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Financial performance and efficiency of consumer co-operatives and limited companies - agency theoretical approach

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Abstract

The main objective in this research paper is to contribute to the literature on the governance of co-operatives by offering new empirical evidence from a Finnish context about the differences between the financial performance and efficiency of co-operatives and limited companies. In this study we define these company forms according to the Finnish legislation (the Finnish Limited Liability Company Act for investor-owned businesses and the Co-operative Act for co-operatives). The starting point of our work is the significant difference between the legal purpose of limited liability companies and consumer co-operatives and the accounts in the recent research about the accentuation of managerial power in consumer co-operatives. Therefore, in order to ascertain whether or not co-operatives operate according to their purpose, we examine how agency costs and surplus distribution differ between co-operatives and limited companies. The empirical data for the study was collected through a financial statement database. The initial population consisted of Finnish regional consumer co-operatives and private limited companies. The empirical data was analysed using quantitative methods. The analyses revealed that there are significant differences between co-operatives and limited companies. The main finding of our study was that agency costs are significantly higher in co-operatives than in limited companies, which is in line with the previous research.

Keywords: *Consumer co-operatives, limited companies, agency costs, management, opportunism*

Introduction

In recent decades one of the most important research streams in accounting research has been agency theory. Since Jensen & Meckling (1976) great progress has been made in demonstrating empirically the role of agency costs in financial decisions, for example maturity structure, dividend policy and executive compensation. As is widely known, most of these studies have concentrated on publicly listed companies. While unlisted companies have also been studied co-operatives have been almost totally neglected.

Abbasi (2009) emphasized that it is difficult to deny that the corporation is the highest evolutionary form of business organization. Separate legal personality and limited liability of owners are the key features of limited companies and co-operatives.

When analysing the organizational efficiency of co-operatives or limited companies from an economics of organization perspective, it is important to consider the purpose of companies, as well as their decision-making and strategic planning processes. Although the legal forms of co-operatives and limited companies are very similar, a major difference is their legal purpose. The main purpose of limited companies is to generate profit for shareholders whereas for co-operatives the main purpose is to provide services for members. This major difference between co-operatives and limited companies is one of the reasons for differences in the monitoring of management, agency costs and surplus distributions. Because of the different legal purposes of these company forms, it is essential to differentiate between managers and owners in respect of the agency relationship. Further, some researchers (e.g. Cornforth 2004, Davis 2001) have questioned the ability of lay co-operative boards to supervise managers, claiming that compared to their colleagues in conventional enterprises, co-operative managers may have more freedom of action and be under less pressure to perform according to members' interests (Spear 2004).The purpose of our study is to investigate how agency costs and surplus distribution differ between co-operatives and limited companies. Given that there is a significant difference between the legal purpose of limited companies and consumer co-operatives and recent research has also provided some evidence of the accentuation of managerial power in consumer co-operatives. Such an analysis provides some important insights whether or not co-operatives operate in keeping with their purpose. The empirical data for our study was collected from a financial statement database and the sample for this study consisted of Finnish consumer co-operatives (S Group) and limited companies. In our study we concentrate on consumer co-operatives because they operate at the same markets as limited liability companies. The collected data was analysed with quantitative methods.

Theoretical background

Agency costs result from the separation of ownership and control within an organization (Jensen & Meckling 1976). As noted by Jensen and Meckling (1976), the agency problem arises because the agent will always try to maximize his/her own interests even at the expense of the principal. The agency problem cannot be solved without incurring agency costs. The principal has to observe and measure the behaviour of the opportunistic agent. Monitoring costs also include those of establishing appropriate incentives for the agent. Assessing how decisions made by a firm's managers affect shareholder value is an important dimension of the analysis of any firm. It requires an understanding of where the motivations of managers and shareholders diverge and an understanding of the effectiveness of various governance mechanisms in aligning those interests (Byrd, Parrino & Pritsch 1998).

Several researchers (Jensen & Meckling 1976, Eisenhardt 1989, Byrd et al. 1998) have pointed out four main types of agency problems which incur agency costs. Managers may not be motivated to work as hard as shareholders would wish. The moral hazard problem arises due to the self-serving and work-shirking attitudes of the managers. Managers typically have different risk preferences than shareholders because managers usually have much of their own wealth tied to the continuity of the firm; therefore they tend to be more risk averse. Managers may have different horizons for achieving investment results than shareholders. Shareholders focus on the value of an infinite series of future cash flows, whereas managers are mainly limited to cash flows during their employment. Under the circumstances managers severely discount cash flows that are likely to occur after they leave the firm. Information asymmetry between managers and shareholders exists because managers run the day-to-day business of the firm and therefore managers gain access to valuable information. Managers may also have incentives to misuse corporate assets or to consume excessive perks because they do not bear the full consequences and costs of such actions.

Agency problems are also typical for co-operatives. There is an agency relationship between co-operative members as principal and hired managers as agents who should act in members' best interests. Neto, Barroso & Marcelo (2010) established that for co-operatives agency costs are more evident and also imply management costs. The authors mentioned three main reasons for agency costs in co-operatives. First, monitoring costs caused by the principal's efforts to monitor agents' operations. Second, contractual costs based on the agent's commitment with the principal. Third, costs generated by the fact that the agent tends to act on his own behalf and raises the hired manager's revenue in prejudice of co-operative revenue. All these are naturally applicable to equivalent also in limited companies (e.g. Abbasi 2009).

In order to gain a more profound understanding of the agency relationships and agency costs in our research context, it is necessary to understand the legal purpose of co-operatives and limited liabilities. We will focus on that next.

The Legal Purpose Of Consumer Co-Operatives And Limited Liabilities

The corporate characteristics of a co-operative society are based on the legal definition in the Finnish Co-operative Act (1488/2001). Pursuant to Chapter 1, Section 2 of the Co-operatives Act, a co-operative shall promote the economic and business interests of its members by the way it conducts its economic activity where the members make use of the services provided by the co-operative or services that the co-operative arranges through a subsidiary or otherwise. The purpose of co-operatives is by nature economic, to increase the economic welfare of their members, but members obtain benefits through the co-operative indirectly. The data of our study consists of consumer co-operatives. The members of consumer co-operatives are consumers who may buy goods and services from the co-operative at a lower price than they would otherwise have to pay. Although the main rule is that the surplus of the co-operative may not be distributed directly in money among the members, the Finnish Co-operative Act allows any surplus to be distributed to the members only if so stipulated in the rules of the co-operative. In our data every co-operative permit the distribution of surplus in its rules.

The Finnish Limited Liability Company Act (624/2006) contains a legal presumption that the purpose of a company is to generate profits for its shareholders. The economic welfare (for example dividends and/or increase in value of shares) comes directly to shareholders. This is an essential fact in agency relationships between managers and shareholders. In limited companies and co-operatives shareholders and members have no personal liability for the corporate obligations. The incentive to monitor the business of these organizations is not based on the parties' financial investments; on the contrary the expected earnings are maybe a more powerful incentive.

Agency relationships in consumer co-operatives and limited liability companies

In limited liability companies, a classic agency relationship emerges between owners (shareholders) and managers. In co-operatives, members, as owners, are the principals (Cornforth 2004). However, as maintained by Cornforth (2004), applying agency theory in the co-operative context is not straightforward. That is, in agency theory it is assumed the shareholders' main interest is to maximize profitability and that market controls (i.e., pressure from major shareholders, threat of takeover, board monitoring) help to keep managers aligned with this goal. In co-operatives, the situation is different.

First, co-operatives are established to serve their members' interests and "profitability is a means to an end rather than an end in itself" (Cornforth 2004, p. 15). That is, consumer co-operatives should act to maximize "consumer surplus, a measurement of how much the members benefit, in total, from both the savings they make in the form of lower prices and the savings they make from patronage refunds from the co-operative" (Fairbairn et al., 1991, p. 127), not the operating results of the co-operative itself. Additionally, since there are no pressures to maximize profitability, co-operatives may concentrate on the long-term development of an efficient organization as regards the provision of particular goods and services, whereas for example listed companies have to adapt to the pressure of the quartile economy (i.e., quarterly financial reporting) (Jussila, Tuominen & Saksa 2008). Further, co-operatives may also invest in sparsely populated areas, from which other service providers have withdrawn (Jussila, Kotonen & Tuominen 2007). In fact, providing services in locations where there is a need for them, but no service providers have traditionally been, is an important task for consumer co-operatives (cf. Fairbairn et al., 1991).

On this account, it seems that formulating clear and consistent objectives for the co-operative and its managers is not an easy task in a democratic organization. That is, among members "there may be debates and conflicts over the quality and range of services provided" (Spear 2004, p.46). Additionally, Spear 2004 maintains that since members' primary role is not as investors, most of them do not have a direct interest in the profitability of the co-operative. Instead of maximum profitability, lower prices, more convenient store location or better quality are more likely to be given priority among members. Therefore, performance measurement may also become a challenge, as the conventional indicators of success (e.g. profit) may not be applicable to co-operatives (Tuominen et al. 2009, Spear 2004). Typically, market share has been considered as an appropriate indicator of success of co-operative management, but it is possible to succeed in the market without promoting the interests of members. Fulton (1999), for one, maintains that high market share may simply reflect member's high commitment towards their co-operative.

Regarding the monitoring the managers, managerial ownership is an important internal monitoring force in limited liabilities (Chen & Steiner 1999). Managers who own a large number of shares are likely to work harder, have longer investment horizons and make better investment decisions than managers who have only few shares. (Byrd et al. 1998) In addition to managerial ownership, debt and dividends are useful in reducing the agency costs of management (Easterbrook, 1984, Rozeff, 1982). Dividend distribution may keep firms in capital markets, where, according to the agency theory, monitoring of managers is available at a lower cost. Dividends are also a part of firm's bonding means. Higher debt causes external monitoring by lenders.

However, in consumer co-operatives the non-transferable ownership shares are usually based on the principle of one person one vote instead of one vote per share. Thus, significant managerial ownership is not possible in co-operatives. Further, ownership is widely dispersed, preventing the concentration of ownership and inhibiting transfers of ownership through mergers, conversions and takeovers (Spear 2004). Therefore "there is no market for corporate control in co-operatives that can serve as a source of discipline for co-operative managers" (Hansmann 1999, p.397-398). Although it has been noted that markets do indeed control consumer co-operatives through owners' behaviours as customers (i. e., a member may express his/her dissatisfaction by exit, and buy a substitute product or service from a co-operative's competitor. (Tuominen, Jussila & Kojonen 2009), one has to bear in mind that if the markets do not work, neither does market control (Hirschman 1970). That is, in many cases the value of consumer co-operation to the member consists of access to goods and services otherwise not available (Fulton & Hammond-Ketilson 1992) and members are unable to exit. Thus, it may be considered that in such markets the threat of voting with one's feet does not provide management with any incentive to improve the services of the co-operative.

In limited liability companies, the board of directors is in charge to promote shareholders interests. However, Byrd et al. (1998) point out that a board may not always act in the shareholders' best interests. If the incentives of board members differ from shareholders' interests, a board may use its authority to benefit managers at the expense of the shareholders. On some occasions, this may also be the case in co-operatives. That is, Tuominen et al. (2009) maintain that the persons running for positions of trust are typically individuals whose main concern is to secure the prosperity, growth and continuance of the co-operative business instead of looking after the short-term benefits of the members. Thus, "there are concerns that the elected officials are (or become) identified with the appreciated top executives and place themselves on the opposite side of the table from those whose voices they are supposed to mediate to management" (Tuominen et al. 2009, p. 29). In these cases growth through investments may become emphasized at the expense of refunding the membership.

In sum, due the various reasons presented above it seems that for co-operatives "the agents (managers) have more freedom of action than in conventional enterprises and will not be under pressure to perform according to member interests" (Spear 2004, p. 49). Therefore it is interesting to analyse whether there are differences between the financial performance and efficiency of co-operatives and limited companies in order to ascertain whether the co-operative actually operates as it should be operating. After all, it is considered that a co-operative does not fulfill its primary purpose unless it provides concrete benefits to its members (Saxena & Craig 1990), for example in terms of lower prices, more convenient store location, and patronage refunds.

Research design

The Co-Operative Context In The Finnish Retailing Business

The Finnish retail organisation S-group consists of 22 independent regional co-operative societies as well as a central organization SOK and its subsidiaries, owned by the regional co-operatives. The 22 co-operatives, in turn, are owned by their members. In total, the co-operatives in the S-group have about 1.9 million customer owners (the total population of Finland is 5.4 million). Businesses in the S-group include food and groceries, specialty goods, hotels and restaurants, hardware and agriculture, automobiles, service stations, and welfare services. In its most important business areas, namely food and groceries and specialty goods, the domestic market share of the group is around 43 percent. The group declares as its purpose to provide services and benefits for committed customer-owners. The central organization, which is owned by the 22 independently run and governed co-operatives, provides advice, support and service activities for regional societies. Usually, and in Finland too, co-operative ownership is much dispersed. The Finnish regional co-operatives may have thousands or tens of thousands of owners. Ownership is, however, more centralized at the group level as the central units are owned by the 22 co-operatives in the S-group. (www.s-kanava.net: accessed June 9th 2011, Jussila, Saksa & Tienari 2007)

Sampling And Data Collection

The empirical data were drawn from financial statements of 2009 and 2008. The initial population consisted of Finnish regional co-operatives and private limited companies with a sales turnover between 15.4 and 1 596 million Euros (based on financial statements of 2009).

As mentioned earlier the Finnish retailing co-operative organization, S-group, consists of 22 regional co-operatives. All these regional co-operatives were selected for our sample. The sales of these regional co-operatives were between 41.7 and 1,596 million Euros and the mean was about 375 million Euros (median 284 million Euros). A total of 143 limited companies were identified from the financial statement database Voitto+, having the same main line of business as the regional co-operatives (branch code 47111 = retail sale in large supermarkets, over 1,000 m2). In this line of business there were 28 companies with a sales turnover of 15 million Euros. All these companies were selected for our sample. The sales of these companies were between 15.4 and 48.9 million Euros and the mean was 25.2 million Euros (median 21.5 million Euros).

Variables

Here we describe the main variables used in our quantitative analysis. In our study we assume that the agency costs reflect the degree of separation between ownership and control. Several studies (e.g. Porras & López-Mateo 2011, Ang, Cole & Lin 2000) have pointed out that one proxy for agency costs in private non -listed companies is the asset utilization ratio, which is defined as the ratio of annual sales to total assets. In this study we follow previous studies and use the measure *percentage of total assets to sales* as an agency costs proxy. The agency costs proxies are empirical measures that indicate how effectively the company's management controls operating costs and deploys the company's assets. Another proxy for agency costs in our study is to measure *percentage of personnel expenses to company's sales*. This is an extremely valid measure in the Finnish context because in Finland salaries are strictly controlled by labour market organisations. When the percentage of total assets to sales or percentage of personnel expenses of company's sales decreases, there is an increase in efficiency and an increase in expenses and resources controlled by management.

In our study we also try to demonstrate how financial performance measures indicate the amount of companies´ dividends or distributed surplus. In the other words, we investigate if companies pay higher dividends (and distribute surplus) when companies' performance is high and vice versa. In our quantitative analysis we use measures which indicate companies´ solvency to distribute its assets to the owners or which describe how much of companies´ profits were distributed to the owners. The following measures describe the solvency of dividends or surplus distribution: percentage of cash and receivables to total assets, percentage of equity to total liabilities, percentage of total earnings to equity, profit margin and equity ratio. The following measures describe how much of companies´ profits were distributed to the owners: percentage of dividends or distributed surplus to total earnings and percentage of dividends or distributed surplus to total assets.

Results

Descriptive statistics and correlations

The descriptive results based on the financial statements of 2008 and 2009 of the regional co-operatives and selected limited companies together are shown in Table 1. The sales distribution of the all companies was skewed as the mean was about 179.1 million Euros and median was only 38.8 million Euros.

Table 1 – *Descriptive statistics*

Variables	Mean	Std dev	Min	Max	Median
Limited companies N=28					
sales of 2009 (million Euros)	25.2	9.3	15.4	48.9	21.5
sales of 2008 (million Euros)	25.0	10.6	14.3	58.3	21.5
total assets of 2009	6.1	4.0	2.2	18.1	5.2
total assets of 2008	6.0	4.1	2.3	18.9	5.2
Co-operatives N=22					
sales of 2009 (million Euros)	374.9	327.4	41.7	1596.0	283.7
sales of 2008 (million Euros)	363.4	305.4	41.0	1484.4	283.4
total assets of 2009	190.3	140.9	18.2	685.3	180.5
total assets of 2008	173.9	128.7	17.0	624.3	159.3
All companies N=50					
total assets / sales of 2009 (%)	36.8	17.8	12.9	74.5	37.3
total assets / sales of 2008 (%)	35.3	16.3	12.7	66.1	37.6
cash and receivables / total assets of 2009 (%)	29.7	17.9	8.4	78.5	25.6
cash and receivables / total assets of 2008 (%)	30.1	16.1	8.7	79.9	27.1
total earnings / shareholders´ equity of 2009 (%)	88.9	18.9	0.0	99.9	98.2
total earnings / shareholders´ equity of 2008 (%)	88.8	18.9	0.0	99.9	97.9
shareholders´ equity / total liabilities of 2009 (%)	55.3	19.0	8.7	86.8	57.7
shareholders´ equity / total liabilities of 2008 (%)	52.5	19.2	6.77	83.7	55.5
profit margin, EBIT of 2009 (%)	3.5	2.7	-1.0	14.9	3.4
profit margin, EBIT of 2008 (%)	3.4	2.8	-0.7	14.6	3.2
dividends or distributed surplus / total earnings of 2009 (%)	5.2	5.4	0.0	30.6	4.0
dividends or distributed surplus / total earnings of 2008 (%)	8.5	17.1	0.0	91.9	3.7
dividends of distributed surplus / profit for financial year of 2009 (%)	26.9	22.8	0.0	86.4	23.8
dividends of distributed surplus / profit for financial year of 2008 (%)	30.0	34.6	0.0	157.2	17.5
equity ratio of 2009 (%)	56.6	18.6	8.7	89.5	57.5
equity ratio of 2008 (%)	53.5	18.7	6.8	85.3	56.0
personnel expenses / sales of 2009 (%)	7.8	2.9	2.5	13.7	8.3
personnel expenses / sales of 2008 (%)	7.6	2.7	2.6	13.4	7.8

Table 2 reflects correlations based on the financial statement measures of 2009. The correlations in Table 2 show that sales is statistically significantly positively related to the measures *total assets / sales* and *personnel expenses / sales*. The negative relation is between sales and the measure *dividends or distributed surplus / total earnings*, sales and the measure *cash and receivables / total assets* and also between sales and the measure *dividends or distributed surplus / net assets*. An interesting finding was that the measure total assets / sales has a statistically significantly strong positive correlation with the measure personnel expenses / sales. Both these measures describe how effectively organisations are able to utilize their resources. This finding seems to indicate that the co-operatives were not able to totally utilize the scale benefit which they have as larger companies in our data.

Table 2 – *Correlation matrix (financial statements of 2009)*

	1	2	3	4	5	6	7	8	9	10
1	1									
2	-.259*	1								
3	.441***	-.250*	1							
4	-.458***	.272*	-.578***	1						
5	.040	.210	.163	.195	1					
6	-.184	.370***	-.416***	.383***	.388***	1				
7	-.392***	.755***	-.615***	.496***	-.093	.397***	1			
8	-.086	.360***	-.044	.132	.124	.225	.529***	1		
9	.018	.231	.097	.215	.988***	.412***	-.061	.101	1	
10	.449***	-.355**	.668***	-.598***	.033	-442***	-.564***	-.082	-.061	1

**** p< 0.01, ** p< 0.05, *p<.10*

Variables: 1 sales, 2 dividends or distributed surplus / total earnings (%), 3 total assets / sales (%), 4 cash and receivables / total assets (%), 5 shareholders´ equity / total liabilities (%), 6 total earnings / shareholders´ equity (%), 7 dividends or distributed surplus / net assets (%), 8 profit margin (%), 9 equity ratio (%), 10 personnel expenses / sales (%).

Analysing Differences Between Co-Operatives And Limited Companies

The descriptive information is shown separately for regional co-operatives and limited companies in Table 3. An independent-samples T-test was applied to test for differences between these two groups.

Table 3 – *Differences between co-operatives and limited companies*

Financial statement information of co-operatives and limited companies	Co-operatives	Limited companies	T-values
1A) Total assets / sales of 2009 (%)			
mean	53.7	23.5	11.25***
std. dev.	9.1	9.7	
1B) Total assets / sales of 2008 (%)			
mean	50.2	23.6	9.84***
std. dev.	7.8	10.6	
2A) Cash and receivables / total assets of 2009 (%)			
mean	15.9	40.6	-6.66***
std. dev.	7.7	16.0	
2B) Cash and receivables / total assets of 2008 (%)	17.1	40.3	-7.26***
mean	8.2	13.1	
std. dev.			
3A) Shareholders ´equity / total liabilities of 2009 (%)	55.4	55.2	.039
mean	17.1	20.7	
std. dev.			
3B) Shareholders´ equity / total liabilities of 2008 (%)	56.2	49.7	1.20
mean	17.1	20.5	
std. dev.			
4A) Total earnings / shareholders´ equity of 2009 (%)	80.2	95.7	-3.12***
mean	15.5	18.8	
std. dev.			
4B) Total earnings / shareholders´ equity of 2008 (%)	80.1	95.6	-3.11***
mean	15.4	18.8	
std. dev.			

5A) Dividends or distributed surplus / total earnings of 2009 (%)			
mean	1.6	8.2	-5.33***
std. dev.	1.7	5.6	
5B) Dividends or distributed surplus / total earnings of 2008 (%)			
mean	1.7	14.4	-2.72***
std. dev.	1.5	21.8	
6A) Dividends or distributed surplus / net assets of 2009 (%)			
mean	1.3	7.8	-5.60***
std. dev.	1.4	5.3	
6B) Dividends or distributed surplus / net assets of 2008 (%)			
mean	1.3	13.4	-2.77***
std. dev.	1.3	20.4	
7A) Profit margin of 2009 (%)			
mean	3.3	3.8	-.71
std. dev.	1.1	3.5	
7B) Profit margin of 2008 (%)			
mean	3.8	3.4	.15
std. dev.	3.5	3.6	
8A) Equity ratio of 2009 (%)			
mean	55.5	57.4	-.35
std. dev.	16.2	20.4	
8B) Equity ratio of 2008 (%)			
mean	56.4	51.4	.91
std. dev.	16.1	20.4	
9A) Personnel expenses / sales of 2009 (%)			
mean	10.0	6.1	6.49***
std. dev.	2.0	2.2	
9B) Personnel expenses / sales of 2008 (%)			
mean	9.7	6.0	6.50***
std. dev.	2.0	2.0	

**** p< 0.01, ** p< 0.05, *p<.10*

Table 3 shows the results of the independent-samples T-tests. In terms of the agency cost variables (1A, 1B and 9A, 9B) co-operatives and limited companies differ statistically significantly. In limited companies the proxy values for agency costs are clearly lower than in co-operatives. This result concurs with the earlier empirical findings. Several studies have pointed out that agency costs are higher when outsiders (hired management) manage the firm, which is always the case in regional co-operatives. Of course the hired management may be also a member of the co-operative. Yet in co-operatives management cannot affect the value of the company or derive benefits by raising the value of the company in the same way as it is possible in limited companies overall and especially in owner-managed companies. An interesting finding is that even though variables 9A and 9B differ statistically significantly, variables 7A and 7B do not differ between co-operatives and limited companies. This result may indicate that the S-group (and regional co-operatives), as a large actor and purchaser, gets greater discounts from suppliers and that its supply chain works efficiently. But they lose this cost benefit due to higher personnel expenses and therefore profit margins in co-operatives and limited companies are equal.

Variables 3A,B and 8A,B do not differ statistically significantly. This result may indicate that the management in co-operatives and in limited companies are equally ready to take risks and finance investments also with debt.

Variables 5A,B and 6A,B differ statistically significantly between co-operatives and limited companies. This difference is logical: according to the Co-operative Act the primary task of the co-operatives is to produce services for its members whereas the primary task of the limited companies is to maximize their owners' wealth, and one way to execute this task is to distribute dividends to owners.

Between co-operatives and limited companies variables 4A,B also differ statistically significantly. This difference is a consequence of the Co-operative Act. Due to this Act co-operatives have to consolidate a certain share of their profits, moreover minimum co-operative capital is higher than minimum share capital.

Statistically significant differences were also found between co-operatives and limited companies in variables 2A,B. This result indicates that the assets of limited companies are more liquid than the assets of co-operatives. One implication of opportunistic behaviour by management is that management is ready to invest in fixed assets where return on investment is not at a very high level. However management in limited companies is often forced to think if the return on investment high enough for shareholders. An important question is whether our finding might indicate that the management of co-operatives tend to act in an opportunistic way.

Linear Regression Results

Table 4 – *Linear regression results, measure dividends or distributed surplus / profit for financial year of 2009 (%) as dependent variable*

Model fit	All firms	Co-operatives	Limited companies
N	50	22	28
R square	.248	.058	.254
F	2.766**	.172	1.501
Model estimates	b (std.err.)	b (std.err.)	b (std.err.)
Constant	-17.557 (15.133)	4.267 (26.897)	4.069 (23.673)
Cash and receivables / total assets (%)	.157 (.185)	-.178 (.681)	-.178 (.288)
Profit margin (%)	2.444** (1.158	.955 (6.106)	2.584* (1.279)
Shareholders´ equity / total liabilities (%)	-.860 (1.025)	.572 (1.823)	-.623 (1.450)
Equity ratio (%)	.983 (1.066)	-.454 (2.033	.892 (1.478)
Total earnings / shareholders equity (%)	.256 (.188)	.066 (.304)	.125 (.267)

**** p< 0.01, ** p< 0.05, *p<.10, b: estimated regression coefficient*

Table 5 – *Linear regression results, measure dividends or distributed surplus / profit for financial year of 2008 (%) as dependent variable*

Model fit	All firms	Co-operatives	Limited companies
N	50	22	28
R square	.317	.237	.225
F	3.523***	.872	1.043
Model estimates	B (std.err.)	B (std.err.)	B (std.err.)
Constant	-17.103 (23.533)	-9.307 (17.127)	14.193 (45.590)
Cash and receivables / total assets (%)	.565* (.318)	.048 (.376)	-.028 (.652)

(Cont.)

Profit margin (%)	4.497** (1.727)	3.093 (3.167)	4.484* (2.461)
Shareholders´ equity / total liabilities (%)	.198 (1.913)	.307 (1.049)	.261 (4.471)
Equity ratio (%)	-.589 (2.003)	-.168 (1.190)	-.687 (4.621)
Total earnings / shareholders equity (%)	.406 (276)	.028 (.193)	.400 (.505)

*** p< 0.01, ** p< 0.05, *p<.10, b: estimated regression coefficient

Tables 4 and 5 show the effects of our financial performance measures on the percentage of dividends or distributed surplus of profit for the financial year. The R-squared values and F values of models "all firms" indicate that the constructs selected for this analysis explain a significant proportion of the variance in the dependent variables. In the models "co-operatives" and "limited companies" R-squared values and F values were not statistically significant. One reason for this may be that our samples are simply too small. With these models we wanted to investigate which determinants might explain the amount of distributed funds out of companies. The results of our linear regression analysis may indicate that financial performance measures affect only slightly how much is distributed out of businesses.

Discussion And Conclusions

This study contributes to the literature on the governance of consumer co-operatives (Tuominen et al. 2009, Spear 2004, Cornforth 2004; Davis, 2001) by offering new empirical evidence about the differences between financial performance and efficiency of co-operatives and limited companies. The analyses revealed that there are significant differences between co-operatives and limited companies concerning agency costs, financial efficiency and distribution of surplus. According to the agency theory management usually tends to behave in an opportunistic way in all organizations. In co-operatives members have very limited chances to monitor or control opportunistic behaviour by management (e.g. Spear 2004). The results of our study indicate that agency costs are higher in co-operatives meaning that the management of co-operatives seems to behave in a more opportunistic way than the management in limited companies. This finding is in line with the agency theory.

As mentioned earlier, the main purpose of co-operatives is to produce services, not to distribute surplus. However, the co-operatives in our sample are able to generate quite high profits in their businesses, which seems rather surprising given that the supposed objective of consumer co-operatives is to generate consumer surplus (Fairbairn et al., 1991). Many of these co-operatives use these profits to expand their businesses in their operating regions. In limited companies, management usually tries to seek the most profitable business opportunities; paying particular attention that return on capital is high enough for the shareholders. If such investments cannot be found then limited companies normally distribute their profits as dividends to the shareholders. In co-operatives management does not have such profitability pressures exerted by their owners' (members') demands. Nevertheless, even though the quality and range of services provided may create debate and conflict among members (Tuominen et al., 2009) and it may be justifiable for the co-operatives to expand their businesses within their operating regions in terms of securing the services (Jussila et al., 2007), in our view a careful consideration should be made in order to ensure a proper balance between that kind of operation and the creation of consumer surplus.

Tuominen et al. (2009) stated that markets do indeed control consumer co-operatives through owners' behaviours as customers. However, it seems that in Finland the markets are not truly competitive because the market share of S-Group and its largest competitor (K-Group) in 2009 was almost 80 per cent. Such a market situation is closer to duopolistic markets than truly competitive markets and in that case, market control via members' buying behaviour is significantly impeded. Thus, if co-operatives promote their members advantage in the best possible way, co-operatives should ensure that they also provide "the best deal" for their members in markets which are not truly competitive.

In many co-operatives members are satisfied with the nature of the member benefits they receive. But at the same time members should also remember that they have the right as members of co-operatives to influence the decision-making of management. This means that members have the power affect how the management of co-operatives use assets and at how high a level the return of assets will be. This increased power of members is one of the most important ways to reduce agency costs and opportunistic behaviour by management. Thus we suggest that in the future co-operatives should concentrate on making their membership democracy more effective.

To conclude, we believe that our study has provided implications for the governance and management of co-operatives and limited companies and also for policy-makers. However, the study also has some limitations. For example, the sample of our study was quite small and only from one country. Thus, in the future it would be interesting and fruitful to investigate agency costs and financial efficiency to compare different types of co-operatives as well as co-operatives operating in different countries■

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