

Farmers' Reactions to the Internationalisation of Finnish Cooperatives

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Abstract: Based on a survey on farmers in Finland, this study examined the extent to which farmer co-operatives enjoy social capital within their memberships as they become internationalised. Findings from limited dependent variable regressions suggest that one group of farmers is loyal to the co-operative and opposes its foreign investments. Other groups have lower levels of social capital and switch membership status between multiple co-operatives or opt out of co-operatives. These farmers welcome international investment. Thus, internationalisation of co-operatives seems to affect members' trust in the co-operative differently and increasing heterogeneity within memberships may give rise to governance problems.

Key words: Agricultural co-operative, internationalisation, social capital, Multi-Nominal Logit model, Finland

1. Introduction

This study investigated members' behaviour in relation to farmers' co-operatives, which have sizeable international operations, and thereby deviate from the traditional co-operative model. Many co-operatives have begun to embark on a route towards international operations in the sense that they own foreign production facilities, processing products supplied by farmers in the host countries (Bijman et al., 2012a; 2012b).

To finance the foreign operations some co-operatives have enrolled external investors. A firm that is owned by both farmers and external financiers will, however, have built-in conflicts (Pyykkönen and Ollila, 2012; Bont and Poppe, 2012). Likewise, when members in one country have invested to satisfy non-member farmers in another country there are problems of interest alignment. If the co-operative's foreign investments are not profitable the members have to subsidise unknown farmers.

Such strategies are likely to lead to tensions and poor governance (Hendrikse and Feng 2013). "[I]n determining whether the costs of ownership are manageable for a given class of patrons, homogeneity of interest appears to be an especially important consideration" (Hansmann, 1996, 288). As diverse member categories have different interests, there are poorer conditions for trust and other expressions of social capital within the membership, whereby the ownership costs are likely to be high in internationalized farmer co-operatives.

The aim of this study was to explore the extent of different kinds of social capital within the membership of farmers' co-operatives as they develop towards more internationalised business operations. This seems to be the first study to analyse social capital among the members of internationalised co-operatives.

Social capital is created and used in human interactions (Bourdieu, 1986; Woolcock, 1998). An individual who generates sympathetic feelings through interaction can use this capital e.g. to ask for a favour. However, if an actor continues to expect favours without ever returning the favour, the social capital vanishes and the interaction may turn into one of attempted exploitation. Investments in social capital create continuity and loyalty in relationships so that when something unexpected and negative happens, social capital facilitates a solution (Stickel et al., 2009).

The changing relations between co-operatives and their members may be interpreted in terms of a change in the relative proportions of different types of social capital. For example, fading ideology and increasing business orientation may prompt a conversion from bonding capital to bridging capital or even linking capital. In particular, the internationalisation of co-operatives can be expected to result in reduced amounts of bonding capital.

Previous studies indicate that social capital is an important concept in a co-operative context. Farmers appreciate the social links within the membership body and the reliability of co-operatives (Bhuyan, 2007; Österberg and Nilsson, 2009). It is important that farmers can trust their co-operatives (Borgen, 2001; Hansen et al., 2002; Nilsson et al., 2009).

This study investigated seven indicators of social capital, several of which are linked to previous studies of members' view of co-operatives. Bonding and bridging capital have the indicators *Ideology*, *Co-operative experience*, *Security* and *Reliability*. Linking capital indicators are *Power ambitions*, *Speculative behaviour* and *Non-loyalty*. The amount of social capital among farmers may be affected by three dimensions of co-operative internationalisation, namely *Structures of internationalised co-operatives*, *Strategies of the co-operative society*, and *The effects of internationalisation on competition*.

2. Empirical basis

The empirical material for this study originated from Finnish farmers, both co-operative members and non-members. However, the Finnish co-operatives have few processing activities of their own. Processing and marketing are allocated to limited liability companies, which are owned either jointly by a number of co-operatives (dairy) or by co-operatives together with the Helsinki Stock Exchange (meat, forestry). As co-operatives in the latter category do not have full ownership and full control of the business operations, they do not comply with the generally respected definition of co-operatives (Dunn, 1988). Rather, they fall within the concept of Farmer-Controlled Business, FCB. An FCB is a firm which has its ownership shared between farmers (individually or via a co-operative society) and non-farmer investors, although farmers have the majority of the seats in the Board of Directors (e.g. Hind, 1999; Hess et al., 2013). The Finnish co-operative societies have the sole or dominant task of owning stock in limited liability processing companies.

The Finnish co-operatives operate nationwide. All of them also have sizeable operations abroad, not only exporting goods from Finland but also processing products sourced from farmers in the host countries. Data were collected via a mail survey sent to a representative sample of Finnish farmers, both members of co-operatives and non-members. The questions for this study were included in one of Gallup Finland's quarterly questionnaires, which are used in omnibus surveys of farmers. The questionnaire was sent to sample of 2,400 farmers in summer 2010. The total number of responses received was 1,296, corresponding to a response rate of 47.3%. However, many respondents had not fully completed the questionnaire, so in some instances the missing answers on continuous variables could be replaced by the sample mean, while for categorical answers missing values have been included into the analysis as another category (dummy=1 if value missing).

3. Econometric Modelling

The analyses comprised four models. The first three tested the relationship between farmers' membership of different categories of cooperative on the one hand, and a number of potentially explanatory factors on the other. These were the farmers' stated level of social capital, their opinions about the internationalisation strategies of their co-operative/s, their socioeconomic characteristics and attributes of their farm enterprises. Hence the questionnaire comprised several categories of questions. Membership of co-operatives was measured by posing the following question to respondents: *'In which of the following co-operatives are you a member?'* Respondents could select none, one or multiple answers among the nine alternatives:

1. One of the eighteen local or regional dairy co-operative societies which together own all the stock of the limited liability processing company Valio.
- 2, 3, 4: One of the three co-operative societies (Itikka, Lihakunta and Pohjanmaan liha), which together own the meat processing limited liability company Atria.
- 5: Järvi-Suomen Portti, a traditionally organised co-operative in the meat industry.

- 6: LSO, a co-operative society that dominates the board of the limited liability company meat processing HK Scan, although that processing firm is also part-owned by a Swedish co-operative society and the Helsinki Stock Exchange
- 7: Munakunta, a traditionally organised egg packaging and marketing co-operative with about 50 per cent of the Finnish market. It has also operations in Estonia.
- 8: Metsäliitto, a major forestry co-operative part-owned by the Helsinki Stock Exchange.
- 9: Any other co-operative.

A second survey question was ‘Which of the aforementioned co-operatives is your main sales channel?’ The respondents’ attitude to internationalisation was captured by the agree/disagree statement ‘My co-operative must invest on internationalisation’. Information obtained from answers to these three questions were used to construct the following four dependent variables of the analysis:

- Y₁ Multinomial variable capturing which of the co-operative categories 1-9 that a farmer belonged to and an additional category for respondents who did not indicate membership of any of these co-operatives (this ninth category is the same as Y₃=1).
- Y₂ Ordinal variable indicating how many of the categories 1-9 that a farmer belonged to. The number of memberships may be an indicator of the amount of social capital, together with other indicators.
- Y₃ Binary variable indicating whether the farmer was a member of any of the co-operatives in categories 1-8 (in that case Y₃=0) or in any other co-operative (including no or omitted answer to 9 as long as answers to other questions were provided).
- Y₄ Ordinal variable indicating whether the respondent believed that a co-operative must invest for internationalisation. Answers were provided on a Likert scale ranging from 1 = ‘Fully disagree’ to 5 = ‘Fully agree’.

The four categorical (discrete) variables $\{Y_1, Y_2, Y_3, Y_4\}$ reflect different degrees of involvement in the categories 1-9 and related attitudes to internationalisation (Y_4). The involvement in co-operatives ranges from no (Y_3) to multiple memberships (Y_2) and distinguishes the main sales channels (Y_1) from other co-operative memberships. Based on these variables, the empirical model takes the following general form: $y^* = X'\beta + \varepsilon$ (1) where y^* is an element from $\{Y_1, Y_2, Y_3, Y_4\}$, the stochastic errors (residuals) are contained in ε , and β is a vector of coefficients to be estimated on the vector of covariates X . In the vector of covariates X in equation 1, each variable corresponds to a specific survey question that captures farmer- and farm characteristics, and approximations to bonding- and bridging capital, respectively (the questionnaire is available upon request).

4. Summary of results and conclusions

Taking the findings from the four models together, a certain picture emerged about the relationship between co-operative membership and social capital. As one would expect, the farmers’ decisions about farm diversification, growth, and choice of co-operatives as their main sales channel were not clearly related to any form of social capital. Farmers did not choose their specialisation as a consequence of sympathies for the co-operative. Instead, their choice of farm production enterprises was related to the characteristics of their farm.

However, after controlling for farm size, farm specialisation and farmer characteristics, it was found that the degree to which farmers were members of co-operatives still varied: Some farms had more memberships than could be explained by e.g. the number of main farm outputs. This variation was not explained by farm characteristics, but by farmers’ amount of social capital. High levels of social capital resulted in the farmer being a member of one or few co-operatives that were perceived as being of rather high value (e.g. trustworthy

information, ideology). These farmers opposed co-operative investments on internationalisation. Farmers specialising in e.g. dairy production had a meaningful and often long membership in a co-operative. Those members had much at stake in their membership/s and have ensured that this relationship is a good one. It is reasonable to assume that such a relationship is of a bonding capital nature. In other words, the results indicate that certain groups of farmers have levels of bonding capital beyond that which can be explained by how dairy co-operatives typically interact with dairy farmers, forestry co-operatives interact with forest owners, etc.

Respondents who favoured an individualistic approach to co-operatives tended to be members of several co-operatives and switched easily, or were not a member of any co-operative. Having many memberships or no membership both tended to be statistically correlated to rather low levels of social capital, which can be seen as linking capital. These members had low involvement in the co-operative. However, the results were somewhat less strong in identifying this group of farmers as also explicit advocates of internationalisation.

Furthermore, farmers with a preference for equality between foreign and domestic farmers supported internationalisation while farmers who share traditional views and values on co-operatives tend to oppose internationalisation. Aversion to internationalisation is in line with bonding or bridging capital, which keeps farmers tied to a traditional co-operative. However, belonging to another group of farmers who did not share this opinion does not necessarily mean supporting co-operative internationalisation. A positive view on internationalisation may instead depend on whether internationalisation can generate benefits for a specific farm type, as seemed to be the case for poultry farmers. Links between these views and an ideological motivation, or bonding capital, were not indicated by the results.

In summary, this study showed that both bonding and bridging capital were present among farmers who were co-operative members, even though the co-operative's business activities took place in the legal form of limited liability companies which operated transnationally and bought from non-member farmers. Under such conditions, the social capital among co-operative members could be expected to be low. Findings from limited dependent variable regression models suggested that one group of farmers are loyal to their co-operative. These farmers tend to oppose the co-operatives' foreign investments. Other farmers have lower levels of social capital and switch membership between multiple co-operatives, or opt out of co-operatives. These farmers welcome investments for internationalisation. Although many farmers supported internationalisation by their co-operative, they are not willing to finance foreign operations and were not very co-operatively minded.

When co-operatives develop structures that are increasingly distant from the traditional form, they run a risk of still more heterogeneous memberships. Much social capital was found primarily among farmers with a long-lasting and important relationship as a member of a traditional co-operative. Over time the increasing membership heterogeneity may result in higher ownership costs for the members. As different member categories have different assessments of the co-operatives it is also likely that management power will be strengthened relative to the power of the members and the boards. This is especially likely as the co-operatives foreign operations become difficult to control by farmers.

References

- Bhuyan, S. (2007). The people factor in cooperatives: An analysis of members' attitudes and behavior. *Canadian Journal of Agricultural Economics*, 55 (3), 275-298.
- Bijman, J., Iliopoulos, C., Poppe, K.J., Gijselincks, C., Hagedorn, K., Hanisch, M. Hendrikse, G.W.J., Kühl, R., Ollila, P., Pyykkönen, P., and Sangen, Ger van der (2012 a). *Support to Farmers' Cooperatives: Final Report*. Wageningen, Netherlands, Wageningen UR.

- Bijman, J., Pyykkönen, P. and Ollila, P. (2012b), *Support for Farmers' Cooperatives; Transnational Cooperatives; EU Synthesis and Comparative Analysis Report*. Wageningen, Netherlands, Wageningen UR.
- Bont, K. de, K.J. Poppe, 2012. Support for Farmers' Cooperatives; Case Study Report Hybrid structures in Belgium and The Netherlands. Wageningen: Wageningen UR.
- Borgen, S.O. (2001). Identification as a trust-generating mechanism in cooperatives, *Annals of Public and Cooperative Economics*, 72 (2), 209-228
- Bourdieu, P. (1986). The forms of capital. In J.G. Richardson (Ed.) *Handbook of theory and research for the sociology of education* (pp. 241-58). New York, NY: Greenwood Press.
- Dunn, J. (1988). Basic cooperative principles and their relationship to selected practices. *Journal of Cooperation*, 3, 83-93.
- Greene, W.H. (2012). *Econometric Analysis*, 7th Edition. Pearson, Boston, MA.
- Hansen, M.H., Morrow J.L. Jr. and Batista J.C. (2002). The impact of trust on cooperative membership retention, performance, and satisfaction: an exploratory study. *International Food and Agribusiness Management Review*, 5(1), 41-59.
- Hansmann, H. (1996). *The Ownership of Enterprise*. Cambridge University Press, Cambridge, MA.
- Hendrikse, G.W.J. and L. Feng, 2013. Interfirm cooperatives. In *Handbook of Economic Organization* (ed. A. Grandori). Edward Elgar, Cheltenham, UK, 501-521.
- Hess, S, Lind, L.W. and Liang, S. (2013). Farmers' perceived transaction costs in relation to slaughterhouses of different ownership structures, *Agribusiness*, 29 (1), 96-111.
- Hind, A.M. (1999). Co-operative life cycle and goals. *Journal of Agricultural Economics* 50 (3), 536-548.
- Klein, K.K., Richards, T.J. and Walburger, A. (1997). Determinants of co-operative patronage in Alberta. *Canadian Journal of Agricultural Economics*, 45(2), 93-110.
- Nilsson, J., Kihlén, A. and Norell, L. (2009). Are traditional cooperatives an endangered species? About shrinking satisfaction, involvement and trust. *International Food and Agribusiness Management Review*, 12 (4): 103-123.
- Nilsson, J., Svendsen, G.L.H., and Svendsen G.T. (2012). Are large and complex agricultural cooperatives losing their social capital? *Agribusiness* 28 (2), 187-204.
- Österberg, P. and Nilsson, J. (2009). Members' perception of their participation in the governance of cooperatives: The key to trust and commitment in agricultural cooperatives, *Agribusiness*. 25 (2), 181-197.
- Pyykkönen, P. and Ollila, P. (2012). Support for farmers cooperatives: Case study report HKScan hybridisation. Wageningen: Wageningen UR.
- Stickel, D., Mayer, R. and Sitkin, S. (2009). Understanding social capital: in whom we trust? In Bartkus, V. and Davis, J. eds. *Social Capital. Reaching Out, Reaching In*, Cheltenham, UK: Edward Elgar, 304-318
- Woolcock, M. (1998). Social capital and economic development: Towards a theoretical synthesis and policy framework. *Theory and Society*, 27, 151-208.