The *Journal of Food Distribution Research*: A 15-Year Perspective, 1984–1998

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In order to identify future implications for research in a discipline, it is sometimes necessary to investigate areas that have been examined previously. In this paper, a content analysis of 15 years of research articles published in the *Journal of Food Distribution Research* was undertaken to examine the direction that researchers have taken in the field of food distribution. An identification was made of the salient subject/topic areas documented over a significant period of time, 1984 through 1998.

Introduction

Throughout history, food distribution has been an important topic. Tremendous strides have been made over time as onlookers view the food distribution process from the farmer/grower to the ultimate consumer of agricultural and other food products. Especially in the United States, the growth in food economics has been extremely beneficial to all concerned with food distribution.

Over the years, researchers in marketing have investigated various marketing and advertising journals in order to examine the contents as well as the trends that have been covered (Applebaum, 1947; Grether, 1976; Muncy, 1991; Yale and Gilly, 1988). Also, researchers have studied the food distribution process and have written widely on numerous subject/topic areas. Research in the area of food distribution has become increasingly sophisticated.

In this study, a content analysis of 15 years of research articles published in the *Journal of Food Distribution Research (JFDR)* was undertaken to examine the direction that authors and researchers have taken in the field of food distribution. Salient subject/topic areas were identified as those that had been documented over a significant period of time, 1984 through 1998. The *JFDR* was selected because it represents one of the leading, if not *the* leading, refereed research publications in the field of food distribution. Although this particular journal has been published for the past 29 years, this paper only focuses on the past 15.

Methodology

Content analysis, a systematic technique for analyzing the message content of journal arti-

cles, was the method used in this study. As Kerlinger (1964) describes it, "content analysis, while certainly a method of analysis, is more than that. It is . . . a method of observation. Instead of observing people's behavior directly, or asking them to respond to scales, or interviewing them, the investigator takes the communications that the people have produced and asks questions of the communications."

Berelson (1952) defined content analysis as a research technique for the "objective, systematic, and quantitative description of the manifest content of communication," allowing the investigator to observe the subject/topic areas of a specific publication at a time and place of his/her choosing. Content analysis enables the investigator to easily and efficiently transfer the information under investigation from place to place.

A total of 150 articles were examined in the study. By examining the contents of these 150 articles, which were written during the 1984–98 period, some information emerged that should be of significance to the readers of this study.

The subject/topic areas of classification evolved from a combination of the older Supermarket Institute Information Service classifications and the more recent Food Marketing Institute Information Service classifications. The combination netted more than 75 classifications and presented an extensive list that more than covered the subject/topic areas of the articles under investigation.

All of the *JFDR* issues published from 1984 through 1998, a total of 37, were collected for the study. Of these 37, 22 issues—excluding the 15 proceedings articles, which were not as rigorously refereed—were examined. All of the articles in those 22 issues were analyzed using the following content categories: (1) subject/topic; (2) method of

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research; (3) data source; (4) number of pages; and (5) number of authors. It should be noted that some of the category totals may vary because of multiple listings.

Reliability

Problems of reliability are not confined to any one stage of content analysis; they should be considered at every stage—design, sampling, counting, analyzing, and interpreting. Therefore, inter-coder reliability must be measured at each stage to assess the reliability of the data.

Very little statistical knowledge is needed to understand the formula offered by Holsti (1969) for determining the reliability of two coders:

$$R = \frac{2C_{1,2}}{C_1 + C_2},$$

with $C_{1,2}$ being the number of category assignments upon which both coders agree and $C_1 + C_2$ being the total category assignments made by both coders. This particular formula could be extended for n coders.

The ratio of the two coders' agreement to the total number of coding decisions was used by Holsti (1969) to assess the reliability in his study. Reliabilities reported in the literature vary between 66 percent and 95 percent, with a median of about 90 percent (Kassarjian, 1977). The inter-coder reliability for this study follows: subject/topic, 94 percent; method of research, 96 percent; empirical vs. non-empirical research, 96 percent; number of pages, 100 percent; and number of authors, 99 percent.

Findings and Discussion

A total of 150 articles were selected for investigation during a 15-year period. The *JFDR* was selected for the study because it is held in high esteem by the audience familiar with the field of food distribution.

Articles by Subject/Topic

The number of articles written by subject/topic are presented by year in Table 1. The following noteworthy information is presented in this table: First, 26 subject/topic areas were covered during the 15-year period, and second, the 10 subject/topic areas that received the most attention accounted for 131 of the total 150 articles.

Table 1. Articles by Subject/Topic.

Subject/Topic	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	Totals
Produce	1	1	4	3	2		3	4	11	7	3	2	4	2	5	52
Meat & Poultry	3	1	1	1	2	2	2	1	1		3		1	2		20
Grocery-Food	2	4	4	1			1		1				1			14
Seafood	1	1	1			2	1	2							1	9
Food Distrib.-General			1		1		1	1			1	2	1		1	9
Food Distrib.-Retail							2			1	2			1	1	7
Consumer Behavior		1	1	1				1					1		1	6
Adv. & Promotion	2									1	1				1	5
Dairy	2		1									1		1		5
Price Spreads						1					1		1	1		4
Beverages			1										1			2
Food Irradiation	1							1								2
Scanning Data								1				1				2
Organic Foods							1	1								2
Beer,Wine, & Liquor				1												1
Brands														1		1
Food Brokers													1			1
Grocery Handling								1								1
Mergers & Acquisitions		1														1
Nutrition Labeling		1														1
Productivity							1									1
Sanitation Inspection					1											1
Restaurants		1														1
Trade Relations				1												1
Wholesalers		1														1
Totals	12	12	14	7	7	5	11	11	16	10	10	7	10	7	11	150

The subject/topic areas that received the most attention from 1984 through 1998 included produce (n=52); meat and poultry (n=20); grocery-food (n=14); seafood (n=9); and food distribution-general (n=9). Almost 50 percent of the articles have been written about the areas of produce, and meat and poultry. Both of these areas have been covered almost every year. Also, it is interesting to note that only 12 subject/topic areas were written about just once, and only four areas were written about twice.

Articles by Method of Research

The methods of research used in the food distribution research articles published from 1984 through 1998 are presented in Table 2. The survey method (n=66) was clearly the most frequently used empirical method in the data-gathering for articles investigated in this study. The next most frequently used empirical method was annual data (n=40), followed by field experiments (n=20). The least used empirical method was focus groups (n=3), followed by scan data (n=5); however, both of these methods have shown an increase in use in recent years (that is, 1996–99).

Articles by Data Source

The data sources that were tapped in writing the articles varied over the 15-year period. As noted in Table 3, of the 150 articles included in this study, 90 percent (135 of 150) were categorized as empirical. The remaining 10 percent (15 of 150) were categorized as non-empirical.

Articles by Number of Pages

The number of pages in the articles has varied somewhat over this 15-year period (Table 4). The most frequent page length was nine pages (n=25), followed by eight pages (n=23), and there was a tie for third place between seven pages (n=21) and 10 pages (n=21). This group accounted for 60 percent of all the articles written (n=90). The longest page length of any one article was 18 pages (n=4).

Articles by Number of Authors

The number of authors involved in the writing of each article varied from a minimum of one to a maximum of five (Table 5). The most frequent number of authors was two (n=56), followed by three (n=47), and then one (n=26). It is interesting to note that a little more than 17 percent of the articles were written by only one author and that a majority of the articles were written by two or more authors, comprising 83 percent of the total.

Table 2. Articles by Method of Research.[*]

Method of Research	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	Totals
Survey	10	4	4	5	3	3	4	6	9	3	4	1	3	1	6	66
Annual Data	1	5	5		2	1	3	2	1	4	4	3	2	3	4	40
Field Experiment			3	1			2		2	3	1	1	3	3	1	20
Interview					1			2	1		2	1	1	1		9
Scanning Data	1	2			1				1							5
Focus Group		1	1						1							3
Combination			1		1			1	2	1		1	2	2	1	12
Conceptual				1		1	2	1	1	2	1	3	2		1	15
Totals	12	12	14	7	8	5	11	12	18	13	12	10	13	10	13	170

[*] Totals will vary because category is not mutually exclusive.

Table 3. Articles by Data Source.

Data Source	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	Totals
Empirical	12	12	14	6	7	4	9	10	15	8	9	4	8	7	10	135
Non-Empirical				1		1	2	1	1	2	1	3	2		1	15
Totals	12	12	14	7	7	5	11	11	16	10	10	7	10	7	11	150

Table 4. Articles by Number of Pages.

# of Pages	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	Totals
5 or less							1				3		1	1	1	7
6	1		1									3	1	1	1	8
7	2	1	1	2	3	1	1	1		1	2			2	4	21
8			3	3	2		1	2	6	2		1		2	1	23
9	4	4	2		1	1	1		2	1	4		1	1	3	25
10	2	3	2				3	2	4	1		1	2		1	21
11			3	2					1			1	5			12
12		1				2		1		4						8
13		2				1	1	2	1			2				9
14	3	1	1					2	1							8
15					1		1	1								3
16											1					1
17																0
18			1				2		1							4
															Total	**150**

Table 5. Articles by Number of Authors.

# of Authors	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	Totals
1	2	3	2		1		3		2	1	3	3	4		2	26
2	3	6	6	2	2	1	5	4	6	3	4	3	3	1	7	56
3	5	2	4	5	4	2	2	4	6	5	2	1	2	2	1	47
4	1	1	2				1	2	2	1	1			4		15
5	1					2		1					1		1	6
															Total	**150**

The data indicates that there has been a decrease in the number of non-empirical articles, with only two written in the past six years. The findings further suggest that there has been an increase in the sophistication of research as well as a more comprehensive investigation with regard to the subject/topic areas. This finding is not reported as an attempt to slight any of the previous research undertaken and published in the *JFDR*; it instead indicates that food distribution researchers are definitely keeping pace with their counterparts in the other disciplines.

Analysis of Research Audience

The audience addressed by food distribution research articles has remained fairly consistent over the 1984–98 period. It consists of researchers who are actively interested in food distribution and who are dedicated to the progress of the food distribution industry. The *JFDR* encourages research by defining industry research problems, providing guidelines and direction for the development and implementation of food distribution research, and publishing research results.

Conclusions and Implications

The primary objective of this study was to identify the areas of research on which writers of *JFDR* articles have written in order to examine the direction in which researchers have taken the field of food distribution. Salient subject/topic areas were identified and documented for a significant period of time, 1984 through 1998, using a content analysis method.

The data indicated that the *JFDR* provides a vehicle and encourages an atmosphere wherein ideas, methods, technical developments and problems as well as opportunity areas for research can be freely discussed at length. The need to coordinate food distribution research and its implementation has brought together researchers concerned with progress in the food distribution industry.

In some ways, the *JFDR* serves as an information clearinghouse for past, current, and future food distribution research and provides a much-needed channel for the exchange of information. It further encourages the implementation of research findings through the communication of research results to users, through training, and through the encouragement of application and the implementation of research recommendations.

One of the intentions of this study was to identify some future implications for research in the field of food distribution. The study would also point to subject/topic areas that could be researched and written about in future journal articles. For example, an entire journal issue could periodically lend itself to a particular subject/topic theme concerning the field of food distribution, or even part of a journal issue could be set aside to address a specific subject/topic area of current interest, such as mergers and acquisitions, food irradiation, organic foods, nutrition labeling, and food brokers. These subject/topic areas of concern could be discussed at the Food Distribution Research Society's annual meeting by the resident experts in attendance.

It appears on the surface that many more subject/topic areas could be researched as well as written about for the *JFDR*. However, this particular journal has gained increased recognition for the field of food distribution research, thereby enhancing the roles of those involved in all aspects of producing such a scholarly effort to date.

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