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Explaining the Choice of Accounting Standards in Municipal Corporations

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ABSTRACT

Positive accounting theory (PAT) tries to explain corporations' choices of accounting standards. Empirical research in this field has been focused on the choices made by large, listed corporations. We challenge this grounding through extending the empirical domain by testing PAT on Swedish municipal corporations. In order to be able to explain the choice of accounting standards in municipal corporations, PAT has to be complemented by institutional factors that can consider the forces of coercive, mimetic and normative pressures presented by the environment. The sample of municipal corporations showed that the choice of standards was significantly explained by both PAT factors and institutional factors. The conclusion is that municipal corporations tend to be subject to institutional influence by accepting the practice of their auditing firm and by using specific standards order to legitimise themselves when they have reached a certain size. Additionally, they tend to act according to PAT predictions by using those standards that are able to reduce the profit to levels that society deems acceptable for municipal corporations. Accordingly, through extending the empirical domain to municipal corporations, this paper's contribution is to show that PAT needs the complementary institutional factors in order to be capable of explaining choice of accounting standards in firms.

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INTRODUCTION

A scientific accounting theory should be able to explain the actual choices of accounting standards made in the economy by economic agents. Some while ago it was stated that such a theory would have to have a certain point of departure: "…the only accounting theory that will provide a set of predictions that are consistent with observed phenomena is one based on self-interest" (Watts & Zimmerman, 1979:300). This theory has been established as positive accounting theory (Watts & Zimmerman, 1986). It has been subject to extensive critiques (e.g., Milne, 2002) but it still dominates in the accounting field explaining the actual choices made of accounting standards.

Positive accounting theory (PAT) has been extensively tested on capitalistic firms, preferable listed firms. These firms operate, however, in a milieu where self-interest-seeking behaviour is expected and appropriate. A tougher test of PAT's capacity to predict accounting choices would be to apply the theory to corporations that are located in milieus characterised by strong societal influences. In Sweden such organisations exist as municipal corporations. Swedish Municipal corporations (SMCs) are corporations where the shares often are possessed by one single municipality and which are governed by a board of directors dominated by politicians selected from the political assembly of the municipality (Collin, 2001). They have been organised in order to induce cost awareness in a municipal operation, to make the organisation more alert to market demands, or to facilitate transfer of ownership through privatisation (Ibid.). Municipal organisations differ from capitalistic corporations in two important respects: 1.) They are not allowed to be organised according to a profit motive, and 2.) They have to adhere to the transparency principle that gives every citizen of Sweden the right to inspect every document of the SMC, except those that are classified as secret documents.

In SMCs the force of self-interest is still present, but the major conflicts emphasised in PAT, typically between top management and owners, are presumably weak. Therefore, other forces influence the decisions of the corporations, which makes it necessary to derive other explanatory factors than those based on self-interest. Additionally, the SMCs are located in political milieus, which makes them subject to stronger societal influence.

In order to make it possible to provide predictions that are consistent with empirical data, the present paper imports factors derived from institutional theory. It makes it possible to offer a complementary and contrasting set of explanations to actual accounting choices. In society there exist norms and values that influence decision makers directly and that set the stage for decisions, thereby influencing decisions through defining the premises on which they are made (North, 1990). It does not imply an ignorance of actions guided by self-interest, but it puts the focus on forces that influence and restrict self-interest.

The aim of the present paper is to present a theory about accounting choice consisting of hypotheses derived from both positive accounting theory and institutional theory, and to test the theory on corporations that are owned and controlled by municipalities.

The structure of the paper is as follows. The dependent factor of accounting choice is first presented briefly. In order to understand the choice made by a corporation, the reader has to be acquainted with the accounting tradition of Sweden and the opportunity set of accounting standards that are offered to the decision makers of SMCs. The next section contains the theory of the paper, where the collection of hypotheses from PAT and institutional theory are derived. The method section describes the collection of data and the subsequent dataset. The analytical section presents the results from the logistic regression analysis. Finally, conclusions are drawn.

THE OPPORTUNITY SET OF ACCOUNTING STANDARDS FOR SWEDISH MUNICIPAL CORPORATIONS

There are two acts that regulate Swedish corporate accounting, the Book-keeping Act (Bokföringslagen) and the Annual Accounts Act (Årsredovisningslagen). Both Acts are framework legislation. This means that the legislation contains only general principles about accounting and reporting. In consequence, the legislation must be supplemented by more detailed rules expressed as a ‘code of good accounting practices’. The expression ‘code of good accounting practices’ comes from the foreword to the 1976 Book-keeping Act (prop 1975:104) and was defined as: “…an actually occurring practice among a qualitative and representative circle of preparers” (Translation by authors). According to Jönsson (1985), practice does not mean commonly occurring among companies, but commonly occurring among well-respected companies. The concept of qualitative means that the preparers must use generally accepted accounting principles and certain standards and rules within the area of accounting (Brorström, Eriksson and Haglund, 2003). A representative circle of preparers can be defined as a certain number of companies within the same industry, or the same category of size or similar conditions (Jönsson, 1985; Brorström, Eriksson and Haglund, 2003).

The overall standard-setting body in Sweden is the Accounting Standards Board (in Swedish: Bokföringsnämnden), which has the tasks of interpreting and supporting the development of a good code of accounting practice (SOU 1996:157). However, the Accounting Standards Board (ASB) has entrusted to the Accounting Council (in Swedish: Redovisningsrådet) the assignment of promoting a good code of accounting practice among listed companies and companies that, due to size, are of interest to the public. The Accounting Council's (AC) standards are primarily based upon the standards issued by the International Accounting Standards Board (IASB). Compared to the Accounting Council's standards, the Accounting Standards Board's standards are less detailed and characterised by a higher degree of prudence and conservatism. The implication for a corporation applying ASB instead of AC standards will be lower costs for financial reporting and a tendency to show lower profit in the accounts.

Listed companies and companies that, due to size, are of public interest have to apply the Accounting Council's standards. All other limited companies with a business activity can choose between applying one of three alternatives: 1.) The standards of ASB; 2.) the standards of AC, or 3.) a mix of ASB and AC. The choice of which standards the company applies should be clearly stated in the annual financial report (BFNAR 2000:2).

A THEORY PREDICTING CHOICE OF ACCOUNTING STANDARDS

The choice of accounting standards could be explained by factors originating from rational choice conceptions such as positive accounting theory (PAT) or from institutional influences as they are conceived in institutional theory. The theory presented here starts with the rational choice conception that SMCs tend to select the accounting standards that are in the interest of the owners and the top managers, and produces the general hypothesis that SMCs tend to select ASB standards. However, exceptions to this general tendency can be found. These exceptions are derived from PAT, but most are derived from institutional theory. The derivation creates a contrast between a PAT hypothesis and an institutional theory hypotheses.

General hypothesis: Positive Accounting Theory prediction

Accounting has two functions: that of producing information for decision makers, such as shareholders, and that of distributing the results of production. Both functions have wealth effects for stakeholders of the organisation, who are therefore inclined to influence the accounting system of the organisation. Positive accounting theory (PAT) has focused on this aspect of the accounting system, predicting the choice of accounting rules according to the wealth effects it has for influential stakeholders (Watts & Zimmerman, 1986). PAT assumes that human behaviour can be explained by individual wealth-maximising behaviour, which implies that PAT does not assume a congruence of interest between shareholders and managers. Indeed, it cannot even be assumed that the interests of all shareholders coincide, since one shareholder could have a more long-term engagement in a firm than another shareholder, and thus have a stronger interest in the use of accounting rules that preserve wealth in the firm.

The function of distributing the results of production has both a direct and an indirect effect to be considered. The direct effect is, for example, how depreciation rules can be used in order to preserve wealth in the firm or to expose it to the owners' will through being accounted as a profit, thus making it possible to distribute to the owners through dividends. The indirect effect is, for example, how accounting rules can influence the level of profit, and thereby influence the bonus and option values of managers through the reward system.

The direct distributional effect of the accounting system can be expected to have a decisive effect on the Swedish municipal corporation (SMC). The owners of SMCs have been found to have an interest in the corporate form since it can fulfil three different functions: that of being an agent for rationalisation of municipal operations, especially creating cost awareness in the organisation; that of being an agent for competitiveness, making the organisation more alert to market demands; and finally that of privatisation, especially making it easier to transfer the company (Collin, 2001). Only in the case of privatisation could profit be expected to be of major importance, since the profit of the corporation influences the price of the corporation. In the other two cases it can be assumed that the overall tendency of the municipal owner is to retain the wealth in the corporation. The municipalities have no interest in profit; indeed it is against the law for municipalities to have a profit motive. The motive of rationalisation and competitiveness are both oriented towards fulfilment of a service, which presumably is fulfilled more easily if the surpluses are kept within the firm. Retained earnings give the owner freedom of action to design the corporation according to its interest. Thus, we expect the municipal owner to have a general tendency to support the choice of accounting rules that support retention of earnings.

The top managers of the SMC can be assumed to have the interest shared by most managers, that of growth, especially through diversification (Amihud & Lev, 1981).

Managers gain status when they manage a large organisation. Further, a large organisation offers stimulating challenges, and the mere size can imply risk reduction. One of the dominating motives for managers to prefer growth is the positive correlation found between wages and organisation size. This, however, cannot be the case in SMCs since it has been found that managers in municipal corporations tend to have a reward system that is similar to that of the municipal administrators (Collin, 2001). The SMCs are not using bonuses or options, which implies that there is no link between the top managers' wealth and the profit of the firm. Consequently there is no indirect distributional effect in SMCs that can influence the choice of accounting rules. Nevertheless, the overall interest of top managers in SMCs can be hypothesised to be that of growth, thus preferring accounting rules that retain earnings.

Summarising the derivation of top managers' interest and owners' interest from a distributional viewpoint, we have found a coincidence of interest between owners and top managers, which is a general tendency for accounting standards that retain earnings, i.e., the use of the ASB standards.

The accounting system's function as an information system is mainly to reduce asymmetry of information. It is in the interest of an engaged but absent shareholder to get a true and fair view of the corporation, since the information will influence the shareholder's decision to invest or disinvest in the corporation. At the same time, it is in the interest of the top managers of the corporation that the information system can stimulate investment decisions, i.e., give a positive view of the firm. Thus, the top managers and the shareholders cannot be assumed to have the same interest in the performance of the accounting system.

This PAT view of the choice of accounting rules due to the information system character of the accounting system cannot be assumed to be applicable to all SMCs. In Sweden, the wholly owned municipal corporation is subject to legislation of transparency that includes all Swedish government, be it on the national or the local level. The transparency principle gives every citizen of Sweden the right to inspect every document of the government, except those that are classified as secret documents. It creates good access to the governmental body and could therefore imply less need for an elaborate accounting system. Additionally, the need to create positive information in order to induce investments in the corporation's stock is probably of less concern in SMCs since they have one or a few municipal owners which invest in the corporation not to gain profit but to meet the need for the service provided by the corporation. Since accounting systems only observe actions in terms of money and not in terms of actual service provided, the accounting system is of less importance for municipal owners compared to other information systems utilised in corporations such as those recording number of successful surgical operations at a hospital corporation, or quality and quantity of water supplied by the water corporation.

Summarising the derivation of top managers' interest and owners' interest from the viewpoint of information systems, we have once again found a coincidence of interest between owners and top managers, being a general tendency not to invest in elaborate accounting systems, i.e., to promote the use of ASB rules.

Summarising the derivation of information system aspects and distributional aspects of the accounting systems leads to the conclusion that we will expect to find a basic coincidence of interest between top managers of the SMCs and the municipal owners. These two parties will promote the use of the simpler rules of ASB since they tend to retain earnings and they tend to be less costly to implement. The overall hypothesis, based on ideas from PAT, is:

H1: Swedish municipal corporations will tend to use ASB regulations.

Exception 1 to the general hypothesis: Monitoring interest by several owners

A municipality organises operations in a corporation in order to be able to intervene in the operations, especially for the purpose of controlling the direction and scope of service provided. The corporate form is preferred because it can imbue the organisation with cost awareness or market sensitivity. It has been hypothesised that meeting these needs does not require elaborate accounting rules.

One case does exist, however, in which it can be assumed that there is a demand for elaborate accounting rules. This is the case of multiple municipal owners. For example, due to economies of scale, municipalities may cooperate to organise operations, where the corporation takes care of a special service, such as a sewage or waste disposal. The service is rather straightforward, which implies that the actual service delivered is rather simple to monitor. Since the interest of the different owners cannot be assumed to coincide, it can be assumed that the scope for conflicting interests is kept to a minimum through strict corporate governance mechanisms, such as a very clear corporate strategy where the product and service areas are clearly defined, thus putting a limit on both the top managers and the board of directors.

With the possibility to intervene kept to a minimum, the owners are left with the interest of evaluating the efficiency of the operations. The accounting system can be of considerable help in this case since it can function as an information system, creating information that makes it possible to compare one organisation's economic performance with that of other organisations. A sewage corporation operating in several municipalities can be compared on costs and revenues with another sewage corporation or with other types of corporations. The more elaborate accounting rules of AC will then be preferred since they produce better information than the standards of ASB. It can therefore be expected that a SMC owned by several municipalities will prefer the more advanced standards of AC, in spite of their being more costly to apply, and less conservative valuation, i.e. a tendency to show higher profit. .

He1: SMCs owned by several municipalities will have higher probability of selecting AC than SMCs that are owned by one single municipality.

Institutional Influence Creating Exceptions

A contrast and a complement to the rational choice conception of PAT is offered by institutional theory. As defined by North (1990) institutions are "… the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction" (p. 3). This implies that institutions not only direct human interaction, but are influential on the very shaping of human preferences. Human interest is not something that is given, but something that is shaped partly by the environment in which the humans are acting, thus rationality is bounded with respect to both extent and direction (Lubatkin, Lane, Collin & Very, forthcoming). Institutions could therefore be expected to influence the behaviour of the individuals engaged in selecting accounting norms in SMC. In short, we expect institutional pressure to create exceptions to the main hypothesis.

Institutional influence has been divided by DiMaggio and Powell (1991) into three different mechanisms: (i) Coercive, inflicted by pressure from external organisations which the organisation is dependent upon; (ii) Mimetic, an imitation by modelling successful concepts in order to manage uncertainty; and (iii) Normative, which stems primarily from members of a professional group's collective struggle to define the conditions and methods of their work.

The factors that we notice here and believe to constitute exceptions to the main hypothesis are the coercive influence from the factors of corporate size and ownership by the three big cities; the mimetic influence from the factor of industry; and the normative influence from the corporation's auditing firm.

Exception 2: Institutional coercive influence through Size and Big City

Coercive influence is a pressure to adhere to norms created by an organisation; it derives its pressure capacity from organisational dependency. We assume that corporate size and ownership by the three big cities of Sweden will create a coercive pressure towards selecting certain accounting standards.

The Accounting Council (AC) addresses their standard setting towards listed companies and other companies that, due to size, are of general interest. Those companies are expected to apply the standards set by the AC. Since SMCs are not listed corporations, the criteria that they could apply are size. The definition of general interest due to size is, however, unclear. The extent to which an organisation may be considered large or small depends on the reference point used. If the reference point is the multinational listed Swedish corporations, then most of the SMCs would be considered small. But it can be expected that SMCs define their organisational field as that of SMCs, thus comparing themselves with other SMCs. We therefore expect to find that SMCs tend to compare themselves with other SMCs, i.e., a larger SMC will have a higher probability of assuming AC standards than a smaller SMC.

There is, however, a mimetic factor that could reduce the importance of size. Earlier research (e.g. Jönsson, 1985) shows that large companies have a major influence on the development of financial reporting; smaller companies tend to imitate their accounting solutions and the design of their financial reports. This mimetic behaviour could be a way for smaller companies to obtain legitimacy (e.g. DiMaggio and Powell, 1991). However, since applying the AC's standards means increased costs compared to applying the ASB's standards, we can assume that there is a trade-off when small companies and their principals agree that the costs for imitating big companies exceed the benefits. It can be concluded that the mimetic behaviour could reduce, but not eliminate, the coercive effect of corporate size. Thus, it can be hypothesised that:

He2a: SMCs' probability of selecting AC standards will increase with corporate size.

Another coercive factor influencing choice of accounting standards is the policy of the parent municipality which owns the corporation. According to DiMaggio and Powell (1991) subsidiaries are often compelled to adopt accounting practices that are compatible with those of the parent corporation. Large municipalities, and especially the three big cities of Stockholm, Göteborg and Malmö, tend to have more comprehensive and detailed financial reporting than smaller municipalities. One possible explanation for this phenomenon could be that the costs of financial reporting are to a certain degree the same in spite of the volume of transactions, which makes it economically more justifiable for big organisations to spend money on elaborate financial reporting than for small organisations.

Another explanation is that the need for elaborate financial information is greater in big cities compared to small municipalities. The big city municipalities consist of larger and more diverse organisations with many more employees, implying a need for more abstract information about the operations through a more elaborate accounting system and standards. The distance between the middle management and the top management of the municipalities is larger in the big cities than in smaller municipalities; in the latter, social control is rather strong (Cassel, 2000), which puts emphasis on the monitoring capacity of the accounting system. Since the three big cities of Stockholm, Göteborg and Malmö tend to have a more comprehensive financial reporting than other municipalities, we assume there to be a coercive influence on the subsidiary corporations to be more inclined to apply the standards set by the AC. Thus, it can be hypothesised that:

He2b: SMCs owned by the three big cities have higher probability of selecting AC than corporations owned by other municipalities.

Exception 3: Institutional mimetic influence through Industry

A central prediction of institutional theory is that companies that operate in the same organisational field and offer similar products or services to customers are inclined to act in similar ways (DiMaggio and Powell, 1991). It is rational in two senses to mimic other actors in the same field. First, since competitive advantage can be gained through causal ambiguity between performance and the set of resources and routines, imitation of competitors can produce the same advantage for the imitator. Second, being similar to the other actors in a field gives the organisation an appearance of legitimacy. In the case of SMCs, a third reason could be added. In certain industries, such as heat distribution, the corporations have a geographical monopoly, giving them less motivation for imitation by the first reason, competitive advantage. But the owners could have an interest in making it possible to compare the monopoly of their municipality with other, similar corporations, typically other municipal heat distributing corporations. This tendency to imitate could be further stimulated by industry trade associations. In conclusion, mimetic behaviour caused by a need to gain competitive similarity, to create legitimacy and to create possibilities of comparison induces corporations to behave similarly in an organisational field, such as an industry.

In addition to this mimetic influence, there is a coercive influence when considering the factor of industry. Regulation conventions and codes of behaviour are of vital importance in Swedish accounting. The legislation has the nature of framework legislation, leaving the details and the code of good accounting to be developed and maintained by the standard-setting bodies and accounting practices. The Annual Accounts Act (Årsredovisningslagen) from 1995 even prescribed that good accounting practices sometimes can be decided within an industry (Årsredovisningslagen 1995/96:10). Industry can therefore be expected to influence the accounting choices, since the factor of industry praxis is important when a company has to interpret what constitutes a good accounting practice.

In sum, institutional influence such as mimetic behaviour and, to a certain extent, coercive influence will affect the choice of accounting standards. There is, however, no reason to expect a specific set of standards in a specific industry. Thus, we hypothesise that:

He3: SMCs belonging to the same industry tend to choose the same accounting standards.

Exception 4: Institutional normative influence through the auditing firm

Auditors and auditing firms are important actors in the process of institutionalising accounting standards (Jönsson, 1985). It can be expected that a professional group will struggle for the right and the opportunity to define the conditions and methods of their work (DiMaggio and Powell, 1991). Auditors influence their conditions through their professional bodies and by being part of the regulatory regime of a country. But they have one more channel of normative influence, which is their work as auditing agents for firms. Auditors do have a powerful means to exert pressure in their authority to decide whether a firm will get an auditor's report without or with remarks. They can force their clients to adapt to their structures and relations (e.g. Meyer and Rowan, 1991). It is, in other words, reasonable to believe that auditors, in their role as professionals, exercise normative pressure regarding companies' choice of standard-setting body.

Culture and client portfolio may influence the audit habits of the different auditing firms and their auditors. Models may unintentionally be diffused by auditing firms (e.g. DiMaggio and Powell, 1991). There are, in other words, both normative and mimetic arguments that auditors and auditing firms may affect companies' financial reporting and the choice of which standard-setting body their client companies should adhere to. Accordingly, the following hypothesis is of interest to test:

He4: The auditing firm influences the SMC's choice of accounting standard.

To summarise the theory, an overall tendency towards the choice of ASB is expected due to rational choice considerations and congruence of interest between top managers and owners of SMCs. Several exceptions to the general tendency can be found, however. If the SMC is owned in common, the information demands will increase the probability of selecting AC. But more important is the institutional pressure, as found in coercive pressure through the factors of big city and size, mimetic behaviour through the factor of industry, and finally normative pressure through the factor of auditing firm.

METHOD

The aim of this paper is to examine SMCs' choice of standard-setting body. A number of factors derived from positive accounting theory and institutional theory are predicted to have an influential effect on SMCs' choice. Since our ambition is to test the influence by the different factors, we collected a sample of SMCs. The Swedish Authority of Municipalities (in Swedish: Kommunförbundet) provided us with a list of all municipal corporations. In total there were 1,283 municipal corporations. The data are collected from the SMCs' 2001 annual financial reports and were found in the data file of Affärsdata, which is supposed to contain complete information from the financial statements of all limited companies in Sweden.

The dependent variable of accounting choice was observed through the annual financial report. Legislation requires corporations to reveal which standards they are using, AC, ASB or a mix of AC and ASB. However, not every SMC adhered to the legislation. Thus, we created one more class of corporation, those not reporting accounting choice or not being in business.. We will return to the sample size later.

The independent variable of Big City was given the value of 1 if the corporation was owned by one of the three large cities: Stockholm, Göteborg and Malmö. Otherwise it was given the value of 0.

The variable of Single Owner was given the value of 1 if the corporation was completely owned by a municipality, and 0 if it was owned by several municipalities. The variable is a qualitative variable since the theory predicts a change in probability when more than one owner is present in the ownership structure. It should be noted that there are corporations that are owned by one or several municipalities together with private firms, thus constituting public-private partnerships. These corporations are not considered in the theory and therefore are not included in the sample.

The variable of Industry follows the codification given by the data set of Affärsdata. This codifying is on a five-digit level, but it was possible to use only a two-digit level because of the low frequency of corporations in most categories.

The variable of Auditing Firm was observed through inspecting which auditing firm signed the auditing report. Each auditing firm was assigned a value. Due to frequency considerations, only the big five firms (Anderson was still on the market in 2001) have been given their own categories, while companies using a firm other than a big-five auditing firm have been classified in the same category.

The variable of size was measured as turnover in Swedish Kronor (SEK). An alternative to the continuous variable of size would be to use a qualitative measurement. The Accounting Standards Board's classification (BFNAR 2000:2) arranges corporations in three different size categories according to number of employees and net value of the assets. The categorical measurement is not used, however, since theory makes a prediction of continuous influence on the probability of choice. Additionally, number of employees does not reveal societal importance since there are corporations with a large societal impact that have a high turnover but a relatively small number of employees, for example corporations engaged in electricity production and distribution. Net value of assets could also be difficult to use since corporations owned by municipalities do not have profitability as a main goal and can therefore be expected to have a less precise valuation of their assets.

SAMPLE

A total of 1283 municipal corporations were found. In 134 cases it was not possible to find data on the choice of recommendations. Corporations that were resting, i.e., lacking any operations, numbered 40. A total of 177 reported only the Annual Accounts Act as their set of recommendations and failed to add whether they used ASB, AC or a mix of both. The initial sample is 932, which is 73% of all 1243 SMCs. Table 1 shows the distribution between the different sets of recommendations. The simple recommendations of ASB are the preferred set of recommendations, as indeed was hypothesised. But since 18% of the corporations prefer AC, and 21% have chosen a mix of AC and ASB, the hypothesis is not true for every corporation. Thus, we have reason to continue the investigation, testing our exceptions to the general hypothesis.

Table 1. SMC choice of recommendations

Set of Recommendations	Number	Per cent
ASB	506	54
Mix of ASB and AC	230	25
AC	196	21
Total	932	

Our derivations of exceptions were focused on the differences that can be found between ASB and AC. The analysis will therefore be based on the sample of 702 corporations that used either ASB (n=506) or AC (n=196). Due to missing data on one or several variables, the final sample on which the analysis was conducted comprised 545 corporations. The missing cases represented 22% of all cases. No systematic difference between those selected in the sample and those with missing values were found when testing for differences in number of employees, assets and turnover. Thus, it can be assumed that the conclusions drawn from our analysis encompass all SMCs using ASB or AC.

The regression of a qualitative variable represented by a dummy variable such as turnover poses two problems of estimation (Montgomery and Peck, 1982). First, the estimated probabilities can assume meaningless values, specifically values that are negative or greater than one. Second, the errors are not distributed normally. A solution to both problems is to apply a logit model as estimated via a maximum likelihood technique, creating an S-shape curve with asymptotes at 1 and 0 (Kennedy, 1984; Afifi, 1990). The chosen analytical technique is therefore a logistic regression.

ANALYTICAL RESULTS

The descriptive statistics of the variables are presented in Table 2..

Table 2. Descriptive statistics of the variables

Variable		
	Dependent variable	
Accounting Standard	***ASB***	***AC***
	385 (71%)	160 (29%)
	Independent variables	
Big City	***Big City (1)***	***Province (0)***
	70 (13%)	475 (87%)
Single Owner	***Yes (1)***	***No (0)***
	472 (87%)	73 (13%)
Industry		
Electricity, gas, heating	141 (26%)	
Housing and real estate	249 (46%)	
Consulting	47 (9%)	
Auditing Firm	***E&Y + KPMG (0)***	***PriceWaterhouseCoopers + Deloitte (1)***
	199 (36%)	346 (64%)
Turnover	***Mean***	***Std dev***
	0.109512Million SKr	0.283029Million Skr
	≈ 11900Euro	≈ 30700Euro

The dependent variable of Accounting Standard choice shows a significant (χ^2=92.9; sign=0.000) unequal distribution, with a marked preference for ASB. The overall PAT prediction of a preference for the simple, less costly and profit-reducing standards of ASB is supported. There are, however, 29% of cases of deviation from the overall PAT hypothesis, which makes it worthwhile to investigate the choices further.

The descriptive statistics of the variable of Big City shows that the three big city municipalities of Sweden (Stockholm, Göteborg and Malmö) have 13% of all SMCs in the sample. Since there are 290 municipalities in Sweden, the three big cities appear to use the corporate form to a considerably larger extent (23.3 corporations on average) than the other 287 municipalities (1.6 corporations on average). This supports our contention in the derivation of the Big City hypothesis that the big cities tend to be different from other Swedish municipalities. A majority of the SMCs in the sample (87%) are wholly owned by one municipality. Most of the SMCs are engaged in the industry of housing and real estate. The second largest industry is in the technical sector, and the third industry is consulting. In our analysis we will include only these industries, which imply that the constant of the model carries the influence of the other industries.

The variable of the Auditing Firm has been created through an analysis of frequency distribution of ASB and AC for the different auditing firms. It was found that PriceWaterhouseCoopers and Deloitte & Touche had a similar distribution, 77.8% and 81.8% for ASB reports, and KPMG and Ernst & Young had 57.4% and 58.3% for ASB reports. Due to simplicity of presentation, KPMG and Ernst & Young were given the value of 0 for the auditing firm, and PriceWaterhouseCoopers and Deloitte & Touche were given the value of 1. The statistics indicate that most SMCs in the sample use PriceWaterhouseCoopers or Deloitte as their auditing firms.

Means of turnover are rather low, but the large standard deviation indicate a skewed sample, which the high kurtosis (76.2) proves. The standard procedure in statistical tests is to use the logarithmic value of turnover. Since the use of the non-transformed variable does not influence the analytical results, and since the value of Beta is easier to interpret, the presented results will be based on an analysis using the non-logarithmtic value of turnover

The correlation matrix of the variables in Table 3 presents seven dummy variables, which makes correlation coefficients obscure. Spearmans rho is used since the normal distribution cannot be fulfilled by the dummy variables. Nevertheless, the matrix indicates support of several of our hypotheses. The use of AC is positively correlated with Big City, the auditing firms of KPMG and E&Y and turnover. No industry effect appears to be present.

TABLE 3.

Correlation Coefficients for Dependent and Independent Variables (N=545)

(Spearman's rho is presented because all correlations include at least one dummy variable)

	2.	*3.*	*4.*	*5.*	*6.*	*7.*	*8.*
1. Use of AC	0.20**	0.00	-0.03	0.00	-0.06	-0.21**	0.09*
2. Big City		0.06	-0.04	-0.01	0.00	-0.10*	-0.01
3. Single Owner			0.11**	-0.08	0.03	-0.3	0.02
4. Industry: Electricity etc.				-	-	-0.01	0.04
5. Industry: Housing etc.					-	0.03	0.02
6. Industry: Consulting						-0.4	-0.3
7. Auditing Firm							-0.06
8. Turnover							

$^{\dagger}p<.1$; $^{*}p<.05$; $^{**}p<.01$; $^{***}p<.001$

Table 4 presents the logistic regression equation in which the hypotheses are tested.

TABLE 4.
Result of logit regression analysis (N=545)

	Probability of AC	Stand Errors
2. Big City	0.97**	0.28
3. Single Owner	-0.11	0.29
4. Industry: Electricity etc.	-0.38	0.29
5. Industry: Housing etc.	-0.29	0.26
6. Industry: Consulting	-0.87*	0.43
7. Auditing Firm	-0.90***	0.20
8. Turnover	1.56**	0.50
Constant	0.62†	0.34
Model chi-square	57.6***	
Per cent correct predicted	72.7	

†p<.1; *p<.05; **p<.01; ***p<.001

The model is significant at the 0.001 level and correctly classifies 72.7% of the cases. The hypotheses of Big City, the Auditing Firm and the Turnover are supported. Weak support was found for only one of three industries. The ownership structure had no significant impact on the choice of accounting standards.

We found support for factors that were oriented towards the coercive and the normative influence of institutions. Big City and Turnover were variables representing the coercive force of institutions. Additionally we found support for the normative institutional factor since the variable Auditing Firm was significant. The mimetic factor captured through the variable of Industry did not find strong support. PAT, which was the basis for the derivation of the main hypothesis and the exception hypothesis of ownership structure, failed. Thus, we have found in our analysis that SMCs are subject to institutional pressure merely through normative and coercive pressure.

SUMMARY AND CONCLUSIONS

The overall results show that SMCs in general apply the less detailed and more conservative standards of the Accounting Standards Board rather than the more detailed and less conservative standards of the Accounting Council. This result is in line with the theoretical predictions of PAT. Both managers and owners appear to have a common interest in postponing the profit and minimising the costs of financial reporting. The ownership interest in SMCs is oriented towards the products and services provided by the corporation, and to a lesser degree towards the profit, implying a low need to establish the profit in an elaborate way. Rewards for managers are not aligned with the financial results of the corporation, which makes managers indifferent to the idea of precision in calculating the profit. They can therefore be expected to prefer the conservative standards of ASB since these imply retention of profit. Since the companies' shares are not subject to trading, except in very few cases of privatisation, the financial market has no interest in more comprehensive financial information. Not even the lenders can be assumed to exert pressure for more elaborate accounting standards since municipalities are expected to support their corporations, i.e., an effectual unlimited liability. Additionally, lenders can be expected to prefer the conservative valuation since it tends to result in over-capitalised corporations. The transparency principle that municipal corporations also adhere to gives owners access to sufficient information.

According to PAT, a more diversified ownership should speak in favour of a more comprehensive financial reporting consistent with the standards of the Accounting Council. However, our study did not support this prediction. One reason for the prediction failure could be that the transparency principle creates opportunities for owners to become well informed. Another reason for the prediction failure could be that the assumption of interest incongruence is not valid. The ownership structure consists of municipalities, which are principals that are rather homogeneous, thus creating opportunities for goal congruence.

Turning to the complementary explanations to find reasons for the exceptions, the institutional force of industry proved to be much less powerful than anticipated. One reason for the non-significant results could be that the classification of industry was not according to the actual, institutionally determined industries. SMCs have one strong commonality, that of being owned by municipalities. The relevant fields of industry for all these corporations are not defined by the products or services they are delivering, but by who their owner is. The frequent assumption in institutional studies is that industry, defined by the product market, influences a corporation. Our contention is that institutional theory needs to assume the wisdom of corporate governance, that ownership could be a strong factor influencing the organisational field (Schleifer & Vishny, 1997).

Turnover proved to have an influence through increasing the probability of choosing AC. Since it is according to the rules, it can be interpreted to support the idea of coercive influence. Yet, there are observations than can be made that instead turn our attention to the legitimising aspect gained through mimetic behaviour. The description of the sample indicated that the accounting standard choice was not discernable in 134 cases. Additionally, in 177 cases, only the choice of Annual Accounts Act was reported. Neither of these categories, a total of 311 corporations (24%), reported according to the rules. This indicates a low level of coercive influence. The category of corporations that reported only Annual Accounts Act contained significantly smaller corporations, as measured by turnover and number of employees, which suggests that coercive influence increases with increasing size. Thus, it could be supposed that with increasing size SMCs follow the rules in order to be regarded as legitimate, and with increasing size they tend to use AC to further the legitimation of the organisation.

The coercive influence was, however, found through the significant variable of Big City. Big cities of Sweden tend to have elaborate financial accounting systems, a norm which is passed on to their subsidiary corporations. The classification of the factor Big City into the coercive category could be questioned, however. It could very well be the case that big cities have many financial accountants in their organisations due to their large size. These financial accountants develop a culture of their own, including a specific view of how accounting should be performed. The financial accountants' norms are transferred through normative pressure to all organisations where there are individuals that are part of the group of financial accountants, or individuals that would like to become part of the group. The Big City influence could therefore be an indication of normative pressure through a professional group within the large municipality of the big city. If this suspicion has some truth, it implies a critique of the traditional PAT focus on top managers and owners. A PAT analysis therefore has to start with a stakeholder analysis, finding those groups that have an interest in the accounting choices and those that could have an influence of the choice of accounting standards. Institutional theory is of some help here, since it can identify groups that have no material interest, but only a normative interest, that of adhering to what is considered by the group as good norms.

Finally, the analysis showed that the auditing firm influenced the choice of accounting standards. It was interpreted as a normative influence because of the silent assumption that auditing firms are selling their services on a market where coercive forces are absent. Ultimately, however, the question of whether it is a coercive or a normative influence is an empirical one that cannot be answered in this investigation. It could be the case that the SMC becomes very dependent on the auditing firm once it has been selected, since a change of auditing firm creates a signal that could be interpreted by the environment as conveying problems of trust or honesty.

In sum: PAT can to a large extent predict behaviour in SMCs, but it needs to be complemented by institutional theory aspects, such as mimetic and normative influence. The theory has been tested on SMCs, organisations that are not frequently considered in studies of PAT. On the other hand, public organisations tend to be the favourite subject of study by institutional theorists. Thus, SMCs constitute middle-of-the-road empirical objects. The statistical analyses made here indicate that we need both the listed-corporation-inspired theory of PAT and the public-organisation-inspired institutional theory in order to more comprehensively understand organisations that are in the twilight zone of being private organisations in a public environment.

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