The Retail Food Industry Center Supermarket Panel

Report to the Board of Advisors

The Retail Food Industry Center Supermarket Panel was established in 1998. The Panel is comprised of individual stores that provide information annually. The long term vision for the Panel is to establish an ongoing data collection and analysis process that will:

1. Provide timely, useful information for our industry through benchmark reports and annual summaries.

2. Be a ready source of longitudinal, cross-section data for research on current and emerging issues.

The Panel is unique in our industry because the unit of analysis is the individual store and the same stores will be tracked over time. The Panel will provide a continuing core of data on store characteristics, operating practices, and performance. We also plan to have special sections each year that will focus on emerging issues – e.g., frequent shopper programs. In addition, the panel design enables us to contact stores within the annual data collection cycle for quick surveys on very specific issues with the ability to link responses to store information in our existing database.

The first year for the Panel was one of development, testing, and learning. We assembled the 100 stores in the 1999 Panel through industry contacts and direct invitations. In addition to collecting and analyzing data from these stores, we developed and distributed a benchmark report that provides a unique comparative analysis for each participating store. We also learned valuable lessons from Panel participants about how we can ask questions more clearly and significantly reduce the time store managers need to complete the Panel data sheets. As a result, the 2000 Supermarket Panel will be much larger and should be much more representative of the industry.

A Descriptive Profile of the Panel

The 100 Panel stores are located in twenty-three states. Eighty-one of these stores are in the Midwest, eight are in the West, six are in the South, and five are in the Northeast. Throughout this report, findings are reported for stores grouped into three ownership structure categories: distributor supplied single-store retailers (SSR), stores that are part of a distributor-supplied multistore retail group (MSR), and stores that are part of a self-distributing retail group (SDR). Table 1 provides a descriptive profile of stores in each category.

Table 1. Descriptive Profile of Stores by Ownership Category

	SSR	MSR	SDR
Number of Stores in the Panel[1]	26	64	7
Mean Number of Stores in Group	1	14	74
Mean Store Size (square feet)	19,000	32,000	62,000
Mean Store Age (years)	27	22	18
Mean Weekly Sales per Square Foot	$5.23	$5.40	$5.40

[1] Three stores did not report their ownership status.

Store Practice Indices

We have developed five indices that summarize key aspects of store practices: ECR Readiness, Environmental Practices, Quality Control, Service Offerings, and Food Safety and Handling. These are based on findings from earlier studies and will complement future research. Each index ranges from zero to one, with larger values indicating adoption of more practices.

ECR Readiness This index measures adoption of key technologies and practices related to store-level implementation of the ECR initiative. It has two components. The technology component reflects adoption of EDI, electronic assisted receiving, product movement analysis, scan-based replenishment, and use of plan-o-grams for shelf space allocation. The relationships component reflects shared decisions with outside parties regarding pricing, advertising, space allocation, and promotions. Average index levels are reported in Table 2.

Table 2. ECR Readiness Index

	SSR	MSR	SDR
ECR Readiness Index	0.32	0.56	0.63
• Technology Component	0.37	0.51	0.63
• Relationship Component	0.26	0.60	0.63

MSR and SDR stores have considerably higher levels of ECR readiness than SSR stores. As expected, differences are more pronounced for the relationship component, since stores that are part of a multistore group often shift decision making from the store to corporate headquarters.

Environmental Practices This index reflects adoption of environmentally sensitive practices oriented toward consumers and in-store operations. The consumer component reflects offerings of environmentally friendly products, organic products, and recycling services. The store operations component reflects adoption of energy efficient lighting, store waste recycling, and refrigeration management. Average levels are reported in Table 3.

Table 3. Environmental Practices Index

	SSR	MSR	SDR
Environmental Practices Index	0.54	0.50	0.76
• Consumer Component	0.46	0.51	0.76
• Store Operations Component	0.62	0.48	0.76

For this index, SDR stores achieve higher average levels overall and for each component. Index levels for SSR and MSR stores are more difficult to distinguish, but the SSR stores' high average for the store operations component is noteworthy.

Quality Control and Service Offerings These two indices measure important aspects of the store's relationship with its customers. The quality control index reflects adoption of practices for monitoring and improving the quality of the shopping experience. These include customer satisfaction surveys, focus groups, and mystery shopper programs. The service offerings index measures offerings for 40 key services, such as bagging and carryout, catering, child care, frequent shopper program, home delivery, in-store banking, pharmacy, service bakery, special checkout for HMR meals, and video rental. Average levels for these indices are reported in Table 4.

Table 4. Quality Control and Service Offerings Indices

	SSR	MSR	SDR
Quality Control Index	0.19	0.33	0.76
Service Offerings Index	0.46	0.51	0.57

Differences across ownership categories are striking for the quality control index. SSR stores have an average index level slightly more than half of that for MSR stores and one-fourth that for SDR stores, and MSR stores have an average index level less than half that for SDR stores. This suggests that there are strong economies of size for the practices included in this index. Another explanation may be that top management becomes more removed from customers as the size of the store group grows, making it necessary to use more formal methods to monitor the quality of customers' shopping experience. The service offerings index shows a steady, but less dramatic increase across the ownership categories. This is not surprising, since many of these services require store space, and store size also increases across ownership categories.

Food Safety and Handling This index measures adoption of practices related to five key aspects of a store's food safety and handling policies: display case temperature checks, target temperatures, store inspections, use of expiration labels, and product rotation and stocking procedures. Average levels for the overall index and each component are reported in Table 5.

Table 5. Food Safety and Handling Index

	SSR	MSR	SDR
Food Safety and Handling Index	0.62	0.62	0.85
• Temperature Checks Component	0.95	0.95	1.00
• Temperature Targets Component	0.65	0.61	0.97
• Store Inspection Component	0.50	0.51	0.67
• Expiration Labels Component	0.56	0.62	0.86
• Stocking Procedures Component	0.09	0.17	0.37

For this index, the SDR stores achieve the highest average level for the overall index and for each component. Once again, performance for SSR and MSR stores is more difficult to distinguish. Consistently high scores for frequency of temperature checks and consistently low scores for the use of recommended product rotation and stocking procedures are both noteworthy. This index provides information on aspects of food safety and handling that should be the focus for industry-wide efforts on educational programming and best practice development.

Overall Patterns for Store Practice Indices The spider web graph in Figure 1 shows overall patterns for the store practice indices. The most striking pattern that emerges is that, on average, SDR stores dominate those in the MSR group. Stores in the MSR group, in turn, dominate SSR stores for every index except environmental practices. The dominance by the SDR stores is especially strong with respect to environmental practices, quality control, and food safety and handling. On the other hand, the MSR stores' dominance over SSR stores is strongest for ECR readiness and quality control.

Figure 1 also provides insights on relatively strong and weak areas for the average store in each ownership category. The SSR stores are relatively strong in environmental practices, service offerings, and food safety and handling and relatively weak in ECR readiness and quality control. The MSR stores have fairly balanced index levels except in the area of quality control, where they are relatively weak. Finally, the SDR stores achieve their highest index levels for environmental practices, quality control, and food safety and handling but have relatively low index levels for ECR readiness and service offerings.

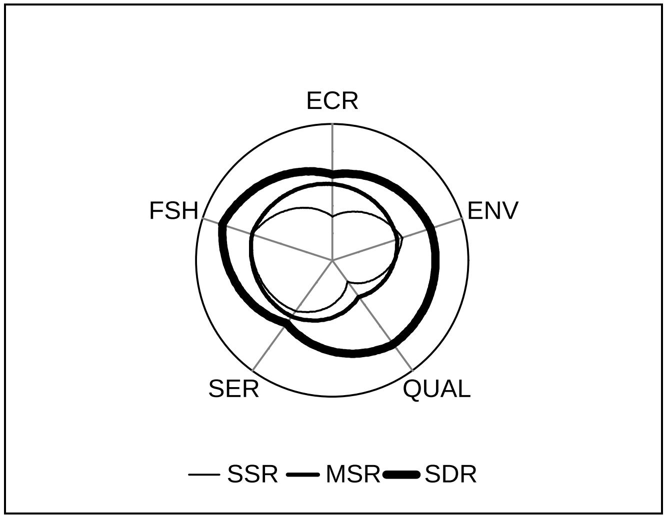

Figure 1. Overall Patterns for Store Practices Indices

Human Resource Practices

Human resource management is a key challenge for the supermarket industry, and the Panel provides detailed information on human resource practices at the store level. Because store managers have such an important impact on all aspects of store operation, we summarize findings for their compensation and benefits in Table 6.

Table 6. Compensation and Benefits Practices for Store Managers

	SSR	MSR	SDR
Annual Bonus	54%	88%	100%
Individual Incentive Pay	23%	44%	71%
Product/Category Incentive Pay	19%	11%	29%
ESOP	15%	14%	43%
Pension	23%	17%	14%
401(k)	23%	55%	71%

With the exception of incentive pay linked to particular products or categories, the use of performance-based compensation increases as we move from SSR stores to SDR stores. The use of employee stock ownership plans to more closely align the manager's and store owners' objectives follows the same pattern. However, the relatively low usage of performance-based pay in SSR stores may be due to the fact that managers are often store owners. With regard to pensions and 401(k) plans, the fact that more than half of the SSR store managers have neither is striking. Also noteworthy is the shift from defined benefit pension plans to cash balance 401(k) plans as chain size increases.

Frequent Shopper Programs

Frequent shopper programs were included as a special focus section in the 1999 Panel. Nearly half of Panel stores (45%) use a card-based frequent shopper program, and 29% are considering introduction of a program. The average program has been operating for 36 months and captures 64% of transactions and 72% of sales. Adoption rates are similar for SDR and MSR stores -- 60% and 55%, respectively -- while only 17% of SSR stores offer a frequent shopper program. This, along with the fact that 60% of stores offering a program partner with other retailers, points to economies of size in managing these programs and using the data they generate.

Of stores offering a card-based program, 54% cite customer data collection as their primary objective, 40% cite providing discounts to participating customers as their primary of objective, and the remaining 6% use the program primarily to differentiate themselves from competitors. Stores use their frequent shopper data for thanking and rewarding their best customers, mailing targeted communications, executing item-specific promotions, and analyzing declining or lost customers. To a lesser extent, data are being used to co-market with manufacturers, conduct targeted research on customer needs, make category management decisions, and recruit new customers. Very few stores use the data for pricing or merchandising decisions, to segment their customers, or to adjust labor schedules. Stores' level of satisfaction with frequent shopper programs is high -- 21% are very satisfied, 62% are somewhat satisfied, and only 3% are not at all satisfied.

Store Performance

Table 7 shows relationships between key store performance indicators and store practice indices, use of a frequent shopper program, and ownership category. For each index, stores are grouped into the top 25%, middle 50%, and bottom 25%.

Only the ECR readiness index has a positive relationship with each of the four performance indicators. The environmental practices index has a strong, positive relationship with sales per square foot and sales growth and no consistent relationship with inventory turns. It has a negative relationship with sales per labor hour, suggesting that improvements in environmental practices come at the expense of labor efficiency. The quality control index is positively related to sales per square foot, inventory turns, and sales per labor hour, but does not have a clear relationship with sales growth. For the service offerings index, stores in the upper 25% have sharply higher sales per square foot, sales growth, and inventory turns, but lower sales per labor hour. These relationships weaken or are reversed, however, for intermediate and low index level. Finally, no clear patterns are evident in the relationship between the performance indicators and the food safety and handling index.

Table 7. Performance Relationships

Index	Level	Weekly Sales/Ft²	Sales Growth	Inventory Turns	Sales per Labor Hour
ECR Readiness	High	$6.88	11.9%	20.0	$98
	Middle	$6.15	2.6%	18.6	$87
	Low	$5.27	2.7%	14.4	$89
	Relation	+	+	+	+
Environmental Practices	High	$6.79	10.1%	20.6	$88
	Middle	$5.87	3.4%	17.6	$85
	Low	$5.56	0.3%	17.9	$100
	Relation	+	+		-
Quality Control	High	$7.19	9.9%	21.3	$93
	Middle	$6.10	-4.5%	18.5	$91
	Low	$5.35	7.7%	15.9	$88
	Relation	+		+	+
Service Offerings	High	$8.02	11.4%	19.6	$81
	Middle	$5.31	2.0%	17.7	$95
	Low	$5.58	4.5%	16.8	$96
	Relation			+	
Food Safety and Handling	High	$5.96	-1.3%	21.1	$96
	Middle	$6.62	11.1%	16.8	$88
	Low	$5.17	-1.9%	18.0	$89
	Relation				
Frequent Shopper Program	Yes	$5.79	-1.3%	17.3	$88
	No	$6.12	8.0%	17.7	$92
Ownership Category[1]	SSR	$5.46	16.7%	17.3	$83
	MSR	$6.40	-0.5%	17.7	$94

[1] Due to incomplete financial data for some SDR stores, performance indicators for this ownership category are not reported.

On average, stores with frequent shopper programs have lower levels for all four performance indicators. This points to the need for more detailed analysis of factors associated with adoption of frequent shopper programs and of their impact on both sales and costs. Finally, except in sales growth, MSR stores clearly outperform the SSR stores.

Key Findings

This initial analysis of data from the 1999 Supermarket Panel demonstrates that important differences in store practices and performance are associated with ownership structure. Our results also show that the five store practice indices are useful in characterizing differences in store practices and predicting differences in store performance. The following are three more specific key findings from this report.

1. The practices included in the ECR readiness index are positively related to all four store performance indicators. Stores that are part of a multistore group, either distributor supplied of self-distributing, are much more likely to have adopted these practices.

2. In the area of food safety and handling, stores doing an excellent job monitoring display case temperatures, but product rotation and stocking procedures need significant improvement.

3. While retailers express a high level of satisfaction with card-base frequent shopper programs, we find no evidence that they are having a positive impact on store performance.

Plans for the 2000 Supermarket Panel

Planning and preliminary implementation are well under way for the 2000 Panel. The following are key elements of our strategy for the coming year.

- Data collection sheets have been completely redesigned to reduce the demand on store managers' time and improve data quality without sacrificing important detail.

- In addition to the 100 stores already in the Panel, we will mail Panel data sheets to a large random sample of supermarkets drawn from a USDA data base of establishments that accept food stamps. Our goal is to increase the size of the Panel to 500 or more stores that are representative of the entire supermarket industry.

- We will collect data between January and March, with preliminary results available in early May and benchmark reports mailed in June.

With the strong start we have already made and the significant improvements we are making, we believe the Panel will become a valued information source for the industry.