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**Attitudes Towards and Satisfaction with Cooperatives in Alberta. A Survey  
Analysis.**

**By**

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## **Abstract:**

The purpose of the study is to assess the attitude towards, and satisfaction of residents of Alberta to their cooperatives. A mailed questionnaire to 1500 Alberta residents, with a 16% response rate is analyzed using Likert scales and the theory of planned behavior. The majority of the respondents are males, aged 45 or older, and earn incomes of \$49,000 or less. They are reasonably educated with a high school, college or university degrees.

Results of the analysis also show a population that has a general positive attitude towards and is satisfied with their cooperatives as is reflected in assessing the performance of their cooperatives as good. Further analysis using the theory of planned behaviour show that respondents' attitude towards their cooperatives is the single most important and significant predictor of their patronization behaviour.

However, there are still issues of concern to be addressed for current and past members. These include the inability of management to include members in the decision making process as well as issues of member training and education for the current members, and for the former members who left because they found the experience not rewarding or unable to use the services of their cooperatives when they moved.

## **Introduction.**

A number of studies have examined various key issues relating to cooperatives. For example, Treachter et. al., (2002), Murray (1999), Bhuyan (2001), Bruynis et al (2001), Fulton and Adamowicz (1993), Hansen et. al (2001), among others have identified key issues relating to member commitment, characteristics and determinants of cooperatives success, evaluation of member satisfaction, principal-agent relationships, the success of several emerging agricultural marketing cooperatives and the impact of trust on cooperative member retention, performance and satisfaction.

The general theme of these studies is to demonstrate how membership commitment and satisfaction are important to cooperative development and growth. Hassen et. al. contends that trust is a ‘good’ that can have a positive impact on organizations in general and cooperatives in particular. Fulton and Adamowicz (1993), ‘defines’ member commitment in a cooperative as a preference by members for something that is offered by the cooperative and not by an IOF, and that the source of this is historically linked to cooperative ideology.

There is evidence (both anecdotal and empirical) that suggest the traditional form of member commitment in cooperatives appear to be waning at a time when cooperatives are facing some tremendous challenges. These challenges have come about because of recent changes in the agricultural and agri-food industry, characterized by increasing global competition, rapid technological and market change, along with increased environmental and finance requirements. The most important challenge among these being the opening up of what used to be traditionally closed market areas to outside competition and the development of marketing systems in which product quality and differentiation is essential (Fulton and Adamowicz).

The strength of a cooperative depends, in part, upon its ability to mobilize its resources and members not only in gaining market share and achieve economic growth, but also in maintaining member commitment, satisfaction and retaining them. Satisfied, highly committed members are more likely to support their cooperative by participating in all cooperative activities. The reverse occurs when members are unhappy. It is evident that members' *goals*, what they desire from their cooperatives are critically related to why they joined the cooperative in the first place. These goals also affect member *satisfaction* with the cooperative, their *commitment* to it, and their *participation* in its activities.

The ability of a cooperative to meet its members' expectations depends on whether management effectively evaluates membership needs. Often they do not, and there are several reasons for this. One notion is that of "assumed similarity," cooperative officials' belief that the interests of the general membership must be similar to their own and therefore there is no need to investigate them separately. Secondly, member-officer communications may be poor (Hansen et al). The third is described by Gasson (1977a and 1977b), Beal (1954), and Le Vay (1985), through empirical studies, as a 'divergent set of member objectives both between and within cooperatives.'

Members' attitudes towards their cooperatives have a significant impact on their cooperative participation behavioural intentions. The attitudes people hold towards an organisation could, and do influence their behaviour towards that organisation. *Ceteris paribus*, the more positive attitude one holds towards an organisation, the more likelihood it is that the person will patronize or use a service from it, according to Fishbein and Ajzen (1975).

As democratic organizations, cooperatives rely on members' patronization for the realization of their distinctive character. Hakelius (1996) notes that a vital part of any cooperative organization is its members, and their active participation in, and loyalty to the cooperative are integral

for its success. If members' participation is limited to economic patronage only, a cooperative will be no different than any of the other business units.

The importance of member commitment, satisfaction, trust and participation in their cooperative has been extensively studied as is evidenced in these cited studies. However, the issues of how members' attitudes influence their participation behaviours, the broader issues of whether or not the public understands the nature of cooperatives, and why people stop being members of cooperatives or intend to continue being members of cooperatives have not been adequately dealt with. The attitude people hold towards their cooperatives is posited to affect their patronization behaviour, which is vital for the success of cooperatives. Understanding the causes of attitudes or desires to change will allow for the development of a realistic research program that directly targets the problems and issues of direct relevance to Alberta cooperatives.

The general purpose of this study was to explore and determine the general attitudes of residents of Alberta towards, and satisfaction with their cooperatives. The specific objectives are; -determine public familiarity with their cooperatives in rural and urban communities of Alberta; -determine attitudes of residents of Alberta toward their cooperatives; -evaluate the perceived performance of cooperatives by Albertans; -explore the factors that affect people's decision to patronize cooperatives using the theory of planned behaviour.

The study describes various characteristics of respondents, including their demographics, participation behaviors, identifies respondents characteristics related to differences in observed participation behavior, and draw implications for the cooperatives movement in Alberta. Responses from 245 usable questionnaires (out of 1500 mailed) are analyzed resulting in a response rate of 16.9% from both urban and rural, members and non-members of cooperatives residents of Alberta.

## ***Background Information.***

This statement by the International Cooperative Association (ICA) that;

*the premise that a cooperative consists of a group of people coming together to solve common problems has shifted to the concept of co-ops as organizations that supply goods and services to individual consumers to meet individual needs*

sums up what has happened to cooperatives sector over the last few years. This shift has had profound consequences, not the least of which is that "the consumer/member is not seen to have any strong need to interact with others in an association of members" (ICA, 1995).

Thus, over the years, coops have begun to conceptualize themselves as comprised of two somewhat incompatible features: the "association" and the "business." Priority is often given to the business side, as in the phrase, "without the business, there would be nothing to participate in" (ICA). This feeling, combined with the focus on members as individual consumers for whom the co-op provides goods and services, easily leads to a representative democracy with limited opportunities for communication, participation, and an emphasis on the business background of elected leaders to the detriment of member associations. Combined with the challenges outlined above, most cooperative members have become disenfranchised with their organizations and this is reflected in member dissatisfaction, lack of member commitment, participation and the collapse of a number of cooperatives.

However, notwithstanding these challenges, cooperatives have played an important historical role in the Canadian economy. Collectively, there are over 10,000 cooperatives and credit unions across Canada providing products and services to over 10 million Canadians (CCS 2004). Cooperatives are community-based organizations that care not only about the bottom lines of their businesses, but also about the needs of their members and the quality of life in their communities. According to the Canadian Cooperative Secretariat 2002 statistics (reported in

2004), and based on data received from 5,719 non-financial co-operatives, cooperatives generated \$26.1 billion in total revenues and had \$16.8 billion in assets. They employed over 83,000 people of which 75 percent were full-time employees. The number of non-financial co-operatives reporting was up 0.7 per cent from 2001 and membership was up 0.8 per cent.

However, volume of business, assets and number of employees in the same period were down 11.0 per cent, 5.9 per cent and 3.9 per cent respectively. These downturns were predominately caused in the agricultural sector by the conversion to a private company of Agricore, a major player in the grains and oilseeds sector and also a downturn generally in the grains and oilseeds sector in the West caused by a severe drought combined with a substantial drop in agri-product sales. These downturns are likely to be aggravated by the recent announced conversion of Lilydale Poultry Cooperative, a major player in poultry sector, to a Corporate Structure.

Majority of the agricultural cooperatives are struggling with issues around capital investment to expand or adopt new technologies and governance issues, while issues of member commitment and patronization may be adding to other problems in the cooperative sector. According to CCS (2004), the number of reporting agricultural co-operatives was down 0.1 per cent and active memberships were down 9.7 per cent. Agricultural volume of business and assets were down 19.2 per cent and 19.3 per cent respectively. The total number of employees of agricultural co-operatives was also lower by 8.5 per cent.

Cooperatives exist to address citizens' needs by providing services such as: helping farmers market their products and buy farm supplies, providing communities with financial services and retail goods, as well as providing communities with utilities (gas, electricity, fire fighting services, etc.). They are also used as tools in addressing a broad range of socio-



economic pressures, such as unemployment, youth employment, value-added industries in rural communities, and access to health care. Cooperatives are based on the values of self-help, self-responsibility, democracy, equality, equity, and solidarity. Cooperatives exist in every sector of the economy and can touch every aspect of our lives. You can be born in a health care coop and buried by a funeral coop (CCA, 2003). In between you can work in a worker's coop or farm coop, live in a housing coop, buy your groceries, clothing and other items from retail or consumer coops, send your children to a child care coop, do all your banking at a credit union, and purchase your insurance from an insurance coop<sup>1</sup>. Coops and credit unions provide consumers with a distinct values-based and community-owned and controlled alternative.

Unlike the private, public, or voluntary sectors, all cooperatives around the world are guided by the same seven principles: - voluntary and open membership; democratic member control; member economic participation; autonomy and independence; education, training, and information; cooperation among cooperatives; and concern for community. Cooperatives and credit unions differ from other businesses in three key ways: - *A Different Purpose*: to meet the common needs of their members versus profit maximization for shareholders; *A Different Control Structure*: ensures that people, not capital, control the organization through the use of one-member/one-vote system as against the one-vote-per-share system used by most businesses; *A Different Allocation of Profit*: shares profits among member-owners on the basis of how much they use the coop, not on how many shares they hold. Cooperatives and credit unions also tend to invest their profits in improving services to members and promoting the well-being of their communities

Cooperatives can be grouped into three main categories; traditional (agricultural related) non-traditional (non agricultural related) and the new generation cooperatives. Traditional coops

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<sup>1</sup> Cooperatives and Credit Unions of Canada web site 2004, (<http://www.coopscanada.Coop/aboutcca/>)

are those found or associated with agricultural or the farm sector, while non-traditional coops are those that operate outside of the agricultural sector, and include the consumer coops, credit unions, housing coops, insurance coops, workers coops, funeral coops etc. The New Generation Coops (NGCs), have emerged as a result of changes in the agricultural marketplace over the past 20 years, and share many key attributes of the traditional cooperatives. They are distinguished from the known cooperatives by their commitment to process commodities into higher-value products;-thereby providing a greater return to producers; a tied contract'-setting out producer delivery rights and obligations; a limited membership;-to those who purchase delivery rights and higher levels of upfront equity investment by individual members. Agricultural or farm coops were formed by local associations to address the negative consequences of market power; attain economies in procurement, services, or marketing; to reduce risk; and to provide missing services. Cook (1993) identified the drive to achieve additional margins as a fifth motivation for agricultural cooperative development

Non-traditional coops (non farm related) emerged following the successes of the traditional coops to provide products and services to consumers in areas such as retail, housing, health-care, insurance or day-care. Other types of cooperatives that are gaining popularity are the multi-stakeholder cooperatives. Membership is made up of different classes of members such workers, consumers, producers, investors and/or other possible stakeholders. Many provide home care services to seniors and people with health problems..

With a similar organizational structure to that of an investor oriented firm (IOFs), but with different areas of interest, cooperatives have a diversity of objectives. Gasson (1977a and 1977b), Beal (1954), and Le Vay (1985), have demonstrated through empirical studies that there is a divergent set of member objectives both between and within cooperatives. For example,

some individuals that are members of a coop but do not trade through the coop may prefer a large patronage pay out at the expense of better prices for those members who trade. In the opposite case, another coop may prefer to maximize the producers' surplus (profits) and consumers' surplus (lower prices) rather than return on members' investment in the coop. This mismatch of objectives leads to performance difficulties, thus making evaluation of achievements complex to measure.

Several empirical studies have determined the factors and characteristics supporting activities of cooperatives as well as measure performance. Bravo-Ureta et al (1988) studied socioeconomic and technical characteristics of dairy cooperative members and nonmembers in New England. Fulton et al. (1993) explored the factors that influence the commitment of members to their cooperative organization in Alberta. Misra et al. (1993) analyzed the factors influencing farmers' choice of milk handlers in 12 southern states in U.S. Kilmer et al. (1994), and Klein et al. (1997) studied the factors determining how different member characteristics and performance perceptions influence member decisions to select or patronize a cooperative.

Evaluation and measurement of performance of cooperatives in the traditional areas of price, efficiency, financial performance, growth and services provided, have also been the topic of several studies. Schiferl et al. (1983) worked on a comparative performance analysis of new wave food cooperatives and private food stores. Schrader et al. (1985) worked on a set of studies to identify dimensions of agribusiness performance relevant to agricultural producers. Burt and Wirth (1990) explained the results of a survey of attitudes of commercial farmers and supply cooperative managers about agricultural supply cooperatives. Ward (1995) and Sayers et al. (1996) evaluated cooperatives from farmers' perspective. Hind (1999) measured stakeholders'

aspirations and perceived performance for agricultural cooperatives and farmer controlled businesses in U.K.

These studies show that although there might be difference of goals among stakeholder groups (members and managers), those difference are overcome when priorities are assessed and every group has the opportunity to contribute to decisions and when members are informed of final outcomes in as clear and transparent a way as possible. Along with agricultural cooperative activities, there are a large number of businesses operating as non-agricultural cooperatives. Health care, housing, child care, workers, funeral, wholesale/retail businesses, to mention a few, have demonstrated that the same cooperative principles of member-ownership and control for member benefit can be applied to building successful businesses that aim at reducing the cost of doing business for their members (Nadeau and Thompson, 1996). Similar to the agriculture cooperatives, the mismatch of objectives that differentiates them from a business firm makes evaluation of performance complex to measure.

Studies to determine factors and characteristics supporting non-agriculture cooperatives and their performance are limited. Bhuyan et al. (1999), in a study of non-agricultural cooperatives in North Dakota, present information on how these non-traditional cooperatives operate, how they are formed and the problems or difficulties faced. In a further study, Bhuyan et al. (2001) examined characteristics of cooperative businesses in a variety of non-agricultural sectors and develop a "probability of success model" aimed at helping new cooperatives. The success factors identified include good management quality, networking among members, realistic opportunities for economic development, easier financing for members, and preference for coops among members.

Evidence reveals that further studies to evaluate objective and performance not only for agricultural cooperatives but also for non-agricultural cooperatives are needed. With an increased amount of business done through non-traditional cooperatives, especially in rural communities of Alberta, as well as some of the difficulties traditional cooperatives are facing, knowing and understanding what economic, organizational, financial, and operational factors help some cooperatives to succeed can set the path for other cooperatives to follow. Evaluation of public knowledge and perception of cooperative presence in the community is also needed. This information will help not only government authorities but also cooperatives in formation to determine the level of dissemination of information (education) on cooperatives necessary, and to improve ways of diffusion. This is particularly important given the current changes in legislation approved recently by the Alberta government.

## **Survey Design and Research Methodology**

A mailed questionnaire, designed to elicit familiarity, and attitudes towards cooperatives was mailed to 1500 Alberta residents. A random stratified<sup>2</sup> but proportionate sampling procedure using postal codes and census maps to ensure proportional representation of all residents in the defined population to have an equal chance of being selected was used. The sample frame included Alberta residents, and households both rural and urban, who were either members or non-members of cooperatives.

A principal shortcoming of mailed questionnaires is the possibility of low response rates. Dillman (1978) however, argues that a systematic approach to a survey “will encourage a good response”. Every attempt was therefore made to maximize the response rate in this study.

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<sup>2</sup> The stratified sampling is a two step probability sampling procedure in which the parent population is divided into mutually exclusive and exhaustive subsets. A simple random sample of elements is chosen independently from each group or subset. This procedure was applied to the urban and rural samples.

Individual respondents received a covering letter explaining the rationale behind the study. In addition, each participant received an incentive in the form of a Tim Horton's gift certificate, and a pre-paid reply envelope. In spite of these efforts, and given the fact that the survey was complex and there were no reminder notices sent<sup>3</sup>, the response rate was 16.9%.

The survey was aimed at assessing attributes, attitudes and beliefs about cooperatives, private business, credit unions and banks. It contained questions on respondents' attitudes, beliefs, outcome evaluations and intention items along with questions measuring the familiarity with, and understanding of the concept of cooperatives. The procedures employed to obtain the beliefs and beliefs evaluations are used to develop the model to measure respondents' attitude towards cooperatives in the province of Alberta.

### ***Method of Analysis.***

This section discusses the methodological approaches used to assess member characteristics, familiarity, attitudes, perceived cooperative performance, and factors influencing respondents' cooperatives patronization intentions. Descriptive statistics are used to describe respondents' demographic characteristics, a Likert scale analysis is used to analyze respondents' perception of their cooperatives performance, while the Theory of planned behaviour (TpB) is used to assess respondents' attitudes towards cooperatives as well as their cooperative patronization intentions in Alberta.

### ***Knowledge about Cooperatives.***

Knowledge and/or past experience with cooperatives is posited to have an important influence on the formation of attitudes towards them. In the questionnaire, two questions

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<sup>3</sup> Some survey recipients called to register their disapproval of been sent questionnaires. A decision was therefore taken not to send the reminder notices in order to respect the wishes of these people.

regarding knowledge about coops were included. The first question, “Have you ever heard, seen or read something about cooperatives?” verifies respondents’ awareness about the topic. The second question consists of six true or false statements and measures how correct respondents’ knowledge of cooperatives is. For each statement, respondents who said they were familiar with cooperatives had to answer with true or false and indicate how sure they were about the given answer on a seven-point scale; (7-absolutely sure, to 1-not sure at all)

The statements about coops are:

1. A cooperative is a form of business that provides a service to their members for the purpose of meeting economics, social and cultural needs.
2. A cooperative refers to an association formed to enable its members to buy or sell to better advantage
3. Shares in a coop appreciate in value and behave as an investment
4. In a coop, surplus earnings are distributed to the members according to their patronage of the coop.
5. In a cooperative at the local level, control is linked to member-owners. Each member has only one vote, regardless of the number of shares he or she holds
6. Coops keep money in the local economy since surpluses mainly go to members living in the community, not to distant investors.

Based on the answers to this second question, a knowledge score is calculated for each respondent, as follows:

$$KS = \{[\sum_{i=1}^6 (A_i \times C_j)] / 6\} \times 100$$

where  $KS$  is the knowledge score in (%);  $A_i \in \{0, 1\}$ ;  $C_i \in \{0.00, 0.17, 0.33, 0.50, 0.67, .083, 1.00\}$ .

Respondents were asked to answer with false or true to the six statements and to indicate how sure they were about the given answer. The certainty of a given answer was measured on a

seven-point scale, where “one” corresponds with guessing and “seven” with absolute certainty. If the answer to a statement  $i$  is correct/wrong, one/zero point/s is/are attributed ( $A_i$ ). To take the certainty of answer into account in the knowledge score,  $A_i$  is multiplied with a certainty factor  $C_i$ . The certainty factor is 0.00 if ‘one’ is indicated on the seven-point scale of certainty, 0.17 if “two” is indicated, 0.33 if “three” is indicated, 0.50 if “four” is indicated, 0.67 if “five” is indicated, 0.83 if “six” is indicated, and 1.00 if “seven” is indicated. By dividing the sum of the six ( $A_i * C_i$ ) by six and multiplying this result by 100, the knowledge score (KS) is obtained (Verdurme, A., and Viaene, J., 2003).

Analysis was conducted to assess the knowledge scores of rural and urban respondents, membership status, and also based on demographic characteristics. The mean knowledge score for the population is 52% with a Std. deviation of 36). Respondents residing in the rural areas have a greater knowledge score (64%) of cooperatives compared to 50% of those in the urban areas (Table 1). As expected, current and former cooperative members are more knowledgeable in cooperatives than those who have never been cooperative members. It is interesting to note that respondents who have never been cooperative members also scored high (60%) on the knowledge score evaluation, reflecting how much cooperatives have made their presence felt in the province.

Table 1. Respondents Knowledge Score of Cooperatives.

Knowledge score (%)	Mean	Std. deviations
Total Sample	52	36
Urban Residents	50	38
Rural Residents	64	28
Current Coop Members	74	16
Former Coop members	66	21
Never been a Coop member	60	21

Calculated from Survey data.



### ***The theory of planned behaviour.***

Attitude refers to an evaluative response to some object which disposes a person to behave in a certain way toward it (Ajzen 1987; Dawes & Smith (1985). Early findings (e.g., Wicker 1969) that attitude did not accurately predict behavior led to questions about the scientific value of the concept. The expression attitude-behavior inconsistency was coined, referring to the low degree of correspondence between attitude and behavior. A major contribution of Fishbein and Ajzen (1974, 1975; Ajzen & Fishbein 1977) was the notion that intention mediates between attitude and behavior, and that intention predicts behavior more accurately than does attitude.

This led to the development of the theory of reasoned action (Fishbein & Ajzen 1975), which assumes that an intention to perform a behavior (I) is related to the attitude toward performing the behavior (A) and the subjective norm for performing the behavior (SN). The relationship is specified by the equation

$$I = w_A A + w_{SN} SN, \quad (1)$$

where the w's are weights determined empirically by means of regression analysis. Attitude and subjective norm are similarly defined as beliefs about the outcomes of performing the behavior. In the former case, it is about the degree to which the outcomes are evaluated as positive or negative, and in the latter case it is about the degree to which significant others (parents, spouse, friends, children, uncles, etc.) approve or disapprove performance of the behavior. The equation specifying the former relationship is

$$A = \sum_i^n b_i e_i, \quad (2)$$

where  $b_i$  is a behavioral belief or subjective probability that the behavior will result in outcome  $i$  with a value or valence  $e_i$ . The corresponding equation for subjective norm (SN) is

$$SN = \sum_i^n b_j m_j \quad (3)$$

Here,  $b_j$  is a normative belief or subjective probability that referent  $j$  will approve performance of the behavior, whereas  $m_j$  denotes the motivation to comply with referent  $j$ . The higher SN is, the more social pressure a person experiences to perform the behavior.

The theory of reasoned action seems to deal adequately with the relationship between attitude and intention, but the question of how an intention is implemented in behavior has largely been ignored. An obstacle to predicting behavior from intention is that many behaviors are habitual. Engaging in a habitual behavior is perhaps not preceded by the formation of an intention Gärling et. al., (1998). The stated objective of the theory of reasoned action was to predict behavior under volitional control (Fishbein & Ajzen 1975). Because habitual behavior is not under volitional control, such behavior should be excluded. Another important class of behavior which is not strictly volitional is when performance depends on the availability of some form of skill and/or resource (time, money, or cooperation from others). Nevertheless, the theory of reasoned action has frequently been used to predict such behavior.

The problem of incorporating behaviour not under volitional control was addressed by Ajzen (1985, 1988, 1991) in the theory of planned behavior. In this theory, perceived behavioral control is included as a measure of a person's confidence in his or her ability to perform a particular behavior. The inclusion of this variable has been found to increase accuracy in predicting behavior not under volitional control (e.g., Ajzen & Madden 1986; Fredericks & Dossett 1983; Gärling 1992a). Respondents' cooperative patronization intentions are assessed on the basis of this theory.

## The Results.

### *Respondents' Profile.*

Respondents' profile is analyzed on the basis of age, gender, education and income levels. The analysis show that majority of the respondents (71%) were aged 45 and above and are males (65%). Half of the respondents (51%) reported annual incomes of less than CAN \$49,000 of which 64% are females. A greater portion of respondents are reasonably educated; 55% have college and university degrees, while 22 and 12% have high school or postgraduate degrees, respectively (Table 2).

Only 8% of the respondents are agricultural producers, of which 54% have individual ownership of their operations. Alternate income is a source of income for 63% of this group of respondents. The majority (77%) of the respondents in the survey reside in the urban areas with the remaining in the rural areas as defined by their postal codes.

Table 2. Respondents profiles, age, gender, education and income levels.

Profile	Gender		Age					Education			
	Male	Female	<20	21-34	35-44	45-54	>50	> High School	High School	College	University and over
Percent (%)	65	35	1.2	14	14	27	44	12	22	28	38
Income											
Profile	Less than 49000		50-99000		100-149000		150- 199000		Over 250000		
Percent (%)	51		35		8		3		2		

Source: Derived from Survey data

### *Familiarity with and Understanding of Cooperatives.*

One of the objectives of the survey was to assess the familiarity, and understanding of residents of Alberta to their cooperatives. Respondents were asked if they had ever heard, seen or

read anything about cooperatives before this survey. Of the 246 respondents that returned their completed surveys, 79% were familiar with cooperatives. Of this number, 71% are males and 29% females. Respondents' familiarity with cooperatives was further assessed by asking them if they could name organizations that they knew were operated or managed as cooperatives. The majority (67%) were able to do so. Among the many cooperatives listed, United Farmers of Alberta cooperative was the most recognized with 11.4% of respondents naming it. This was followed by Calgary cooperative with 9.3%, the Cooperators, 3.7%, Mountain Equipment coops, Medicine hat coops, and Coops Stores each had 2.0%. Various other cooperatives across the province were named in varying percentages. Respondents knowledge about cooperatives is measured on the basis of knowledge scores as discussed and presented on page 15, Table 1, where average knowledge scores for different groups are reported.

Further analyses, using cross tabulations were also done to investigate the relationships between member characteristics and their cooperative familiarity. An analysis of place of residence and cooperatives familiarity showed respondents on rural routes were more familiar (94%) with cooperatives compared to those on urban (76%) routes, with significant a chi-squared statistic implying the existence of a relationship (Table 3a).

Table 3a. Place of Residence and Coop Familiarity

Coop Familiarity	Place of Residence	
	Urban	Rural
No	24.3%	5.6%
Yes	75.7%	94.4%

Chi-squared 9.11 (0.003) (two sided)

Male respondents were more familiar (69%) with cooperatives than female respondents (31%). Older respondents (45 years or older) were more familiar (73%) with cooperatives compared to younger respondents, while respondents with a college or university degree were

more familiar (66%) than those with lesser education (Table 3b). The chi-squared test statistics for all these relationships, with the exception of the education and familiarity, were all significant implying the existence of a relationship.

Table 3b Respondents' demographic characteristics and their Coops Familiarity.

	Age Group				
Familiarity	Under 20	21-34	35-44	45-54	Over 55
No	6	20	12	20	41
Yes	<b>0%</b>	<b>12</b>	<b>15</b>	<b>28</b>	<b>45</b>
	Education Attained				
Familiarity	<high school	High School	College Tech.	University	Graduate School
No	16.3	28.6	24.5	24.5	6.1
Yes	<b>11</b>	<b>21</b>	<b>29</b>	<b>28</b>	<b>12</b>
	Income level ('000)				
Familiarity	less \$49	\$50- 99	\$100 - \$149	\$150 - \$199	\$250
No	69	26	5	.0	.0
Yes	<b>47</b>	<b>38</b>	<b>9</b>	<b>4</b>	<b>3</b>
	Gender				
Familiarity	Female		Male		
No	48.0%		52.0%		
Yes	<b>31%</b>		<b>69%</b>		

Source: Derived from Survey data

### *The Likert Scale Analysis.*

One popular technique to obtain information on human knowledge, attitudes, behavioral preferences, and similarities or the lack of them is the inclusion of Likert-type (for example, 1= strongly disagree, 7= strongly agree) or dichotomous (such as, yes/no) scales in survey questionnaires. Several respondents' characteristics were measured using the Likert scales. Seven choices, ranging from 'extremely agree or extremely important to extremely disagree or extremely unimportant are scored "1" (extremely disagree or extremely unimportant) to "7" (extremely agree or extremely important). The higher the number, the stronger the agreement or

importance of an attribute or belief is. Frequency tallies are scored for each attribute or belief to give some indication of its intensity. Results using the Likert scale measure are presented in this section. This includes respondents' perceived performance of their cooperatives, several other respondents' characteristics, beliefs in cooperatives principles and objectives, cooperative patronization, and membership status. The Likert scale measures the average intensity of beliefs and attitudes and represents the average degree of belief members hold.

### **Respondents Perception of their Cooperatives Performance and Success.**

Respondents' perceived evaluation of the performance of their cooperative was assessed on a Likert 7-point scale using a set of six performance criteria. These six performance criteria are, marketing and business; management; customer service; member commitment; and public interest and involvement. The specific performance criteria evaluated under each of these six performance criteria are listed in Table 4.

Current cooperative members were asked to provide some evaluation of the performance of their cooperatives on a set of six performance criteria as described above. Specific performance criteria were evaluated under each of these six performance criteria. It is found that in general, the majority of respondents gave good evaluative performance to their cooperatives. However, this did not cut across all the issues examined under the six performance criteria.

For example, under the marketing and business criteria, respondents were ambivalent as to whether their cooperatives performed well in providing easy access to financing for members, in providing high returns on investments, and in providing reduction in market risks.

Table 4. Respondents' Perception of their Cooperative Performance.

My Coop Provides	Performance Measure						
	Not at all	Poorly	Slightly poorly	Not Sure	Slightly well	Well	Very well
<b>A. Best deal to supplier &amp; consumers</b>	0	2	9	11	30	42	6
Goods & services not available	4	3	11	28	22	27	6
Easy access to financing	8	1	2	52	10	20	7
Price stability	0	4	5	16	29	37	8
High return on investment	1	3	3	58	18	13	4
Reduction in market risks	6	4	2	64	10	12	3
<b>B. Technical assistance</b>	6	4	2	64	10	12	3
Staff & managers are professional	1	4	6	20	26	34	10
Informed of management's plans	1	3	10	31	22	29	5
Members involve in making decisions	1	1	3	25	29	35	7
Opportunity to voice concerns	0	2	2	41	14	36	5
<b>C. Facilitates networking</b>	6	3	3	62	11	13	2
Provides up-dated information	4	1	6	36	24	24	6
Provides informative newsletter	6	2	10	24	25	28	6
Provides useful web site	4	4	3	63	7	14	6
Facilitates access to new technology	3	3	4	55	14	18	3
Help establish friendly relations	0	1	6	12	29	38	15
Establishes programs that meet needs	0	1	4	31	25	34	6
Encourages membership	0	3	0	23	21	42	11
<b>D. Facilitates discussion among Coops</b>		1	2	71	12	13	2
Offers member education/training	4	3	4	69	10	8	3
Welcomes new members			2	14	28	43	14
Offers members opportunities to influence	3	3	4	39	29	21	5
Provides fair and equitable voting rights	1	1	2	29	17	42	8
Includes members in the decision-making	1	3	3	41	22	26	4
<b>E. Creates a more competitive environment</b>	1	3	3	14	22	47	11
Represents client interest			3	5	24	22	39
Expands market for new products/services	1	3	5	28	24	34	6
Products and services are well advertised	1	2	6	6	28	46	12
<b>F. Exemplifies ethical business practices</b>	0	0	3	20	15	44	18
Provides community support	1	1		28	16	34	20
Enhances the image of the community	1	2	14	21	44	18	12
Fosters economic development	1	1	2	36	23	25	12
Environmentally friendly products	0	0	5	21	21	40	12

A= Marketing and Business; B= Management; C= Customer Service; D= Member Commitment; E= Competitive Environment; F= Public Interest and Involvement

Performances under the management performance criteria were generally evaluated as doing well for most of the issues, except for the provision of technical assistance to members in the development of business plans, and marketing studies where respondents expressed ambivalence. Respondents' perceived performance evaluation under the customer service, one of the issues identified by respondents to be the reason why they patronize cooperatives, received good performance evaluations. However, respondents expressed ambivalence on the issues of facilitating networking among members, providing useful websites, and access to technology under this performance criterion.

Respondents especially liked the competitive environment created by the presence of cooperatives in their communities. They evaluated the performance of their cooperative under this criterion to be good in all the issues investigated. For example, that the presence of cooperatives creates more competition is evaluated by 80% of the respondents to be doing well. Similarly, cooperatives are perceived to be doing well on expanding market for new products and services, and representing clients' interests.

The performance of cooperatives in maintaining member commitment was also evaluated. Respondents expressed ambivalence regarding the performance of their cooperatives in maintaining member commitment, especially in facilitating discussions among members, and offer members education or training. The performance of cooperatives under public interest and involvement was evaluated as doing well with no ambivalence. Finally, respondents' were directly asked if they considered their current cooperatives a success. The majority (93%) thought their cooperatives did.



### ***Cooperative Patronization.***

One unique feature that separates cooperatives from other business entities is their member involvement and participation in the organization's activities. Member participation in activities such as attending meetings, voting to elect board members or be elected to the board, participate in the decision making process are critical for the long term survival of the organization, and distinguishes cooperatives from other business entities. A number of questions were designed in the survey to assess this important feature of cooperative identity. These included member status, and number of years of membership, intent to retain or cancel membership, and hypothetical questions regarding their intent to patronize or purchase a product or service from a cooperative. They were also asked questions regarding their knowledge of cooperative objectives and functions.

Results show that a good number (68%) of respondents are current members of cooperatives with an average 13 years of membership. The majority (89%) would retain their cooperative membership two years from now. In the last twelve months, 67% of the respondents have used or purchase services or products from a cooperative, 13% think they might have, and 20% have not used these services. Most respondents (94%) would patronize a cooperative if they knew it offered good prices, good services and quality products, contributed to the community, and offered price discounts. Asked if they would likely purchase a product if they knew it was provided by a cooperative organization, 64% said they would.

### ***Understanding Cooperative Principles.***

Respondents' beliefs in cooperative principles were assessed using a set of 17 belief statements offering them the opportunity to either agree or disagree with the statement on a 7-point Likert scale. The beliefs of respondents listed in Table 5 suggest that respondents (at least

50%) agreed or strongly supported most cooperative principles. Majority (93%) strongly disagreed when asked ‘I do not know that cooperatives exist’, an indication that residents of Alberta are well informed about the existence of cooperatives. They also strongly disagreed on whether cooperatives would eventually become publicly traded firms, businesses should pay more attention to environmental issues than creating economic growth (60%), and if one had heard about coops but was not familiar with the way they work (60%). Half (52%) of the respondents were ambivalent about the effect of the sale of Agricore and Dairyworld on their confidence in cooperative.

Table 5. Beliefs about cooperatives, credit unions investor own firms, banks and trust.

<b>Belief Statements</b>	<b>Disagree (%)</b>	<b>Indifferent (%)</b>	<b>Agree (%)*</b>
A cooperative is a group of people doing business	6.8	2.1	91
In terms of profits, doing business with a cooperative is better than with an IOF	18	35	47
In terms of advantages, doing business with a cooperative is better than with an IOF.	17	33	50
Credit unions are very similar to banks	20	6	74
IOFs provide a greater number of products and services than cooperatives	32	32	36
Cooperatives are more involved in community services than IOFs	12	28	60
Cooperatives should worry more about profits than about social issues	48	27	25
I have heard about cooperatives/credit unions but I am not familiar with the way they work	60	12	28
Businesses should pay more attention to environmental issues than creating economic growth and employment	44	16	39
Banks in Canada are making too much money	9	4	97
I did not know that cooperatives/credit unions existed	93	3	4
Eventually cooperatives as business enterprises will become publicly traded firms (IOFs)	49	36	15
13. Credit unions are less efficient than banks because they cannot operate nationwide	53	20	27
14. The sale of Agricore and Dairyworld shakes my confidence in cooperatives	26	52	22
15. There is no difference between large cooperatives and large private companies	73	11	16
16. In order for credit unions to compete with banks, they will have to become more like banks, thus destroying their original distinction	60	13	27
17. Banks offer better financial services and financial products than credit unions	50	25	25

\* This is the sum total of responses that include slightly to strongly agree. Similar for the disagree

### ***Membership Status.***

Respondents were asked to indicate their membership status in a cooperative as to whether they were a current, former, intend to be a member or never been a member of a cooperative. Analysis show 23% have never been cooperative members, 2% intend to join a coop, 14% are former members and 61% are current cooperative members (Table 6).

Table 6. Respondents Cooperative Membership Status.

Coops Membership Status	Percent
Never been a member	22.9
Former member	14.4
Intend to become	2.1
Currently a member	60.6

Of the current and former cooperative members, 64% belong to nontraditional cooperatives (financial, consumer, service and worker coops), while 32% belong to traditional (producer) coops. These results are supported by data from Cooperative Secretariat that points to an increasing membership of nontraditional coops and a decline in traditional ones. This can also be explained by the fact that nontraditional cooperatives are involved with the provision of goods and services majority of the populace need.

Respondents who said they were former members were asked to agree or disagree with a set of questions regarding the reasons why they left. Of those former members, an equal 47% each agreed or disagreed with the suggestion that they left because no cooperative was close to where they lived. Only 31% agreed with the suggestion that they saw no benefits for patronizing a cooperative, while 27% agreed that previous experience with cooperative had not been rewarding. Thus, one is unable to decipher from these responses a clear motive why some members chose to leave.

### ***Cooperative Patronization Intent. The theory of planned behaviour.***

Using the theory of planned behaviour, the factors influencing respondents' cooperative patronization intent were evaluated. The three constructs of the theory, attitudes, subjective norms and perceived behavioural control are estimated from the formulations outlined on pages 15-16. First, respondents' attitudes towards cooperatives are estimated and the results reported. Then the other two constructs, subjective norms and perceived behaviour control are estimated and together with attitude and other demographic variables, the predictors of respondents' cooperative patronization intent are estimated according to the TpB.

To provide a measure of respondents' attitudes towards their cooperatives, a set of questions using the *Adequacy-importance model*, which focuses on the importance of goals that a cooperative should set, were asked. All statements were measured on a 7-point Likert-type scale, a score of 4 suggests ambivalence toward the statement, while scores below and above the mid-point suggest negative and positive attitudes, perceptions, or behavior intention, respectively. A 7-point Likert scale ranging from extremely unimportant (1) to extremely important (7) was used to evaluate respondents salient beliefs about cooperatives with questions grouped under the six performance functions.

Based on the same set of questions, participants were asked to evaluate how well they thought their cooperatives were *performing*. The attributes beliefs are measured on a scale 7-point Likert scale, ranging from not performing at all (1) to performing very well (7), while their importance was converted to a bipolar scale of -3 to +3. To obtain *a measure of attitudes*, each behavioral belief is multiplied by the corresponding evaluation item. A belief-based measure of attitude toward cooperatives is then derived from the sum of the products of behavioral beliefs and outcome evaluations, aggregated over the individual criteria to obtain and aggregate attitude.

Mean scores above the neutral 4.0 point indicate a positive attitude towards the object for which attitudes are being assessed and negative attitudes below the 4.0 point.

**Table 7. The Multi-attribute Attitude of Respondents Towards Cooperatives**

Performance function	Mean score	Std. Deviation
Market and Business	3.57	5.06
Management	5.87	5.78
Customer Service	4.61	4.62
Competitive environment	7.26	6.18
Member Commitment	4.97	5.02
Public interest and involvement	8.41	5.84

Derived from survey data.

Although no statement in the multi-attribute table can be rated, on average, as extremely positive, or negative attitude towards cooperatives, examination of the attitude statements (Table 7) is revealing. In general, Albertans hold attitudes in the positive point of the attitude scale towards cooperative (mean =5.8). The majority of the six statements received an average response of 4.6 or greater. The functions public interests and involvement as well as the presence of cooperatives creates competitive environment have score more than 4 and 2 points above the middle of the scale. It suggests that residents of Alberta value cooperatives support for public interests and the competition created by their presence. Attitudes score under the marketing and business function is negative (3.6) because only two items, cooperatives provide best deal to suppliers and provides price stability under this function were scored positive.

Applying the theory of planned behaviour model, equation 1, factors predicting respondents' cooperative patronization intentions are derived (Table 6). Attitudes toward the cooperatives were measured by 7-point semantic differential scales reflecting overall unimportant/important, not doing well/doing well. Patronization intentions were measured by asking whether respondents would patronize a cooperative if they knew it offered a given set of benefits on one 7-point semantic differential scale, unlikely/likely.

The measurement of subjective norm and perceived behavioral control were based on scales developed by Ajzen and Fishbein (1980), and Ajzen (1985, 1991). Subjective norm was measured by asking “Do your friends/relatives consider it important to patronize or become a member of a cooperative\_\_\_” Respondents were required to answer on 7-point semantic differential scales reflecting disagree/agree. Respondents were also required to answer the question stated as “Based on my friends/relative opinion, do plan to patronize/continue patronizing a cooperative?” on a 7-point differential scale reflecting definitely disagree/agree. Perceived behaviour control was measured by asking the following questions. “two years from now do you plan to cancel your membership in your cooperative?” “Due to evolving global trends, it would be\_\_\_\_\_ to cancel membership in your cooperative”. The same two questions were asked regarding respondents intention to retain membership in their cooperative. The respondents were asked to answer the above questions with unlikely/likely and difficult/easy on 7-point semantic scales. The Cronbach alpha statistic for all the constructs is well above 0.80.

The scores of the three major constructs were calculated based on the mean score of their indicators. Results show that attitude towards cooperatives accounted for 44% of the total variance in respondents’ intent to patronize a cooperative, subjective norm and perceived behaviour control did not (Table 6). Neither did any of the demographic factors or area of residence that was included in the analysis but not reported here. That perceived behaviour control did not influence patronization intent is consistent with the literature (Alba &

Table 6 Results of the TpB model on Intent to Patronize a Cooperative

	Coefficient	t-ratio.	Sig.
ATTGENRL	.443	1.967	.050
PBCANCL	.115	1.150	.247
SBJNORM	-.181	.754	.451
Constant	2.411	2.352	.019

Source: Derived from survey data.

Hutchinson, 1987; Brucks, 1985). Perceived behavioral control is thought to reflect a person's self-confidence in the ability to form behavioral intention. When a person has a high level of self-confidence in evaluating a product purchasing decision, perceived behavioral control will not be a major issue in influencing his/her intention. Thus, attitude toward the behavior can overshadow the effect of perceived behavioral control. As a result, the effect of perceived behavioral control on behavioral intention will be weaker when consumers have high subjective product knowledge as is the case with respondents of this survey in terms of their knowledge about cooperatives (see knowledge scores).

Finally, that subjective norm did not influence cooperative patronization intention can be attributed to the cultural environment. For example, Lee and Green (1991) found that subjective norm was a significant predictor for behavioral intention in Korea, while attitude was found to overshadow the influence of subjective norm in the United States. These results demonstrated that the strength of social influences is different in different cultural environments and could as well be the case here.

### ***Summary and Conclusions.***

Analysis from the survey indicates residents of Alberta are familiar with, and understand the concepts of cooperatives. The average knowledge score for respondents is 68 percent, while the majority is familiar with cooperatives. Results of the analysis also show a population that has a general positive attitude towards and satisfied with their cooperatives as it is reflected in assessing the performance of their cooperatives as good. Member commitment to their cooperatives is high, as over 80% of respondent will retain their membership two years from now, and a similar majority will seek another cooperative if their current ceases to function. The majority of respondents have also indicated their intentions to patronize a cooperative or

purchase items from organizations they think operated or managed as cooperatives. There are currently 62 % current cooperative members with just 14% of respondents who have become former members.

Analysis using the theory of planned behaviour show that respondents' attitude towards their cooperatives is the single most important and significant predictor of their patronization behaviour. The other two other constructs, subjective norm, and perceived behaviour control as well as demographic characteristics did not. It has been argued that when respondents are very knowledgeable about the object, their attitudes often times overshadow their perceived behaviour control. Furthermore, cultural influences could explain the lack of subjective norm in predicting respondents' patronization behaviour.

Although the majority of respondents rated their cooperatives performance as doing well, which should be good news to the cooperative movement, there are still issues of concern for the 60% committed members. These include the inability of management to include members in the decision making process as well as issues of member training and education. There are also serious issues to be addressed for the 14% of former members who left because they found the experience not rewarding or unable to use the services of their cooperatives when they moved. For the 60% committed members, there is the need to address the issues of involving them in decision the decision making process, member training and education and the provision of a forum for the discussion of their problems with management. The lack of participation by the youth is an issue that needs addressing because the long term survival of cooperatives will depend on these potential members.



Areas for future research could include an in depth analysis of why the youth find it unattractive to patronize cooperatives, what de-motivates people to leave cooperatives, and how cooperative management could bring members in the decision making process.

## References.

- Aaker, D. A., v., and Day, G. S (1995). *Marketing Research*. New York; John Wiley
- Alba, J. W. & Hutchinson J. W. (1987). "Dimensions of consumer expertise". *Journal of Consumer Research*, 13, 411-454.
- Beebe, T. J., Mika, T., Harrison P. A., Anderson, R. E., and Fulkerson, J. A. (1997). Computerized school surveys. *Social Science Computer Review*, 15, pp. 159-169.
- Beal, G.M., 1954. *The roots of participation in farmer Cooperatives*. Ames, Iowa: Iowa State University Press.
- Bravo-Ureta, B., and T.C Lee. 1988. "Socio-economic and technical characteristics of New England dairy Cooperative members and nonmembers." *Journal of Agricultural Cooperatives*. (3). pp. 12-28.
- Brucks, M. (1985). "The effects of product class knowledge on information search behavior." *Journal of Consumer Research*, 12, 1-16.
- Burt, L., and M.E., Wirth 1990. "Assessing the effectiveness of farm supply Co- operatives. A comparison of farmer and manager viewpoints". *Journal of Agricultural Cooperatives* (5). Pp. 17-26.
- Chris T Allen, Karen A. Machliet, and Susan S. Kleine. 1992. "A comparison of attitudes and emotions as predictors of behaviour at diverse levels of behavioural experience", *Journal of Consumer Research* (18) Pp.493-504.
- Cook, Michael L. 1993. "Cooperatives and Group Action." *Food and Agricultural Marketing Issues for the 21st Century*. Texas A&M University, College Station, Texas, pp 154-169.
- Daniel Katz, 1960. "The functional approach to attitude". *Public Opinion Quarterly* (24). Pp. 163-204.
- Darrel J. Bern, 1970. *Beliefs, attitudes and human affairs*. Belmont, CA: Brooks/Cole.
- Dillman, D. 1978. *Mail and telephone surveys: The total design method*. Wiley, New York.
- Dillman, Don A 1992. "Recent Advances in Survey Data Collection Methods and Their Implications for Meeting Rural Data Needs". *Rural information systems: New Directions in Data Collection and Retrieval*. pp. 52-71 Ames: Iowa State University Press
- Elnora Stuart, T. Shimp and R. Engle, 1987. "Classical conditioning of consumers attitudes : four experiment in an advertising context". *Journal of Consumer Research*. (14). 334-49.
- Fulton, J.R., and W,L Adamowicz, 1993. "Factors that influence the commitment of members to their Cooperative organizations". *Journal of Agricultural Cooperatives* (8). Pp. 39-53.
- Gärling Tommy, Gillholm R., and Gärling A. (1998). "Reintroducing attitude theory in travel behavior research. The validity of an interactive interview procedure to predict car use." *Transportation* 25: 129-146.
- Gärling T (1992a). "Determinants of everyday time allocation." *Scandinavian Journal of Psychology* 33: 160-169
- Gasson, Ruth. 1977a. "Farmers approach to cooperative activities." *Sociologia Ruralis* 14 (1): pp. 107-123.
- Gasson, Ruth. 1977b. "Farmers' approach to cooperative marketing." *Journal of Agricultural Economics* 28:1, 27-38.
- Hind, Abigail M. 1999. "Cooperative life cycle and goals." *Journal of Agricultural Economics*, v. 50, iss. 3, pp. 536-48
- Hakelius, K. 1996. *Cooperative Values: Farmers' Cooperatives in the Minds of the Farmers*. Swedish University of Agricultural Sciences, Department of Economics, Uppsala, Sweden.
- International consortium of Cooperatives, (1995). *Making Membership Meaningful: Participatory Democracy in Co-operatives*. ICA Publications List - Centre for the Study of Co-operatives, University of Saskatchewan, Canada, 344 pp

- Joan R. Fulton and Wiktor L. Adamowicz 1993. "Factor That Influence the Commitment of Members to Their Cooperative Organization". *Journal of Agricultural Co-operatives* (8)
- John Cacioppo, S. Harkins, and R. Petty. (1981). "The nature of attitudes and cognitive responses and their relations to behaviour", in *Cognitive Responses in Persuasion*, ed Richard Petty, Thomas Ostrum, and Timothy. C. Brock, eds (Hillsdale, NJ; Lawrence Erlbaum, 1981), 31.
- Kilmer, R.L., L. Jong-Ying, and D. Carley. (1994). "Factors influencing farmers' selection of a milk handler." *Journal of Applied Economics*. 26 (2). Pp. 443-450.
- Klein, K.K., T.J. Richards, and A.M Walburger. (1997). "Determinants of cooperative patronage in Alberta." *Canadian Journal of Agricultural Economics* (45):2 pp. 93-110.
- Le Vay. (1983). "Agricultural Cooperative Theory: A review." *Journal of Agricultural Economics*. (34). Pp.1-44.
- Lee, C. & Green, R. T. (1991). Cross-cultural examination of the Fishbein behavioral Intentions model. *Journal of International Business Studies*, 22, 289-305.
- Lou Hammond Ketilson. (1990). "Management in cooperatives: Examining the Marketing Competitiveness of Consumer Cooperatives". In *Cooperative Organization and Canadian Society. Popular Institution and the Dilemmas of change*, edited by Murray E.Fulton, University of Toronto Press.
- Mark H. Hansen, I.L., Marrow Jr., and Juan C. Baatisu. (2001). "The impact of trust on cooperative membership retention, performance and satisfaction: an exploratory study. *International Food and Agribusiness Management Review*. 5, 41-59.
- Martin Fisbein and icek Ajzen, 1975. *Beliefs, attitudes, intentions and behaviour; an introduction to Theory and Research*. Reading, M: Addison-Wesley.
- Misra, S.K., D.H Carley and S.M Fletcher. (1993). "Evaluation of dairy farmers Cooperatives." *Agribusiness* (9). Pp. 351-61.
- Montgomery, D.C and EA Peck, (1992). *Introduction to Linear Regression Analysis*. Third Edition, John Wiley & Sons Inc
- Nadeau, E.G., and D.J Thompson. (1996). *Cooperation Works*. Rochester, Mn: Lone Oak Press.
- Phillip Zimbardo, E. Ebbesen, and C. Maslach. (1977). *Information, attitudes and changing behaviour*. Reading, M: Addison-Wesley.
- Richard J. Lutz, 1991. "The role of attitude theory in marketing" in *Perspectives in Consumer Behaviour*, Ed by Harold Kasserjan and Thomas Robertson. Upper Saddle River, NJ Prentice Hall, 317-49.
- Rubin, Allen and Earl Babbie, (1993). *Research Methods for Social Work*. Pacific Grove, California Brooks/Coke.
- Sanjib Bhuyan and F. Larry Leistritz. (2001). "An Examination of Characteristics and Determinants of success of Cooperatives in the Non-Agricultural Sectors". *Journal of Cooperatives*; (16).
- Sanjib Bhuyan, F. Larry Leistritz, and David W. Cobia. (1999). "Non-Agricultural Cooperatives in the United States: Roles, Difficulties, and Prospects." *Agricultural Economics Report No.* 388
- Santos, J.R.A., Lippke, L., & Pope, P. (1998). PROC FACTOR: A tool for extracting hidden gems from a mountain of variables. Proceedings of the Twenty-Third Annual SAS Users Group International Conference. (pp. 1330-1335). Cary, NC: SAS Institute
- Sayers, Dave M. (1996). "Satisfaction evaluation of milk handlers by Southern U.S. dairy farmers." *Journal of Agricultural and Applied Economics*, v. 28, iss. 2, pp. 313-21
- Schrader, L.F., E.M Babb, R.D Boynton, and M.G Lang. (1985). *Cooperative and proprietary Agribusiness: Comparison of performance*. Agricultural Experimental Bulletin 982. West Lafayette, Ind.: Purdue University. April.
- Schiferl, E.A., and r. D. Boynton. (1983). "A comparative performance analysis of New Wave food Cooperatives and Private Food Stores." *The Journal of Consumer Affairs*. 17 (2)
- Scot Mackenzie. (1986). "The role of attention in mediating the effect of advertising on attribute importance." *Journal of Consumer Research* (13).pp. 174-95.

- Timothy J Richards, K.K. Klein, and A Walburger. (1998). "Principal-Agent Relationships in agricultural Cooperatives: An empirical Analysis". *Journal of Cooperatives*
- Verdurme, Annelies; and Viaene, Jacques. (2003) "Consumer Beliefs and Attitude towards Genetically Modified Food: Basis for Segmentation and Implications for Communication". *Agribusiness*, (19), iss. 1, pp. 91-113.
- Ward, Jeffrey Dean, (1995). *Performance of Cooperatives in Northern Thailand. A case study of Sanpatong and Hangdong Cooperatives*. Ottawa: National Library of Canada.
- Wadsworth, James J. (1991). "An Analysis of Major Farm Characteristics and Farmers' Use of Cooperatives." *Journal of Agricultural Cooperation*. 6: 45-53.