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**THE ECONOMIC FUNCTION OF  
TRADE JOURNALS: EVIDENCE  
FROM THE PROCESSED FOODS  
SECTOR**

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# THE ECONOMIC FUNCTION OF TRADE JOURNALS: EVIDENCE FROM THE PROCESSED FOODS SECTOR

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## Abstract

*Trade journals have received relatively little academic study despite their importance to trade and industry. This paper attempts to define trade journals, as part of the larger business to business press, and to develop some approaches to developing an understanding of their economic function. Trade journals are examined with reference to the economic theory of clubs, transaction cost theory, the theory of market signalling, and within the framework of economic networks. The paper develops a conception of trade journals as a class of good exhibiting many features of a club good, fulfilling an important signalling role to industry, and lowering communication costs. The function of trade journals is facilitated by the complex network of linkages which is managed by the journal as a public good on behalf of its subscribers. As increasing internationalisation was a feature of the processed food industry during the period 1984-1994, the interaction between trade journals and this process was examined to throw light on the functioning of the above relationships.*

# **The Economic Function of Trade Journals: Evidence from the Processed Foods Sector**

## **I. Introduction**

From a business and industry perspective, the importance of trade journals is often acknowledged. Academics have often used evidence from trade journals to say something about the industry which they represent. However, there has been little, or no, academic study of role that trade journals play from an economic perspective. It is high time for some attempt to understand the role that trade journal's play within the industrial sector that they serve. This is a location paper that attempts to explain the role of trade journals within the existing body of economic literature.

This paper examines trade journals as the centre of an information network. This information is a public good which firms can access through subscribing to the journal. The controlled circulation of information to subscribers ensures that the information maintained by trade journals acts as a club good. This paper attempts to analyse the information flows co-ordinated by trade journals, to examine the nature of that information, and to understand the economic function of the information to journal subscribers. The role of trade journals within industries is put into the larger context of theories concerning inter-organisational networks. In attempting to undertake this analysis, the paper attempts to construct a methodology to identify and classify trade journals.

## **II. Networks and Information**

Network forms of organisation have been studied increasingly in the 1990s. This has been largely from the perspective either of the firm in economics (Casson and Cox, 1997) and strategic management (Jarillo, 1993; Nohria and Ghoshal, 1997),

or of the network in organisational studies (Grandori and Soda, 1995; Ebers, 1997). What this paper attempts to do is analyse an information network which is not maintained by one firm, or between firms, but as a public good within an industry. In this paper, we shall examine networks from an economic perspective.

The dominant economic model of network analysis derives from the transactions costs economics. There are two strands of theory about networks in the transactions costs literature: one looks at them as a hybrid between a market solution and vertical integration (Williamson, 1975; 1995) and the other stresses their own particular characteristics and properties distinct from either the market or integrated organisation (Powell, 1990). The Williamson tradition, stemming from Coase (1937), focuses on the reasons for market failure arising from three conditions in particular: asset specificity, uncertainty and frequency of transactions, which make arm's length market transacting costly. These conditions may lead to vertical integration instead of market transacting. The work following this approach finds network forms of organisational problematic. In an attempt to redress the limitations to transactions cost theory, Mark Casson (1997) has argued that it is firms that undertake the process of collecting, collating and synthesising information, rather than the notion of the market. From this approach Casson and Cox (1997) put information at the heart of a network's activity, suggesting that they are best understood as mechanisms improving the reliability and quality of information between agents involved in resource allocation decisions.

Where this information is trusted, removing the opportunistic element from William's approach to transaction costs, the focus of network analysis centres on information as Casson has suggested. Within a network the process of information exchange may be more important than the (im)formal structure of the

relationship. When the basis of exchange is trust, and the removal of opportunism from the exchange equation lowers transaction costs and proves to be a more efficient means of communication. That transaction costs may be minimised by the development of trust, has been long identified as the most efficient and reliable form of exchange (Arrow, 1973; Smith Ring, 1997). This shifts the debate onto the whole issue of trust in its different forms (as overviewed by Bradach and Eccles, 1989), and its dynamics. Trust can be generated as a commodity by the close interaction of individuals within an institutional framework (Zucker, 1986; Lane and Bachmann, 1996), or via social relationships (Fukuyama 1995; Casson and Cox, 1997; Zucker, 1986). From the work of Macauley (1963) it was recognised that ties between organisations are often made up of overlapping interpersonal relationships, on personal as well as professional levels. Firms transact informally and reinforce relationships socially, and this pertains to how more formal contracting is arranged.

Returning to the key role played by information in networks suggested by Casson, the incorporation of trust gives new significance to the role of the intermediary. The idea of intermediary is particularly useful, as it proposes that an individual trusted by both parties can facilitate exchange between non-trusting parties. The intermediary relies on signals such as membership to a class, clan, or institution. Intermediators can be individuals or organisations which facilitate trust between organisations (Casson and Cox, 1997; Cox and Metcalfe, 1998).

From this theoretical grounding, we can proceed with the exploration of the information network maintained by trade journals.

### III. Methodology

Before we begin to examine how trade journals co-ordinate information, we need to clarify what we mean by trade journals. There is a dearth of information about trade journals, and this is especially pronounced from an economic perspective. Academics have tended to focus on academic journals role within academia, as would be expected due to their close relationship with them. Studies have examined which are academics' favoured journals (Baur, Zivney, and Wells, 1996; Tahai and Meyer, 1999), attempted to rank the quality of and how effective disseminators journals are (Chandy and Williams, 1994; Rousseau and Van Hooydonk, 1996; Beed and Beed, 1996; Nederhof and Meijer, 1995), examined academics relationship with journals (Whitley, 1991; Hodgson and Rothman, 1999), and rank journals in terms of research and teaching utility (Schmidgall, Woods, and Rutherford, 1996). Periodicals have also been considered as sources for business historians (Endres, 1994; Raven, 1999). Whitten (1995) explores the role that trade journals have as a primary and secondary source when examining industries.<sup>1</sup>

This however, does not focus attention on the trade journals themselves. There has been little attempt to investigate journals as part of the printing industry. There has also been no attempt to examine trade journals from an industry perspective. Clearly, trade journals must fulfil an important economic function within industry to be such permanent fixtures in industrial economies.

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<sup>1</sup> "To place any firm or industry into the larger framework of its times, recourse to the trade and professional literature is essential. Imagine writing about meat packing without consulting *The Packer*, ferrous metals sans *Iron Age*, highway construction without a look at *Contracting and Engineering*, or entertainment without *Variety*".

Before we can begin to redress this neglect, we have to tackle the theoretical issue of what trade journals actually are. Therefore, the first part of our methodology was to examine trade journals themselves, and to create a framework by which they can be identified and examined.

British Rate and Data (BRAD) distinguishes between the consumer and business press. Trade journals are part of the business press, as opposed to the consumer press. The business press by this definition encompasses all business-to-business publications, but this definition is extremely large. The business press, or periodical, sector, encompasses a wide spectrum of publications, from academic journals to business magazines such as the *Economist*.

By definition, trade journals are focussed upon a particular trade, industrial sector, or sub-sector. However, many academic journals address industry concerns, or specific industries (such as biotechnology within the food processing sector) without being trade journals. At the other end of the spectrum, industry-wide news reviews, such as weekly news papers or information bulletins, are not trade journals either in the accepted sense. By trade journals we mean the business press that is specifically aimed at the business market, designed to serve an industry. The trade journal had to have an interactive relationship to the industry.

### *Defining Trade Journals*

We constructed six dimensions by which to assess business periodicals content, and to classify them. This was to determine which periodicals were specifically trade journals. The starting point was a conceptualisation that trade journals should:

- Have an interactive relationship with industry: that is to say that they are active in using the periodical in a direct way. This could be through advertising, recruitment, announcements, or direct editorial input.
- Reflect (or direct) developments within the industry: this could be by having industry specific news reporting, features, or by suggesting or managing lobbying campaigns.
- Serve a specific trade, or sector. This is identified by journal classification indices and BRAD.
- Not be limited to a single company. Therefore, in-house newsletters and company journals are excluded.

This would differentiate trade journals from academic journals and industry newspapers (which are not interactive). The six dimensions devised to codify this information in the periodical were by the amount of:

- Academic content
- Industrial sector news.
- Advertising content.
- Commercial advertising by the food-processing industry.
- Recruitment pages.
- Conference and trade fair news.

The dimensions were used to rank the journals (1-5) in terms, with five representing the most content, and one representing the least. The *British Food Journal*, for example, scored five (the highest mark) for academic content, and had no commercial advertising, or industry news. This publication is clearly an academic journal. *Food Industry Bulletin*, on the other hand, had no commercial

advertising or recruitment information, although it was very strong on industry specific news. This periodical we would classify as an industry newspaper.

The second step was to find a reliable and repeatable method for tracking the information co-ordinated by trade journals over a 10-year period. The following indicators were selected:

- The editorial ‘comment’ page was then used as representing the major concerns of the industry. The editorial was noted for the journal run between January 1984 and 1994. The stories were analysed, and from this we derived 16 categories (see appendix c). The stories were then categorised according to the 16 categories. The percentage of categories covered was then determined for each whole year of the period. This data was then used to examine changes in contents coverage over the period.
- Recruitment advertising in the journals was taken annually. We counted the amount of jobs that were based in the UK, Europe and the rest of the world.
- Conference and trade fair advertising was also counted annually. We counted the number of events held in the UK, Europe, and the rest of the world.

To provide qualitative data on the functioning of the information network, semi-structured interviews were held with the editors of the sampled journals.

### *Industry and Journal Selection*

The processed foods sector was chosen for study because it has high representation in the business press, and periodicals covering the industry range from the academic press (strongly represented in food technology and process technology), to news sheet style industry roundups. The decade from 1984 – 1994 was chosen as a period in which there was considerable internationalisation

within the food processing industry. By comparing the journals content over this period we hoped to observe any correlation between the journals content and the internationalisation process.

A literature search was made of the journals at the Science Reference Library (part of the British Library) in London. Journals within the food processing industrial sector were identified. Using the methodology outlined, a number of periodicals were identified as trade journals. The selection period narrowed down the potential journal sample, as the journal had to be fairly stable over a 10-year period. Some journals, such as (*Food Manufacture East-West*) folded within this period, others started up (*Food Manufacture International*). The most difficult problem with this approach however, was that some journals changed their format (if not content) considerably. These journals, despite remaining similar in content, made comparisons difficult because of changes in format. Narrowing the selection of food processing sector trade journals down we arrived at a list of 26 journals (see appendix b). Two journals chosen for analysis, *Food Manufacture* (FM, part of the Miller Freeman group), and *Frozen and Chilled Foods* (F&CF, part of DMG Business Media).

#### **IV. Trade Journals Information Networks**

Attempting to analyse the function of trade journals as, we need to examine:

- The information flows co-ordinated by trade journals
- The nature of the information
- The function of the information.

The different types of information co-ordinated by trade journals gives us a natural starting point by which to investigate the economic function of trade journals themselves. Information flows can be either one way or two way. The

information in these flows can be either trusted or non-trusted. In the paper we shall examine the purpose of the information flows handled by trade journals, and examine the mechanisms by which information becomes trusted. Table 1 lists the information content of trade journals, categorising it as one or two way, trusted or non-trusted.

<b>Information</b>	<b>Firm – Journal</b>	<b>Trusted</b>	<b>Journal - Firm</b>	<b>Trusted</b>
<b>1 way</b>	Advertising – as: 1) Signalling to consumers	No	Editorial Industry news	Yes Yes
	2) Signalling to rivals	No	Reports on trade fairs Trade associations news	Yes Yes
<b>2 way</b>	Recruitment	Yes	Trade shows, fairs	Yes
	Features	No	Training days	Yes
	Placements	No	Competitions, awards	Yes
	Sponsorship	Yes	Diary	Yes

Table 1: Trade journals and information flows.

From this starting point we shall then examine the economic function of the different kinds of information co-ordinated by trade journals. Leading us to a conceptualisation of the function of trade journals themselves.

Within an industrial market, trade journals are one of the methods of information exchange. In this process, trade journals provide information as a public good. Trade journals represent the embodiment of information networks, drawing together information from different sources within an industry. This public good is available only to journal subscribers, therefore a club, rather than a pure public, good. In order to move onto an analysis of the information used by trade journals, we need to understand the nature of the network itself. Trade journals encompass two networks. The larger network is defined by the industry which the trade journal serves. In the process of gathering information from industry members, the trade journal must communicate with firms. This first network is

that which the trade journal uses to gather information. The second, largely overlapping network, is that of the journal's market. Subscribers to the journal form this network, and can communicate with each other in various ways through this network. A key function of the journal is defining the first network, in short to draw up a list of industry members. It is this list which is of interest to the subscribers, who can communicate to any of the firms in the industry who also subscribe.

The economic theory of clubs is a useful theoretical approach to understanding these information networks. As trade journals (by our definition) are controlled circulation publications, they may represent a class of club goods. Controlled circulation is “whereby trade publications are supplied free of charge to restricted parties” and is “a well established feature of the trade sector”<sup>2</sup>. Subscribers to controlled-circulation journals are paying effective membership to a club that supplies them with an information service. Therefore, in the following analysis, the nature of the controlled circulation will be examined. Club theory (as it is often known) is often used in conjunction with public choice theory (Mueller, 1979), and leisure management, and is generally used to fill the gap between economic theories explaining public and private goods. “A club is a voluntary group deriving mutual benefits from sharing one or more of the following characteristics: production costs, the members’ characteristics, or a good characterised by excludable benefits” (Sandler and Tschirhart, 1997: 335). Following Buchanan (1965), club theory has been extended to deal with issues such as asymmetric information (Silva and Kahn, 1993), and multi-product clubs (Brueckner and Lee, 1991; Sandler and Tschirhart, 1993). The theory describes how individual members can become linked by the common need for public goods that would be uneconomic for any one individual to internalise or buy.

Clubs, in this sense, fall outside of the market / hierarchy analysis. In this analysis individual organisations need trade and industry specific information. Trade journals supply this to their closed circulation list (club) and become the central hub of this information network comprising individual firms.

Trade journals fall outside of the organisations usually studied by club theory, although trade associations have been the studied (Schneiberg and Hollingsworth, 1990). Trade journals are an information product, and this is where the distinction with traditional club jobs becomes apparent. Traditional club services have a physical restraint, and therefore pose allocation of resources problems – how many people can use a medical facility or health club, for example. Trade journals do not exhibit these characteristics in the same way. Therefore, before moving the analysis forward, it is appropriate to examine how trade journals may fit with club theory. In their overview of club theory, Sandler and Tschirhart (1997) developed a framework of six dimensions distinguishing club goods from pure public goods. It is useful to consider trade journals within this framework as a means of identifying their specific characteristics in order to determine whether the economic theory of clubs can contribute to our understanding of the function of trade journals. The following section considers trade journals in relation to the six dimensions: voluntary; crowding; exclusion; partitioned; exclusion costs; dual decision nature.

### Voluntary

Club members join voluntarily in order to gain net benefits above membership costs. This is true for trade journals as organisations and individuals are free to take a subscription to the journal.

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<sup>2</sup> 1994, Periodical Publishers report, Hampton: ICC information group ltd. p.

### Crowding

Crowding, or congestion, seems to have little applicability in relation to trade journals. Journal costs for production are high (mainly in staff costs and print), but marginal costs of production are low. An increasing membership set does not lead to congestion and is actually a benefit for the journal, and to subscribers who may benefit from increasingly economies of scale passed on to them in the form of increased benefits or lower subscription costs. With trade journals crowding is costless. This is similar to pure public goods, although being excludable, they are clearly club goods.

### Exclusion

With regard to trade journals, exclusion costs concerns the access to the information gathered by the journal, and the ability of firms to use the journal to send information to the controlled circulation. Those not subscribing to the journal are excluded this information.

### Partitioned

A trade journal's target industry represents the total membership set of the club. However, this membership can be partitioned between various providers of the same club good. In club theory this is usually determined by exclusion costs limiting the size of clubs and thus partitioning the market. Trade journals, however, are partitioned for purely competitive reasons. There are no additional costs (except subscription costs) to consumer to belong to many overlapping trade journals. In this aspect trade journals do not represent a public good either, as the provision of public goods is determined by optimal efficiency, by which there is only one provider in each market.

### Exclusion costs

Exclusion costs are relevant to considering trade journals as club goods. Although there are no crowding costs associated with trade journals, there are exclusion costs in relation to the closed circulation list. Recent research in club theory has focussed on transaction costs, and the question of fine or coarse exclusion (Lee, 1991; Helsley and Strange, 1991). The former includes strategies such as per-visit fees whilst the latter includes membership fees. Trade journals use coarse exclusion through subscription fees, and fine exclusion by allowing the individual purchase of an individual issue. The price of a single issue is usually far in excess to the cost of the issue or to members of the list. Transaction costs also determine the construction of exclusion rates (through administrative costs) and tariff rates, which are tiered.

### Dual decision nature

Because crowding is not relevant for trade journal, a novel aspect of club theory is not appropriate. The dual decision nature of club theory concerns the simultaneous allocation decision between club size (determined by crowding) and provision level.

As they are an information product, trade journals do not satisfy some of the criteria of traditional club goods. Club goods are also “rejectable” (Ng, 1973: 279), which is to say that members who do not obtain benefit from consumption will leave the club.

The administrative task of building a controlled circulation list is expensive and time consuming, and therefore uneconomic for most organisations to undertake themselves. Trade journals make exactly this investment. According to journal editors sampled, the optimum size of the club is 90% of the sector constituents. A

journal serves a defined industrial sector, and is able to assess how many companies form that industry. By trying to reach 90% of that population they are able to gain enough business. The final 10% of the population is too fragmented, transitional, or too small to be marketed effectively.

One characteristic of trade journals is that they are focussed very narrowly, or more precisely, accurately, at a particular market segment, or industry, by means of the controlled circulation list which they devise. This focus makes trade journals a very effective marketing tool for approaching that particular market segment. Therefore this makes trade journals a very effective communication channel to target audiences without wastage. This is emphasised by the trade journals own sector's trade association, the Periodical Publishers' Association and its research offshoot, the British Business Press (Fry, 1993). This can be credibly demonstrated to the industry with Audit Bureau of Circulations (ABC) figures. The ABC strictly monitors the press with regard to circulation figured and breakdowns of audience by category and region. In this way, potential subscribers can assess whether a trade journal is able to reach the intended market. In the case of *Food Manufacture*, the ABC lists the full breakdown of copies circulated by industrial sector between SIC (Standard Industrial Classification) 41 and 42 (listing 21 sub sectors), by geographical region, job title, job function and purchasing influence. *Food Manufacture* claims that due to the ability to use ABC data in association with their own database that they reach 96% of expenditure within the above sectors. In this way, trade journals are trusted in that they guarantee that information passed through them will reach the intended target audience.

Therefore, we have shown that the controlled circulation list maintained by the journal is a club good, and is the network to which the subscribers wish to gain

access to. The reasons for the importance of the controlled circulation shall be examined in the following sections.

## **V. Types of Information**

In the previous section, we have defined the network maintained by trade journals. We move now to examine the information flows within this network, and to explain their economic rationale. Information can flow either from the journal to the firms via the network, or from firm to the journal. In either case this information can be either one or two way. Firstly, we shall examine information flows from firms to the journal.

### *Firm to Journal*

Firms send information to journals, which then disseminate this information to the network. There are various mechanisms for firms to do this. One way Information which firms send to the network via journals are such things as advertising literature. In this way trade journals fulfil an important role in market signalling. The idea of signalling, following Spence (1974), is now used in many business disciplines, principally in game theoretic approaches, agency theory (Morris, 1987) and in relation to marketing. When direct information exchange is impossible, because information is not easily codifiable (such as a person's suitability for a job), then signals may provide workable information. This is useful in situations of uncertainty, as discussed in the section on transaction cost economics. Signals are information contained within a message from which inferences can be made about the sender's behaviour. Signals can be overt or covert. Their recipients can include competitors, suppliers, customers and other interested parties such as stockholders, the community and the government (Herbig and Milewicz, 1996). In relations to the role of trade journals, it is not possible that all actors within an industry can gather direct information about

other actors, and send signals to other firms. This may be in terms of individuals or firms. Herbig and Milewicz (1996) undertook a survey of 207 participants to examine how market signals were transmitted between firms, their competitors and customers in industrial markets, and what they were intended to convey. Possible transmission channel for signals identified were:

press releases; trade shows; annual reports; pre-announcements; press briefings; mass media advertisements; trade journal advertisements; intra-company newsletters; customer newsletters; industry write-ups in journals; catalogues; executive interviews; directories.

The survey found that the most common communication vehicles used were trade shows, trade journal advertisements, newsletters and catalogues. The signals were primarily used to alert customers (82%), inform suppliers (32%), leak information (10%) and warn competitors (6%).<sup>3</sup>

Within the marketing discipline there has been a more methodical attempt to explore whether trade journal advertising is effective (Stoops, 1991; Clark, Kaminski and Browne, 1991). In a study of trade periodicals focussing on their role for academia and public policy, Nederhof and Meijer (1995) indicate that advertising in trade periodicals can influence public policy.

Market signalling in trade journals, from a study of the advertising material contained therein, appears to form two distinct groups. First, signals to consumers. This has the function of linking suppliers to consumers in markets which display little vertical integration. This is important for small businesses

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<sup>3</sup> Industrial product firms, not unsurprisingly, tended to use trade shows and trade journals as signalling vehicles to a greater extent than did consumer product firms.

which are unable to internalise the costs of finding markets, consumers, or sourcing products themselves. Therefore, the search cost savings afforded by the opportunity to use the information network provided by trade journals represents and transactions cost saving. Second, firms in oligopolistic markets can send signals to their rivals. The frozen food market, for example, is dominated by four major firms, each an affiliate of a multinational<sup>4</sup>. Advertising in trade journals displays a credible commitment to defending a market to rivals. Adverts taken out by Bird's Eye, for example, in the 50<sup>th</sup> anniversary issue of F&CF, state the company's dominance of the market, and its intention to continue to do so. This has very little information content to potential customers and is a signal to competitors. Signalling rivals through trade journals is efficient, as the club guarantees that the information will reach the designated audience. Again, this has a transaction cost implication as the information network ensures that competitors will receive the information. Large integrated firms have greater search capabilities than small firms, and internalised knowledge markets, and do not therefore appear to use the information network maintained by trade journals in the same way as small firms. Small firm's ability to contact large firms, who may be customers, through reliable high quality information channels is a transaction cost saving.

Two way information between firm and journal include such elements as recruitment information, the ability to run features in conjunction with the journal staff, and information regarding sponsorship (in conjunction with the journal) and placements. In the case of recruitment information, companies save on search costs by advertising to the specialised labour market represented by the journal (recruitment advertising levels is outlined in the appendix in figures 1 and 2). Both journals sampled also have detailed 'people' sections. These sections

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<sup>4</sup> Birds Eye, Ross, Findus, to finish

announce recent appointments and information about key actors in the industry. Again, this is important for labour market information to industrial actors, and again, this represents transaction cost benefits.

Market signalling information is high quality because the network guarantees that signalling will be effective. The information is not trustworthy, however, because it is information coming from single sources. The information could, in the case of signals to rivals, be misleading. Direct information supplied by firms to the network is usually not trustworthy. The exception would be recruitment and sponsorship information supplied by firms, as it would not be in the firm's interest to supply inaccurate information in these regards.

## **VI. Journal to Firm Information**

Information sent to the network from the journal is trusted information. The reason for this is because it has passed through an editorial process which guarantees its accuracy and veracity. In a survey based study, business managers ranked trade journals as the most trusted source of media information<sup>5</sup>. Individual trade journals are small typically small enterprises when compared with the business press in general, although the owning companies are usually large publishers. Because of their specialised nature, the editor of a trade journal becomes the centre of the information flows through the journal. Williams and Ouchi (1983) contend that strong culture in clans and networks needs to be fostered by shared history, and stable membership. This can be inferred in trade journals by editorial continuity. The most enduring trade journals are those with consistent editorial staff. At the time of the empirical work (1998), both editors interviewed had been in place for over 9 years. In contrast, several magazines which had folded between 1983 and 1994 suffered from a lack of consistency in

their editorial staff. The provenance of both trade journals selected goes back a significant period: F&CF to 1948, and FM even further to 1928. This continuity allows the journals to build a more stable network, and to build its trusted reputation as a source of quality information. Miller Freeman, the group owning Food Manufacture, use the idea of ‘editorial strength’ as a marketing device in their advertising literature, reasoning that stability and strong interpersonal networks act as a signal to firms guaranteeing information quality. Trade journal editors are often on personal terms with key actors within the industry. This gives them access to information denied to other firms within the industry. Straddling the firms within the network they are in a unique position to gather information. Burt’s (1998) research into structural holes in networks concerns the disconnection between actors in a network. In a network, information is passed between actors. If the network maintains a wide variety of weak contacts (across structural holes) then the greater the potential for information gathering. In Burt’s analysis individuals act as the bridges across structural holes, and add value by increasing the quantity and accuracy of the information available to their network members. In the case of trade journals, the journal editor maintains a very large network across structural holes, and makes information gained from this network available to journal subscribers who are not in a position to maintain these loose networks. The structural holes in this case represents the space between individual firms, who may attempt to keep information within their boundaries. In this way SMEs, or in loosely structured (or in non-oligarchic markets) industries, benefit from information gathering undertaken by trade journals as they would otherwise find it difficult to gather information on other firms in the industry.

Oligarchic markets may therefore have less need for trade journals because they are able to bridge the problems of maintaining information networks across

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<sup>5</sup> *Mediaweek*, Feb 19, 1996 v6 n8

structural holes because of high internalisation, as we have seen in the section regarding the network signalling function. In the example of trade journals for cigarettes, this can be seen quite clearly. In the early stages of the industry, production and retail were highly fragmented. Nether-the-less, retailers and manufacturers needed links with each other, and information about rivals. Trade journals provided an information service linking together these disparate actors. There were therefore initially many trade journals serving this market, but the number of titles declined as manufacturers consolidated and the growth of centralised wholesalers for retail saw the internalisation of information markets into large firms. There was therefore a far lesser need for trade journals, and the numbers declined.

In our sample there the journal editors maintain that SMEs gain information advantages from their information network, and that as larger companies grow, they are less likely to take an active interest in the trade journal except for market signalling purposes.

By being at the centre of the information network, journal are in a position to examine the dynamics of the industry, and examine overarching trends. This is important to firms, who have a more limited view of the overall market. Journals are also in a position to disseminate news in market and technological developments which smaller firms may not have the resources to gather themselves. The types of information which journals collate and disseminate to the network is an industry specific editorial on industrial developments, information of trade associations and fairs, and technological information. Again, access to this nature of information can be problematic for small firms, who may benefit form trade association news but bot be members. Likewise, information about trade shows in crucial in highlighting technological developments.

Two-way information provided by journals involves interaction between firms co-ordinated by the journal itself. For example, journals can arrange training days, trade conferences, and exhibitions. This has effects on the social cohesion of sector of the sector, which encourages the free-flow of information and lowers communication costs. In a more direct way the journal is connected to many firms within the sector through the myriad interconnected personal ties with firms, trade associations, governmental bodies, trade fairs and conferences. This is especially the case where journals sponsor and manage important trade fairs and conferences directly, such as Miller Friedman's (Food Manufacture) Food and Drink Expo. In this function the interpersonal network developed and maintained by the trade journal is central. That network is often developed by the editor, and we shall examine this in the next section.

## **VII. The function of trade journals**

The heart of trade journal business is the information which they co-ordinate. Their role in the intermediation of this information is guaranteed by the trust that is built up by the interpersonal network maintained by the editor. Increasingly, in the information age, this information is translated into a database of information. It can be argued that in the 'information age' "owning intellectual property rights is the path of the future" (Fry, 1993). Trade journal's information can be reproduced as directories, lists for rental, direct mail or act as the basis for conferences and exhibitions. Miller Freeman use their ownership of several trade journals within an industry to build just such a collection of value added services, via their subsidiary the Global Network of Food Professionals (GNFP). The GNFP holds five major databases covering all aspects of the food industry derived from their expert connections in their trade journals. The Miller Freeman

group, for example, is also a major conference organiser. In all, the group controls (directly or with joint ventures) 290 periodicals and 380 trade exhibitions world-wide<sup>6</sup>. Publishers are branching out from being focussed on printing and relying on advertising as primary income, to exploiting these value added services deriving from their specialised information (Cobb, 1989; Ruhland, 1996). With the emphasis more upon the management of data rather than actual format of the data (such as databases or journals), the ownership of an IT based subscription list is an asset in the development of one-to-one marketing (Peppers and Rogers, 1993; 1997), which is also important for firms accessing the network, as we have seen.

There is some element of push in this as journals must supplement declining advertising revenues (Ruhland, 1996). Trade journals have an intimate knowledge of their advertising clients needs (Romano, 1996), and this encourages the continued monitoring of the controlled circulation list. Therefore trade journals are active participants in the industries which they serve.

Trade journals need to make profits. In order to do this the journal's management need to have an idea of the service which they provide in order to provide a service and generate revenue. In this section, evidence as to the service offered by trade journals is examined from a reading of the journals themselves and from personal interviews with editorial staff. Trade journals have clear role of the role they have played in the development of the food industry. Following the journals over a decade gives a picture of the changing market, and some food sector publications changed their titles to reflect their changing market. *Frozen Food* magazine, for example, was re-launched in 1984 as *Frozen and Chilled Foods* (F&CF). The magazine was originally founded in 1948 as *Quick Freezing* to

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<sup>6</sup> *Food Manufacture Media Information Guide*, 1998

support the new frozen food industry, and the newly formed sector trade association, the BFFF (British Frozen Food Federation, originally NAWDOFF). The magazine is founded right at the start of the industry's life, and has had helped develop the market with close ties to the BFFF. As the market grew and developed the influence of the F&CF can be seen as the F&CF drew attention to the need for a dedicated chilled food association to support the growing industry – and one was formed the next month. F&CF suggest that today one of its functions is that “this magazine is a form of communication, and the offerings of small producers are likely to reach a wide audience through it” (July, 1990). The journals stress the quality of industry specific information which they offer to their circulation. One of the primary functions which trade journals undertake is to define their controlled circulation list. This list provides the periodical with a market, and provides the market with a way of reaching other actors within their specific industrial market. Another aspect emphasised by the trade journals themselves is their dynamic relationship with their industry. F&CF and FM have been long term features of the market and may exert some influence over the development of the market. There is a constant awareness that journals role within the industrial market they service needs redefinition in respect to the market and clientele. For example, F&CF commented on the withdrawal of large multinationals from the journal and trade fairs in the late 1980s, observing that there was a “lack of recognition of the role that this magazine has played in the lives of these big companies (which)... have no need to be so high handed because of their large size” (January, 1988 F&CF).

### **VIII. Internationalisation**

In order to examine the use of the information used by trade journals, we decided to examine how trade journals related to internationalisation over the sample period. The period 1984-1994 saw a significant move towards increasing

internationalisation of the processed foods sector, as cross-border acquisitions and mergers continued at an accelerated rate. Of primary significance, the creation of the European Union in 1993 ('1992') widened the potential for competition and markets. In order to shed some light on the role of the trade journals in this process we devised the contingency table in appendix A described in the methodology. The table charts the editorial content of F&CF and FM over the period, in terms of international and domestic orientation. The editorial content does not robustly show a change in orientation. A more subjective look at the journals over the period does show a more international outlook, especially in relation to '1992'. Figures examined observing the location of trade shows were distorted by the cyclical round of major trade fairs, which move between countries and occur every two or four years. Therefore the frequency and location of trade fairs (appendix, figure 1) do not give us evidence to the internationalisation of the industry, or the action of trade journals. Recruitment information – whether domestic, within the EU, or other – (appendix, figure 2.) also does not reveal any significant trends. However, as we shall outline, in the case of FM, the foundation of two new international journals attached the more international recruitment information, distorting the significance of the recruitment data. The single event of 1992 also made charting the international orientation of the journals more problematic, although the articles were carefully read to determine whether they addressed the domestic market concerns rather than issues relation to internationalisation. A more qualitative approach was adopted by personal interviews with journal editors.

The role of the journals was questioned: were the journals responsive to change or agents of change. There were differing views from the editors interviewed. The editor of FM thought that the role of the journal was to direct the development of the industry, stressing the benefits and processes of increasing

internationalisation to the SME sector in particular. In this way the journal was proactively attempting to develop the industry. In comparison to this view, the editor of F&CF saw the role played by the journal in terms of reflecting the dynamics in the industry, rather than attempting to become directly involved. FM displayed an active approach by founding several new magazines throughout the 1980s. *Food Manufacture International* attempted to promote and exploit the internationalisation of the industry. *Food East-West* was a joint venture with a Russian publisher attempting to establish the magazine in the Eastern European market. Although both magazines eventually foundered, they do illustrate the active role played by trade journals as firms and as services. This also illustrates why the attempt to gather data in appendix a was not completely successful, as publishers founded new journals rather than changed the orientation of existing journals.

In constantly redefining their role in respect to the market that they serve, the journals have become more international - “the past few years has seen our editorial grow more and more international in its outlook” (*Food Manufacture*, FM December 1984). Trade journals saw little government support for internationalisation (through Food From Britain, FFB) in frozen foods, because of the parochial outlook of FFB. British companies must “go it alone” (May, 1984, F&CF) in the international market.

Spotting a market opening FM founded an international magazine, *Food Manufacture International* “to give the industry a mainstream European viewpoint. Our main brief is to help food manufacturing companies to produce better food and drink products more economically by keeping abreast of the latest developments in a constantly changing industry” (Nov/Dec 1984 FMI) and “as companies and industries increasingly rationalise production and plan more

of their sales for an international market, the need for wider dissemination of information arises. We will cater for that need.” Paul Dalager (then European Union commissioner for agriculture) commented that “the magazine (FMI) reflects the fact that the food industry itself has become more international in its outlook.” This growing internationalism (and opportunism of FM) was again highlighted with the founding of a Russian edition, *FMI East-West*, in May/June 1990.

Although internationalisation theory has long been an important topic in economics, many of the central theories (Porter, 1986, for example) are focussed on large companies (multinationals) rather than SMEs (small and medium enterprises). There is evidence that initial international expansion by SMEs is motivated more by opportunistic factors than strategy. For these companies trade journal information, trusted, centred on the wider industry picture, may be a factor in the decision to consider international expansion. Although this is not a hypothesis tested in this paper we hope that future research on SME internationalisation will assess the role of trade journals in the information process leading to expansion.

## **XI. Concluding Remarks**

This paper is intended mainly as a location paper, an attempt to make a start addressing the economic function of trade journals, and to explain the function of an information network which acts as a public good. First, a central problem attempting to analyse the economic role and function of trade journals concerns definition. Trade journals are part of the largest part of the press, the business to business press. As such, we needed to develop objective criteria as to what defines a trade journal. To this end, we hope that the list of factors will be of help to future research. Trade journals are complex: they exhibit features of club

goods, are based upon a trust based interpersonal network which is their primary economic resource, and lower communication costs for firms within their network. By attempting to analyse the journals role of the intermediary in an information based network, we hope to have contributed to the literature on networks, and emphasised the importance of information.

## **X. A Call for More Research**

We feel that trade journals play an important and complex role within the business community, forming part of the complex information network which companies rely upon. This role has been largely under-acknowledged and little researched and this exploratory paper hopes to signpost this lack of attention and stimulate research. Authors are encouraged to attempt to locate trade journals more firmly within the existing body of economic literature, and to further explore the information networks made use of by firms and industries. The significance of trade journal's information upon the decision making process in SMEs would answer give more data on the use of trade journal information networks by firms.

An investigation into the economics of trade journal production, as part of the periodicals industry, would also be timely and shed more light on the changing role of technology, networks, and organisational design in the printing and publishing industries.

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## Appendices

### A) Trade journal editorial content 1984-1994

#### *Frozen and Chilled Foods*

##### 1984-1985

Health	Expos/Fairs	Polit. Leg.	Indust. Mkt.	EC & Int	
3	3	7	14		Domestic
	6	2	2	3	International

##### 1986-1987

Health	Expos/Fairs	Polit. Leg.	Indust. Mkt.	EC & Int	
7	3		10	1	Domestic
	1	1	6	6	International

##### 1988-1989

Health	Expos/Fairs	Polit. Leg.	Indust. Mkt.	EC & Int	
5	9		10	1	Domestic
1	2	1	4	4	International

##### 1990-1991

Health	Expos/Fairs	Polit. Leg.	Indust. Mkt.	EC & Int	
8	3	1	15	1	Domestic
	1	2	3	4	International

##### 1992-1993

Health	Expos/Fairs	Polit. Leg.	Indust. Mkt.	EC & Int	
3	2	4	17	3	Domestic
2	2	3	6	5	International

##### Total

Health	Expos/Fairs	Polit. Leg.	Indust. Mkt.	EC & Int	
26	20	12	66	5	Domestic
3	2	9	21	21	International

*Food Manufacture International*

1984-1985

Health	Expos/Fairs	Polit. Leg.	Indust. Mkt.	EC & Int	
	2				Domestic
	2	2	2	3	International

1986-1987

Health	Expos/Fairs	Polit. Leg.	Indust. Mkt.	EC & Int	
2			2		Domestic
5	3	4	4	5	International

1988-1989

Health	Expos/Fairs	Polit. Leg.	Indust. Mkt.	EC & Int	
		3	1	1	Domestic
2	8	6	9	14	International

1990-1991

Health	Expos/Fairs	Polit. Leg.	Indust. Mkt.	EC & Int	
1		1			Domestic
	6	6	12	11	International

1992-1993

Health	Expos/Fairs	Polit. Leg.	Indust. Mkt.	EC & Int	
		2			Domestic
2	4	6	6	5	International

Total

Health	Expos/Fairs	Polit. Leg.	Indust. Mkt.	EC & Int	
3	2	6	3	1	Domestic
10	23	24	33	38	International

B) Trade journals considered

*British Food Journal; Chilton's Food Engineering International; Food and Bioproducts Processing; Food File; Food Industry Bulletin; Food Industry News; Food Ingredients and Analysis International; Food Manufacture; Food Manufacture International; Food Manufacture East-West; Food Packer International; Food Processing; Food Professional; Food Science and Technology; Food Technology; Food Trade Review; Frozen and Chilled Foods; Grocer; International Food Ingredients; International Food Manufacture; International Journal of Food Science and Technology; Journal of Food Engineering*

C) Topic categories

- 1 1992 market threat and opportunities
- 2 Common Agricultural Policy
- 3 Conferences and expositions
- 4 Domestic legislation.
- 5 EC legislation
- 6 Food and health scares
- 7 Green politics and threats
- 8 Health, diet and demographics
- 9 Internationalisation
- 10 Irradiation and new technology
- 11 Journal issues
- 12 Merger's and acquisitions.
- 13 Misc.
- 14 Negative media to the sector
- 15 Trade associations issues
- 16 UK Market structure

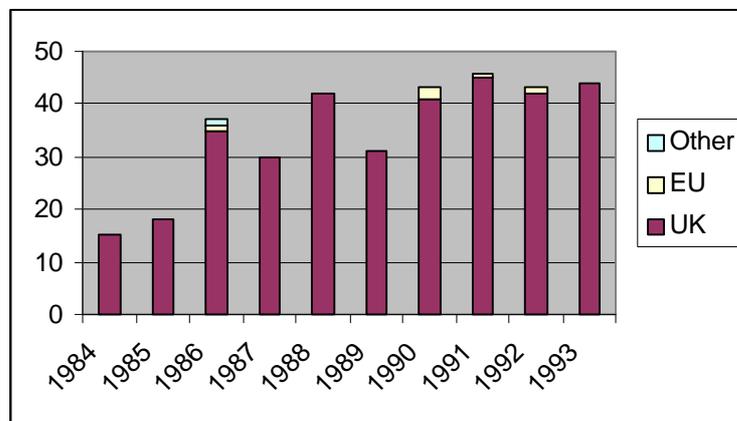


Figure 1: job recruitment advertising by job location.

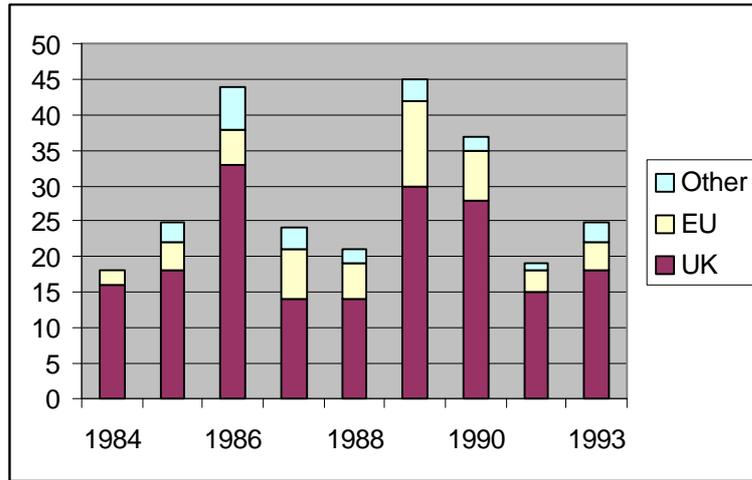


Figure 2: the number and location of trade fairs, conferences and expositions by location.