

**Organizational Characteristics and Member Participation
in Agricultural Cooperatives:
Evidence from Modern Danish Cooperatives**

Christina V. Laursen^{*}, *Kostas Karantininis*[#], *Sanjib Bhuyan*[§]

^{*} Researcher, Danish Advisory Center. cvl@hflc.dk

[#] Professor, FØI, LIFE, University of Copenhagen, Denmark: kok@life.ku.dk

[§] Associate Professor, Dept of Agricultural, Food & Resource Economics
Rutgers University: bhuyan@AESOP.Rutgers.edu

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Christina V. Laursen, Kostas Karantininis, and Sanjib Bhuyan

Introduction

Denmark is one of the most prosperous countries in the EU. Its per capita GDP was \$34800 in 2005, which was 22% above the EU average and about 16% below the US average at that time (OECD). Denmark also had good growth performance in the nineties when its GDP grew 2.5% per annum compared to EU's 1.9%. Denmark is also home to several large farmer-owned agricultural cooperatives that cross the national boundary, e.g., Arla Foods, a Danish-Swedish dairy cooperative. Agricultural cooperatives in Denmark deal with all aspects of food production, processing and distribution. All, Danish farmers are members at one or more agricultural cooperatives. This is a general Danish phenomenon (in 2000, every Dane between the age of 17-70 belonged to at least 3 voluntary organizations (Campbell and Hall, 2005)). All these cooperatives are represented by their trade group, the Federation of Danish Cooperatives.

Member participation in cooperatives has always been an important issue in both Europe and the U.S.A. (e.g., Fulton and Adamowicz, 1993; Hakelius, 1996; Gray and Kraenzle, 1998; Birchall and Simmons, 2004; Bhuyan, 2004). This is because members are a vital part of any cooperative organisation and their active participation in and loyalty to a cooperative's business is integral for the success of the cooperative (Hakelius, 1996). Sexton and Iskow (1998) showed that one of the reasons for cooperative failure is the lack of member patronage, as well as poor management. Not surprisingly perhaps, in Denmark the debate of active ownership in cooperatives by members, meaning member participation in a cooperative's democratic process, has been a very hot topic in the last decade. The Federation of Danish Cooperatives has recognized this as an important issue for its member cooperatives and their well-being, and has been regularly discussing this issue in their cooperative conferences and articles in their newsletter since 1999.

The Theory of Planned Behaviour

The Theory of planned Behaviour (TPB), developed by Fishbein and Ajzen (1975), forms the theoretical framework of this study (Also: Aizen and Fishbein, 2000; Aizen, 1991, 2002). This is a psychological approach to investigate human behaviour, and is based on the assumption that it is possible to predict human behaviour based on empirical data. The TPB focuses on behaviour in specific contexts, and hypothesizes that not only attitudes, but also subjective norms and perceived behavioural control affect people's intention, which in turn affects their behaviour.

As mentioned, attitudes, subjective norms and perceived behavioural control lead to the formation of behavioural intention. Generally it is expected that the more favourable the

attitude and the subjective norm is toward the behaviour, and the stronger the perceived behavioural control, the stronger is the person's intention to perform the behaviour in question. Assuming that a person has sufficient actual control over his/her behaviour, intention is the immediate predecessor for behaviour (Ajzen and Fishbein (2000), p. 14). The perceived behavioural control can act as a proxy to the actual control, if the respondent is realistic in the judgement of the difficulties in performing a certain behaviour.

Beliefs provide the basis for attitudes, subjective norms and perceived behavioural control. A person's beliefs about a specific object are formed by associating it with certain attributes, this can be information, experience and other persons' experience with other objects, characteristics or events (Ajzen (1991), p. 191). Behavioural beliefs influence the attitudes toward a specific behaviour, normative beliefs constitute the determinants for the subjective norms and control beliefs are the basis for perceptions for behavioural control (Ajzen (1991), p. 189).

Fishbein & Ajzen (1975) suggest that instead of measuring broad attitudes, the focus should be on specific attitudes toward the specific behaviour. An example is recycling of paper. Instead of asking the respondents of their attitudes toward protecting the environment, they should be asked about their attitude towards recycling of paper (Ajzen & Fishbein, 2000, p. 13). Attitudes are formed by the person's beliefs about the likely consequences of the behaviour (behavioural beliefs). The behavioural beliefs that a person has developed induce a favourable or unfavourable attitude toward the specific behaviour. It is important to distinguish between beliefs and attitudes. Beliefs are defined as a subjective probability that a certain object has a certain attribute. In Fishbein & Ajzen's sense "object" refers to the behaviour that the attitude is directed towards and "attribute" refers to the consequences of the behaviour. An example is that a person may believe that physical exercise (the object of the attitude) reduces risk of heart disease (the attribute) (Ajzen & Fishbein (2000), p. 4). Attitudes on the contrary are measured as a bipolar continuum of positive or negative evaluations of the consequences that certain behaviour is believed to have (Ajzen (1991), p. 193). Thus people learn to generate positive attitudes toward behaviours that have desirable consequences and negative attitudes toward the behaviours with undesirable consequences (Ajzen (1991), p. 191).

Normative beliefs address the probability of important referent individuals approving or disapproving certain behaviour. The strength of this belief multiplied with the response person's motivation to comply with the referent person is directly proportional with the subjective norm. Referent persons have in previous studies been friends, parents, spouse, siblings and other family members etc. (Ajzen (1991), p. 195).

Control beliefs are based on experiences with behaviour, but are often also influenced by second-hand information. Together with the person's beliefs of their own possession of resources and opportunities, and anticipations of obstacles and impediments, the number of control beliefs that a person possesses leads to the perceived behavioural control (Ajzen (1991), p. 197).

The Danish cooperatives of this study

Arla Foods

Arla Foods a.m.b.a. is a Danish/Swedish dairy cooperative, it was formed in 2000 by a merger between the Swedish Arla ek. För. and the Danish MD Foods a.m.b.a. Arla is the only cooperative in this analysis that has non-Danish members: 11,605 dairy

farmers, 5,728 in Sweden and 5,877 in Denmark. Arla Foods, employs 20,855 people throughout the world. The turnover in 2003-04 was 47,608 million DKK, where 59% came from outside Denmark and Sweden. The residual earnings of the company were 1,019 million DKK, and 586 million DKK was paid as residual payments to the owners, the rest was used as consolidation.

The members are organised in 60 districts, 25 in Sweden and 35 in Denmark (Arla Foods, 2003). There are between 100-300 members in each district. The districts are led by District Councils (DC). The district chairman and vice chairman are responsible for the activities in the district. The size of the DC is depending on the number of cooperative members in the district. The members can elect one DC member for each beginning 25 members in the district. The ordinary district meeting is also the forum for election of members to the DC and the BoR. Election takes place by written notification, and is done by the order of priority as prescribed by the Federation of Danish Cooperatives. This election method is common in elections of members to the company organs, and is used in other cooperatives as well. The procedure of the method is first a round of proposals, where the members by written notification can propose candidates to the DC. After that each member writes the names of the persons that he wishes to have in the DC in the order, where number one is his first choice. After the election of the DC, there is the election of district chairman and vice chairman, and in the same election the district members to the Board of Representatives (BoR). This election is also made by the order of priority, where the first to get the number of distribution, becomes chairman, the next becomes vice chairman, and if needed the following becomes members of the BoR. The district chairman is automatically member of the BoR.

The BoR decides how much of the residual earnings should be used as consolidation and how much should be paid as residual payments to the farmers, according to recommendations from the BoD (Arla Foods, 2003 § 22). In the years that Arla Foods is operating, has been distributing about 50%-60% of its residual earnings back to the members.

Danish Crown

Danish Crown is a national slaughterhouse cooperative. 18,253 farmers own Danish Crown, and the company has 23,948 employees. The company had a turnover of 44,370 million DKK in 2003-04. The residual earnings in 2003-04 were 1,261 million DKK. The debt ratio is 16.1%. Danish Crown slaughters both pigs, cattle and sheep, and processes a large share of the carcasses both in Denmark and abroad.

The 18,253 cooperative members are organised in 36 districts, 24 pig and sow producer districts and 12 cattle producer districts. The district boards follow the municipal borders. There are between 268 and 568 members in the pig-producer districts and between 562 and 963 members in the cattle districts (Danish Crown (2005)). The member districts are the forums for communication of information and questions between the BoD and the members. If a subject needs to be discussed in a district, it is possible to call into a meeting independent of the situation in the other districts (Interview, Niels Mikkelsen, Danish Crown, 2005). The districts are also forums of election of members to the BoR in Danish Crown. But the districts have no independent function in the decision-making. The member districts are divided into six electoral assemblies I-VI, where I-V are pig and sow producers and VI are cattle producers. The electoral assemblies consist of the elected members of the BoR, and these assemblies have the objective to elect the members of the company BoD (Danish Crown, 2002, pt. 11). Each electoral assembly elects three members to the BoD, and the reason why it is done in this way is for the members of the BoR in the electoral assembly can get to

know more than one member of the BoD and their opinions, and thereby have better preconditions to elect the ones they trust (Interview, Niels Mikkelsen, Danish Crown, 2005).

The member districts have two ordinary meetings a year. Usually the first ordinary district meetings are held in December, following the accounting year, which is held no later than two months after the ordinary meeting in the BoR. The second ordinary district meetings are held in June (Danish Crown 2004b, p. 14). A special characteristic of Danish Crowns district meetings in December is that the chairman of the BoD, and the Chief Executive Officer (CEO) participates in all the district meetings in the pig and sow producer districts. In the cattle districts it is the chairman of the cattle committee and the manager of the cattle division. The topics of the ordinary district meetings are the chairman's report of the company activities, the CEO's review of the annual report and company accounts. Furthermore the members have the opportunity to ask questions to the chairman and the CEO about the company activities and accounts, and suggestions from the members can be discussed. The ordinary district meetings are also the forums of election to the BoR. Members are elected for three years, so elections are only held every third year. Suggestion of candidates to the BoR and election is made by written notification, and is done by the order of priority according to the election rules defined by The Federation of Danish Cooperatives (Danish Crown, 2002, pt. 9.12.1). The BoR decides how the division into districts and electoral areas is made.

After recommendations from the BoD, the BoR decides how much of the residual earnings should be paid to the members in residual payments. The residual payment is divided among the members according to the deliveries of each member. There can be differentiated between the different product categories, and the residual payment is calculated as an amount per kilo of meat delivered. Members of Danish Crown have been receiving more than 90% of the residual earnings on average.

DLG

Dansk Landbrugs Grovvarereselskab a.m.b.a (DLG) is the largest farm supply cooperative in Denmark. The turnover of DLG was 13,796 million DKK in 2004 and the annual income was 79.7 million DKK. The debt/equity ratio of the company is 23.4%. DLG has 28.692 members divided into 8 member categories (DLG 2004a, p. 12). Contrary to the other two cooperatives DLG is a supply cooperative, and the members are not in the same sense obliged to do all their grain, feed and fertilizer trading with DLG as is the case with the other two companies. The opportunities to trade with other than the company, which the farmer is a member of, is also to a larger extent utilized in DLG than in the other cooperatives (Laursen (2005)).

The democratic organisation is formed on the same base as Arla Foods and Danish Crown, but there are some important differences, which is seen in the bylaws. This is mainly concerning the districts. The districts are divided according to the local retail stores. The individual retail store decides for itself the geographic area that it finds ideal for its district. Therefore there are large differences in the size of the districts, and number of members in each district. Every district arranges an ordinary general assembly every year as soon as possible after the BoR has approved the annual account of the company and before May 1 (DLG (2004), § 12). DLG has 23 member districts/retail stores with between 126 and 2367 members.

DLG has 7 types of membership, where type A and B is the most important. All the members of the categories A, C and E have the rights to participate and vote in the general assembly in their own districts. On the ordinary general assembly the statement of the company and district is held, and the company's annual account and the annual

activities of single retail store is presented. Thirdly the election to the district board (DB) is held. At the general assembly the number of members in the district board is decided, between 5-11 members. The members are normally elected for a two-year period, but in certain circumstances the DB can decide to have one-year periods instead. The cooperative members in the district elect 5-9 members, while the employees can be offered to elect two members, one for the manual workers and one for the staff. If elections are for a two-year period, half of the DB departs every year. The DB elects among themselves a chairman and a vice-chairman (DLG 2004, §§12-13). The DB has some competences concerning the local retail store.

As requested in the bylaws, DLG must set aside 50% of the surplus to consolidation, if the debt/equity ratio of DLG is below 40%. 4/5 of the consolidation is put into the reserve funds of the company, and 1/5 is put into the reserve funds of the retail stores. If the debt/equity ratio is above 40%, 30% of the surplus is used as consolidation, and 2/3 goes to the company and the rest goes to the retail stores. The rest of the surplus is divided among the members as residual payments. Half of the surplus is divided according to each member's trade with DLG regardless of the surplus of the retail store, which the member is trading with, and the other half is divided to the retail stores on basis of the surplus of the retail store. The local DB decides how much of the surplus to use as consolidation and how much to use for residual payments (DLG, 2004 § 10). The BoD formulates recommendations how to divide the surplus according to the trade with DLG. The BoD thereby encourages that the residual payment is the same in the whole country, but the local departments are not obligated to follow this recommendation. The reason for this is that there are very large regional differences between the retail stores, what they get the largest part of the turnover from, so it is accepted that there are differences in the residual payments (Interview, Niels Skadhauge, DLG, 2005).

Hypotheses

Based on the theory, our conceptual model can be illustrated in Table 1.

This leads us in the formulation of the following hypotheses:

H1: *The democratic structure in the cooperative has an influence on the members' satisfaction with the cooperative and their participation in the democratic process.*

H2: *The economic relations between the cooperative and its members have influence on the members' satisfaction with the cooperative and their participation in the democratic process in the cooperative.*

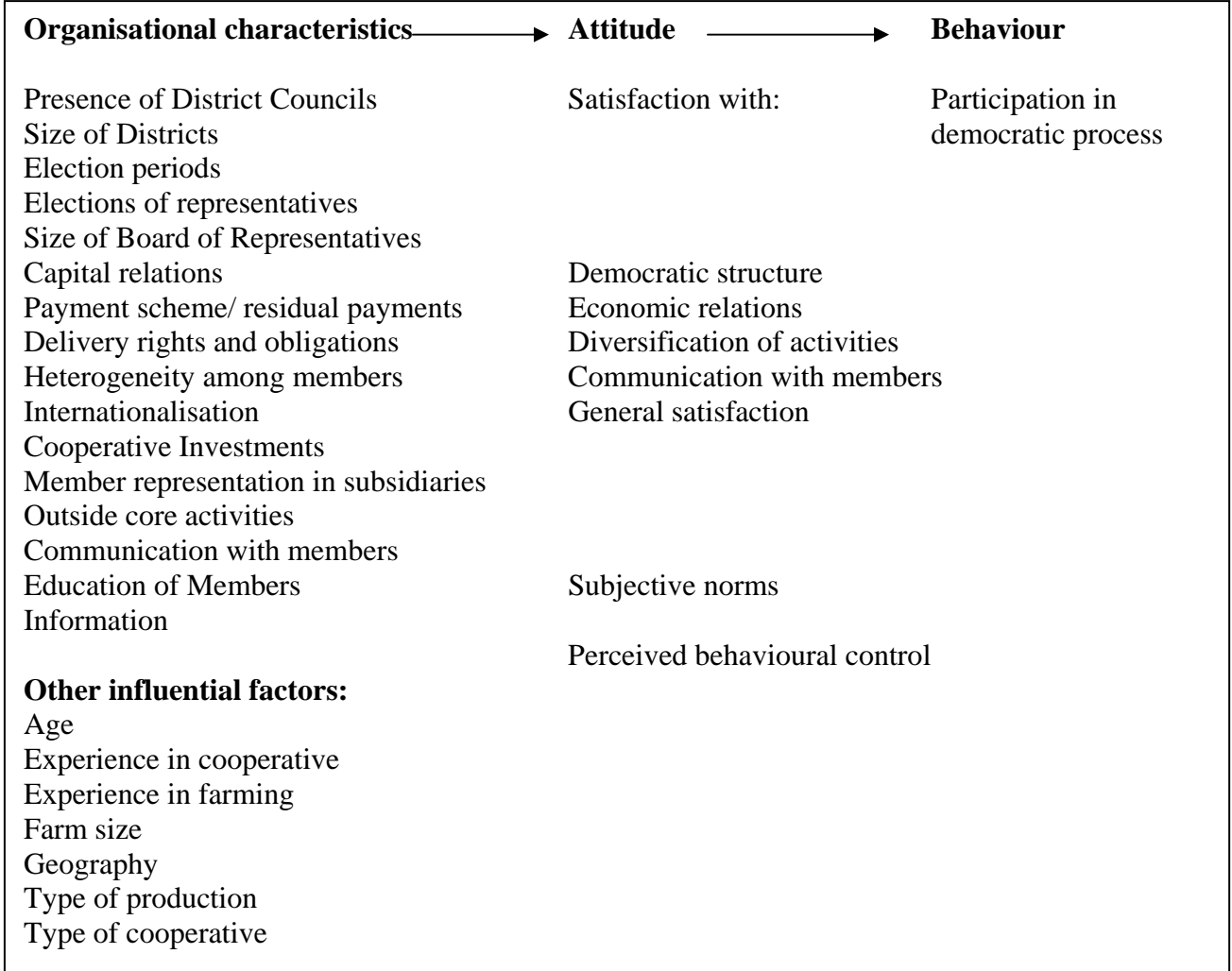
H3: *Diversification of the cooperative business activities into other branches and countries has an influence on the members' satisfaction with the cooperative and their participation in the democratic process in the cooperative.*

H4: *The cooperative's communication with and education of the members has an influence on the members' satisfaction with the cooperative and the participation in the democratic process in the cooperative.*

H5: *The dependency of the success cooperative will increase the participation in the cooperative decision making process.*

H6: *The opinion of family and friends has influence on the member's participation in the democratic process.*

H7: *The other commitments that the member has, have influence on his participation in the democratic process.*



Sample Characteristics

First it is relevant to see, how the members in the sample are spread over the three cooperatives. In Table 2 the distribution of membership of cooperatives is presented. The problem with multiple memberships is showed to be very widespread through the sample, since only 4.2% are members of Arla Foods only, 10.7% are members of Danish Crown only, and 28% are members of DLG only. Thus only 42.9% of the sample has only one membership of a cooperative, while the rest have more than one membership. 9.5% of the respondents were members of all three cooperatives, and 3.6% were members of the three and other cooperatives. In order to deal with the problem of multiple membership, and to be able to distinguish the member attitude toward the one cooperative rather than the other, the respondents were asked to refer to the cooperative they identified themselves most with concerning their production. The results of the cooperatives that the members identified themselves most with are presented in Table 3.

As shown in Table 3 the most frequently chosen cooperative is DLG, since 39.9% of the respondents chose DLG. DLG is also the cooperative with the largest number of members of the three selected cooperatives with 28,859 members. After DLG, Danish Crown is the second most chosen cooperative, with 32.7% of the respondents. But Danish Crown is also the second largest cooperative with 18,253 members. Lastly 26.8% of the respondents chose Arla Foods as their most identified cooperative. With 5,877 Danish members, Arla Foods seem to be over represented in the sample compared to the other cooperatives, and this may be a cause of the multiple memberships, since DLG have all types of farmers as members, and Arla Foods only have one type of members, and those who are members of both Arla Foods and DLG, will feel more

attached to Arla Foods according to their production. Therefore DLG will seem under represented compared to Arla Foods.

Table .2 Which cooperatives are you a member of?

	Frequency	Percent
Arla Foods	7	4,2
Danish Crown	18	10,7
DLG	47	28,0
Arla Foods and Danish Crown	5	3,0
Arla Foods and DLG	8	4,8
Arla Foods and Others	2	1,2
Danish Crown and DLG	30	17,9
Danish Crown and Others	6	3,6
DLG and Others	7	4,2
Arla Foods, Danish Crown and DLG	16	9,5
Arla Foods, Danish Crown and Others	3	1,8
Danish Crown, DLG and Others	13	7,7
Arla Foods, Danish Crown, DLG and Others	6	3,6
Total	168	100,0

Source: Laursen (2005)

Table 3. Which cooperative do you identify most with?

		Frequency	Percent
Valid	Arla Foods	45	26,8
	Danish Crown	55	32,7
	DLG	67	39,9
	Total	167	99,4
Missing	System	1	,6
Total		168	100,0

Source: Laursen (2005)

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Table 4 offers some of the explanation for Arla Foods being over represented in the sample. A large part of the sample respondents are milk producers, 27.4%, while 29.2% are crop producers and 28.6% are pig or piglet producers. According to the Danish statistical bureau only 16% of the Danish farmers are milk producers, 21% are beef cattle producers, 12% of the farmers have sows, 18% have slaughtering pigs and 49% have grain or other crop production (Danmarks Statistik (2005)).¹ Thus in the case of agricultural production the sample is not representative, and this should be noticed when generalising from the results.

Table 4. Agricultural production

	Frequency	Percent
Milk production	46	27,4
Slaughtering pigs	25	14,9
Sows	9	5,4
Sows and slaughtering pigs	14	8,3
Beef Cattle	11	6,5
Veal production	4	2,4
Crop production	49	29,2
Poultry production	2	1,2
Egg production	1	,6
Fur production	1	,6
Mixed production	6	3,6
Total	168	100,0

There was a general tendency, in the process of interviewing, that farmers who had only crop production were often reluctant to answer the questionnaire, and the often-mentioned reason was that they did not consider themselves as cooperative members, even though they were members of DLG, and therefore did not feel qualified to participate in the survey. Often these farmers were only part time farmers, which also explains the low representation of part time farmers compared to full time farmers, which is showed in Table 5 below. Since part time farmers often are only crop

¹ Please note that some farmers are represented in more than one category, because they have mixed production, for instance sows and slaughtering pigs. Therefore adding the percentages it is more than 100%

producers, it gives a sound explanation to the low representation of crop farmers in the survey. According to FOI, 47.22% of the Danish farmers were full time farmers and 52.78% were part time farmers in 2003. Since the distribution in the sample is 77.4% full time farmers and 22.6% part time farmers, the sample does not seem representative in this matter. This may not only be due to sampling error, there seem to be a tendency that membership of cooperatives is not as widespread among part time farmers as among full time farmers (Laursen (2005), survey observations).

Thus it cannot be determined from comparing the results of the survey to the information from Danmarks Statistik, if the survey is biased by sampling error.

Table 5. Farm occupation

	Frequency	Percent
Part time farmer	38	22,6
Full time farmer	130	77,4
Total	168	100,0

Source: Laursen (2005)

Participation

Table 6 shows that over half of the respondents never or rarely participate in the district meetings, while less than 40% participates often or always. But as it is mentioned in chapter 5 there are large differences in the member participation between the three cooperatives. In table 7 the differences are presented.

Table 6. Participation in district meetings

	Frequency	Percent
No, never	70	41,7
Yes, but rarely	16	9,5
Yes, sometimes	21	12,5
Yes, often	30	17,9
Yes, always	31	18,5
Total	168	100,0

Source: Laursen (2005)

Table 7 shows that Arla Foods has the largest participation rate in the district meetings. 51.1% of the respondents who are Arla Foods' members participate always or often, while only 40% of Danish Crown's and only 23.9% of DLG's respondents participate regularly. Looking at the correlation coefficient², the Cramer's V³ test show that there

² The correlation coefficient lies between 0 and 1 for positive correlations, and between -1 and 0 for negative correlations. The closer the correlation coefficient is to 1, the better the correlation.

is a weak correlation between which cooperative the member identifies himself most with and the participation rate, of 0.165, but the Pearson's Chi-Square significance level show that there is a 5.9% probability that the correlation is due to sampling error. This is an interesting observation in connection to Hypothesis H5, which we discuss later in this paper.

Table 7. Participation in district meetings. By cooperative

		Never or rarely	Some times	Often or always	Total
Arla Foods	Count	18	4	23	45
	%	40,0	8,9	51,1	100,0
Danish Crown	Count	26	7	22	55
	%	47,3	12,7	40,0	100,0
DLG	Count	41	10	16	67
	%	61,2	14,9	23,9	100,0
Total	Count	85	21	61	16
	%	50,9	12,6	36,5	100,0

Source: Laursen (2005)

Member's Satisfaction with Cooperative

The survey shows that most of the cooperative members in the three largest Danish cooperatives are generally satisfied or partly satisfied with their cooperative. Figure 1 shows that 29% are satisfied and 48% are partly satisfied with their cooperative in general. Only 13% are partly dissatisfied and 8% dissatisfied with their cooperative.

In order to measure the members' satisfaction with their cooperative concerning members' satisfaction with the democratic structure, the economic relations, the diversification or the communication in their cooperative, we developed four corresponding indices. The reason for creating an index instead of characterising all the variables is primarily that there are 21 variables of member satisfaction. The index is created by adding the number of variables that is assumed to cover each of the four hypotheses formulated. The categories *Satisfied* and *Partly Satisfied* have been added and given the value 1, as well as the categories *Partly Dissatisfied* and *Dissatisfied*, are given the value 3. The category *Have no opinion* has been given the value 2. When the variables are added into the index, the lowest value represents the least satisfied, and the highest value represents the most dissatisfied.

³ The Cramer's V test is used, because the independent variable is nominal, (de Vaus (1996), p. 166-168).

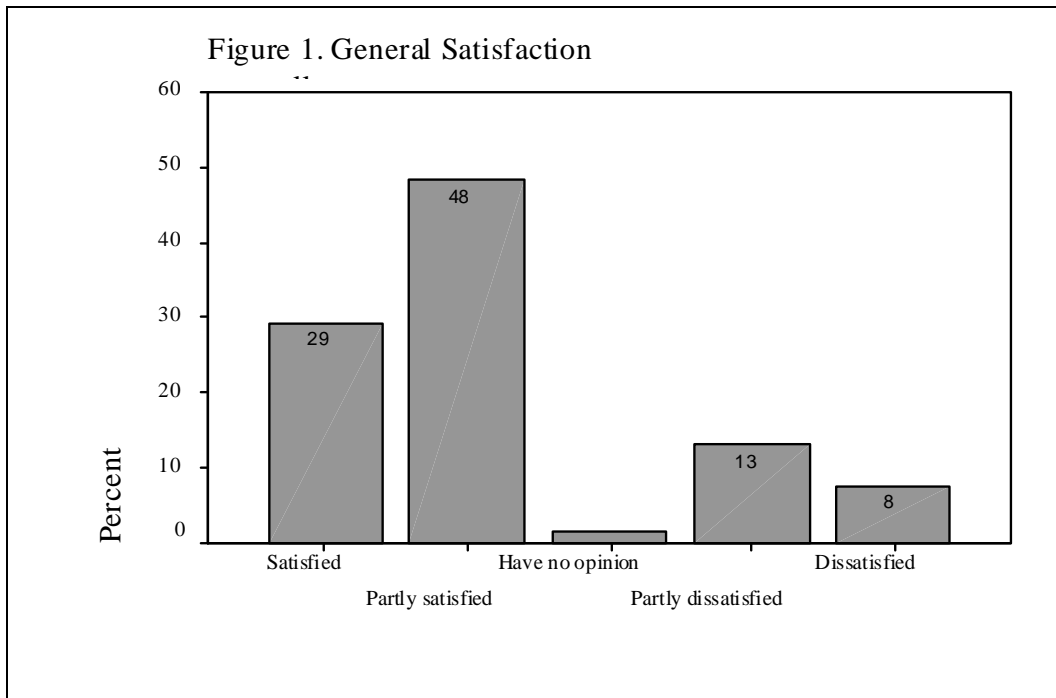


Figure 2 illustrates the distribution of member satisfaction with the democratic structure in the cooperatives. Since the organisational characteristic contains 6 variables (Satisfaction with presence/absence of district councils, Satisfaction number of tiers, Satisfaction number of members in districts, Satisfaction with length of election periods, Satisfaction with number of members in BoR and Satisfaction with election procedure to BoR), the lowest value is 6, and this represents the value of the members who are either satisfied or partly satisfied in all the 6 variables. They are the most satisfied members. The highest value 18 represents the members who are dissatisfied or partly dissatisfied in all 6 variables. But in Figure 2 the highest value of the index is 14, which means that no members are dissatisfied in all the variables. The problem with the index is obviously that a lot of information is removed, since we cannot tell, which variables the members are more dissatisfied with, or what the numbers between 14 and 18 means. The value 12 is the mean value, and this can mean that the member have no opinion about all the variables, but it can also mean that he is dissatisfied in half and satisfied in the other half of the variables. But having this in mind, the index gives a quick overview, and saves time and space for the reader. To compensate for the loss of information the frequencies of each variable are presented in Appendix 6 without comments. But the index does not leave us empty handed of information. It shows that 27% of the respondents are satisfied or partly satisfied in all the variables, and 83% are more satisfied than dissatisfied with the democratic structure in their cooperative. Furthermore only 9% are more dissatisfied than satisfied.

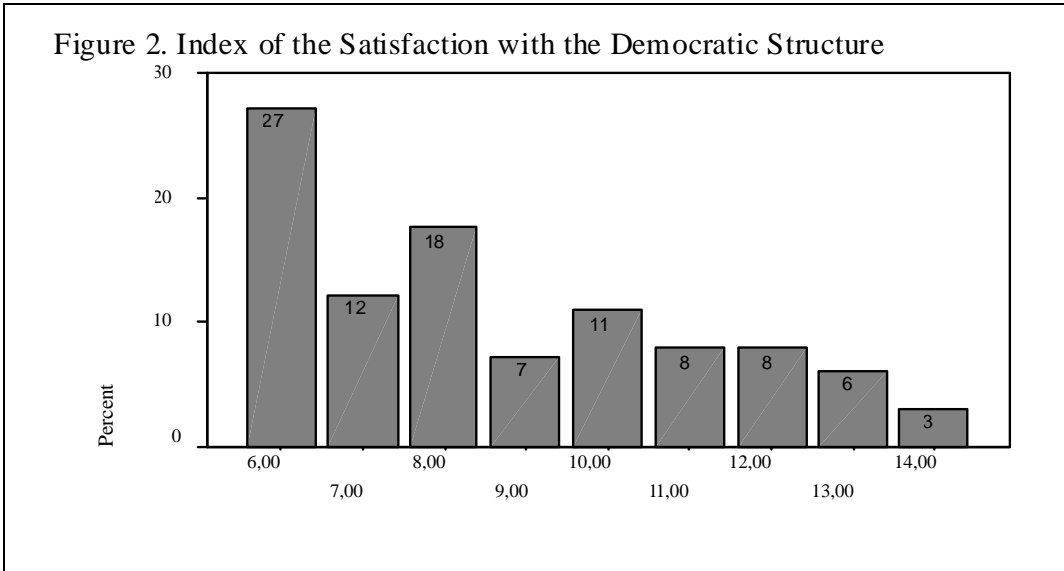


Figure 3 presents the index of member satisfaction with the economic relations that they have with their cooperative. This index contains 5 variables (Satisfaction with capital model, Satisfaction with price, Satisfaction with use of residual earnings, Satisfaction with division of residual payments and Satisfaction with delivery obligations). This means that the value for the most satisfied member is 5 and the value for the most dissatisfied members is 15. The index shows that less than 1% of the respondents are dissatisfied or partly dissatisfied with all the economic relations with their cooperative, but 22% of the members are satisfied or partly satisfied with all the economic relations that they have with their cooperative. Since the median is the value 10 the index also shows that 74% of the respondents are more satisfied than dissatisfied with the economic relations with their cooperative, and less than 22% are more dissatisfied than satisfied.

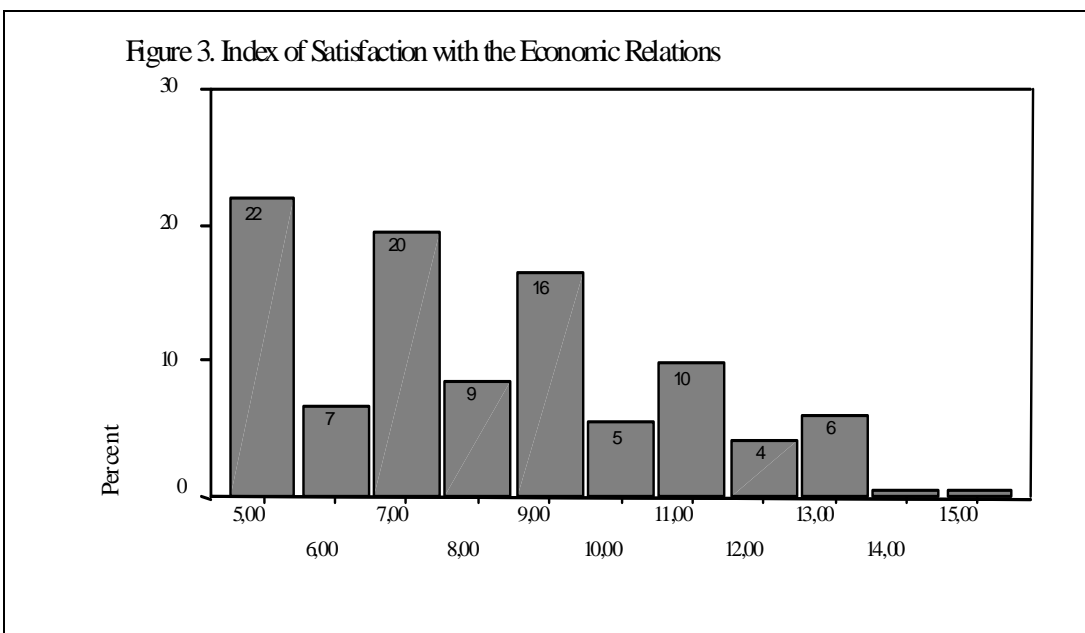
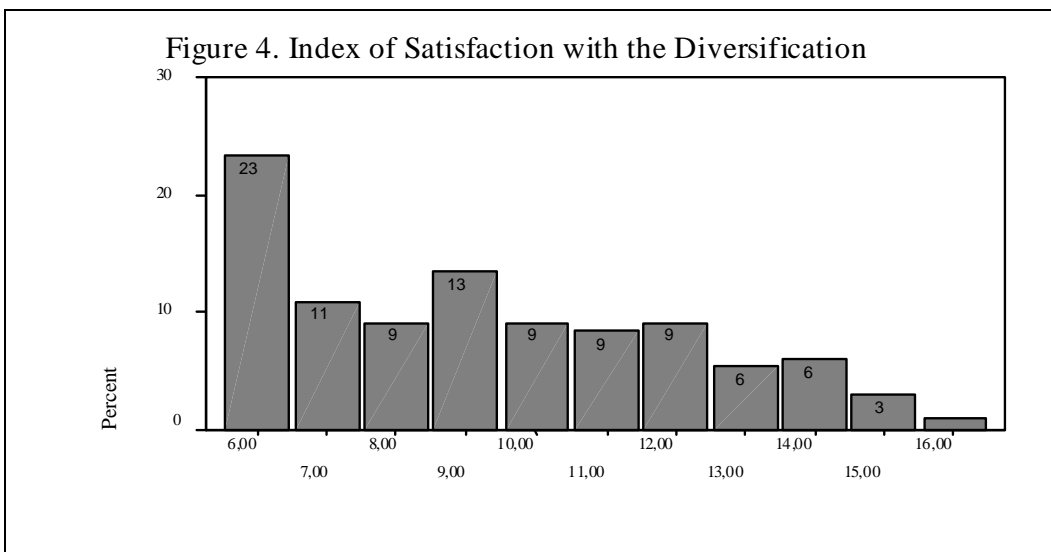
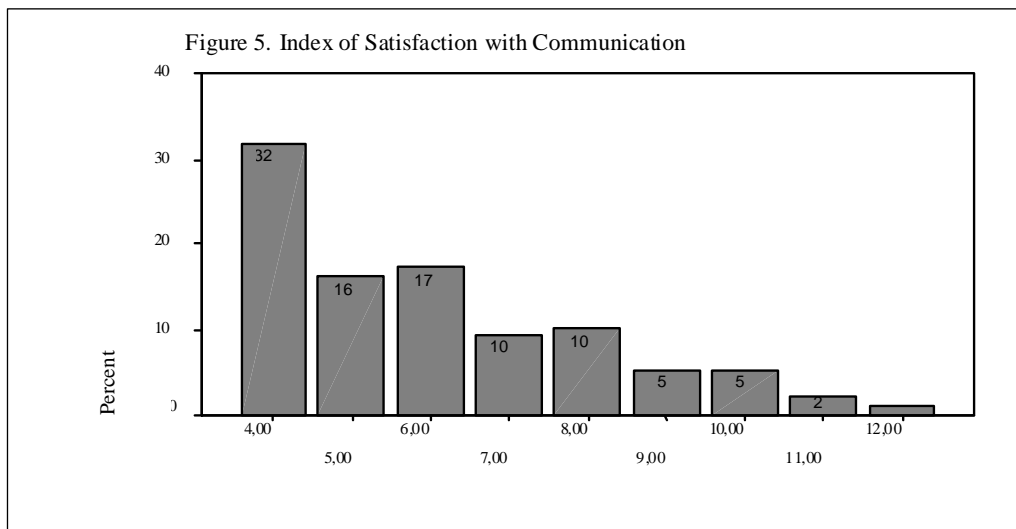


Figure 4 presents the member satisfaction with the diversification of cooperative activities that the cooperatives have made. Since there are 6 variables forming this organisational characteristic (Satisfaction with different producer types, Satisfaction with international activities, Satisfaction with foreign members, Satisfaction with investments in other branches, Satisfaction with stock based subsidiaries and satisfaction with representation in subsidiaries), the lowest value representing the most satisfied members is 6 and the highest value representing the most dissatisfied members is 18. Again no respondents are dissatisfied or partly dissatisfied in all the variables, and only 17% are more dissatisfied than satisfied with the diversifications into other businesses that their cooperative has made. 23% are satisfied or partly satisfied in all the variables, and 74% are more satisfied than dissatisfied.



The last index in figure 7.5 presents the members' satisfaction with the communication between the members and the cooperative. This index has only 4 variables (Satisfaction with information, Satisfaction with reactions from elected, Satisfaction with education of members and Satisfaction with possibilities of influence). Thus the lowest value, representing the most satisfied members is 4 and the highest value representing the most dissatisfied members is 12. The tendency from the earlier indexes seems to continue. 32% of the respondents are satisfied or partly satisfied in all the variables, and 75% are more satisfied than dissatisfied with the communication between the members and their cooperative. Less than 2% are dissatisfied or partly dissatisfied in all the variables and only 14% are more dissatisfied than satisfied.

Table 8 present this. As it is seen DLG has the most satisfied respondents. 83.6% of the respondents in DLG are satisfied or partly satisfied, while only 14.9% are dissatisfied or partly dissatisfied. Arla Foods is close to DLG with 82.2% satisfied or partly satisfied respondents and 15.6% dissatisfied or partly dissatisfied. Danish Crown is last with only 65.5% satisfied or partly satisfied respondents and 32.7% dissatisfied or partly dissatisfied. There is a probability of 13.7% of sample error in the calculated Pearson's Chi-Square.



Source: Laursen (2005)

Table 8. Satisfaction generally. By Cooperative

		Satisfaction general				
		Satisfied or satisfied	Have no opinion	Partly dissatisfied	Total	
cooperative	Arla Foods	Count	37	1	7	45
		%	82.2	2.2	15.6	100.0
	Danish Crown	Count	36	1	18	55
		%	65.5	1.8	32.7	100.0
	DLG	Count	56	1	10	67
		%	83.6	1.5	14.9	100.0
Total	Count	12	3	35	16	
	%	77.2	1.8	21.0	100.0	

Source: Laursen (2005)

Summary and Conclusions

Generally the cooperative members from the two producer cooperatives Arla Foods and Danish Crown participate more than members of the supply cooperative DLG. The analysis also revealed that the members of the three cooperatives generally are satisfied or partly satisfied with their cooperative, especially Arla Foods and DLG have more than 80% satisfied or partly satisfied members, whereas Danish Crown only has 60% satisfied members.

Comparisons of satisfaction with cooperatives and participation in the democratic process are often made between large cooperatives and small cooperatives, but this gives a biased picture, and the participation in the large cooperatives will look unsatisfactorily low compared to the participation in the smaller ones. Comparisons with participation in IOFs will also give a biased picture, because shareholders are not in the same way dependent of their investments in the IOF as members in a cooperative.

To be able to compare cooperatives of equal size, similar organisational characteristics and similar cultural background, this study compares the three largest Danish cooperatives.

Studying the influence of member satisfaction with the organisational characteristics on member participation in the democratic process there has been chosen a psychological theoretical approach Fishbein and Ajzen's theory of Planned Behaviour. This theory assumes that attitudes toward a specific behaviour together with subjective norms and perceived behavioural control influence a person's behaviour. But since this approach is not directed towards cooperatives, it is supported by Hakelius, Bhuyan and Utterstroem, who analyse the influence of member attitudes toward cooperatives on member participation in cooperatives, as they focus on organisational characteristics.

The organisational analysis of the three cooperatives, Arla Foods, Danish Crown and DLG revealed some of the differences in the organisational characteristics between them. The empirical analysis has studied the member satisfaction with the organisational characteristics that differ between the cooperatives, in order to investigate the reasons for the large differences in member participation in the democratic process.

As the theoretical approach prescribes, the empirical data collection method has been a survey made of a questionnaire with closed-ended questions. The survey has been made by participation of a representative sample of Danish farmers who are members of at least one of the three cooperatives. The results of the survey should though be interpreted with care, because the response rate is below 60%, and there are differences in the response rates throughout the subgroups concerning geographical representation, farm size and farm occupation.

Having this in mind, the empirical analysis showed that satisfaction with the democratic structure has a positive influence on member participation in the district meetings, in the case of Arla Foods and Danish Crown. This can be interpreted as following: members who are satisfied with the democratic structure tend to participate more in the democratic process. Members who are satisfied with the economic relations that they have with their cooperative also seem to participate more in the democratic process, since the analysis showed a strong positive correlation between members' satisfaction with the economic relation and their participation in the district meetings. Thirdly members who are satisfied with the diversification of activities of their cooperative are likely to participate more in the democratic process. On the other hand there is no strong evidence that members who are satisfied with the means of communication with their cooperative are likely to participate more in the democratic process, since the hypothesis is only supported in the case of Danish Crown.

Total dependency of the cooperative seem to have an influence on the members' satisfaction with their cooperative and their participation in the democratic process, but the result of the analysis is only reliable for total dependency.

On the contrary members of cooperatives are not much affected of the opinion of their family and friends, concerning participating in the democratic process. They see it as their own decision whether they want to participate or not. More members believe that they are affected by their other commitments, on participating in the democratic process, but testing for the correlation, it is only moderate, and the results were not reliable.

Summarising this study has showed that member satisfaction with the two categories of organisational characteristics, Democratic structure and Diversification of cooperative activities has showed to have the strongest influence on participation in the democratic

process. Taking the precautions of the opportunities for generalising on the background of this study, it seems that the cooperative leaderships in the modern Danish cooperatives should have this in mind in their decision-making. But the study also showed that the majority of the members in the three cooperatives are satisfied with their cooperatives

References

AJZEN, ICEK (1991): "The Theory of Planned Behavior. Organizational Behavior and Human Decision Processes" vol. 50, pp.179-211 (1991)

AJZEN, ICEK (2002): Constructing a TPB Questionnaire: Conceptual and methodological Considerations. September 2002

AJZEN, ICEK and MARTIN FISHBEIN (2000): Attitudes and the Attitude-Behavior Relation: Reasoned and Automatic Processes. Published in W. Stroebe and M. Hewstone (Eds), European Review of Social Psychology.

ALBÆK, SVEND and CHRISTIAN SCHULTZ (1997): One Cow, One Vote?. Scandinavian Journal of Economics 99(4), pp. 597-615, 1997

ANDELSBLADET (1999): Various Issues

BHUYAN, S. 2004. "The "People" Factor In Cooperatives: Does Members' (Negative) Attitude Affect Their Participation?" Paper presented at the Principal Paper session entitled "What's Happening in the Cooperative Sector?" at the 2004 Canadian Agricultural Economics Society (CAES) annual meetings, Halifax, Nova Scotia, Canada, June 20-23, 2004.

BIRCHALL, J. & SIMMONS, R. 2004. What motivates members to participate in cooperative and mutual businesses? A theoretical model and some findings. Annals of Public and Cooperative Economics, 75(3): 465-495.

BOGETOFT, PETER AND HENRIK BALLEBYE OLESEN (2000): Afregning i Andelsselskaber - Teoretiske modeller og praktiske eksempler fra slagterbranchen. DSR Forlag 1st edition

BURNS, ALVIN C AND RONALD F. BUSH (2003): Marketing Research. Prentice Hall, International Edition, 4th Edition

CAMPBELL J.L., AND J.A. HALL. 2004. The State of Denmark. In Campbell J.L., and J.A. Hall. And O. Pettersen (eds) "National identities and varieties of capitalism". McGill Queen's Press.

CHADDAD, FABIO R. AND MICHAEL COOK (2003): The emergence of Non-Traditional Cooperative Structures: Public and Private Issues. Paper presented at the NCR-194 Conference. October 2003

- CHADDAD, FABIO R. AND MICHAEL COOK (2003): Understanding New Cooperative Models: An Ownership-Control Rights Typology. Review of Agricultural Economics, Volume 26, Number 3 pp. 348-360
- COOK, MICHAEL L. (1995): The Future of U.S. Agricultural Cooperatives: A Neo-Institutional Approach. American Journal of agricultural Economics December 1995, pp. 1153-1159
- DANSK LANDBRUG Various issues
- DE VAUS, D. A. (1996): Surveys in Social Research. UCL Press Limited. Fourth Edition.
- FISHBEIN, MARTIN AND ICEK AJZEN (1975): Belief, Attitude, Intention and Behavior - An Introduction to Theory and Research. Reading, MA: Addison-Wesley
- FULTON, J.R., & ADAMOWICZ, W.L. 1993. Factors that influence the commitment of members to their cooperative organization. *Journal of Agricultural Cooperation* 8:39-53.
- GRAY, T. W. & KRAENZLE, C.A. 1998. *Member participation in agricultural cooperatives: a regression and scale analysis*. Research Report 165, Rural Business-Cooperative Service, United States Department of Agriculture, Washington, D.C., December.
- GRIPSRUD, GEIR ET AL. (2000): Influence Activities in Agricultural Cooperatives: The Impact of Heterogeneity. Paper submitted to "The Food Sector in Transition - Nordic Research" June 2000, Oslo
- HAIR, JOSEPH F. JR. (1998): Multivariate Data Analysis. Prentice Hall, International Edition, Fifth Edition
- HAKELIUS, KARIN (1996): Cooperative Values - Farmers Cooperatives in the Minds of the Farmers. The Swedish University of Agricultural Sciences
- HANSMANN, HENRY (1996): The Ownership of Enterprise. The Belknap Press of Harvard University Press.
- HELLEVIK, OTTAR (1991): Forskningsmetode i sosiologi og statsvitenskap. Universitetsforlaget Oslo, 5th edition 5th issue.
- HENRIKSEN, INGRID (1999): Avoiding Lock-in: Cooperative creameries in Denmark, 1882-1903. *European Review of economic History* 3(1) pp. 57-78. Cambridge University Press, UK
- HENRIKSEN, INGRID AND MORTEN HVIID (2002): Legal institutions and performance. Monitoring agreements in the early Danish dairy sector. Copenhagen July 2002

- ILLIOPOULOS, CONSTANTINE (2003): Long-term Financing in US and European Agricultural Cooperatives: Emerging Methods for Ameliorating Investment Constraints. Paper presented at the NCR-194 Conference. October 2003
- ILLIOPOULOS, CONSTANTINE AND MICHAEL L. COOK (1999): The Efficiency of Internal Resource Allocation Decisions in Customer-owned Firms: The influence Costs Problem. Paper Presented at the 3rd Annual Conference of the International Society for New Institutional Economics, Washington, D.C., September, 1999
- LANDBRUGSAVISEN, Various issues
- MILGROM AND ROBERTS (1992): Economics, Organisation and Management. Prentice Hall
- MORGENAVISEN JYLLANDSPOSTEN Various issues
- NILSSON, JERKER AND SØREN BÜCHMANN PETERSEN (2000): The Traditional Co-operative Model and Beyond - The Case of Danish Crown.
- SEXTON, R., & ISKOW, J. 1988. *Factors critical to the success or failure of emerging agricultural cooperatives*. Giannini Foundation Information Series No. 88-3, Department of Agricultural Economics, University of California – Davis, CA.
- UTTERSTROEM, CARL (1980): Organizational Visions, Ideologies and the Cooperative Myth - A Study of Mergers among Farmer Cooperatives in Sweden. The SLU. Chapter 12.