

The Analysis of Markets in Marketing: Weakness in Marketing Theory



FELIM O'ROURKE ★

Over 30 years ago, Michael Halbert (1965: xxv) wrote:

There is a great deal of data and knowledge already available about the operation of the marketing system; there is relatively little available to marketing theorists about the conceptual and formal requirements for organising and analyzing this knowledge ... that adequate theory will present us with a much more coherent, understandable and useful picture of the entire marketing process.

Marketing theory is particularly weak in the area of markets. Marketing does not have a theory of markets comparable with the theory of markets in economics. Leading textbooks, such as Kotler's *Marketing: An Introduction* (with Armstrong) (1999), often devote less than one page, from many hundreds, to a discussion of markets. In his textbook on marketing, Baker (1996: 69) confirms that this is the norm.

History of Marketing

Bartels (1963: 48) has described the development of marketing as an academic discipline in the first decade of the 20th century in the US. This decade saw a very strong reaction against the *trust* as a business model in the US. The trust had been used to achieve monopoly power by firms in many of America's leading industries. Marketing was central to the development of the new business model that replaced the trust as the dominant business model.

Economics played a major role in the early development of marketing by providing teachers a forum for discussion of and a theoretical base for the discipline. Many of the early teachers of marketing, including Brown, Cherington, Copeland, Hagerty and Litman, were graduates in economics. Bartels (1962: Preface) has described how "early marketing economists began to hold

★Lecturer in Economics and Marketing at the Institute of Technology, Sligo

professional meetings under the aegis of the American Economic Association". These early teachers of marketing used the theory of markets from economics as the theoretical background for their "practical" discussion of markets. Litman (1950: 222) wrote:

There was one guiding principle to which I strove to adhere. It was that business courses in colleges should deal with fundamentals rooted in the science of economics.

The other major source from which the early marketing teachers drew was the actual practice of leading businessmen. The very significant efforts of Hagerty and Litman to learn best business practice are described in their *Journal of Marketing* articles (1936, 1950). In 1911 the establishment in the Harvard Business School of the Bureau of Business Research and the use of businessmen as "living cases" as described by Cruikshank (1987) can be seen as part of this effort to ensure that marketing courses and business programs were based on best business practice.

Market Theory in Economics

At the start of the 20th century the theory of markets in economics was quite different to what it became in the 1920s and 1930s. Machovec (1995: 16) states that markets were seen as arenas where firms competed with each other in a variety of ways and that this "rivalrous competition" was seen as leading to improvements in living standards. The great American economist John Bates Clark (1914: 25) wrote:

With the preservation of competition is bound up that general progress in things economic on which hang the hopes of every class of men.

Cruikshank (1987: 70) argued that this market theory of economics was used as a theoretical underpinning for marketing. Converse (1951: 16) and Bartels (1963: 51) have argued that marketing in this period was a kind of "applied economics". Marketing textbooks evolved a standard approach that emphasised real-world markets including commodity markets. Brown's *Marketing* (1925), for example, has fifteen chapters dealing with important real-world markets, including nine commodity markets.

The "rivalrous competition" understanding of markets in economics was replaced in the early part of the 20th century by the theory of "perfect competition". Unfortunately for marketing as a discipline, virtually every marketing activity, including product differentiation, branding and advertising, is incompatible with the pre-conditions for perfect competition. Machovec (1995) shows that marketing, seen from the perspective of perfect competition, became a source of "market imperfections" and that a strong bias against marketing, especially advertising, developed in and became a feature of the standard economics textbook.

Marketing Adopts a “Managerial Approach”

During the 1920s the practice and skills of marketing were developing rapidly. Significant advances were made in many areas of marketing including market research, sales management and branding. In the area of market research, for example, Bartels (1962: 106) noted that the first book on the subject was published in 1919 and that ten more books on the subject were published during the 1920s. Marketing was starting to play a more important role in large enterprises. Business leaders such as Alfred P. Sloan of General Motors and Neil McElroy of P&G developed new thinking on the role of marketing. In 1920, Sloan took a chaotic product range and replaced it with a range of brands from Chevrolet to Cadillac focused on distinct price ranges. The editors of *Advertising Age* (1975) describe how McElroy, in 1931, just six years after graduating from Harvard, proposed the brand management system within P&G.

During the 1930s and 1940s, the management of the marketing function in the larger corporations expanded rapidly and became more professional. This created major opportunities for the expansion of marketing as a discipline in the universities to supply the professional marketing personnel – including market researchers, marketing managers and brand managers – being sought by the larger enterprises. This rapid growth of opportunities in marketing and marketing management inevitably increased the focus within marketing on the management of the function.

Bartels (1963: 63) described how a new “managerial approach to the study of marketing” started to emerge around 1940. This new managerial approach was designed to train practitioners for careers in marketing which were opening up as US business adopted the “marketing concept”, as described by King (1963: 76). The textbooks written for the new format usually contained almost no discussion of markets or market theory. One of the first books to reflect this change of focus was written by Alexander, Surface, Elder and Alderson in 1940.

The Role of Perfect Competition

In the 1920s and 1930s, perfect competition theory served two distinct roles in economics. In writing about perfect competition in 1957 George Stigler (1965: 262) stated:

We wish the definition to capture the essential general content of important markets, so that the predictions drawn from the theory will have wide empirical reliability. And we wish a concept with normative properties that will allow us to judge the efficiency of policies.

Perfect competition was therefore both a model for use in analysis and an ideal market.

The context in which perfect competition emerged as an ideal market has changed and this has altered the role of perfect competition. Perfect competition survives in modern economics, primarily as a model for use in analysis. There is no widely-used modern textbook, of which I am aware, which treats perfect com-

petition as an ideal market. The prejudice against marketing activities, linked to the concept of perfect competition as an ideal market, has also disappeared.

Industry Structure

The study of imperfect competition in economics developed into a branch of economics that is called "industrial organisation" (IO). The IO discipline began in the 1930s and since then it has developed a sophisticated theoretical framework for the analysis of real-world markets with solid empirical support.

Cabral (2000: 12) shows that the structure–conduct–performance (SCP) paradigm is central to IO. This paradigm sees the performance of an industry being determined by the conduct of the firms in the industry and the conduct of the firms being determined by the structure of the industry. According to Cabral (2000: 12), IO sees the structure of an industry as primarily determined by two variables: the number of sellers and the degree of differentiation.

In contrast, marketing does not define industry structure but implicit in marketing is the belief that industry structure, in the IO sense, is determined by three variables: the number of sellers, the degree of differentiation and the nature of the relationship between a firm and its customers. The importance of the number of sellers or competitors is so obvious that it is almost never mentioned, though it is always understood. The importance of differentiation has been explicit in marketing from the early years of the discipline.

The third variable, the nature of the relationship between a firm and its customers, is one of the central themes of modern marketing. Kotler (2003: 12) stated:

Increasingly, marketing is shifting from trying to maximise the profit on each individual transaction to building mutually beneficial relationships with consumers and other parties.

The nature of the relationship between firms and their customers appears to be very important in the evolution of markets. The development of commodity markets in the US during the 19th century appears to have been closely linked to the weakening of relationships between producers and their customers. (This issue is discussed in some detail later in the paper.) If the weakening of relationships was a key element in allowing the development of commodity markets, where firms have no market power, and building complex relationships, as is argued by the marketing discipline, is a key element in building market power, then we must conclude that the nature of the relationship is a key variable in determining industry structure.

An attempt is made herein to relate industry structure to the three variables discussed above.

The Colour Triangle

It is possible to represent three variables on two dimensions where the variables have defined ranges and where they have a trade-off relationship with

each other. An example of such representation is the Goethe Colour Triangle. The colour triangle is a way of representing how all the colours are related to the three primary colours. Each of the three angles of the triangle represents one of the primary colours and all positions away from the corners represent different combinations of the primary colours. In the colour triangle each of the primary colours (variables) has a defined range from 100 per cent saturation with a colour to complete absence of that colour. Each angle represents 100 per cent saturation with a primary colour and the side opposite that angle represents the complete absence of that colour.

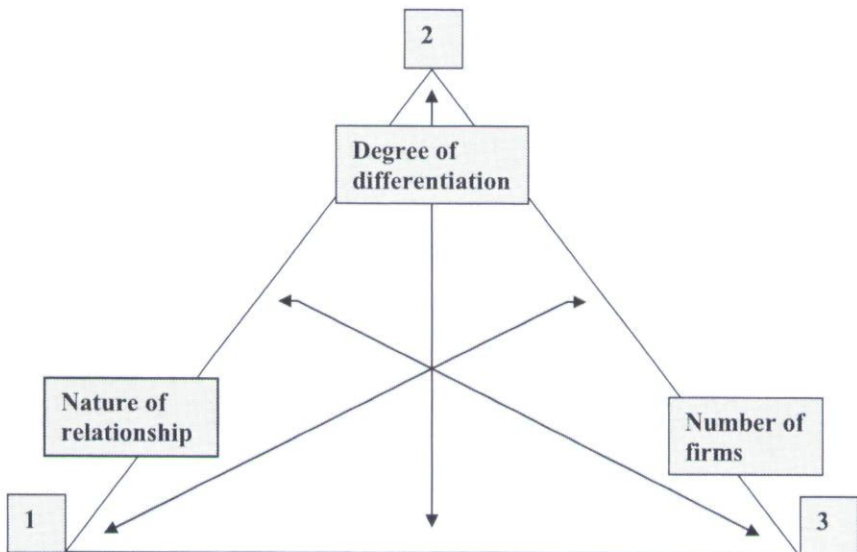
There is a trade off between the colours with reductions in any colour, as one moves from the related angle of the triangle, being offset by increases in the other colours. Every point on the triangle represents a 100 per cent saturation with colour but this can be made up by any combination of the primary colours, for example the centre of the triangle represents 33.3 per cent saturation with each colour. All the non-primary colours are got from the combination of the primary colours, for example green is got from mixing blue and yellow and it is located on the triangle half-way between the angles representing blue and yellow on the side opposite the angle representing red.

The three variables linked to industry structure can be represented on two dimensions using a triangle similar to the colour triangle. The three variables, which appear to determine industry structure, have defined ranges. The range of the number of firms is from one to a large number. The range of the degree of differentiation is from unique to identical. The range of the "nature of relationships" is from no relationship to a complex relationship. We will represent the situation where there is only one firm by one angle of the triangle and this will mean that the side opposite will represent a situation where there are many firms. We will represent the situation where the product is unique by one angle of the triangle and this will mean that the side opposite will represent a situation where products are identical. We will represent the situation where there is no relationship between a firm and its customers by one angle of the triangle and this will mean that the side opposite will represent a situation where there is a complex relationship between a firm and its customers.

The three variables determining market structure, specified in this manner, appear to have a trade-off relationship with each other. For example where a firm has no relationship with its customers the product being exchanged will normally be standardised and there will usually be many firms. Business history indicates that the role of traders and intermediaries, who emerge in markets where firms have no relationship with customers, are crucial in facilitating the entry of firms and driving product standardisation. The pressures towards standardisation in US industry, after the development of the railways, which sundered relationships between producers and their customers, are discussed below. Where the firm has a complex relationship with its customers this will facilitate product differentiation and may create barriers to entry. This means that the hypothesis that there is a trade-off between the three variables determining market structure is not unreasonable.

The market categories and the understanding of market dynamics derived from this hypothesis appear to support its validity. These market categories coincide with those widely used by business analysts. The understanding of market dynamics derived from this hypothesis is useful in interpreting the evolution of markets and is particularly applicable to the evolution of US markets over the period 1840 to 1910. We will therefore assume that there is a trade-off between the three variables determining market structure. We can represent these three variables on an industry structure triangle below.

Figure 8.1: Industry Structure Triangle



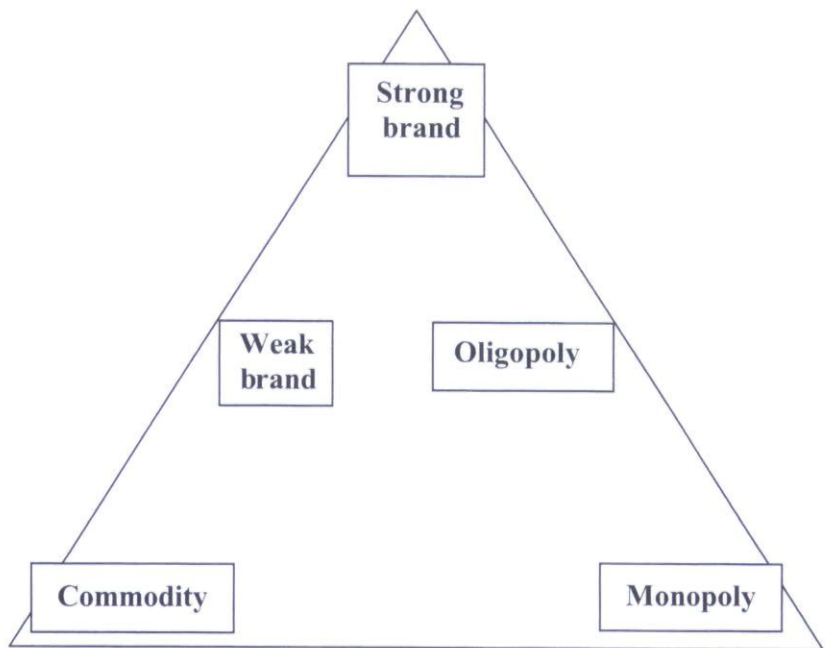
The distance from each of the three points of the triangle to the opposite side will represent one of the variables. We will use the point of the triangle at 1 to represent a situation where there is no relationship between the firm and its customers, the point at 2 to represent a situation where the firm's product is unique and the point at 3 to represent a situation where there is only one seller. Positions opposite each angle represent the other extreme on the appropriate scale, namely: the side opposite 1 represents a situation where the firm has a complex relationship with its customers; the side opposite 2 represents a situation where the firm is producing a product identical to that of its competitors; and the side opposite 3 represents a situation where there are a very large number of competitors.

The Market Power Triangle

Different positions on the industry structure triangle will result in different market types. Point 1 on the triangle represents a market situation where the

firm has no relationship with its customers, where the firm's product is identical to that of its competitors and where there are a large number of competing firms. This is a "commodity market". Point 2 represents a market situation where the firm's product is unique, where the firm has a complex relationship with its customers and where there are many competitors. Marketing activities are designed to ensure that the unique product matches the needs of the target market and that the complex relationship with the customer builds customer loyalty thereby creating a strong brand. Point 3 represents a situation where the firm has a monopoly. In a monopoly, the firm always has a complex relationship with its customers but the issue of differentiation is irrelevant.

Figure 8.2: Market Power Triangle



We can also locate a whole range of other market types on the triangle including "weak brands" and "oligopoly". Weak brands leave the firm selling in a market type close to a commodity market. The oligopoly market represented above is "differentiated oligopoly". Differentiated oligopoly arises where a small number of firms sells competing but differentiated products – the soap powder market is an example of this. We will call this triangle the market power triangle because it can be used to illustrate the level and source of the market power held by a firm selling in a market.

Because it is based on the variables considered important by economics, industrial organisation and marketing, the market power triangle, should allow us to draw together the insights into markets from these three disciplines.

In the analysis of commodity markets we can draw heavily on the modern theory of perfect competition. Sloman (2003: 149), for example, defines perfect competitions as:

A market structure where there are many firms; where there is freedom of entry into the industry; where all firms produce an identical product; and where all firms are price takers.

In effect, for today's economists, perfect competition is merely a commodity market with no barriers to entry and exit. All that needs to be done to adapt this theory for use in marketing is to change the perspective to that of the individual firm operating in the commodity market/perfect competition. There is an enormous historical data bank available about the behaviour of commodity markets. This is especially true about basic food products that have been traded on commodity exchanges for over 150 years. The importance of commodity markets, including energy markets, is so great that it is very easy to justify their study as part of a business program and the appropriate course for such study is marketing.

The monopoly theory from economics can be used to explain the market situation faced by a firm which is the only seller in a market. All that needs to be changed is the attitude to profit and barriers to entry. High profits resulting from monopoly power are seen in economics as undesirable but are highly desirable from the perspective of the firm. Equally, any opportunity to create barriers to the entry of competitors is desirable from the perspective of the firm but frowned on by economics.

IO provides significant insights into the operation of oligopoly markets. These insights are supported by solid empirical research and a data bank of case studies.

The insights into differentiation and customer relationships that are at the core of marketing can be used to explain the market situation of a firm with a strong brand. Since a strong brand is a kind of monopoly, the theory of monopoly from economics can help to explain the market situation facing the firm.

The Market Power Triangle and Strategic Analysis

It may be possible to use the market power triangle in the area of strategy and allow marketing to contribute more effectively to the discussion of strategic issues. Hunt (1994) has shown that leading thinkers have been pointing out the weaknesses of marketing in the area of strategy since the 1980s. In the early 1990s, Day (1992: 323) wrote that while

Marketers appear comfortable with the assertion that marketing should play the lead role in charting the strategic direction of a business...other business functions and academic disciplines don't share this assumption and have been actively eroding the influence of marketing in the strategy dialogue.

Day then goes on say:

Within academic circles, the contribution of marketing, as an applied management discipline, to the development, testing and dissemination of strategic theories and concepts has been marginalised during the last decade.

Business analysts, in the discussion of strategic issues, use the market categories identified by the market power triangle. This is especially true of financial commentary on the pharmaceutical industry. On Monday 26 July 2004, for example, the newswires reported that Mylan Industries and King Pharmaceuticals had agreed to merge. Both Dow Jones and Reuters, in reporting on the proposed merger, discussed the drug market in terms of patent protection, branding and generics. Dow Jones (Abboud and Berman, 2004) described Mylan as a "generic drug-maker" and said that generic drug-makers were attempting to expand into the "highly profitable branded-drugs business". In discussing the problem of off-patent drugs they said "competition in this commodity business is intense, squeezing margins to razor-thin levels". Some writers on strategy, such as Porter (1985), focus on strategies for competitive situations and therefore ignore the monopoly market. Two of Porter's generic strategies – "cost leadership" and "differentiation" – fit in very well with the market categories of the market power triangle.

The market power triangle may therefore allow the integration of insights from marketing and business strategy and both strengthen marketing in the area of strategy and allow the strategy discipline to draw more easily on marketing.

US Business History

The market power triangle can also be used to interpret aspects of business history including 19th century US business history. Historians often describe the US economy before the building of the railways in the middle of the 19th century as a set of "island economies". These "island economies" existed because overland transport was so difficult and expensive that most production was for the local market. These "island economies" were dominated by agricultural production, as is shown by the 1840 US Census.

Bartels (1962: 22) and Chandler (1990: 52) have described how the building of the railways in the 1830s and 1840s integrated the US economy and triggered a remarkable period of economic growth which transformed an agricultural economy into the world's leading manufacturer producing about 30 per cent of world manufacturing. The growth and integration of the economy created opportunities for large-scale manufacturing for distant markets and ushered in a completely new business era. Tedlow (1990: 10) has described this period as the "era of commodities". In the era of commodities the retailer usually bought a standardised item in bulk from a wholesaler. For example, the retailer bought tea in "tea chests", which held over 100lbs of tea, and soap in

large bars by the "soap box". The retailer weighed and packed tea and cut pieces of soap from large bars according to customer requirements.

Hotchkiss (1938) shows that the growth of middlemen, including large wholesalers and myriads of agents, who acted as distributors for the large manufacturing enterprises was a feature of this "era of commodities". Bartels (1962: 24) and Chandler (1990: 59) argue that these middlemen, especially the large wholesalers, had acquired a powerful position within the distribution system at the end of the 19th century. Koop has described in detail the operation of these middlemen around 1907. Koop (2001: 66) went on to note that the reliance on middlemen had the major disadvantage from the manufacturer's point of view, that he remains in ignorance of the names of the customers to whom his goods are sold ... and his hold on the market is far from strong.

This era is also characterised by the rise of the commodity exchanges, including the Chicago Commodity Exchange which was founded in 1848. The link between the railways, the commodity exchanges and standardisation is illustrated by the fact that the Chicago exchange was set up in the year that the railway arrived in the city and by the very heavy focus, as described on the Chicago Board of Trade Website, of the exchange on standardisation in its early years.

The growth of commodity markets in the US and elsewhere coincided with the physical distancing of manufacturers and food producers from their customers and the emergence of middlemen. This meant that, as Koop noted, the relationship between a firm and its customers was minimal and this weakened "his hold on the market" and allowed the middlemen to standardise products and allowed markets to become commodity market.

The "cut-throat competition", low profit margins and inherent instability of commodity markets made long-term business survival extremely difficult. Cruikshank (1987: 64) illustrates this extreme difficulty by focusing on the food industry where of the 63 major firms in existence in the US in 1873 only one, HJ Heinz, was surviving in 1900. Clark (1914: 55) argued that the difficulty of business survival created an impetus for the consolidation of US business using Rockefeller's Standard Oil Trust as a business model. Manns (1998: 14) argues that the consolidation of the oil industry by Standard Oil was facilitated by massive overcapacity that led to a situation where "most if not all refineries were losing money".

The last great consolidation was the setting up of US Steel (which became the world's largest corporation) in 1901 through the merger of ten steel companies. Bittlingmayer (1996: 391) shows that the consolidation movement created a situation where most of the leading industries were dominated by a handful of firms. Clark (1914: 7) and Chandler (1977: 289) show that the power of the monopolies provoked a strong popular, political and legal reaction in the first decade of the 20th century. Bartels (1962: 26) wrote that Roosevelt was elected on a tide of movement for economic, social and political reform of the evils which had grown out of advanced industrialisation. Roosevelt, after reviv-

ing the Sherman Anti-Trust Act by taking legal action against Northern Securities in 1902, went on to take actions against 43 other major corporations before the end of his presidency in 1909.

The reaction against the trusts forced American business to abandon the monopoly as a business model. This reaction has been studied in detail, in the case of the National Biscuit Company, by Chandler (1977: 335) and, in the case of Kodak, by Tedlow (2001: 97). Chandler (1977: 285) shows that these companies were forced to use a new business model that combined economies of scale in production with control of their distribution system. Marketing was central to this new business model. A number of firms, including Heinz and Proctor & Gamble, had developed successful brands through marketing between 1870 and 1901 as shown by Koehn (1999) and by the editors of *Advertising Age* (1975) but this business model only became high profile after 1901. A symbol of the new approach was the hiring of J. Walter Thompson in 1902 by Lever Bros, one of the world's great marketing organisations, to advertise their Lifebuoy and Lux brands of soap in the US. Koop (2001: 7) observed this new approach in its infancy during his 1906/07 tour of the US and wrote that the producer ceases to be purely a manufacturer and engages in the marketing of his products.

Marketing involved these firms taking responsibility for the distribution of their products and this involved replacing the middlemen as far as possible. Koop (2001: 7) described this process:

... they wish to come into closer contact with the consumer and to do away with some of those persons who stand between them; in such cases they may be said to market their own products.

The operation of competitive forces in the US over the period 1840 to 1910 can be summarised as follows. The period from 1840 to 1870 saw the sun-dering of relationships between manufacturers and their customers and the emergence of the commodity market as the dominant market type in the US economy. Businesses reacted to the difficulties inherent in commodity markets over the period 1870 to 1900 by industry consolidations designed to create monopoly power. The political and legal response to monopoly led to the emergence of branding as a business strategy and to the birth of marketing. This interpretation of US business history fits in perfectly with the market classification of the market power triangle.

The Market Power Triangle as an Integrative Tool

This paper opened with a quotation from Michael Halbert indicating that there was a major weakness in marketing theory. Solving this weakness may require marketing to draw heavily on other disciplines. This paper draws on economics, industrial organisation and marketing to develop a classification of markets. This classification of markets can be represented by a triangle analogous to the colour triangle and which we call the market power triangle.

The market categories identified by the market power triangle are useful in the interpretation of business history and in the discussion of strategic issues in business. The market power triangle may turn out to be a useful tool to integrate insights from economics, industrial organisation, marketing, business strategy and business history to give us, in Halbert's words, "an understandable and useful picture of the entire marketing process".

ACKNOWLEDGEMENTS

I wish to thank Alfred Chandler, Jr, of Harvard and Andreas Buttmer of UCD for assistance and encouragement in the writing of this article.

REFERENCES

- Abboud, L. and Berman, D.K. (2004) *Dow Jones Newswires*, 26 July 2004.
- Advertising Age (eds) (1975) *The House that Ivory Built*, Lincolnwood, Illinois: NTC Business Books.
- Baker, Michael J. (1996) *Marketing, an Introductory Text*, 6th edn, Bristol: Macmillan Business.
- Bartels, R. (1962) *The Development of Marketing Thought*, Homewood, Illinois: Richard Irwin.
- Bartels, R. (1963) "Development of Marketing Thought: A Brief History", in G. Schwartz (ed.) *Science in Marketing*, New York: John Wiley and Sons.
- Bittlingmayer, G. (1996) "Antitrust and Business Activity: The First Quarter Century", *Harvard Business History Review*, autumn 1999, pp. 363-401.
- Brown, E., Jr (1925) *Marketing*, New York: Harper and Brothers.
- Cabral, L.M.B. (2000) *Introduction to Industrial Organization*, Cambridge and Massachusetts: The MIT Press.
- Chandler, A.D., Jr (1977) *The Visible Hand*, Cambridge, Massachusetts: The Belknap Press of Harvard University Press.
- Chandler, A.D., Jr (1990) *Scale and Scope*, Cambridge, Massachusetts: The Belknap Press of Harvard University Press.
- Chicago Board of Trade Website: www.cbot.com
- Clark, J.B. and Clark, J.M. (1914) *The Control of Trusts*: www.socserv.socsci.mcmaster (accessed 12 June 2004).
- Converse, P.D. (1951) "Development of Marketing Theory: Fifty Years of Progress", in H.G. Wales (ed.) *Changing Perspectives in Marketing*, Urbana: The University of Illinois Press.
- Cruikshank, J.L. (1987) *A Delicate Experiment, The Harvard Business School 1908-1945*, Boston, Massachusetts: Harvard Business School Press.
- Day, G.S. (1992) "Marketing's Contribution to the Strategy Dialogue", *Journal of the Academy of Marketing Science*, Vol. 20, No. 4, Fall, pp. 323-9.
- Hagerty, J.E. (1936) "Experiences of an Early Marketing Teacher", *Journal of Marketing*, Vol. 1, No. 3, July, pp. 20-7.
- Halbert, M. (1965) *The Meaning and Sources of Marketing Theory*, New York: McGraw-Hill.
- Hotchkiss, G.B. (1938) *Milestones of Marketing*, New York: The Macmillan Company.
- Hunt, S.D. (1994) "On Rethinking Marketing: Our Discipline, Our Practice, Our Methods", *European Journal of Marketing*, Vol. 28, No. 3, pp. 13-25.
- King, R.L. (1963) "The Marketing Concept", in G. Schwartz (ed.) *Science in Marketing*, New York: John Wiley and Sons.

- Koehn, N.E. (1999) "Henry Heinz and Brand Creation in the Late Nineteenth Century", *Harvard Business History Review*, autumn, pp. 349-93.
- Koop, D. (2001) *American Business Enterprise: A Study in Industrial Organisation*, Ontario: Batoche Books (originally published in Manchester in 1907 and republished in 2001).
- Kotler, P. and Armstrong, G. (2003) *Marketing: An Introduction*, New Jersey: Prentice Hall.
- Litman, S. (1950) "The Beginnings of Teaching Marketing in American Universities", *Journal of Marketing*, Vol. 15, No. 4, October, pp. 220-3.
- Machovec, F.M. (1995) *Perfect Competition and the Transformation of Economics*, London and New York: Routledge.
- Manns, L.D. (1998) "Dominance in the Oil Industry: Standard Oil from 1865 to 1911", in David Rosenbaum (ed.) *Market Dominance*, Westport Connecticut: Praeger.
- Porter, M.E. (1985) *Competitive Advantage: Creating and Sustaining Superior Performance*, New York: The Free Press.
- Sloan, A.P., Jr (1965) *My Years with General Motors*, London: Sidgwick and Jackson.
- Sloman, J. (2003) *Economics*, Harlow: Pearson Education.
- Stigler, G.J. (1965) *Essays in the History of Economics*, Chicago: University of Chicago Press.
- Tedlow, R.S. (1990) *New and Improved*, Portsmouth NH: Heinemann Professional Publishing.
- Tedlow, R.S. (2001) *Giants of Enterprise*, Harper Business: New York.

Copyright of The Irish Journal of Management is the property of Irish Journal of Management. The copyright in an individual article may be maintained by the author in certain cases. Content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.