

Building up active membership in cooperatives

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1. Introduction

Agricultural cooperatives have changed considerably in recent years. They are patron-owned organizations, but in various countries they adopt different government models featuring diverse patronage, residual income and control rights arrangements (Chaddad and Iliopoulos, 2013). Apart from the organizational attributes that each agricultural cooperative adopts, the members' attitudes towards their cooperative also affect several social attributes of a cooperative (Feng and Hendrikse, 2008). One fundamental social attribute is active membership, which is a voluntary contribution of members to the firm. Most notably, it entails an involvement in decision-making processes with a view to enhancing the well-being of the cooperative firm and its members. Therefore, active membership in agricultural cooperatives is crucial for the proper representation of the members, ensuring control rights, and cooperative performance (Barraud *et al.*, 2012).

Abstract

Active membership is crucial for agricultural cooperatives as it engenders better performance. It even is the key for cooperative competitiveness. Active membership, however, decreases in many cooperatives. Thus, it is important to know what galvanizes members to become active members. The cooperative's value and the cooperative's offers motivate some members to become active members, but certainly not all of them. Therefore, more work needs to be done to understand the social attributes that transform members into active members. In this paper the incentives that sustain members' participation over time and the contribution of members' active participation in the cooperative's competitive advantage are studied. Empirical evidence is provided via a questionnaire completed by 241 cooperative members of a Dutch feed supply cooperative and interviews with cooperative experts. Results show that active membership builds on social attributes, such as cooperative culture, open communication, trust, involvement, and the willingness to be active. It is explained that these social attributes create benefits for both the cooperative and its members. Finally, suggestions are presented to stimulate active cooperative membership.

Key-words: agricultural cooperatives, participation, social indicators.

Résumé

Dans les coopératives agricoles, la participation active des adhérents est cruciale car elle assure une meilleure performance. Elle est aussi essentielle pour la compétitivité de la coopérative. Dans beaucoup de coopératives, on assiste cependant à une diminution de la participation active. Il est donc important de questionner les raisons qui incitent les adhérents à s'investir activement. La valeur de la coopérative et les offres de la coopérative sont autant de motivations qui animent certains membres, même si non la totalité. Par conséquent, il est nécessaire d'engager une réflexion pour déterminer les attributs sociaux qui transforment les acteurs coopératifs en des membres actifs. Dans ce travail, nous allons étudier les incitations à coopérer dans la durée et la contribution de la participation active des membres dans l'avantage compétitif de la coopérative. Des indications empiriques sont dégagées d'un questionnaire rempli par 241 membres coopératifs d'une coopérative agroalimentaire hollandaise et des interviews avec des experts coopératifs. Les résultats démontrent que l'adhésion active se base sur des attributs sociaux tels la culture coopérative, la communication ouverte, la confiance, la participation, et la disponibilité à être actifs. Ces attributs sociaux créent des avantages pour la coopérative et ses membres. En conclusion, des suggestions sont présentées pour stimuler la participation active des acteurs coopératifs.

Mots clés: coopératives agricoles, participation, indicateurs sociaux.

Active participation involves the governance, the patron, and the owner role of the members (Hudson and Herndon, 2002; Birchall and Simmons, 2003; Bhuyan, 2007; Osterberg and Nilsson, 2009). Regarding the governance role, active members participate in committees, attend meetings and stand up when something seems to go wrong. In their patron role active members transact with the cooperative and finally, in their owner role they contribute equity capital. The present paper focuses on the governance role of active members.

Three main governance models are adopted by agricultural cooperatives in different countries of Europe regarding the allocation of decision-making functions as well as the formal and real authority (Chaddad and Iliopoulos; 2013). In most agricultural cooperatives of Northern Europe, principals delegate formal authority

to the BoD and professional managers (i.e. extended traditional model). One characteristic of this model is that there is a reduction in member control. In the second governance model, which is present in most Dutch cooperatives, the principals delegate substantial control to cooperative experts (Bijman *et al.*, 2013). The members retain only ex post control rights in case the expert's decisions lead to poor performance (i.e. managerial and corporate gover-

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nance model). In Mediterranean countries, most members delegate decision rights and authority to a small group of member-patrons keeping also ex post control rights in general and regional meetings (i.e. traditional governance model).

Active membership is important for the members in all governance models (Osterberg and Nilsson, 2009). Firstly, it helps members to implement highly efficient controlling and governance mechanisms, especially in large cooperatives (Osterberg and Nilsson, 2009). Secondly, active membership creates an important competitive edge over investor owned firms (IOFs), and consequently adds value for member-customers (Birchall and Simmons, 2003; Bhuyan, 2007). Thirdly, it facilitates a process that can bring about changes in cooperatives that lead to higher levels of benefits and consequently of member commitment (Abrisham, 2011; Barraud *et al.*, 2012). Decreasing active membership, however, is an issue for many cooperatives, especially in large cooperatives with diversified business activities, and large and heterogeneous memberships (Fulton and Giannakas, 2001; Bhuyan, 2007; Osterberg and Nilsson, 2009). According to rational choice theory, people rarely participate in collective action to achieve common targets. They tend to “free ride” unless individual incentives are offered which they expect to exceed their costs of participation. Thus, in cooperatives there is always a risk that member categories fight one another, which results in costs to resolve conflicts and which paralyzes the cooperative. To summarize, it is important to understand the incentives that galvanize members to become active members because of low level of active membership in many cooperatives and because active membership increases the success of the cooperative and its members. Therefore, in this paper we seek to understand the benefits of active membership. The main research questions are the following:

How do social attributes of cooperatives build active membership?

How do social attributes lead to benefits for cooperatives and members?

To answer these questions, firstly a model is presented that identifies social attributes of cooperatives that transform members into active members. Empirical support for this model is provided. Secondly, direct benefits of each social attribute for the individual cooperative member are identified with the help of interviews with cooperative experts. Thirdly, the benefits of each social attribute for the cooperative are identified also with the help of interviews with cooperative experts. Finally, suggestions are discussed to stimulate active cooperative membership.

The paper is structured as follows. Hereafter the theoretical framework is discussed and the model is presented. Then, the methodology is presented and subsequently we discuss results that provide evidence for our model. The last section concludes with implications for academic research and practitioners.

2. Theoretical framework

Members’ participation in the governance of cooperatives is often weak (Fulton and Giannakas, 2001; Osterberg and Nilsson, 2009; Chaddad and Iliopoulos, 2013). The cooperative’s value and the cooperative’s offers motivate some members to become active members, but certainly not all of them. Reasons are the large size of cooperatives and the complexity of business activities as perceived by members. Business strategies of horizontal and vertical integration have created a gap between the members and their cooperatives (Iliopoulos, 2005). Often, interests of some members are not attended to enough. Moreover, there is increasing heterogeneity among members and a wide geographical dispersion (Osterberg and Nilsson, 2009). Consequently members at large do not understand their cooperatives, have little information about them, limited experience with them and thus are alienated from them. Trust between members and their cooperative, but also among members, declines. Members don’t feel proud about their cooperative anymore (Fulton, 1995). This has weakened the cooperative democratic governance (Bhuyan, 2007; Nilsson *et al.*, 2012). Free-riding behavior and refusing to invest in the cooperative are common problems of cooperatives (Osterberg *et al.*, 2009). Ultimately cooperatives have lost their former position as crucial links in value chains (Sergaki, 2006).

Thus it is important to understand what drives members to become active members (Xiang and Sumelius, 2010). A

Figure 1 - Social attributes that build up active membership.

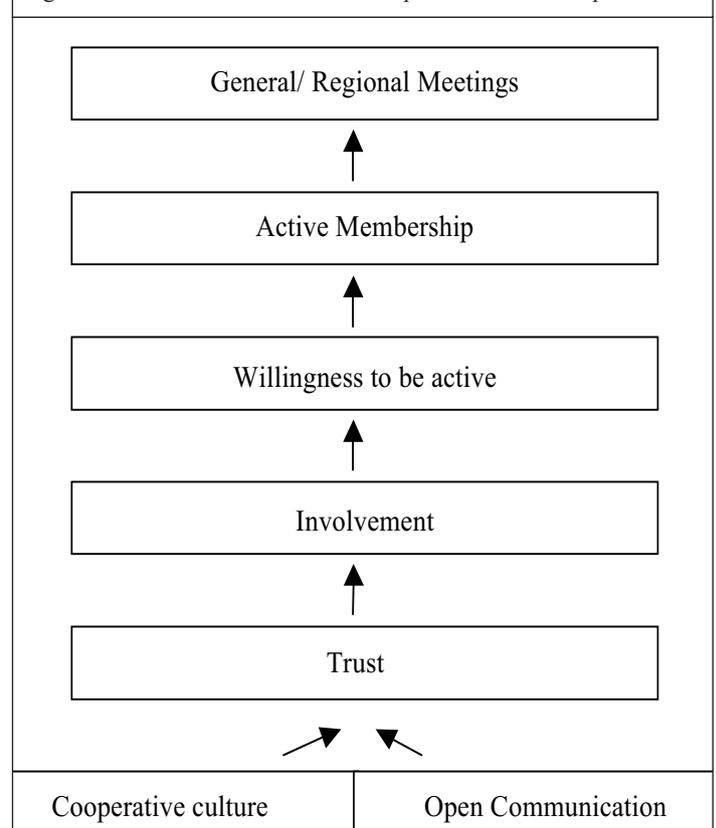
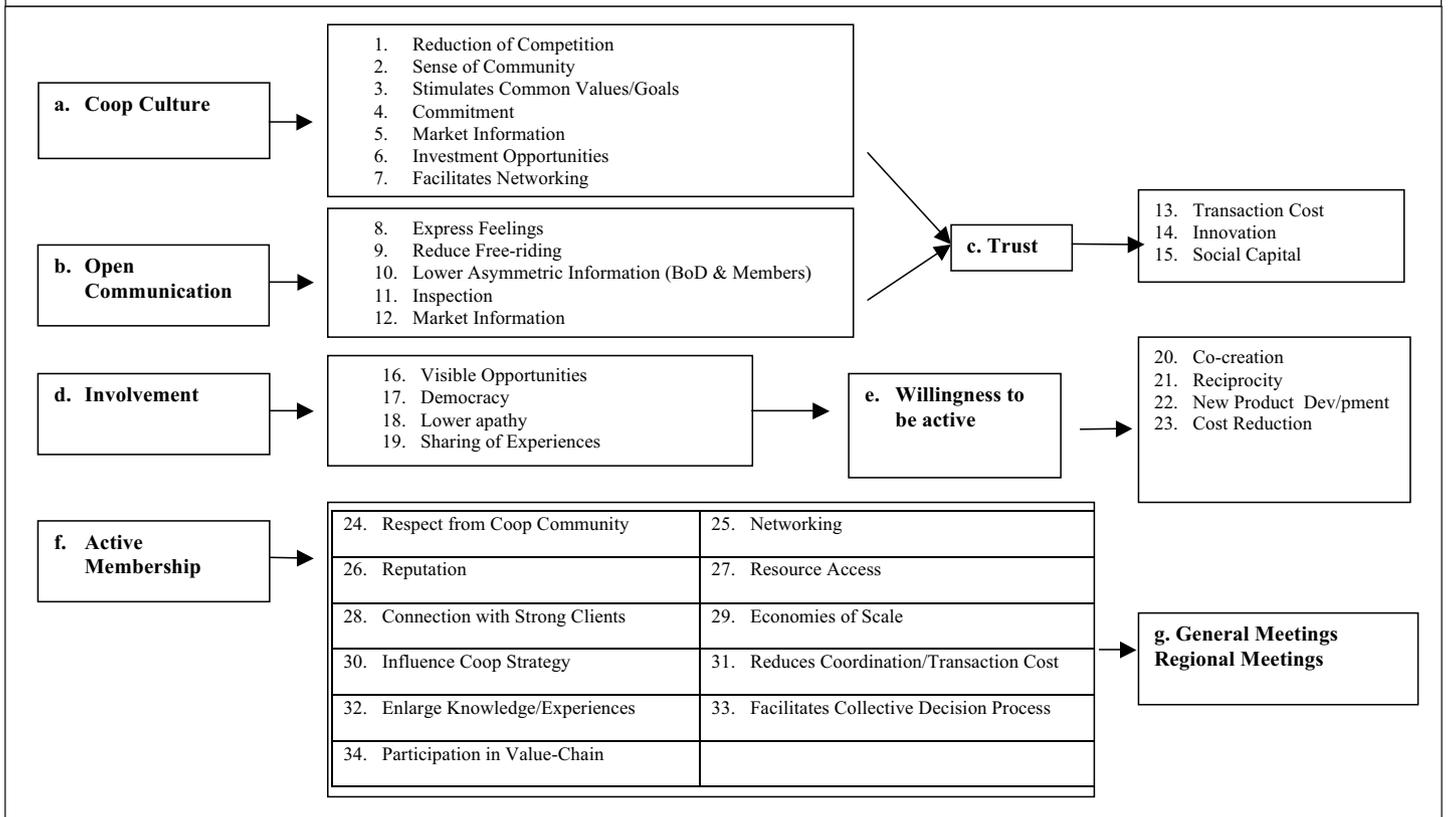


Figure 2 - *Benefits for Members.*

Foodnote: The attribute of members' participation in value chain (no 34) is much more important in "marketing cooperatives" rather than in "feeding cooperatives" like Rijnvallei.



member (i.e. farmer) centric perspective includes: members' cooperative culture, open communication between the board and cooperative members (i.e. transparency), members' trust in the cooperative, members' involvement with the cooperative, members willingness to be active in the cooperative, and members' active participation in the cooperative.

In this study we suppose that cooperative members are owner-users and consequently play an important role in cooperative administration. The model, which is the basis for the analyses in this paper, is shown in Figure 1. It shows the social attributes that build up active membership.

Components of and relationships in the model are explained below. Moreover, benefits of the social attributes are presented for both the active members' firm (Figure 2) and the cooperative firm (Figure 3).

Members' cooperative culture is the extent to which the belief in the value of cooperatives is rooted in members' personal values, norms and beliefs. A common culture motivates active membership because it results in a sense of community and because members feel obliged to express common values via active membership (Van Vugt *et al.*, 2000). Furthermore, members that identify themselves with the cooperative are interested in the cooperative's strategies, are committed to and have trust in the Board of Directors (Birchall, 1988; Borgen, 2001; Osterberg and Nilsson, 2009).

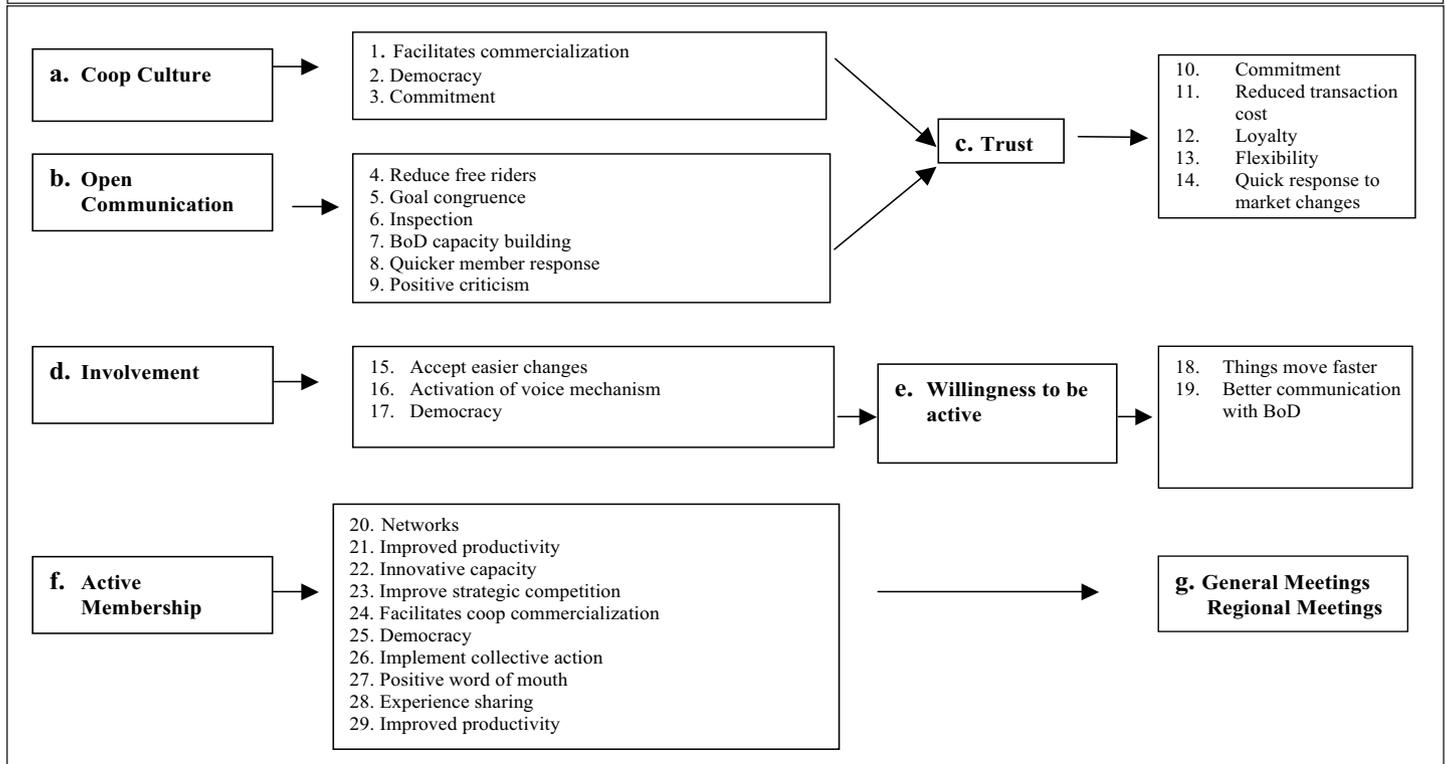
Members' cooperative culture offers benefits for the indi-

vidual members. Firstly, working together with competing firms in a cooperative reduces competition. Secondly, members' cooperative culture allows for the dissemination of market information. Finally, it provides members with opportunities to invest further down the supply chain (Fulton, 1999) or to participate in networks.

Members' cooperative culture offers benefits for the cooperative firm by increasing efficiency. Efficiency is increased because a cooperative culture reduces transaction costs (Casson, 1993). It acts as an enforcement mechanism, because it replaces external supervision with internal self-supervision and external legal sanctions (e.g. fines) with internal emotional sanctions (e.g. guilt or shame). Moreover, member's cooperative culture is a sort of glue that allows membership and business volume to be maintained even as trade becomes more fluid. This is the case when transaction specificity of assets decreases and barriers to switching between suppliers are broken down. As a result a cooperative firm has lower transaction costs as compared with an IOF.

Open communication between the board and cooperative members has two sides: the members' and the board's perspective. From the member's perspective it is the willingness of members to use the voice mechanism rather than the exit mechanism to show dissatisfaction. The voice mechanism assumes a willingness on the part of the members to help the cooperative to develop better offers instead of simply seeking the best offer in the market (Fulton,

Fig. 3 - Benefits for Cooperative.



1999). From the board's perspective it is the willingness of the board to be transparent, to invite criticism and to ask for approval.

Open communication increases member's understanding of the cooperative's basic processes, which is crucial for members' trust in the cooperative (Burt, 1997). "Inadequate communication among members, the BoD, management, and the community is the primary reason for cooperative failure" (Baseman, 2012; Brown *et al.*, 2013).

Open communication between the board and the cooperative members offers benefits for the individual members, because communication safeguards against opportunism and market uncertainties (Uzzi, 1996). It reduces asymmetric information between the board and the members and thus safeguards against management taking control of the cooperative (Hogeland, 2006). In addition, it provides members with better information than they can obtain themselves about the fast changing market environment.

Open communication between the board and the members offers a better inspection mechanism for the cooperative. It avoids asymmetric information, thus safeguards against free-riding and, consequently, reduces transaction costs for the cooperative. Furthermore, open communication fosters common beliefs and values among members, leading to greater goal congruence and effectiveness of the BoD. Finally, open communication is crucial for the speed of members' response to market challenges or supply chain problems. It helps members to get the facts, and agree on a repair strategy.

Members' trust in the cooperative is member's belief that

the cooperative will perform actions that result in positive outcomes, instead of unexpected actions that result in negative outcomes. Trust is a precondition for members' loyalty towards their cooperative and increases the likelihood that cooperative members will participate actively in the cooperative's affairs (Kalogeris *et al.*, 2007; Barraud-Didier *et al.*, 2012).

Building members' trust is valuable for members because it reduces transaction costs and barriers to adopt innovation for members (Nwankwo *et al.*, 2009). Trust increases the level of social capital which is strongly connected to member's well-being (Chloupkova *et al.*, 2003; van Dijk *et al.*, 2005).

Members' trust reduces the complexity of collective decision making for the cooperative as members are not circumspect due to suspiciousness (Knop, 2007). It reduces transaction costs (Casson, 1993). Firstly, by avoiding opportunistic behavior because members diligently transmit information about unacceptable behavior of their peers (James and Sykuta, 2006; Regts, 2009). Secondly, because the cooperative can work more efficiently with its members as the risk of contractual default between the cooperative and its members is low.

Members' involvement with the cooperative is a mixture of motivation, activation and interest, based on a close relationship between the cooperative and its members. It also reflects the members' willingness to act collectively (Swoboda *et al.*, 2009). Members' involvement with the cooperative is a prerequisite to spend time on the governance of the cooperative and participate actively (Birchall and Simmons, 2003; van Dijk and Klep, 2008).

Members' involvement with the cooperative is of vital importance as it transforms trust into the willingness to be active, minimizing elements that characterize the "apathy" behavior.

Members' involvement generates benefits for the individual members, because members get information and learn from the cooperative's experiences and thus identify opportunities. More specifically, involved members have important learning experiences in task-focused group activities, such as seminars, conferences, open days, and study groups. Finally, the exchange of information creates competitive advantage as the members have information about the market before competitors have (Boned and Mutuel, 2006).

Members' involvement with the cooperative helps cooperatives to move faster. People have the propensity to accept changes that affect them profoundly, provided that they have had the chance to be involved in the decision (MacGregor, 1960; Likert, 1967). If members are involved in the cooperatives' affairs, they may even support decisions that are at odds with their wishes, provided that they get acceptable explanations. Moreover, involved members are expected to raise their voice even though they are not active in the cooperative. Thus inactive members are represented, which is important for an effective voice mechanism and for the democratic representation of all members. Finally, a large group of involved members provides the cooperative with political influence because it can legitimately claim to represent its members' interests.

Members' willingness to be active in the cooperative means that members are motivated to spend time on the governance of the cooperative, such as participating in meetings and committees. Literature explains why members do not participate actively rather than why they do participate (i.e. lack of confidence for the cooperative viability, high internal competition among members, lack of the appropriate business mentality) (Birchall and Simmons, 2003; Sergaki, 2010). Members' willingness to be active is a precondition for more reciprocal behavior and co-creation with other members (Barraud *et al.*, 2012).

Members' willingness to be active in the cooperative offers benefits for individual members such as opportunities for co-creation (small groups and individual members participate in the design of new services and products before the cooperative launches the service to the membership). For the members, co-creation assures an offer that meets their needs. Moreover, the cooperative often contributes to costs incurred by the co-creating members. Finally, it contributes to the development of reciprocal behavior among members (van Dijk, 1997).

Member's willingness to be active allows cooperative firms to move faster because such members devote time and efforts to decision-making processes. Moreover, they are willing to explain their ambitions to the board of directors, which information is essential for the BoD to advance the cooperative. Additionally, it facilitates co-creation among members and cooperatives which clarifies the market orientation of new product development and thus multiplies the chances of success for the cooperatives (Hirschman, 1970).

Members' active participation in the cooperative is the

member's actual participation in meetings with committees of the cooperative. Members that play an active role in the cooperative are likely to participate in other cooperative activities, such as regional and general meetings, committees and networks (Barraud *et al.*, 2012).

Members' active participation in the cooperative offers several benefits for the individual members. Firstly, active cooperative members gain respect from the cooperative community and get a better reputation in the community than less active members. Secondly, active members get in touch with clients from the cooperative's customer base. Thirdly, other active members and the cooperative may act as a referral for a member's business relationships (Burt, 1997). Fourthly, active members may influence the cooperative's strategy because of their influence over other members and thus they are able to make things happen. Last but not least, the members increase their knowledge and experience. Cooperatives contribute to this as information broker, management "expert", or "mentor", facilitating "contract farming" between cooperative members and manufacturing food firms (Bijman *et al.*, 2008). Sharing of experiences creates preconditions for innovation with multiple benefits for all members. However, active participation is reduced when members perceive that their opinion is not valued by the management of the cooperative (Bhuyan, 2007). Finally, active cooperative members of marketing cooperatives have access to opportunities of a strong player in the value chain. Most individual members of cooperatives are small actors in the value chain with limited resources and capacities, which makes it difficult to become suppliers to large firms. Active cooperative members can often use the cooperative's bargaining power in their supply chain and are able to enter high-value markets. Other small enterprises need to follow the decisions taken by others and accept prices or product requirements that are given by a buyer. Obstacles for active membership include direct costs and opportunity costs (Birchall and Simmons, 2003). These cooperative leaders have to provide incentives to members to become involved.

Members' active participation fosters the development of a democratic societal structure that facilitates the collective decision procedures as well as the implementation of collective actions. This democratic procedure is important. Cooperative democracy depends on the active involvement of members and many leaders of cooperatives are worried whether members are willing to participate. Active participation of members in general meetings and district meetings makes it easier for a group to reach collective decisions and implement collective action. Since property rights are often imperfectly developed and applied in cooperatives, the members' active participation in collective decisions on how to manage common resources is critical in order to maximize cooperative's use and yield (Hyung and Feiock, 2002). Finally, active members may contribute to cooperatives well-being through the exploitation of their experience or knowledge. The extent to which cooperatives use their members as a source of competitive advantage is the cooperative firms' core competence (Hakelius, 1996).

3. Methods

3.1. Sample

A questionnaire was developed and sent by regular mail to 2316 members of a Dutch feed cooperative in September 2009. The respondents received the questionnaire, including an introductory letter to motivate them to complete the questionnaire. A return envelope was provided with postage and return address. After one month, 287 questionnaires were returned and 241 questionnaires did not have any missing values. These 241 questionnaires will be used for further analyses.

Moreover, four cooperative experts were interviewed. Experts worked in Dutch agricultural cooperatives. Interviews consisted of semi-structured, open-ended questions with follow-up probes focusing on experts' experiences with the social attributes in our model.

3.2. Measures

The questionnaire addresses the first research question "*How do the social attributes of cooperative members build active membership?*" It was developed in Dutch because respondents were Dutch. Personal interviews were conducted to test whether the questions were understandable for farmers operating in different sectors (such as dairy farming and intensive livestock farming). Questions were adapted based on remarks from respondents.

Respondents rated statements on a 7-point Likert scale anchored by 'completely agree' (1) versus 'completely disagree' (7). Before analysis all these scores are reversed and thus higher scores should be interpreted as higher scores on the concepts. For all measures average scores across statements are used in further analyses.

A description of the measurement properties is shown in table 1 and provided below. Measurement properties were assessed with principal component analysis (PCA) and reliability analysis (Cronbach's Alpha). The PCA of each measure should provide support for a one component solution. Indications for a one component solution are: a scree plot with a sharp decrease in Eigenvalue from the first to the second component and a gradual decrease in Eigenvalues from the second component onwards; an Eigenvalue of the second component, which is smaller than one; and a first component that accounts for a minimum of 50% of the variance in the items (Hair, 1992). Moreover, all items should have a loading on the first component (before rotation) higher than 0.6. Finally the reliability of the scale as indicated by Cronbach's Alpha should be higher than 0.6. All measures meet these criteria and will not be discussed further.

The interviews address the second research question "*How do social attributes lead to benefits for cooperatives and members?*" It was conducted in English with personal interviews following a qualitative multiple (four) case study approach with co-

Scale	# of items	Eigenvalue second component	Variance accounted for	Lowest item loading	Cronbach's Alpha
Members willingness to be active in the cooperative	1				
Members' involvement with the cooperative	4	0.51	71%	0.78	0.86
Members' trust in the cooperative	4	0.69	65%	0.76	0.82
Open communication between the board and the cooperative members	3	0.70	64%	0.74	0.71
Members' cooperative culture	3	0.77	61%	0.66	0.68

operative experts using Template Analysis. More specifically, to test the validity and applicability of our conceptual framework, we asked four agricultural cooperative experts in the Netherlands¹ to evaluate and comment on the basic social attributes that cooperatives use to build up active membership. The experts had in front of them the initial template (Fig 1) and discussed with the researchers the six first-order codes: cooperative culture, open communication, trust, involvement, willingness to participate and active membership (Bhuyan, 2007; Xiang and Sumelius, 2010).

The experts were asked to identify second-order codes (direct benefits of each attribute for cooperatives and for individual members) and describe the causal effect of each social attribute for members' and cooperative's well-being (Figure 2 and 3). The main advantage of this method is that it provides an overview of the key-attributes and the specific benefits that emerge from the mass of information gathered from the interviews (Yin, 2003).

The Cooperative experts firstly discussed with the researchers the social attributes and then they provided a list with the benefits for the cooperative and its members following methodologically the Template Analysis. In this analysis, the template is constructed manually, by the researchers, instead of using a qualitative software package for qualitative data analysis (e.g. NVivo, NUD*IST, The ethnograph). The main advantage of the manual approach is that the researchers benefit when "immersed" into the data, which can be lost when automated programs are used (Baranchenko et al., 2010; King, 2004). Secondly, the researchers rated the importance of the benefits for the cooperatives as well as for the individual members on a 5-point Likert scale anchored by "very strong", "strong", "indifferent", "weak" and "very weak" based on their discussions with the cooperative experts.

During this procedure, we assumed that active membership in cooperatives is based on a system of interdependent social attributes, but that benefits can be attributed to a specific social attribute (Feng and Hendrikse, 2008).

4. Analyses and results

4.1. Analyses of the questionnaire

For the first research question, "*How do social attributes of cooperatives build active membership?*", binary logit analysis and ordinary least square (OLS) regression analysis are used. OLS regression and logit analyses are appropriate methods to test relationships between one dependent variable and several independent variables, as is the case in our model. OLS regression is appropriate for metric dependent variables while logit analyses are appropriate for dichotomous dependent variables (i.e. 1 (yes), 0 (no)).

¹ The persons interviewed are executives in the following cooperatives: Rabobank, Flora Holland, Friesland Campina and Rijnvallei. Their names are available upon request.

Table 2 shows the results of binary logit analyses with dependent variables: participation in general meeting, participation in district meeting, and member’s active participation in the cooperative. The results show that active members are more likely to participate in the general meeting ($b = 2.93$; $p < 0.01$) and in district meetings ($b = 1.33$; $p = 0.02$). Moreover, member’s willingness to be active in the cooperative directly increases the likelihood that members will participate in the general meeting ($b = 0.36$; $p < 0.01$) and in district meetings ($b = 0.42$; $p < 0.01$). Involvement with the cooperative increases directly only the likelihood that members will participate in district meetings ($b = 0.61$; $p < 0.01$), but not in the general meeting ($b = 0.16$; $p = 0.45$). This mainly happens because general meetings are more anonymous and members don’t feel very comfortable to raise their hand and present their opinion. Lower levels in the pyramid, i.e. trust in the cooperative, open communication with the cooperative, and member’s cooperative philosophy do not increase participation in the general meeting and the district meeting, directly.

The likelihood of active membership increases only when members are willing to be active in the cooperative ($b = 0.87$; $p < 0.01$). This indicates that cooperatives only choose members for an active role in the cooperative if they have indicated that they are willing to do this.

Table 3 shows the results of ordinary least squares regression analyses. The results show that involvement with the cooperative ($b = 0.56$; $p < 0.01$) and open communication with the cooperative ($b = 0.45$; $p < 0.01$) stimulate members’ willingness to contribute to the cooperative. However, trust in the cooperative does not ($b = -0.04$; $p = 0.77$), at least not directly. Trust does trigger member’s involvement with the cooperative ($b = 0.34$; $p < 0.01$) as does open communication with the cooperative ($b = 0.52$; $p < 0.01$) and member’s cooperative philosophy ($b = 0.14$; $p < 0.01$). Trust in the cooperative, in turn, is also influenced by open communication with the cooperative ($b = 0.54$; $p < 0.01$) and member’s cooperative philosophy ($b = 0.31$; $p < 0.01$).

Three important findings can be distilled from these results. First, results show that each step towards more active cooperative membership is rooted in the previous step. For example, a willingness to be active is rooted in an involvement with the cooperative. Second, results show that the fundamentals of the model, i.e. cooperative culture or ‘philosophy’, open communication with the cooperative, and trust in the cooperative do not influence active cooperative membership directly. Members need to become involved with the cooperative and be willing to be active, before they become active members. Third, most steps influence several steps higher in the model than the next one. Particularly the influence of open communication with the cooperative is noteworthy because it stretches across 3 steps towards more active cooperative membership of the model. Figure 1 summarizes our findings

and visualizes the support for our model of active cooperative membership.

For the second research question, “*how do social attributes lead to benefits for cooperatives and members?*” the Template Analysis is used. The results of the Template Analysis are presented in the following table.

4.2. Benefits for the Members

Cooperative culture together with open communication is the cornerstone for active members. According to the experts’ answers, the cooperative culture stimulates common values and goals among members as well as a sense of community, leading to higher levels of commitment. These are the most important benefits, because all experts interviewed evaluated this as a very strong benefit for members. Moreover, members delegate entrepreneurial decisions to other members, each of whom strives to maintain the respect of his peers and consequently a decentralized decision-making process is developing. The competition reduction is evaluated as a “strong” benefit. Other benefits are the potential for networking, the exchange of market information as well as investment opportunities. These three benefits are not highly appreciated by members because the majority of the farmers doesn’t have high levels of cooperative culture and consequently cannot exploit these benefits. For example, they behave like entrepreneurs and hardly any grasp the opportunities that arise. Most benefits for the members of open communication are evaluated as “very strong”. Open communication helps members to express their feelings and create an effective inspection mechanism. As a result, there is less asymmetric information and less free-riding. The exchange of market information is evaluated as a “strong” benefit for the members.

Members’ trust has a very strong positive impact on transaction cost reduction, social capital, and innovation adoption. Increased social capital is the framework for better performance and co-creation.

Table 2 - Binary Logit estimates of the coefficients for relationships in the model.

	Participation in general meeting	Participation in district meeting	Members’ active participation in the cooperative
Members’ active participation in the cooperative	2.93**	1.33 *	
Members willingness to be active in the cooperative	0.36**	0.42 **	0.87 **
Members’ involvement with the cooperative	0.16	0.61**	0.28
Members’ trust in the cooperative	-0.18	-0.26	-0.02
Open communication between the board and the cooperative members	0.05	0.05	0.46
Members’ cooperative culture	-0.18	-0.22	-0.42
N	241	241	241
Nagelkerke R ²	0.39	0.36	0.42

** p<0.01 * p<0.05.

Table 3 - OLS estimates of the coefficients for relationships in the model.

	Members willingness to be active in the cooperative	Members’ involvement with the cooperative	Members’ trust in the cooperative
Members’ involvement with the cooperative	0.56 **		
Members’ trust in the cooperative	-0.04	0.34 **	
Open communication between the board and the cooperative members	0.45 **	0.52 **	0.54 **
Members’ cooperative culture	-0.04	0.14 **	0.31 **
N	241	241	241
F	46.61 **	134.82 **	163.12 **
R ²	0.44	0.63	0.60

** p<0.01 * p<0.05

Table 4 - Cooperative Experts evaluations for the most important benefits of each social attribute for the individual members and the cooperatives well-being.

	SOCIAL ATTRIBUTE	BENEFIT FOR MEMBERS	SCORE	BENEFIT FOR COOPERATIVES	SCORE
1	Coop culture	Stimulates Common Values/Goals	VS	Facilitates Commercialization	S
		Commitment	VS		
		Sense of Community	VS		
		Reduction of competition	S		
		Facilitates Networking	I		
		Market Information	W		
		Investment Opportunities	W		
2	Open Communication	Express feelings	VS	Reduce free-riders	VS
		Reduce free-riding	VS	Goal congruence	VS
		Lower Assymmetric Information	VS	Quicker member response	VS
		Inspection	VS	BoD capacity building	S
		Market Information	S	Inspection	S
				Positive criticism	S
3	Trust	Lower Transaction Cost	VS	Commitment	VS
		Social Capital	VS	Loyalty	VS
		Innovation	S	Reduced transaction cost	S
				Quick response to market changes	S
				Flexibility	I
4	Involvement	Visible Opportunities	VS	Activation of voice mechanism	VS
		Lower apathy	VS	Democracy	S
		Sharing of Experiences	VS	Accept easier changes	S
		Democracy	VS		
		Reciprocity	VS		
5	Willingness to be active	Co-creation	VS	Things move faster	VS
		Reciprocity	VS	Reciprocity	VS
		New Product Development	S	Better communication with BoD	S
		Cost reduction	I	Democracy	S
6	Active Membership	Participation in value chain	VS	Implement collective action	VS
		Resource Access	VS	Democracy	VS
		Economies of scale	VS	Improve strategic competition	S
		Democracy	S	Facilitates coop commercialization	S
		Enlarge Knowledge/ Experiences	S		
		Influence Coop Strategy	S	Innovative capacity	S
		Networking	S	Networks	S
		Respect from coop community	S	Positive word of mouth	S
		Reputation	S	Experience sharing	S
		Connection with strong clients	I	Improved productivity	I

All the benefits of members' involvement are evaluated as "very strong", like sharing of experience, lower apathy, opportunity exploitation and finally higher reciprocal behavior. Moreover, the involved members have multiple opportunities to present their case and to exert influence towards other members. Finally, the vivid involvement with the cooperative's entrepreneurial affaires facilitates members' entrance into distinguishing markets.

Members' willingness to be active is evaluated as a very strong benefit for the members, because it is connected with "co-creation", "reciprocity", and "new product development". Members' willingness to be active is evaluated as indifferent for "cost reduction".

Active membership has the most benefits for the members of all social attributes. The benefits for members evaluated as "very strong" are "participation in value chain", "resource access" and "economies of scale". Furthermore,

"enlargement of knowledge", "influence on cooperative strategy", "networking opportunities", "the respect from the community", and "reputation" are evaluated as "strong" benefits. Finally, "connection with strong clients" is not evaluated as a strong benefit for the members, because the majority of the farmers doesn't tend to behave like entrepreneurs and don't take the opportunities that arise. All the experts agree that active membership contributes to the fair representation of all members in the cooperative and confirms its democratic nature.

A last comment related to active participation is that the cooperative's size is a very important parameter. The experts admitted that in several cases of big cooperatives in the Netherlands, there exists a gap between members and BoD that results in less influence and respect from the members. This may put the mutual exchange of information and transparency under pressure too.

4.3. Benefits for the Cooperative

As a general remark, all the experts recognize the social attributes discussed and admit their vital importance for the cooperative's viability. Cooperative culture facilitates commercialization ("strong" impact). Open communication, "very strongly" reduces free riders, creates goal congruence, and quickens member response to market challenges, thus exploiting the cooperative's potential. Managers' capacity building, the inspection mechanism and positive criticism are evaluated as "strong" benefits.

The benefits of members' trust are "very strongly" related to commitment and loyalty. Some "strong" benefits are "reduced transaction costs" and "quicker response to market changes". Finally, an indifferent benefit of members' trust is the "flexibility" that the executives enjoy.

The most important benefit of the Members' involvement is the "activation of the voice mechanism" (scored as "very strong"). The voice mechanism is more often triggered in district meetings than in general meetings, where members seem too afraid to express their opinion. "Democratic" procedures and "easier acceptance of changes" are regarded as "strong" benefits because they facilitate "things to move faster for the cooperative."

The main benefits of the Members' willingness to be active are: that "things move faster", "reciprocal behavior between the members and the cooperative", "better communication with the BoD", and "Democracy". The first two benefits are evaluated as "very strong" by the experts while the last two benefits are evaluated as "strong" by the experts.

Finally, members' active participation provides the majority of benefits for the cooperative. Implementation of collective action as well as empowerment of the cooperative's democracy are evaluated as "very strong" benefits for the cooperative. Improved strategic competition, facilitation of cooperative commercialization, innovative capacity, the creation of networks, positive word of mouth, and experience sharing are among the "strong" benefits for the cooperative. Regarding networking, the experts also remarked that successful networks in which members participate are beneficial for cooperatives because these networks enlarge the scope of member contributions.

5. Conclusions

The scope of this empirical study is to examine what galvanizes cooperative members to become active members and to understand the role of social attributes. Furthermore, the benefits of active membership for the cooperative and for the individual members were examined in detail. The model can serve as a basis to develop and test strategies to increase membership participation.

Firstly, the results show that active membership builds on several social attributes: cooperative culture, open communication, trust, involvement and willingness to be active. Secondly, the results show that social attributes create important benefits for both the cooperative and their members.

Regarding the empirical question "How do social attributes

of cooperatives build active membership?", the findings show that each step towards more active cooperative membership is rooted in the previous step and most steps influence more steps than only the next one. Open communication and members' cooperative culture are important components for trust building and fundamental to create more more-active members. However, these fundamentals do not influence active membership directly. Members need to become involved with the cooperative and willing to be active, before they become more active. Additionally, members' willingness to be active is stimulated by open communication and involvement with the cooperative.

Regarding the question "How do social attributes lead to benefits for cooperatives and members?" the cooperative experts believe that the benefits are multiple. Active membership empowers the cooperatives' democracy. It facilitates the successful implementation of collective actions, innovation, quick decision processes, and reciprocal behavior. Additionally, active membership safeguards against free-riding behavior, which contributes to the exploitation of cooperatives' potential.

Regarding the benefits of the social attributes for the members, the cooperative experts believe that "open communication" is an effective inspection mechanism and reduces free-riding. Members' trust builds social capital and minimizes transaction costs. Members' involvement facilitates sharing of experiences and information between members and the cooperative, and thus opportunity exploitation. Moreover, it lowers apathy and increases reciprocal behavior. "Willingness to be active" creates the preconditions for co-creation. Active membership also creates advantages related to participation in the value-chain, such as access to resources, and widens the scope of member contributions. Moreover, in cooperatives with high levels of "Members' Involvement" and "Active Membership", the potential for networking and the exploitation of investment opportunities are amongst the strongest benefits.

The results of our econometric and template analyses agree that it is important to distinguish between the social attributes that build active membership. Each social attribute creates benefits for the members and the cooperative. These benefits are not always obvious and require time to be noticed by members. Moreover, members invest time and efforts into each social attribute and may get discouraged after a while if they do not experience the benefits. Particularly members who are not invited to participate in the cooperative's governance will be disappointed, because most benefits are obtained at higher levels in the model of active membership (Figure 1).

Based on these empirical findings, this study offers meaningful implications for professional co-operative managers involved in encouraging members to participate actively in cooperative affairs and who wish to take innovative actions that will ensure the competitiveness of the cooperative. Firstly, cooperative leaders have to communicate to the members the benefits of an active role for each member's well-being and the cooperative's existence. Secondly, they have to build the member community in such a way that the existence of these attributes can be realized. In order to achieve this, they should cre-

ate the appropriate incentives and instruments to create more active members. For example, cooperatives may be more market-oriented than IOFs if cooperatives can deploy the voice mechanism to acquire high quality market information from their member-customers. Finally, they should make membership meaningful by selecting the most active members for task-oriented roles and engaging the less active members as creatively as possible.

The proposed model of active membership is particularly relevant to show how social attributes in the model benefit both the cooperative firm and the individual members' firms. Thus it can be used to explain why certain members of the cooperative are allowed to benefit more from the cooperative than others and how members can be motivated to become more active.

This study has some limitations. First, it is suggested that each layer in the model provides value for the cooperative as well as for members, which is confirmed by the experts' opinion. Empirical support for these relationships from the members' perspective, however, still has to be provided. Second, further research is required to determine which layer of more active membership is required to obtain certain benefits. Third, it would be interesting to investigate whether large cooperatives indirectly have impact on the members' willingness to maintain an active membership. Fourth, the research is based on cross section data, which offers no evidence for causal relationships. For example, open communication between the board and the cooperative members is expected to stimulate member's willingness to be active. However, the relationship may also work the other way around. Cooperatives may communicate more open with members that are willing to be active in order to prepare them for an active role. Empirical research, based on time series or experiments, can provide evidence about the causality of the relationships in our model. Fifth, the sample consists only of one supply agricultural cooperative located in the Netherlands. The validity and universal application of these results cannot be affirmed until further research has been carried out in other government models adopted by cooperatives worldwide or in a greater sample of agricultural Dutch cooperatives. Sixth, our research is still exploratory. Once the model has received more empirical support, structural equation modeling (SEM) may be an appropriate methodology to test it. Finally, the Template Analysis was constructed manually, with the analyst "involved" in the data. Using an advanced software package for qualitative data analysis can assure that the researcher will evaluate better the results keeping "a distance from the data".

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Appendix A

Participation in general meeting

Were you present at the general meeting during the past two years? (1 No/ 2 Yes)

Participation in district meetings

Were you present at the regional meeting during the past two years? (1 No/ 2 Yes)

Members' active participation in the cooperative

Are you active at the cooperative, currently? (1 No/ 2 Yes)

Members' willingness to be active in the cooperative

Because I am a member of the cooperative I want to labor for the cooperative.

Members' involvement with the cooperative

How involved are you with the cooperative?

My values and norms basically match with the values and norms of the cooperative.

It is important to me to have a closer relationship with the cooperative than only being a customer.

I am proud to be a member of the cooperative.

Members' trust in the cooperative

The cooperative board makes sure that in a cooperative the interests of the cooperative members come first.

The atmosphere at the cooperative can be described best as one of mutual trust.

My membership of the cooperative has improved my business' performance.

The current strategy of the cooperative is best also for my firm.

Open communication between the board and the cooperative members

I am interested in sharing information and knowledge with the cooperative.

The relationship with the cooperative is characterized by open communication between board and members.

As a member I influence decisions and the development of the cooperative strategy.

Members' cooperative culture

Cooperatives respond to the market faster than IOFs.

Cooperatives keep competition on the edge.

For farmer's and horticulturalist's future it is of utmost importance that strong cooperatives exist.