

How does competitive tendering and contracting affect satisfaction with municipal health and care services?

Abstract

In this paper an investigation is made into the relationship between competitive tendering and contracting (CTC) and satisfaction with health and care services in Norwegian municipalities. There is an ongoing public debate concerning privatization and contracting as a way of providing municipal services. Several studies suggest improved productivity as well as service quality as a result. Based on public choice and property rights theories, public organizations are argued to be inefficient. Thus far, we have little knowledge about the effects of CTC on citizens' evaluations of the services exposed to CTC. To explore this, data from the *Norwegian Citizen Study*, covering over 35,000 individuals is employed. The findings show that citizens and users are more satisfied with health and care services that are subject to CTC compared to those provided solely by the public sector.

Points for practitioners

The findings of this paper encourage competitive tendering and contracting of health and care services. A positive relationship is found between CTC and satisfaction with these services. Findings provide support for arguments made in Scandinavian evaluations; the introduction of competition and contracting is argued to increase municipal focus on service quality, increased service-oriented care and is suggested as representing an improvement in attention to 'secondary needs' of residents. This is especially important for public managers in social democratic countries where the use of CTC is still a controversial topic.

Keywords

Competitive tendering, contracting, health and care services, public administration, satisfaction

Introduction

CTC is a common form of privatization (Rehfuss, 1991), and has become one of the most important strategies in improving efficiency in the public sector. Contracting services with private organizations has increased significantly in most Western countries since the 1980s. In Norway, a social democratic country, contracting elderly care with private suppliers is still regarded as controversial, and critics are quick to blame profit-maximizing owners of private care homes where cases of poor care services are exposed (e.g. Voldnes, 2015). ‘Privatization’ in its narrow sense is practically non-existent in Norway, and the term usually refers to government outsourcing with private suppliers. This involves contracts of three to five years’ duration (Bogen, 2002; Eikås, 2001). CTC has received considerable scholarly attention in recent years. However, research hitherto has focused on the determinants of the ‘make-or-buy decision’ and the economic effects. There is a lack of studies evaluating non-economic effects of contracting (Park, 2004), but a few studies have addressed effects on internally measured quality (e.g. Bel and Warner, 2008; Levin and Tadelis, 2010; Stolt et al., 2011). We have only limited knowledge concerning how these ways of reforming the public sector affect the external evaluation of those services exposed to competition and contracting.

The advocates of CTC mainly base their arguments on public choice theory (Niskanen, 2012; Niskanen, 1974; Tullock, 1965). From a public choice perspective, the

use of competitive forces is necessary to constrain bureaucrats' behaviour. This will direct public sector activity towards the public interest. Among the sceptics, a common concern is what has been labelled the 'quality-shading hypothesis' (Domberger and Jensen, 1997). This entails that privatization or CTC leads to an exaggerated focus on costs – at the expense of service quality.

The goal of this study is to explore the relationship between CTC and satisfaction with municipal health and care services. To do this, multilevel analysis combining individual and municipal level data is employed. The *Norwegian Citizen Study* covers more than 35 000 respondents over two rounds, 2009 and 2013. *The Study of Municipal Organization* conducted in 2008 and 2012 is well suited to be combined with these data, investigating, among other aspects, municipalities' decisions on employing competitive tendering and contracting within health and care services. Findings indicate that citizens of municipalities employing CTC have a higher level of satisfaction with these services, the effect being strongest for the institutionalized services. The findings support the argument that CTC entails increased municipal focus on service quality and more service-oriented care.

Theoretical framework

Advocates of competitive tendering and contracting in the public sector argue that markets are superior to governments (Tang, 1997). CTC or privatization is seen as the solution to increased cost efficiency as well as better services (Savas, 1977). Regarding use of competition, the arguments are based on public choice theory.

Improving public services through competition: theoretical arguments

Theoreticians have long accused the public sector of being inefficient and wasting resources reportedly due to the characteristic incentive structures of public officials. In public choice theory, the basic argument is that organizations are formed based on the interests of its members, and that human nature is selfish rather than altruistic. Bureaucrats aim to maximize their 'discretionary budget', and not what citizens value (Niskanen 2012; Migue and Belanger, 1974). 'A bureau's budget is always too large and the output is generally too large' (Niskanen, 1975:619). The presence of market forces is expected to align the incentives of bureaucrats with the public interest and improve efficiency. Public choice theory focuses on the importance of competition as opposed to ownership, and sees CTC as an appropriate way to improving public sector efficiency. Contributors within property rights theories (Alchian, 1965; Hart et al. 1996) argue that the role of private ownership is of higher importance than competition, a

discussion that is still not closed. However, according to Domberger et al. (1995), and Bel and Warner (2008), a change from public to private ownership will have a marginal effect without the presence of competition.

Public choice arguments have been criticized by contributors within transaction-cost economics (Williamson, 1979) and principal-agent theory (Jensen and Meckling, 1976), questioning whether contracting is the efficient solution in every context. Following agency theory, contracting with other parties will create additional agency problems that public managers have to manage. Some argue that contracting with private entrepreneurs with the goal of profit-maximization create more agency problems by higher risks of opportunism, than transacting with non-profit or public agencies (Brown and Potoski, 2003b; Light, 2011; Van Slyke, 2007; Wise, 1990). From the perspective of transaction cost economics, some transactions have characteristics that entail they may be carried out more efficiently within the organization. CTC is argued to create a need for investing in contract-management capacity (Brown and Potoski, 2003a). For services of low measurability, contracting challenges are more probable (Behn and Kant, 1999), and the need for contract-management capacity will be especially prominent. It is argued that the more measurable services are the most likely to be successfully organized through contracting (Ferris and Graddy, 1986, 1991). This image is also reflected in local governments' production choices where the easily measurable services are most frequently contracted with private companies (Brown and

Potoski, 2003b). Public choice arguments, together with their criticisms, leave the question of whether CTC yields superior performance inconclusive (Boyne, 1998) and whether it does must instead be addressed empirically.

Empirical findings on the effects of competitive tendering and contracting of public services

Although some authors argue that CTC do not necessarily result in lower costs (e.g., Boyne, 1998), most of the literature points in the direction of cost savings associated with introduction of competition and contracting (e.g. Boardman and Vining, 1989; Domberger and Jensen, 1997; Levin and Tadelis, 2010; Savas, 1977).

Regarding quality indicators, several studies also find positive effects of CTC (e.g. Domberger et al., 1995; Domberger and Jensen, 1997; Industry Commission, 1996; Stolt et al., 2011). The findings are, however, more mixed when it comes to quality. This may very well have to do with the fact that the conclusions regarding quality are far more uncertain, reflecting the difficulties of both defining and measuring quality (Boyne, 1998; Brown and Potoski, 2003b). Concerning studies on service quality, it is also important to bear in mind the difference between chosen ‘objective’ quality indicators, and the users’ own experience of the services. A Norwegian study finds no clear relationship between these two (Dræge et al., 1997:59). In Germany, a positive

relationship between competitive arrangements and satisfaction with public services is reported (Reichard, 2006) without presenting any statistical model of this.

Romzek and Johnston (1999) question whether ‘softer’ services, like elderly care, are more challenging to contract out (cf., the previous section on transaction cost economics). Thus, it will be more challenging to achieve efficiency benefits derived from CTC of these services. Studies addressing quality effects of CTC for ‘soft’ services are lacking, and the research on the provision of elderly care has mainly addressed the issue of privatization (i.e., the effect of ownership) (Amirkhanayan, 2008; Comondore et al., 2009). A study from Sweden, however, addresses CTC, and finds that nursing homes contracted out to private organizations are associated with a lower staffing rate, but achieve higher scores on several quality indicators (Stolt et al., 2011). The authors suggest that the homes run by private contractors are associated with more service-minded activities. Besides studies published in recognized international journals, several evaluations have been carried out in Scandinavia and provide positive conclusions about competitively tendered and contracted services. A Norwegian evaluation report investigating six local government nursing homes and two privately contracted nursing homes, states that the privately contracted homes use a higher share of resources on user-directed activities than is the case with local government homes (Pedersen, 1998). The author concluded that the homes run by private contractors spend more money on care, and less on administration, food and laundry. The users reported

satisfaction with food, even if it was more efficiently produced. Evaluation reports from Sweden have also found positive results from CTC (Svensson and Edelbalk, 2001). It is reported that employees of private organizations scored higher among the users on how they meet users with respect and attention paid to secondary needs such as socialization and activation (Socialstyrelsen, 1996). It is argued that the implementation of contracting forces the municipality to focus on service quality (Svensson and Edelbalk, 2001; Söderström et al., 2000). Municipal staff express a belief that without the contracting, development of the tools and procedures for specifying and monitoring quality would be considered too time-consuming to carry out (Bogen, 2002).

Some municipalities may provide their services through a mix of private and public contractors. Assuming a positive effect of competition, the effect may be expected not only for the services provided by the private contractor, but also for the services still provided by the municipality. This positive effect from private competition on public services is established in the education literature (Arum, 1996; Belfield and Levin, 2002; Thapa, 2013), and is transferable to the context of health and care services. Competition from private suppliers can compel the public providers to match the quality level and price of the private contractors. Competitors that are more efficient would soon replace less efficient units. Also, the development of tools and procedures to define and monitor service quality related to the act of tendering and contracting, would

be expected to affect the municipal attitude towards all its service providers, both public and private.

Based on the theoretical arguments of public choice theory and the positive signals from Scandinavian evaluation reports, a positive relationship between CTC and satisfaction with services is hypothesized;

Hypothesis (H1): CTC of municipal health and care services is associated with higher citizen and user satisfaction.

Post-materialistic values and satisfaction with services

Following Inglehart (1971, 1990, 1997) there has been a shift in values from the more materialistic focusing on survival, to post-materialist values focusing on self-expression. In industrial countries, younger people have been brought up in prosperity without the worry of basic physical needs. This has led to a shift of their values in the direction of self-realization stressing the importance of living a meaningful life. Scandinavian evaluation reports suggest that CTC of nursing homes and assisted living facilities is associated with higher scores when it comes to paying attention to secondary needs, service-mindedness and meeting residents with respect (Pedersen, 1998; Socialstyrelsen, 1999). These qualities appeal to the self-expression values of younger people, who will put greater value to the service qualities that go beyond attending to

basic materialistic needs. Are residents of these homes treated with more respect and participate in more social activities it will contribute to give residents the opportunity of living a more meaningful life when they are institutionalized in nursing homes. It is therefore expected that if nursing homes exposed to CTC are associated with these qualities, younger respondents will report higher satisfaction with the nursing homes and assisted living facilities in municipalities that employ CTC.

Hypothesis (H2a): Younger respondents are more satisfied with the institutionalized health and care services in municipalities that employ CTC, than in municipalities without competitive arrangements.

According to Inglehart (1971), the post-materialistic values tend to be represented among the highly educated individuals. Higher education may both affect ones values and represent a certain social status. It is therefore expected that highly educated respondents are more satisfied with services in municipalities that employ CTC, than the respondents only educated at the primary school level.

Hypothesis (H2b): Highly educated respondents are more satisfied with the institutionalized health and care services in municipalities that employ CTC, than in municipalities without competitive arrangements.

Data and Methods

In order to test for a relationship between CTC and satisfaction with services, survey data at the individual level are combined with data at the municipal level. The survey data cover over 35,000 respondents from 429 Norwegian municipalities in 2012 (430 in 2008). The individual level data are from two rounds of the *Norwegian Citizen Study*,¹ years 2009 and 2013. At the municipal level, data from two sources was used. For the independent variables concerning contracting choices, survey data from *The Study of Municipal Organization*² from 2008 and 2012 was used. The remaining municipal level variables were obtained from *Statistics Norway*.³ Municipal health and care services include four categories: nursing homes, home nursing, assisted living facilities and home help. These comprise the four dependent variables. In 2008, a total of 315 municipalities responded to a questionnaire, of which 14 stated that they employed CTC of institutionalized health and care services. In 2013, the response level was 334 of which 23 employed CTC of their institutionalized services. Nine municipalities reported to use CTC of home-based service in 2008, and 23 in 2012.

The data used in this analysis are characterized by a hierarchical structure where individual observations are clustered in municipalities. Analysing individual level effects of variables positioned at the municipal level thus implies multilevel modelling⁴. In hierarchically structured data, the lowest level observations are not independent but are clustered into contextual units at a higher level. The aim of multilevel analysis is to

investigate information at all levels of the data, and account for this variance in the dependent variable measured at the lowest level. As the explanatory variable of interest, CTC, is considered an inherently level-2 effect – and not a consequence of study design, multilevel modelling is more suitable than a cluster robust standard error (CRSE) approach. Using multilevel modelling, the effect of the cluster is incorporated in the estimate as if clusters were sampled uniformly – while using CRSE the estimates will be affected by the number of observations in each cluster.⁵

Variables

The units of analysis are individuals in Norwegian municipalities. Municipal health and care services are divided into institutionalized (nursing homes and assisted living facilities) and home-based (home nursing care and home help) services. This result in four dependent variables: *Nursing home satisfied*, *Living facilities satisfied*, *Home nursing satisfied* and *Home help satisfied*.⁶ These are coded 1 to 7 where high values indicate that the respondent is pleased with the service.

[Insert table 1 here]

The data are analysed as two groups: The first group comprises general citizens; the second group consists of respondents who had direct contact with the service in

question during the last 12 months, hereafter referred to as *users*. They may have been in contact as both patient, next of kin to a patient, or contact through work.

[Insert table 2 here]

[Insert table 3 here]

At the individual level, the following control variables are included: *Woman* is a dummy variable representing the gender of the respondent, coded value 1; men are the reference category. *Age* refers to the respondent's actual age. *High Education* is a dummy variable coded 1 if the respondent has higher education. *Employed* is a dummy variable coded 1 where the respondent is participating in the work force. *Conservative* is a dummy variable coded 1 if the respondent voted for the Conservative or the Progress party at the last municipal election. The variable *Contact with service the last 12 months* is also a dummy variable, coded 1, where the respondent has been in contact (as a patient, next of kin or through work) with the service during the previous twelve months.

The main explanatory variables are whether the municipality has employed CTC of the institutionalized and home-based health and care services. The variables *CTC* (institution and home-based) are dummy variables, where the value 1 means the municipality has utilised CTC within health and care services. Note that in some

municipalities services may be provided by a mix of private and public contractors, but the variable refers to whether services are exposed to competitive tendering.

Since the analysis includes a number of level 2 units, it is possible to include several control variables also at this level. The following control variables are included at the municipal-year level. *Population* is the number of inhabitants in the municipality per January 1st 2008 and 2012. To provide a uniform distribution, the variable is transformed to its natural logarithm. Population is included to control for municipal size, which is shown to affect satisfaction. *Revenues per capita* refers to the total revenue of the municipality per capita, including tax and financial revenues in addition to block grants. By including the municipal revenues, a control is made for the possible effect of citizens in more wealthy municipalities being more satisfied with their service provision. *Expenditure H&C* refers to the municipality's net operational expenses for health and care services per capita. This is included to control for a possible relationship between increased spending on health and care services and satisfaction. This variable is also transformed to its natural logarithm. *Recently introduced CTC* is a dummy variable coded 1 for 2013 respondents belonging to a municipality that has introduced CTC after the municipal survey in 2008. Municipalities that have recently introduced CTC are more unexperienced, an important factor in explaining contract-management capacity (Brown and Potoski, 2003a).

Eight models are presented in this paper. Models 1 and 2 can formally be presented by equation [1], models 3 and 4 by equation [2], models 5 and 6 by equation [3], and models 7 and 8 by equation [4].

$$[1] \quad Y_{ij} = \beta_0 + \beta_1 \text{woman}_{ij} + \beta_2 \text{age}_{ij} + \beta_3 \text{higheducation}_{ij} + \beta_4 \text{employed}_{ij} + \beta_5 \text{conservative}_{ij} + \beta_6 \text{contact}_{ij} \\ + \beta_7 \ln \text{population}_j + \beta_8 \text{revenues}_{ij} + \beta_9 \ln \text{expenditureHC}_j + \beta_{10} \text{recent intro} + \beta_{11} \text{CTC}_j + \beta_{12} \text{CTC}_j \text{age}_{ij} + e_{ij} + u_{0j}$$

$$[2] \quad Y_{ij} = \beta_0 + \beta_1 \text{woman}_{ij} + \beta_2 \text{age}_{ij} + \beta_3 \text{higheducation}_{ij} + \beta_4 \text{employed}_{ij} + \beta_5 \text{conservative}_{ij} + \beta_6 \text{contact}_{ij} \\ + \beta_7 \ln \text{population}_j + \beta_8 \text{revenues}_{ij} + \beta_9 \ln \text{expenditureHC}_j + \beta_{10} \text{recent intro} + \beta_{11} \text{CTC}_j + e_{ij} + u_{0j}$$

$$[3] \quad Y_{ij} = \beta_0 + \beta_1 \text{woman}_{ij} + \beta_2 \text{age}_{ij} + \beta_3 \text{higheducation}_{ij} + \beta_4 \text{employed}_{ij} + \beta_5 \text{conservative}_{ij} + \beta_6 \ln \text{population}_j \\ + \beta_7 \text{revenues}_{ij} + \beta_8 \ln \text{expenditureHC}_j + \beta_{10} \text{recent intro} + \beta_{11} \text{CTC}_j + \beta_{12} \text{CTC}_j \text{age}_{ij} + e_{ij} + u_{0j}$$

$$[4] \quad Y_{ij} = \beta_0 + \beta_1 \text{woman}_{ij} + \beta_2 \text{age}_{ij} + \beta_3 \text{higheducation}_{ij} + \beta_4 \text{employed}_{ij} + \beta_5 \text{conservative}_{ij} + \beta_6 \ln \text{population}_j \\ + \beta_7 \text{revenues}_{ij} + \beta_8 \ln \text{expenditureHC}_j + \beta_9 \text{recent intro} + \beta_{10} \text{CTC}_j + e_{ij} + u_{0j}$$

Y_{ij} represents the value of the dependent variable for citizen or user i , within municipality-year j . β_0 is the intercept, βX_{ij} are the regression coefficients at the citizen level i , within municipality-year j and βX_j represent the regression coefficients at the

municipal-year level. e_{ij} and u_{0j} are the residuals for the individual and the municipal-year level, respectively. Models are estimated using maximum likelihood, and the estimation represents the hypothetical population value that is the most likely to produce the observed sample (Wonnacott and Wonnacott, 1990:568).

Results

[Insert table 4 here]

[Insert table 5 here]

The individual level control variables *Age*, *Employed* and *Conservative* are significant in all models. *High Education* is significant in models 1, 3, 4, 7 and 8. *Woman* is significant in models 3, 6 and 7, and *Contact with service the last 12 months* is significant in models 2 and 3. Increasing age is connected with higher satisfaction with all municipal health and care services. Highly educated respondents, respondents participating in the workforce and conservative voters are all more dissatisfied with their health and care services than those with low education, unemployed and voters of non-conservative parties, respectively.

Regarding the municipal level variables, *Population* has a negative and significant effect on satisfaction with all four groups of services. Inhabitants in the larger municipalities are less satisfied with health and care services than those of smaller municipalities. Smaller municipalities generally show a higher level of citizen satisfaction. *Revenues per cap* has a positive effect on satisfaction and is significant in six of the eight models. The analysis thus indicates that citizens of more wealthy municipalities are more satisfied with their health and care services. *Expenditure H&C*, somewhat surprisingly, has a negative effect on satisfaction in all models. The citizens or users in municipalities who spend relatively more on these services are less satisfied compared to citizens or users in municipalities who spend less. However, this effect is only significant in models 1 and 2. As expected, *Recently introduced CTC* is negatively related to satisfaction with services. The effect is significant in three of the models. Contracting experience is argued to affect the municipality's contract-management capacity, which could for example be the ability to formulate contracts and follow up the contractor. More experienced municipalities are expected to be more efficient and achieve better results.

The main variable, *CTC*, has a positive effect on satisfaction in all models, the effect being significant below the 5% level in seven out of eight models. The effect is strongest for institutionalized services, and is significant at the 1% level in all four models within these services. In addition, there is a cross-level interaction effect

between the age of the respondent and CTC of the institutionalized services. The respondents below 50 years are more satisfied with nursing homes and assisted living facilities in municipalities employing CTC (see Figure 1). Above this age the differences are not significant. Thus, I find support for hypotheses H1 and H2a. Hypothesis H2b was not supported, there was no interaction effects between CTC and higher education in any of the models.

[Insert figure 1 here]

[Insert figure 2 here]

Discussion

Several studies on competitive tendering and contracting argue it has beneficial effects on both cost efficiency and service quality (Domberger and Jensen, 1997; Levin and Tadelis, 2010; Savas, 1977). Critics argue that an exaggerated focus on costs will alter service quality, many public services are challenging to contract, and use of CTC will not be suitable for these, typically ‘soft’ services like health and care (Romzek and Johnston, 1999). Empirical research on the non-economic effects of CTC within these

services is lacking, however, Scandinavian evaluations report mainly positive results (Bogen, 2002; Pedersen, 1998; Socialstyrelsen, 1996; Svennson and Edelbak, 2001).

The analysis shows that use of CTC is related to an increased level of satisfaction with the health and care services. The positive relationship is strongest for institutionalized services. A positive relationship between CTC of municipal health and care services and satisfaction in Norway is somewhat surprising if one takes into account the alleged scepticism to the introduction of market forces into the core of the welfare state. The welfare state has a very strong position in social democratic countries such as in Scandinavia, and the scepticism may very well be present. Nevertheless, the analysis indicates that this scepticism is not manifest in the evaluation of the services exposed to competitive tendering and contracting.

Citizen or user satisfaction is a subjective outcome variable, and what actually causes the higher satisfaction with the privately run care services is not known. Effects on the internally decided performance indicators are not measured, as other studies have done in the context of privatization (Comondore et al., 2009). The scores of these performance measures may not be decisive in what the citizens and users ultimately value. To explain the findings based on studies investigating internal performance measures will therefore be misleading. The lack of a connection between the chosen performance indicators and individually experienced quality was also argued by Dræge et al. (1997). It is credible that respondents evaluate quality to a great degree based on

the personal service the staff provide their patients/residents. These factors are difficult to capture in formal performance measures. The positive relationship can therefore be an outcome of more service-oriented care, as was the suggested outcome of CTC in the Scandinavian context (Pedersen, 1998; Socialstyrelsen, 1996; Stolt et al., 2011). Municipal respondents have also argued that the introduction of contracted services increases the focus on quality. This because it compels the municipality to develop quality standards and routines for monitoring quality (Bogen, 2002; Svensson and Edebalk, 2001; Söderström et al., 2000). The increased focus on regulating and monitoring quality requirements can be an explanation for the argued increase in service-orientation. As opposed to full privatization, CTC gives the municipality greater opportunity to control the services by regulating certain quality requirements in the contract. The possibility of the municipality to terminate the contract in case of many complaints from residents results in a very different situation than that of full privatization.

The argued increased focus on regulating and monitoring service quality resulting from CTC would not only affect the specific private contractor, but the overall focus on service quality in the municipality. In addition, competition from private organizations will compel the public units to provide equal quality for the same price. Otherwise, it will be replaced by a more efficient competitor. Positive effects on public institutions are found in the education literature (Arum, 1996; Belfield and Levin, 2002;

Thapa, 2013). It is likely that employment of CTC has beneficial effects both for the services provided by private contractors and for the services that are still provided by municipal units.

The positive relationship between CTC and satisfaction with the institutionalized services remains when analysing only those municipalities that introduced this arrangement between 2008 and 2012.⁶ Since only a few municipalities fall into this group, the only conclusions that can be drawn is that the data points in the same direction.

The analysis further shows a significant interaction effect between CTC and the age of the respondent. As hypothesised in H2a, younger people are significantly more satisfied with the services in municipalities employing CTC. Figure 1 shows that the significant difference in satisfaction is found among the respondents below 50 years, which corresponds with Inglehart's (1990, 1997) theory of an intergenerational value shift. This finding supports the assumption that the use of CTC is related to more service-oriented care and pay more attention to secondary needs of the residents, something which would particularly appeal to the younger respondents. However, there was not found support for hypothesis H2b. Highly educated respondents were not significantly more satisfied with their services in municipalities employing CTC. It is possible that in the Norwegian context, education is not as closely connected to specific values as in many other countries. According to OECD (2014), socio-economic returns

from education are unusually low in Norway, and some argue we are experiencing an ‘inflation’ of education (Snoen, 2014). To identify certain values, it might be necessary to separate different *types* of education.

In total, the results show that use competitive tendering and contracting is related to increased satisfaction with services. In other words, NPM initiatives that are said to be a source of concern for poorer quality are not related to any negative reactions to the services. In a social democratic country like Norway, where support for the welfare state and resistance to reforms incorporating profit-maximizing mechanisms is assumed high, the finding is interesting. It indicates that if this resistance exists, it does not shine through in the actual evaluation of the services that are exposed to competition and contracting.

Conclusion

The aim of this study is to investigate the relationship between CTC and satisfaction with services. Earlier research on CTC is extensive, yet little research has studied the effect on satisfaction with services. Though resistance to NPM reforms in Norway is assumed to be relatively high, a potential concern that profit maximizing and an increased focus on costs will alter the quality of care does not reveal itself in citizens’ evaluation of the services. The results show that CTC is positively related to satisfaction

in all models, the effect being strongest for the institutionalized services (nursing homes and assisted living facilities). Answers on what causes this effect is not available in the data, but based on earlier studies CTC increases quality focus within the municipality, more service-oriented care and paying more attention to residents' secondary needs. The results further indicate that younger respondents, with post-materialistic values, are more satisfied with the institutionalized services in municipalities that employ CTC. I argue that citizen satisfaction represents a different and valuable addition to studies measuring effects on internal performance measures. These performance measures do not necessarily reflect what is valued by the users, and service-minded activities that can be difficult to measure may have a big impact on the evaluation of the service.

Since the present data does not enable analysis of potential changes in satisfaction as a result from introducing CTC, future research employing fixed effects models and panel data would be valuable to the field.

¹ The citizen study of 2009 is carried out by the Agency for Public Management and eGovernment, and the citizen study of 2013 is carried out by TNS Gallup on behalf of the Ministry of Administration, Reform and Church Affairs. The data is prepared by the Norwegian Social Science Data Services (NSD). It provides an insight into citizens' opinions and experiences from service areas such as children, education, knowledge,

health and care, social inclusion, safety, support, economy, transport, culture, and communication.

² *The Study of Municipal Organization* is carried out by the Norwegian Institute for Urban and Regional Research. The data is prepared by the Norwegian Social Science Data Services (NSD). None of the above-mentioned organizations are responsible for the analysis of the data or the interpretations made by the authors.

³ Statistics Norway is responsible for official statistics in Norway. For more information, visit <http://www.ssb.no/en/>

⁴ Analysis was conducted using Stata/MP 13.1 for Windows.

⁵ Models were also run with cluster robust standard errors, and produced similar results.

⁶ The question for satisfaction with the services is: “How good or bad do you feel the following municipal service is? Nursing home/ Assisted living facilities/ Home nursing care/ Home help”.

⁶ Additional analysis on the 14 municipalities that have introduced CTC after 2008 show that the positive relationship remains in 7 out of 8 models, significant in two of these. Due to the low N (level-2 N: 14) and poor quality the analysis is not included.

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