How Consumer Characteristics and Preferences Influence Structural Options:
A Study of Twin City Natural Food Co-ops

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1. Introduction

It is becoming increasingly more common to see joint ventures, mergers, and strategic alliances among players within the food supply chain. This is true for cooperatives as well. Some cooperatives may consider joining forces vertically in order to capture a greater portion of the value-added profits. Others may opt to merge horizontally to increase bargaining power and capture economies of scale and scope. For some small independent retailers, this may be an attractive option. One question that arises then is how to evaluate the merits of such reorganization ex-ante.

The purpose of this study is to look at how the interaction of market factors, shopper factors, and the variation among co-ops affect the optimal level of interaction among the co-ops considering reorganization. A conceptual framework describing this interaction is used in conjunction with empirical results from a study conducted on seven natural food cooperatives in Minneapolis, Minnesota to recommend organizational alternatives. Although the analysis assesses the merits of horizontal integration, it could be used to evaluate vertical integration.

II. Framework Used to Assess Organizational Options

The model employed in this study looks at how market factors, preferences and characteristics
of co-op shoppers, and the similarities and differences among the co-ops involved affect the optimal level of interaction among co-ops considering reorganization. This interaction can range

from absolutely no co-operation (single independent co-ops), to some co-operation (joint ventures or federated co-op), to total co-operation (multi-store, centralized co-op). Using Figure I, a combination of market forces, customer preferences, and store factors that fall within 'Region One' would indicate that it would be optimal for stores to form as independent co-ops. A combination that falls in 'Region Two' or 'Three' would indicate that it would be optimal to form a federated or centralized co-op.

Using this framework, the 'Market Forces' axis can indicate possible changes in revenue or costs from integration. In general, market trends are moving natural food co-ops to the center along the vertical axis towards total cooperation because bargaining power, economies of scope, and economies of scale are becoming more important for small natural food stores. In the U.S., the demand for natural foods (1) has been growing steadily over the past decades. Currently, the natural foods industry accounts for approximately 1.4 percent of the total retail food industry (Richman, 1999). Within the past seven years, this industry has reported average growth rates of 20-25 percent per year. In comparison, the conventional food market has increased three to five percent annually. Analysts predict that if these growth rates persist, the natural foods market may account for 6.6 percent of the total retail market by the year 2007. (Richman, 1999)

Although this increased demand has led to increased sales at natural food co-ops, it has also led to increased interest from main stream grocery stores. The entry of national chain, investor owned, natural food stores, such as Whole Foods and Wild Oats also pose a competitive threat to the viability of natural food cooperatives. These stores are targeting cooperative shoppers. They are similar to natural food co-ops in their appearance, product selection and services, yet they are structured as an investor owned firm. Currently, Whole Foods accounts for 12 percent of the national natural foods market. It has a total of 100 stores in 2000 and plans to have 140 by the year 2003. Another method of expansion employed by large chain natural food

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stores is to tap into new markets by acquiring smaller existing natural food stores. In 1998 alone. Wild Oats acquired four existing natural food retailers (Food Institute, 1999 p. 546).

In terms of 'Customer Preferences', certain aspects of shopper characteristics and preferences are influential in choosing among organizational alternatives. This axis can be used to evaluate whether or not members and customers will support integration. For example, why customers shop at a co-op, what attributes of a co-op they value most, where they live, where they work, and the degree to which they shop at other natural food co-ops all impact the optimal level of collaboration among co-ops. Using this framework, a membership base that is greatly concerned with member influence, and largely unable to take advantage of benefits at other co-ops would be far from the center along the 'Customer Preferences' axis and would not warrant a high level of collaboration among co-ops.

Along the Individual Stores' axis, differences among individual stores in terms of the volume of sales, profitability, member benefits, and the goods and services provided at the store can all influence the organizational options available to these stores as a group. This axis can be used to get an idea of the costs of and obstacles to integration. For example, smaller co-ops could be hesitant about joining a coalition comprised of large co-ops for fear of relatively weak bargaining power. A coalition of co-ops that has a wide distribution of individual store profitability could be unstable if more profitable co-ops feel they subsidize the less profitable. Also, difference in membership costs, membership benefits, and patronage rebates could lead to strategic shopping behavior on the part of members if the co-ops decide to increase the level of inter-cooperative collaboration.

III. Application of Framework to Twin City Natural Food Co-ops (TCNFCs)

Market Forces: Market trends in the Twin Cities mirror the national trends described above. In the past four years. Whole Foods has opened two stores; one in Minneapolis and one in St. Paul. Most of the large mainstream grocery stores carry organic products and some even have sections devoted to natural foods. A survey conducted at two different Twin City co-ops showed that their largest competitor was not other cooperatives, but rather larger chain groceries (Brunn, 1996). Recently, many of these large chain stores merged or consolidated, thus making it more difficult for small single store cooperatives to remain competitive.

In short, market factors in the Twin Cities are moving the co-ops to be more concerned with their market share and bargaining power to obtain volume discounts and other economies of scale. In turn, this suggests a greater need for co-operation among the co-ops. When just considering market forces without regard to store differences or customer preferences, the optimal organizational structure is a multi-store, centralized co-op, which entails total cooperation among the stores. It should be noted, however, that market forces might not be affecting all the TCNFC co-ops equally. Currently, Whole Foods has only targeted the urban area of the Twin Cities.

Using Figure I, a coalition of urban co-ops would be fairly close to the center on the 'Market Factors' axis. This suggests that a multi-store, centralized co-op would be the optimal structure (Region 3). Considering a coalition of all TCNFC co-ops together would diminish the forces moving the coop towards total co-operation but would still be within the zone that warrants a multi-store co-op.

Customer Characteristics and Preferences: A customer survey was developed to determine whether the majority of members would support increased integration. To do this, information of customer preferences was linked to shopper characteristics such as household

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income, age, location, membership status, and use of the co-op. In total, 2800 surveys with pre-addressed, stamped envelopes were distributed to co-op shoppers. Thirty-five percent, or 978, were returned. Summary statistics of shopper characteristics are reported in Table I.

For the entire data set, 55% of the respondents were members of a co-op while 45% were nonmembers. Seventy-eight and a half percent were women and 21.5% were men. The average respondent reported shopping at their co-op for 6.11 years. Among members, the average length of membership was 4.4 years. Seventy-four percent of respondents said their primary co-op is closer to their home, nearly 15% said it is closer to where they work and the remaining 11% said the co-op is equally close to both work and home. The average respondent shops weekly for 2.45 people and travels approximately 5 miles to the co-op.

On average, respondents report spending about half their food bill at the co-op. Based on questionnaire data, the monthly food bill is nearly $150 per household. For the Twin Cities, the average mainstream grocery store shopper spends about $132 per month (Food Institute, 1998, p. 17). This suggests that these respondents spend more than the average shopper does.

The average respondent was just over 43 years old and had a mean household income between $46 and $60 thousand per year. According to 1990 census data, adjusted for inflation, the median household income is just under $45,000 per year. This median statistic is not directly comparable to mean income. To account for this, a more in-depth comparison on the distribution of income was conducted. This comparison shows that the percentage of survey respondents falling into the various income categories is skewed. Compared to the total Metropolitan Statistical Area (M.S.A.), there are fewer respondents in the lowest income category and more in the top two income categories.

In terms of customer preferences, the survey revealed that at all seven stores, the top three reasons for shopping at a natural food co-op always included the availability of natural foods,

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product selection, and higher quality. Also, no large differences in the characteristics of survey respondents were found when respondents were differentiated by their primary co-op. Thus, the survey results suggest co-op shoppers are, on average, fairly homogenous in terms of their characteristics and reasons for shopping at a co-op. This implies that marketing to all co-op shoppers together, as opposed to each individual co-op marketing to their own customer base, would be both feasible and more efficient. Relating these findings to Figure I, this aspect of customer preferences suggests an increased level of cooperation among the co-ops.

There is additional evidence that, along the 'Customer Preferences' axis, forces are moving the co-ops toward the center. For one, the ability to realize member benefits at other co-ops was ranked highest as both a potential change and a change that would prompt non-members to join the co-op. Also, the zip code analysis shows a considerable number of respondents live near one co-op and work near another. This is especially the case among respondents from urban co-ops. This difference in preferences between urban and suburban respondents is replicated by comparing the characteristics of shoppers by primary co-op. The average number of natural food co-ops shopped at is greatest among respondents from urban co-ops, again suggesting that the forces leading to increased co-operation among the co-ops may differ between urban and suburban co-ops.

The survey results also show that the highest ranked attributes overall were a commitment to natural foods and competitive prices. These top ranked attributes of a co-op are not specific to natural food co-ops. This suggests that customer preferences may accentuate the market forces discussed above, since many grocery stores can exhibit a commitment to natural foods, and larger stores can likely do so at more competitive prices. Thus, as shoppers place a higher value on attributes that are not specific to co-ops, the individual co-ops become more vulnerable to market forces, such as increased competition from mainstream grocery stores.

Direct member influence ranked third among important co-op attributes. As a potential

change, members ranked more member influence significantly higher than non-members did. These findings suggest that respondents do identify member influence as an important attribute. If one of the major disadvantages of a multi-store, centralized co-op is that members do not feel a strong sense of ownership and influence, these revealed preferences imply that total co-operation among the stores may not be optimal.

To summarize, statistical analysis of customers' characteristics, preferences, and location suggest that along the 'Customer Preferences' axis, a coalition of urban co-ops would be closest to the center, but likely within the region where a federated co-op would be the optimal structure (Region 2). A coalition of all seven TCNFC co-ops would be a little to the left of an urban coalition, but still within the region that would warrant a federated co-op. For a coalition of suburban co-ops, their optimal policy may be to remain as single independent co-ops.

Store Differences: In the conceptual framework used here, the individual store differences are the only endogenous, controllable variable. Given that shopper preferences and market factors are moving the co-ops to increase cooperation, the individual stores should make adjustments to better accommodate these factors. An effective way to do this is to increase the services provided by the already loosely federated TCNFC co-op. A comparison of stores showed that, in terms of sales, there appears to be two distinct categories of co-ops; those with relatively high sales and those with relatively low sales. The five high-sales co-ops are also more similar in terms of the services offered at the stores; a deli counter, a coffee area, an ATM machine, etc. The lower sales co-ops provide relatively fewer services. A potential problem that could inhibit cooperation among all these co-ops is that relatively larger co-ops may have more bargaining power than smaller stores.

In terms of short run profitability, the smaller co-ops may be better able to retain more earnings, since they are not paying offrecent expansion efforts. These earnings may then be returned to members as patronage rebates if these co-ops opt not to expand. The larger stores

have expanded within the past three years and carry larger debt. While they pay-off loans, they may not be able to offer much in terms of patronage rebates. Large differences in patronage rebates could lead to strategic shopping behavior on the part of members if the co-ops decide to offer reciprocal benefits.

Besides differences in the patronage rebate, the co-ops must consider discrepancies in the costs and benefits of membership at each co-op. As of 1997, the cost of membership was fairly similar at all co-ops. However, even slight differences may be enough to warrant strategic behavior on the part of new members if reciprocal benefits were to be offered at one or more of these co-ops. Similarly, differences in benefits, through the use of member coupons and senior discounts can also provide incentives for strategic behavior among members. With little effort, however, the costs and benefits of membership could be made more uniform. Using Figure I, the current coalition of all TCNFC co-ops lies somewhere within the region of a federated co-op (Region 2). Since the scope of the TCNFC Coop is still limited and the returns to membership varies among the co-ops, the current location within Region 2 is closer to Region I than Region 3.

Regression Analysis: The remaining portion of this study uses the results of statistical analysis to determine areas in which the TCNFC could move the individual co-ops along the continuum of reducing store differences, while also taking account of market factors and customer preferences. The results of multivariate regression analysis were used to assess the marginal effect of a single characteristic on a specific preference. The economic theory behind the regression models employed in this study relates to the Lancaster model of economics, which assumes that individuals gain utility from the characteristics of a good or service, rather than the good or service itself. In this study, it was assumed that individuals decide to shop at a co-op, not simply because it is a co-op, but because of the store's characteristics, such as location, selection,

customer service, and prices. In turn, these characteristics provide an individual with a certain amount of utility. Responses to specific survey questions were used to indicate whether a respondent receives utility from a store characteristic. For example, a respondent who indicated that she was a member of a co-op was assumed to gain more utility from membership than if she were not a member.

In all cases, binary categorical variables were used as indicators. The probit estimation model was used (3) because ordinary least squares regressions on the dependent variables would have yielded inconsistent estimates. Based on findings significant at the five-percent level (Table 3), the following conclusions can be drawn about the effects of a respondent's characteristics:

The effects of Membership Status

- As expected, members were more likely to value the co-op specific attribute, 'returns to membership', as an important attribute of a natural food co-op.

- Members were more likely to view the ability to use member benefits at other co-ops as an important change at their co-op.

- For members, the length of time one reported being a co-op shopper was positively and significantly related to importance of supporting the co-op.

- Non-members gave greater importance to product selection, were more likely to report price competitiveness as an important attribute, and were significantly more likely to view a more convenient location as a change that would induce them to become members. It should be noted that none of these are co-op specific. Thus, a way for co-ops to increase customer loyalty may be to increase membership.

The effects of Co-op Location

- Respondents whose primary co-op was closer to work were also more likely to want to use member benefits at other co-ops. A reason for this may be that there is another

TCNFC store close to their home that they shop at as well. Zip code analysis further substantiated this hypothesis. Thus, being able to realize benefits at more than one co-op could increase sales and membership.

- As expected, there was an inverse relationship between distance traveled to shop at the co-op and the importance of convenience and location.

- Not surprisingly, respondents who reported their co-op was closer to work, and those who indicated that they traveled farther to shop at their co-op were more likely to view a more convenient location as a change they would like their co-op make.

The effects of Household Income

- Household income was positively and significantly related to how highly a respondent valued product selection, product quality, and availability of ready to eat foods.

- Respondents with higher incomes were more likely to give 'support of the co-op' as an important factor in prompting them to join the co-op.

- As the reported household income increased, cost and price factors become less important. This suggests that as peoples' time becomes more valuable, they demand higher quality and better service.

The effects of Reported Co-op Use

- As per person expenditures increased, product selection and competitive pricing became less important as a reason to shop at a co-op, while the availability oforganics became more important.

- As per person expenditures rose, competitiveness in terms of prices and products was less likely to be ranked as an important attribute of a co-op.

- The likelihood that a respondent was a member increased with per person expenditures.

- As shopping frequency increased, member respondents were more likely to give 'support

of the community' as an important reason for joining the coop.

- Frequent shoppers were more likely to be members.

- Infrequent shoppers were more likely to view a more convenient location as an important change that could be made at their co-op. Also, non-member respondents who shopped infrequently were more likely to indicate that a more convenient location would be an important factor in prompting them to join. These findings suggest that making the location of the co-op more convenient to some shoppers would increase both shopping frequency and membership.

IV. Recommendations

Use the TCNFC Co-op to provide more Services at Lower Costs: Market factors and shopper preferences suggest that one objective of expanding the scope of the TCNFC Co-op should be to increase the bargaining power of the member co-ops. This is currently done on a limited scale by contracting with a small number of vendors who offer volume discounts. If more vendors provide volume discounts, the individual co-ops should use the TCNFC co-op for joint purchasing of products sold in the all the stores. The TCNFC Co-op could also handle payroll services directly. Or, the federated co-op may obtain payroll services at a volume discount by contracting on ajoint basis. Similarly, the federated co-op may consider jointly negotiating employee benefit packages, and 401k plans if volume discounts can be obtained.

Also, it would be relatively easy for the TCNFC Co-op to have a web page. Initially, it could provide general information on co-operatives, membership, store locations, with links to the individual stores. This web page could provide information on classes offered at the stores, to draw from a wider range of customers. Eventually, it could be used to handle on-line purchasing of products and services, such as membership and classes.

Finally, the three main reasons for shopping at a co-op did not differ by a respondent's primary co-op. The level of homogeneity among co-op shoppers suggests these co-ops could focus on the fact that their stores carry a wide variety of high quality, organic, and natural foods for joint marketing to their shoppers. This would be advantageous, especially in radio, television, and newspaper mediums that may be too expensive for one co-op to pay for individually.

Offer a City-Wide Co-op Membership: Individual stores can move in the direction of increasing cooperation by offering a city wide co-op membership. Survey results show that offering such a benefit would likely increase overall membership. In terms of inducing non-members to join the co-op, the highest ranked selection was to offer a membership that could be used at other Twin City natural food co-ops. Also, nearly 47 percent of non-member respondents indicated that such a benefit would encourage them to join the co-op. Moreover, the results of the survey suggest that members shop more frequently than non-members do, spend a higher percent of their food bill at their co-op, and care significantly more about co-op specific attributes. These customers may be less likely to switch to a non-co-operative provider of natural foods, simply because of prices, selection, or a unique store setting.

Offering a city wide co-op membership may do more than just increase membership. Since almost 80 percent of the member respondents said they would use member benefits at other co-ops, it may also increase the percent of sales to members at individual co-ops. Currently, if a member of one co-op shops at another, her purchases are recorded as purchases from a non-member. Given that sales to non-members are liable to corporate income tax, increasing sales to members may reduce taxes and may increase profits at the individual stores.

Enter New Markets as a Centralized Co-op: The TCNFC Co-op can create new coops as branches of this co-op and organizing as a multi-store centralized co-op as well. The advantages of this are that a centralized agency may have better access to capital than an

independent co-op, may have more experience in management and organization than a newly formed co-op, and may be able to react more quickly to opportunities than a coalition of independent co-ops. Thus, under this structure, the TCNFC co-op may be better able to open new co-ops in markets that currently do not exist. This may be advantageous, given that regression results show non-members who either travel farther to shop at their co-op or indicate that they work near their primary co-op are all significantly more likely to rank a more convenient location as an important change that could be made at their co-op.

For example, the zip code analysis suggests that there may be sufficient demand for a co-op in downtown Minneapolis. The map of respondents work zip codes shows that respondents from all of these independent co-ops work in this area. A downtown natural food store could be opened as a branch of the TCNFC. To begin with, this store could simply be a kiosk that offers pre-packaged deli items made at individual TCNFC stores. Members' purchases at this kiosk could be tracked, so the incentive to shop there may be increased among members. For further incentives, this kiosk could also offer special prices for members on certain items in order to encourage co-op member purchases. This may attract new members and shoppers as well.

Another potential opportunity for the TCNFC Co-op would be to purchase goods for other natural food retailers and neighborhood restaurants that carry a similar product line. This may enable the co-ops to realize further volume discounts while allowing the other businesses to benefit as well.

A final potential growth area for the TCNFC Co-op is the internet shopping market. The TCNFC Co-op may be able to do this more efficiently than the individual stores, primarily because the former is better positioned to realize economies of scale and scope.

V. Conclusion

The current differences in profitability among the stores and shoppers' valuation of direct member influence suggest that a centralized structure would not be optimal. However, other shopper factors, such as the their desire to realize benefits at other co-ops, coupled with increased competition, are moving the co-ops towards more cooperation among the stores. At present, then, a federated alliance is optimal. It allows for direct member influence and local control, yet enables the co-ops to realize some economies of scope and scale. In turn, this could lower the costs of operation at the individual stores and potentially increase the market share of natural food co-ops, especially if the TCNFC Co-op enters new markets as a centralized entity.

Notes

1. In this case, 'Natural Foods,' as defined by the Wallace Institute, refers to foods that are produced with organic or sustainable farming methods, minimally processed, and free of artificial ingredients, preservatives, and chemicals.

2. The per-household expenditure estimates were obtained directly from survey respondents. The average was obtained by summing over all respondents and dividing by the number of responses. The per-person estimates were obtained by dividing the per-household expenditures by the number of people for which the responded shops. This figure was then summed over all responses and divided by the number of responses.

3. In these regressions, the dependent variable was whether or not the respondent ranked a specific selection in their top two choices. The independent variables were various shopper characteristics. More specifically, the regressions used the following model;

    $Y_i = b_{i0} + b_{i1}$ *(length of tirne respondent has been a shopper) + b_{i2} *(membership status) + b_{i3} *(co-op is closer to home) + b_{i4} *(distance traveled to the co-op) + b_{i5} *(amount/person at primary coop (p.c.)) + b_{i6} *(co-op employment)+ b_{i7} *(shopping frequency) + b_{i8} *(age) + b_{i9} *(gender) + b_{i10} *(income)+0_I

4. For a more detailed account of the regression models results, see Mancino, 2000.

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**Figure 1: Continuum of Forces that Influence the Level of
Co-operation Among Co-ops**

Market Factors

No
Cooperation

Region
1

Region
2

Region
3

Total
Cooperation

No
Cooperation

No
Cooperation

Customer Factors

Individual Store Factors
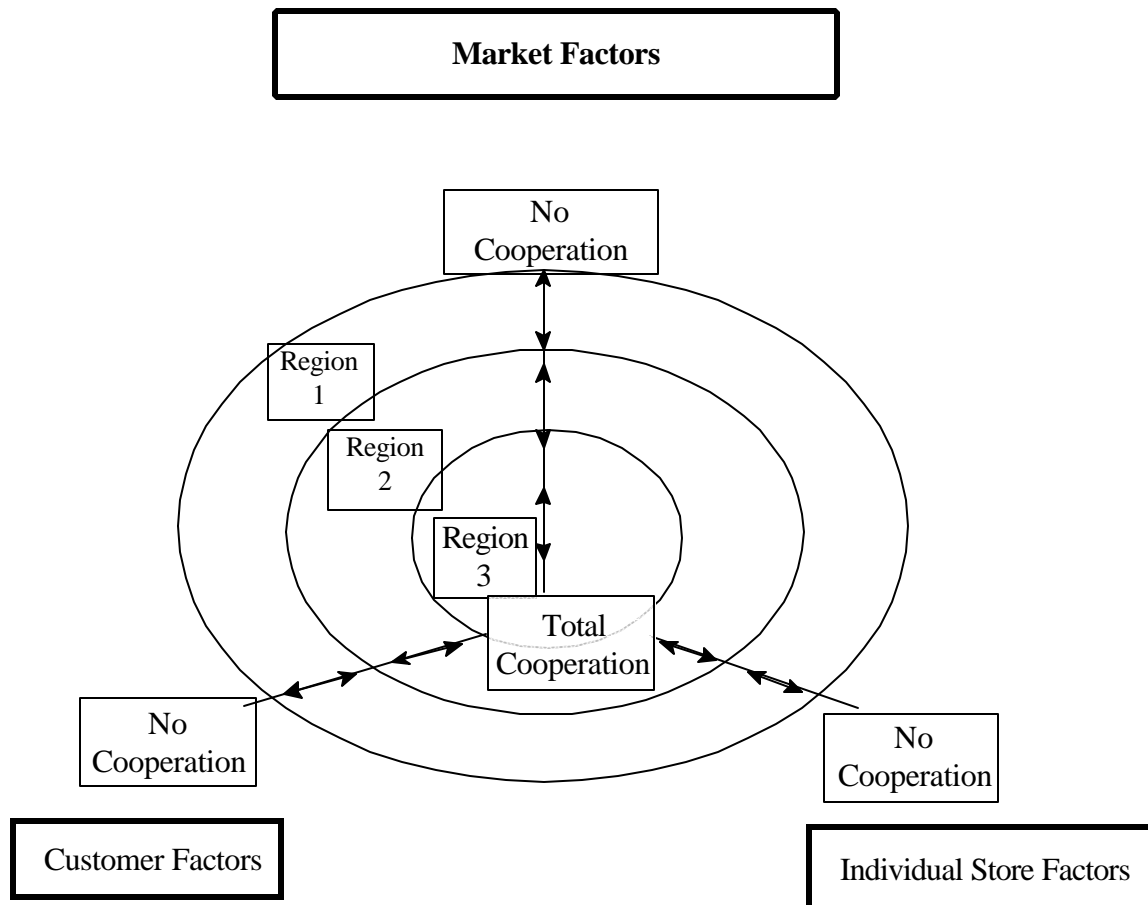
Region 1: The range in which market forces, customer preferences and individual
store considerations lead to single independent co-ops being the optimal
organizational structure.

Region 2: The range in which market forces, customer preferences and individual
store considerations lead to increased joint ventures and, or federated co-ops being
the optimal organizational structure.

Region 3: The range in which market forces, customer preferences and individual
store considerations lead to multi-store centralized co-ops being the optimal
organizational structure.

Table 1
Summary Statistics: Characteristics of Respondents

Characteristic	Mean	Standard Deviation
Length of Time Respondent was a Shopper	6,11	5,61
Membership Status	0.55	0,50
Length of Time Respondent was a member	2,40	4,06
Sum of TCNFC Stores Respondent Shops	1,82	1,01
Reported Distance Traveled to Shop	4,92	8,51
How many Respondent Shops for	2,45	1,34
Shopping Frequency*	3,05	1,17
Percent of Food Bill Spent at Primary Coop (P.C)	0,50	0,32
Expenditures per month at P.C.	$152,57	$140,68
Amount per Person, per Month at P.C.	$73,86	$69,88
Month at all TCNFCs	$167,89	$152,50
Amount per Person, per Month at all TCNFCs	$81,45	$76,76
Age	43,66	11,85
Gender**	1,79	0,41
Household Income*** (in thousands of dollars)	$57,479	$33,034

* Possible Responses were	1 daily	4 semi-monthly
	2 a few times a week	5 monthly
	3 weekly	6 very infrequently
**Possible Responses were	1 male	
	2 female	
***Possible Responses were	$0-$15,000	$46,000-$60,000
	$16,000-$30,000	$61,000-$75,000
	$31,000-$45,000	$76,000-$100,000
		$100,000 and up

Table 3
Regression Results

Independent Variable	Dependent Variable:																
	production selection	convenience /location	favorable pricing	customer service	product quality	avail-ability of organics	returns to member-ship	unique setting	direct member influence	competit iveness	availability of natural foods	increased member influence	ability to use benefits at other TCNFCs	more ready to eat foods	location	larger store	no expansion
Intercept	-0.375 0.325	-0.368 0.351	-0.300 0.400	-0.299 0.502	-1.173 0.351	0.713 0.333	-0.768 0.416	-0.291 0.362	-0.595 0.398	-0.449 0.334	1.227 0.395	0.459 0.384	0.905 0.328	-0.640 0.327	-1.709 0.394	-0.355 0.343	-0.464 0.406
length respondent has been a shopper	0.014 0.009	0.006 0.010	-0.006 0.011	-0.015 0.016	-0.006 0.010	-0.005 0.009	-0.021 0.012	0.014 0.010	0.009 0.011	-0.009 0.009	-0.001 0.011	-0.0001 0.011	-0.004 0.009	-0.009 0.009	0.019 0.011	-0.005 0.010	0.016 0.011
Membership Status	**			*	*	**	**		**				**				
non member	0.293** 0.104	0.185 0.115	0.180 0.126	-0.419* 0.187	-0.230 0.111	-0.402** 0.106	-0.783 0.144	-0.151 0.115	-0.013 0.132	0.430** 0.104	-0.077 0.126	-0.179 0.126	-0.600** 0.107	0.040 0.106	0.291 0.123	0.013 0.111	-0.032 0.132
member	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Co-op Closer to-						*							*				
work	0.022 0.191	-0.035 0.224	-0.071 0.223	-0.371 -0.289	-0.030 0.212	0.413* 0.201	0.539 -0.263	0.222 0.230	-0.066 0.247	-0.054 0.194	0.130 0.235	0.046 0.243	0.472* 0.194	-0.014 0.192	0.448 0.218	-0.143 0.213	-0.262 0.260
home	-0.117 0.161	0.212 0.187	-0.192 0.186	-0.382 0.231	0.216 0.177	-0.063 0.162	0.350 0.235	0.351 0.197	0.023 0.202	-0.114 0.163	0.027 0.193	0.132 0.205	0.176 0.163	-0.108 0.162	0.014 0.192	0.178 0.175	-0.124 0.206
both	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distance traveled to reach co-op	0.007 0.006	-0.021* 0.010	-0.012 0.010	0.002 0.009	0.007 0.006	0.0009 0.005	0.007* 0.007	-0.004 0.007	-0.020 0.014	0.009 0.006	0.017 0.011	-0.013 0.012	0.013 0.007	0.0001 0.006	0.018 0.005	0.003 0.006	-0.071 0.021
amount spent per person at primary co-op	-0.002** 0.001	-0.001 0.001	-.004** 0.001	-0.0002 0.001	0.0005 0.001	.003** 0.001	-0.001 0.001	-0.0003 0.001	0.001 0.001	-0.003** 0.001	0.002* 0.001	0.00005 0.001	0.001 0.001	0.001 0.001	0.0003 0.001	-0.001 0.001	-0.002 0.001
ever been a co-op worker				*	*				**	**		**	**			*	
no	0.123 0.121	0.058 0.132	-0.205 0.148	-0.430* 0.184	0.258* 0.131	0.029 0.124	-0.207 0.144	0.045 0.130	-0.481** 0.137	0.416** 0.128	0.054 0.144	-0.393** 0.133	-0.332** 0.122	0.073 0.123	0.173 0.152	0.279 0.133	-0.018 0.147
yes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
shopping frequency	-0.031 0.052	-0.078 0.057	0.025 -0.062	0.008 0.088	0.012 0.055	-0.035 0.052	-0.016 0.068	-0.136 0.058	-0.066 0.069	0.080 0.052	-0.027 0.062	-0.123 0.066	0.032 0.053	-0.109* 0.053	0.299 0.059	-0.157** 0.057	-0.036 0.067
age	-0.003 0.004	0.000 0.005	0.004 0.005	-0.006 0.008	0.000 0.005	-0.004 0.005	0.008 0.005	-0.014** 0.005	0.001 0.006	0.001 0.005	-0.008 0.005	-0.009 0.005	-0.007 0.005	0.009 0.004	-0.018 0.006	-0.003 0.005	-0.004 0.006
gender	**		*			**		**		**							
male	0.39** 0.113	-0.093 0.126	-0.321* 0.153	-0.290 0.210	-0.012 0.119	-0.337** 0.114	-0.046 0.143	0.318** 0.120	0.127 0.136	-0.343** 0.119	-0.194 0.131	0.183 0.131	-0.106 0.115	-0.177 0.116	-0.083 0.139	-0.084 0.122	0.046 0.140
female	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
household income	0.076** 0.025	-0.076** 0.028	-0.075 0.032	-0.035 0.042	0.070** 0.027	-0.034 0.025	-0.080* 0.033	0.035 0.028	-0.016 0.031	-0.036 0.026	-0.002 0.030	-0.115** 0.031	-0.133** 0.026	0.054* 0.026	0.017 0.031	0.021 0.027	0.012 0.032

*Significant at the 1% level

**Significant at the 5% level