general and marketing activities in particular have been developed. Our paper intends to develop a theoretical framework for marketing co-ordination in agricultural marketing channels, making use of a number of concepts and theories on co-ordination as developed in other disciplines.

Our analysis of marketing co-ordination in agricultural marketing channels is focused on the concept 'chain marketing'. Chain marketing is defined as *a joint marketing operation by two or more successive companies in a marketing channel vis-à-vis a third party, the customer/ consumer*. We use the concept 'chain marketing' in analogy of the 'value chain' concept of Porter (1985). The agricultural marketing channel as a whole can be

viewed as a value chain. With respect to chain marketing, a set of successive companies are working closely together to manage the flow of agricultural goods along the entire value-added chain, i.e. the agricultural marketing channel.

Our concept of chain marketing is also closely related to the well known concept of 'vertical marketing system' (Bucklin 1970; Stern and El-Ansary 1992). While the introduced concept of 'chain marketing' is concerned with the marketing process in the channel, the concept of 'vertical marketing system' refers to the marketing structure/phenomenon. Actually, in one of the first authoritative publications on that topic a 'vertical marketing system' is defined as '*...the set of forces, conditions, and institutions (italics are ours) associated with the sequential passage of a product or a service through two or more markets.*' (Bucklin 1970, p. 2).

Since chain marketing is concerned with vertical planning of marketing policies through the marketing channel, we first will pay attention to the concept of the marketing channel. In section 3, chain marketing is analyzed by discussing successively the objectives, the objects, the functions, the institutions and co-ordination mechanisms/relationships of a chain marketing operation. After having analyzed these structural elements of chain marketing, environmental developments, which may stimulate chain marketing in agriculture, will be discussed. Finally, some hypotheses about the development of chain marketing are proposed and related to the environmental developments.

Marketing channels

Often a sequence of companies from producer to final consumer perform marketing functions in order to fit market supply to the needs and wants of prospects. This sequence of companies is called the marketing channel. Marketing functions can be classified as exchange functions, physical functions and facilitating functions. While producers perform marketing functions in addition to the production function, other companies in the marketing channel (like wholesalers and retailers) have specialized on marketing functions only (in particular distribution functions). Although many companies in the marketing channel take title to the good, some other companies, like brokers or agents, facilitate exchange processes without taking title to the product. Other companies, like transport companies, perform facilitating marketing functions without taking part in marketing decision making at all. Typical of some agricultural marketing channels are specific market institutions, like auctions and futures markets, which enhance marketing efficiency and marketing effectiveness.

A marketing channel can be characterized by :

1. *The marketing functions being fulfilled*
According to the Structure-Conduct-Performance paradigm, market structure in the various stages of the marketing channel has a strong impact on the fulfillment of marketing functions in the channel. In case of pure competition price formation, transport and storage are basic functions, while in imperfect markets many other functions like product differentiation, information/promotion and service are indispensable too. In the latter case, marketing strategies of channel participants determine the performance of marketing functions.

2. *The number of participating companies*

The number of participating companies is related to the type of product, marketed through the channel. Convenience goods as described by Copeland (1923) and the so-called Red Goods, defined by high replacement rate, low gross margin, low adjustment, low time of consumption and low searching time (Aspinwall 1958), are more suited for indirect marketing channels than the opposite type of products. More service with the product, like in the case of specialty goods, complex goods and Yellow Goods as defined by Aspinwall (1958), and an acceptance of a longer delivery time (Bucklin 1965) by the client stimulate direct marketing channels. Also it is suggested that a need for more information with the product will enhance direct marketing channels. More information is probably correlated with product complexity, and product specialty.

The number of successive companies in the marketing channel also depends on the market structure at the various stages of the channel. For instance, Alderson (1954) argued that a middleman will emerge between producers and consumers/customers, if it results into a smaller number of transactions.

3. *The relationships between companies*

The relationship between successive companies in the channel is influenced by the market structure too. In case of a pure competition market, prices are an effective co-ordination mechanism. Commodity markets, like the wheat market, have much in common with that market structure. However, in the case of imperfect competition, additional co-ordination mechanisms should be used to lower transaction costs and/or to bring actual market propositions in line with marketing strategy.

4. *The downstream flow of goods, services, information, and property rights*

The flows of goods, services, information, and property rights are the outcome of marketing decision making and of the fulfillment of marketing functions in the channel. Important is in this respect to what extent these flows are interrelated.

Chain marketing, as defined in the introduction, is in principle concerned with planning and implementing joint marketing policies of successive companies in the marketing channel. It may differ on various aspects, like the number of successive companies involved in the chain marketing operation (at least two companies), the number of marketing functions included in the marketing operation, and the extent of horizontal integration going along with vertical co-ordination of marketing operations.

Basic dimensions of chain marketing of agricultural products

Introduction

Chain marketing has been practiced in agriculture during a long time already, but at present it has become more relevant for various reasons to be discussed in section four. In view of its increasing importance, there is a need for a systematic approach to this type of agricultural marketing. We will analyze chain marketing on the basis of its objective, object, marketing functions, institutions performing marketing functions, and co-ordination

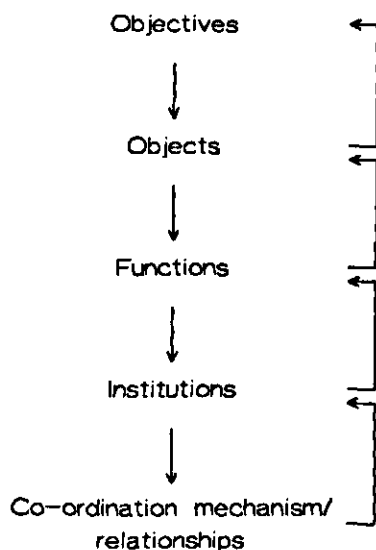


Figure 1. Structural elements of chain marketing

mechanisms/relationships (see figure 1). We suggest a hierarchy in these basic dimensions of a 'chain marketing' program.

The objective of chain marketing

Co-ordination of marketing in the channel is, generally speaking, concerned with the effectiveness, efficiency and/or equity of the marketing operation of the participating channel members. Ultimately, the objective of a chain marketing operation is a larger turnover/profit for the participating companies. It may be more specific, like a specific market share or a more positive product image. Finally, such partial objectives have to be instrumental to the general objective of turnover/profit.

The object of chain marketing

Marketing is concerned with exchange processes between organizations. Exchange processes in chain marketing are concerned with flows of products/services, information and property-rights through a marketing channel (Bucklin 1970; Mallen 1977). A money flow opposite to the flow of values allows for a smooth exchange process. The first distinction between different types of chain marketing is whether it is concerned only with a product/service flow, an information flow, a property flow, or with a combination of these flows.

It is hard to imagine that a chain marketing operation, i.e. a joint agricultural marketing operation of two or more successive companies in a marketing channel, is *only* related to a *flow of property rights*. Even marketing decision making by a food broker, who typically is taking no title to a good, is in the *strategic* sense related to a *product flow*. A flow of property rights in a chain marketing operation is by definition linked to a product flow.

From a marketing point of view, chain marketing focusing on *information flows only* has a limited scope. For instance, successive companies in the channel might together set up a marketing information system in order to improve marketing performance vis-à-vis a third party. Companies may link their marketing information systems to improve marketing decision in the channel at the operational level. In fact the development of EDI systems and the availability of scanning data increase opportunities in this respect.

The scope of chain marketing, related to the *product flow* in the channel, is ranging from a limited number of product benefits/attributes to the total product. In this respect a distinction should be made (Kotler 1991, p. 431) between: (i) the generic product or core benefit, comprising the basic, instrumental, benefits of the product, and (ii) the augmented product, comprising all additional product features like package, as well as expressive features. Co-ordination in chain marketing is more basic when chain marketing is concerned with instrumental product features than when it is focused on augmented product features, like package or expressive product values only. For instance, chain marketing focusing on health attributes of agricultural products requires the co-ordination of functions performed in various stages of the marketing channel, while size, form and package of the final product can be controlled by the last company in the channel supplying the final product to the retailer/consumer. Since 'Product augmentation leads the marketer to look at the buyer's total consumption system' (Kotler 1991, p. 430), a refined marketing program and consequently a refined system of co-ordination is needed in chain marketing.

Information and property flows are linked to the product flow. *Information flows* can be operational or strategic. The former type of information is often attached to the product flow. The importance of the latter type is related to power sharing by companies involved in chain marketing. In case of a channel leader, there is less reason for sharing strategic information between the participating companies, than in the case of equal partners. A channel leader has more opportunities to impose his strategy without communicating information about the pro's and con's of his strategy, than a company doing business with another company being equal in market power. A physical product flow in the marketing channel without any *property flow* puts the burden of risk on the owners of the product. It has consequences for profit distribution between companies participating in chain marketing, because the owners want to have compensation for their risks.

Marketing functions

Agricultural marketing is shifting to the *marketing management approach*, characterized by consumer orientation, co-ordinated planning and implementation of marketing instruments. Essential in this approach is the role of product policy and its impact on the programming of other marketing instruments, like promotion and price. From the marketing management point of view, chain marketing functions are basically performed to realize a specific marketing mix. Collection and dissemination of marketing information is important in this respect. It has already been pointed out that the intensity of chain marketing, and consequently of function performance, will differ depending on whether chain marketing is focusing on the generic product or on the augmented product.

Chain marketing, which does not include product policies, may be concerned with other marketing functions in different ways. *Exchange functions* - like price formation and selling - are included in chain marketing programs amongst others by producers and retailers

in an agreement on minimum retail prices to prevent ruinous price competition, or by producers and traders, who have established selling organizations for specific markets. Chain marketing is focusing on *physical* functions - like transport and storage - amongst others in programs set up by producers and traders in order to provide smooth and efficient transport to specific markets, like distant export markets. Chain marketing is concerned with *facilitating* functions - like grading/sorting, market information and credit facilities - in the development of marketing information systems, which collect and disseminate market information, or in the establishment of grading systems and quality control systems to maintain and improve product quality through the channel.

Marketing institutions.

Traditionally agricultural marketing channels exist of the following institutions: supplier - farmer - wholesaler - processing industry - wholesaler - retailer. In addition there are a number of specific marketing institutions, like auctions, co-operatives, marketing boards and futures markets. Some institutional characteristics are relevant to chain marketing operations:

- The relative size of the successive institutions participating in chain marketing influences the channel leader structure in chain marketing operations (see figure 2). For instance, in purchasing raw agricultural material, a large food industry has more bargaining power vis-à-vis a small farmer than vis-à-vis a large wholesale cooperative.
- The degree of specialization by institutions of the marketing channel stimulates chain marketing operations. Specialization by farmers, processing industry, or wholesaler enlarges the interdependence between institutions in the marketing channel. Chain marketing is a way to adapt the activities of successive companies to the specified marketing outcome and to spread marketing risks over the companies of the marketing channel.
- In line with the former point, chain marketing will become more urgent when the number of successive companies in a market orientated marketing channel increases. Except for 'make or buy' decisions, chain marketing cannot exist when one company has integrated all successive companies involved in a chain marketing operation.

		INSTITUTION A	
		Large	Small
INSTITUTION B	Large	<u>No Leader</u> power sharing	<u>One Leader</u> B
	Small	<u>One Leader</u> A	<u>No Leader</u> co-ordination institution

Figure 2. Channel leader structure in chain marketing operations

- Marketing institutions taking no title to the product in marketing operations, like auctions or food brokers, complicate co-ordination of decision making in chain marketing operations.

Co-ordination mechanisms and relationships.

Chain marketing of agricultural products is triggered by the limited capacity of market prices to adjust agricultural supply, in particular product quality, to the needs and opportunities of the market. According to the Transaction Costs Theory, transactions will be determined by transactions costs, which depend on the co-ordination mechanism used (price or other co-ordination mechanisms). Relevant factors in this respect are bounded rationality and opportunism of decision makers, and respectively asset specificity, uncertainty, and frequency of transactions (Williamson 1985; Williamson 1989). These factors seem to have relevance to chain marketing in agriculture too: agricultural and food marketing based on consumer orientation cannot be co-ordinated appropriately, or at a high cost only, by means of market prices only. Additional co-ordination mechanisms have to be applied.

Mintzberg's typology (Mintzberg 1989) of co-ordination mechanisms - 'Mutual adjustment, direct supervision, standardization of work processes, respectively standardization of outputs, of skills and/or of norms' - is also relevant to chain marketing in agriculture. *Mutual adjustment*, co-ordination by informal communication, is applied in chain marketing, when there is a large common interest and a very good understanding between successive companies in the marketing channel. The relationship between farmers and their co-operative is a case in point. This co-ordination mechanism lacks formal power to enforce specific behavior upon the parties involved. *Direct supervision* can be used by a channel leader or a co-ordinating authority in chain marketing in order to achieve the formulated marketing objectives. *Standardization of work processes*, respectively *standardization of outputs* of participating companies, are helpful to achieve a chain marketing outcome, like a specific product quality. Systems of certification and Integral Quality Control in fresh meat marketing operations are a case in point. *Standardization of skills and/or standardization of norms* do not seem effective co-ordinating mechanisms for agricultural chain marketing. They do not provide sufficient uniformity in marketing output, like uniformity of product attributes, when a large number of companies have to be co-ordinated.

Traditionally *vertical marketing systems* are classified in administered, contractual and corporate systems, which differ in the formal co-ordination of marketing operations, namely by deliberation/persuasion, by contract or by integration. All three procedures may occur in chain marketing operations. The procedure used depends in particular on the required precision in the co-ordination of marketing operations. For instance, a franchise operation requires a very precise co-ordination of operations which has to be secured by contractual relationships. Specific characteristics of a company may prevent the application of specific co-ordination mechanisms in chain marketing. For instance, some farmers' co-operatives do not allow the co-operative company to contract specific product supplies from members.

Also contributions from economic *agency theory* can contribute to our understanding of co-ordination in chain marketing like aspects of risk sharing and reward structure (Holmstrom and Tirole 1989).

Table 1 Summary of basic elements of chain marketing

Objectives	Turnover/profit
Object	Product (basic/augmented) Information Property-right
Functions	Functions to realize a specific marketing mix Exchange functions Physical functions Facilitating functions
Institutions	Relative size of successive institutions Degree of specialization Number of successive companies Taking title to the product?
Co-ordination mechanism/relationships	Transaction Cost Theory Mintzberg's typology of co-ordinated mechanisms Vertical Marketing Systems Agency Theory

The basic elements, discussed in this section, are summarized in table 1.

The impact of the environment of agricultural marketing channels on chain marketing

The environment of agricultural marketing channels

Environmental changes influence agricultural marketing processes. The emergence of chain marketing in the food marketing channel is a response to these changes in the environment. The marketing environment consists of the actors and forces that affect the ability to develop and maintain successful transactions and relationships with target customers (Kotler 1991, p. 129). The environment of a chain marketing program is a relative concept in so far it depends upon the number of successive companies in the channel which participate in a specific chain marketing program.

Four sectors can be distinguished in the environment of a chain marketing program (Achrol, Reve and Stern 1983, p. 58):

- The *input sector*, which consists of all direct and indirect suppliers to the chain marketing operators.
- The *output sector*, which consists of all direct and indirect customers of the chain marketing operators.
- The *competitive sector*, which consists of the actual and potential competitors of the chain marketing operators.
- The *regulatory sector*, which consists of regulatory groups, including governmental agencies, trade associations, interest organizations, and ad hoc groups.

Major changes in the environment of agricultural marketing channels relevant to chain marketing

Changes in the input sector. Technological progress has been important in the input sector. Output per farm has increased dramatically due to a continuous 'technical push', the development of new breeds, machinery and production methods. Machinery is substitut-

ing labour and the use of various inputs (e.g. chemicals, mixed feed, fertilizer) is intensified. Recently technological progress, relatively speaking, has become more focused on the improvement of product quality.

Technological progress and the development of new breeds and varieties have increased agricultural production potential. In this way they have created the threat of over-production, but they offer also opportunities for developing markets for new products. Chain marketing can be useful to manage adequate marketing programs for that purpose.

Changes in the output sector. During the last decades, the demand for food products has changed dramatically. These changes run parallel to the need hierarchy by Maslow (1954), which suggests that needs will be satisfied in a hierarchical order starting with physiological needs and ending up with satisfying the needs for self actualization. In the affluent Western societies, food supply is abundant and consumers are in a position to satisfy high order needs, related to human interaction and self actualization. The rise of per capita disposable income creates a consumer having a substantial discretionary income and being able to choose from a great number of alternatives. Quality, variety, convenience, service, consciousness with respect to environment and animal welfare have become relevant choice criteria to consumers. This is all the more important since food demand, in terms of volume, is increasing slowly.

The other important development in food markets is the concentration in retailing. In various western countries, four or less retail chains command more than 50 % of the food retail market. These retail chains have their own marketing policies, require a high service, in particular logistical service, from suppliers and have a strong bargaining position vis-à-vis food suppliers. This bargaining position is strengthened yet by the development of international alliances of retail chains which centralize purchasing of various products. Clearly, these developments have a strong impact on agricultural and food marketing and for that reason on the need for chain marketing.

Changes in the competitive sector. Companies in agricultural and food marketing are confronted with an open EC market. The latest developments in CAP and in GATT negotiations, suggest that agriculture will have to live in a more competitive world with less price protection. Also internationalization of agribusiness will increase. The stagnating food demand is enforcing competition. Also product substitutes, like milk products on the basis of soybean and artificial sweeteners as a substitute for sugar, stimulate competition in Western food markets. These developments together stimulate concerted action of farmers and agribusiness to face competition. Chain marketing is an important issue in this respect.

Changes in the regulatory sector. The CAP is an important factor in the markets of various agricultural products. The reforms of the CAP have on the one hand freed markets from some price protection, but have on the other hand introduced additional regulatory measures, like milk quota and set aside programs. In addition to CAP regulations, agriculture and agribusiness are confronted with an increasing number of environmental regulations, which put preconditions to production and marketing of agricultural and food products. But on the other hand these regulations stimulate the development of new market segments, focusing on environmentally friendly products. In particular, the latter mar-

keting propositions require a good co-ordination of production and marketing through the marketing channel of the respective products.

Implications for chain marketing of agricultural products

As a consequence of the changes in the environment mentioned above, agricultural marketing channels are offering their products in very competitive markets. The success of these channels will be determined by the competitive advantage over its rivals. In such a situation, a co-ordinated marketing operation is needed in order to gain competitive advantage. Therefore, chain marketing probably is becoming more relevant to the marketing of food and agricultural products. In order to derive more support for this thesis, we will develop a number of general hypotheses about agricultural chain marketing - partly based on elements of section three -, and use these hypotheses to evaluate the future of chain marketing.

H₁ A market driven type of agriculture will be more inclined to chain marketing than a production driven type of agriculture.

Market orientation of agriculture implies that the agricultural marketing mix, in particular the product benefits, fit to the needs and wants of the market. It requires a co-ordination of marketing functions, performed by companies in different stages of the marketing channel.

A production driven channel is trying to find the best outlet for a given production and as such does not start with specifying product attributes to the needs and wants of the market.

In fact, it has been argued in the foregoing part of this section that consumer demand is stagnating and that food consumers are becoming more quality-conscious and environmentally conscious. Also food retail chains have specific requirements with respect to product and service. These developments towards the need for market orientation in combination with H₁ suggest that chain marketing is becoming more relevant to agricultural marketing in Western countries.

H₂ Chain marketing will become more important in agricultural marketing when marketing strategies of 'focus' and 'differentiation' become more important.

When *focusing* on specific needs and *differentiation* vis-à-vis competitive supply are becoming more important in agricultural marketing, product characteristics, both of the core product and of the augmented product, will have to be better specified and standardized. It requires close co-ordination of marketing activities through the marketing channel.

In fact environmental changes, in particular with respect to consumer behavior and food retail policies, require strategic policies of focus and differentiation by agriculture and agribusiness. Amongst others this happens to be the case with fresh produce, fresh meat and dairy products. Combining these market developments with H₂ it seems probable that chain marketing will become of increasing importance in western agricultural marketing channels.

H₃ Specialization by companies in the marketing channel advances chain marketing in order to fit the activities of successive companies to the specified marketing outcome (marketing mix) and in order to spread marketing risks over the companies of the marketing channel.

When specialization is profitable both to lower costs and to improve product quality, co-ordination of marketing in the channel will be necessary to avoid the costs and risks which result from a lack of marketing co-ordination.

In fact, farmers have specialized to a large extent in western agriculture and have become more dependent on the market of a specific product. This may have made them more inclined to participate in chain marketing according to H₃. However food industries and food retail chains have diversified their product assortment and marketing operations. So not all companies in the marketing channel are stimulated to engage in a chain marketing operation because of the 'specialization' argument.

H₄ Companies in the marketing channel are more inclined to chain marketing when marketing decisions of channel members are more interrelated

When channel members themselves are able to correct weak features of their input from preceding companies, they might prefer to stay free and profit from opportunities in the market, e.g. the marketing channel of commodities, like wheat. However when input from preceding channel members should fit precisely, the reverse is true, e.g. brand operations for fresh meat or for fresh horticultural products.

Actual marketing policies of more added value and product differentiation in agricultural markets increase the interrelationship between activities and decisions by companies in different stages of the marketing channel.

H₅ There is a 'Life Cycle' pattern in the co-ordination mechanisms of chain marketing. Coercive co-ordination mechanisms will gradually be substituted by non-coercive mechanisms.

Gradually participants in chain marketing get used to standardize marketing and production operations in agreement with the co-ordinating specifications. Consequently, the need for co-ordination by strict procedures, like contracts and vertical integration, will gradually diminish.

At present, heterogeneity of products and marketing services seems so large yet in many sectors of agriculture, that weak co-ordination mechanisms are insufficient for a smooth and effective chain marketing operation. In some sectors, like egg production in the Netherlands, the latest stages of the life cycle in chain marketing may have arrived already.

H₆ Concentration in food retailing and food processing diminishes the need for using contracts as a co-ordination procedure and favours co-ordination by adjustment in chain marketing.

Large companies do business by joint planning and deliberation, which will lead to a well prepared action program. In view of the interest at stake, both parties will com-

ply to the joint action program (high asset specificity). As a result there is no strong need to secure business relationships by contracts or by integration.

In fact, it seems that the relationship between large food industries and large food retail companies is more often based on mutual trust than on formal contracts.

Final comments

In the foregoing sections, a theoretical framework for the analysis of marketing co-ordination in agricultural marketing channels has been developed. For that purpose the "chain marketing" concept has been introduced and elaborated. The developed theoretical framework allows for the classification and analysis of a great many different types of chain marketing. In addition, some hypotheses are proposed for a better understanding of chain marketing. The latter is warranted in view of the increasing importance of marketing problems and the need for market orientation in agriculture and agribusiness.

Literature

- Achrol, R.S., T. Reve and L.W. Stern (1983), The Environment of Marketing Channel Dyads: A Framework for Comparative Analysis. *Journal of Marketing*, vol. 47(Fall), pp. 55-67.
- Alderson, W. (1954), Factors governing the development of marketing channels. In: Clewett, R.M. (ed.), *Marketing Channels*, Homewood (Ill): Richard Irwin Inc., pp. 7-9.
- Aspinwall, L. (1958), The Characteristics of Goods and Parallel Systems Theories. In: Kelley, E.J. and W. Lazer (eds.), *Managerial Marketing*, Homewood (Ill): Richard Irwin Inc., pp. 434-450.
- Bucklin, L.P. (1965), Postponement, Speculation and the Structure of Distribution Channels, *Journal of Marketing Research*, vol. 2, pp. 26-31.
- Bucklin, L.P. (ed.) (1970), *Vertical Marketing Systems*. Glenview (Ill.): Scott, Foresman and Company.
- Copeland, M.T. (1923), The Relation of Consumers' Buying Habits to Marketing Methods, *Harvard Business Review*, vol. 1, pp. 282 - 289.
- Holmstrom, B.R. and J. Tirole (1989), The Theory of the Firm. In: Schmalensee, R. and R. Willig (eds.), *Handbook of Industrial Organization*, Amsterdam: North Holland, pp. 61-133.
- Kohls, R.L. and J.N. Uhl (1990), *Marketing of Agricultural Products*. New York: Macmillan Publishing Company, 7th ed.
- Kotler, P. (1991), *Marketing Management: Analysis, Planning, Implementation and Control*. Englewood Cliffs (N.J.): Prentice Hall Inc., 7th ed.
- Mallen, B., (1977), *Principles of Marketing Channel Management*. Lexington (Mass.): Lexington.
- Maslow, A.H. (1954), *Motivation and Personality*. New York: Harper and Row.
- Mintzberg, H. (1989), *Mintzberg on Management*. New York: The Free Press.
- Morgan, D. (1980), *Merchants of Grain*. Harmondsworth: Pinguin Books.
- Porter, M.E. (1985), *Competitive Advantage*. New York: The Free Press.
- Rifkin, J. (1992), *Beyond Beef, The Rise and Fall of the Cattle Culture*. New York: Penguin Books U.S.A.
- Stern, L. W. and A.I. El-Ansary (1992), *Marketing Channels*. Englewood Cliffs (N.J.): Prentice Hall Inc., 4th ed.
- Williamson, O.E. (1985), *The Economic Institutions of Capitalism*. New York: The Free Press.
- Williamson, O.E. (1989), *Transaction Economics*. In: Schmalensee, R. and R. Willig (eds.), *Handbook of Industrial Organization*, Amsterdam: North Holland, pp. 135-182.