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Trust in public institutions – spillover and bandwidth

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ABSTRACT

The article raises the question of whether there is a relationship between the trust that citizens have in people and the trust they have in various institutions such as public administration and media/press. The data were collected from two major surveys, and the universe is limited to citizens of two Norwegian counties. The analyses show that there is a spillover effect between the trust that citizens have in people and institutions (in general) and the degree of trust citizens have in the various particular institutions. Trust between persons, and between persons and institutions, appears to have a bandwidth-type structure. These aspects or factors can be grouped into personal trust, public institutional trust and media/press trust. These different factors are correlated with each other.

KEYWORDS

Trust to persons and institutions; broadband trust; spillover effect; Norwegian Inland

Introduction

The question posed in this article is whether the trust that citizens have in individual institutions is related to the trust they have in other institutions and to people in general. Theoretically, this is referred to as phenomena related to trust's bandwidth and trust's spillover effects (Almond & Verba, 1965; Hardin, 2013; McAllister, Bies, & Lewicki, 1998). Our data were collected from a citizen survey among residents of two Norwegian counties and from the national Norwegian monitor (Ipos-MMI, 2013) survey. The overarching goal of this study was to obtain a better understanding of the mechanisms that help to form the basis for Norwegian citizens' trust in people and institutions.

New empirical knowledge about trust variation in two Norwegian counties are presented. In recent years, years of worldwide economic crises, conflicts and environmental disasters, issues of trust have again appeared on the agenda. Generally, trust is seen as an important contributing factor to keeping families, businesses, communities and nations together (Fukuyama, 2014; Luhmann, Backelin, & Grimen, 2005; Seligman, 1997). Trust and faith in other people is regarded as a crucial foundation for democratic governance as we see it in the Nordic countries (Skirbekk & Grimen, 2012; Tilly, 2004). That citizens have trust in public institutions and that there is a general trust between citizens is seen as absolutely crucial when it comes to maintaining well-functioning democratically governed societies (Rothstein, Samanni, & Teorell, 2012; Skirbekk & Grimen, 2012; Weibull, Oscarsson, & Bergstrøm, 2013). The focus, as mentioned, is particularly on the aspect of citizens' trust in public institutions. Marozzi (2015) states that it is possible to rate countries according to trust levels, even though there are measurement inequalities. It is further important to monitor trust levels to public institutions, especially in countries with low institutional trust. The theoretical understanding of what trust is, how it develops, what affects it, and what effects it has, is complex and partly contradictory (Misztal, 1996; Möllering, 2013). There are a number of classifications of what trust is. A main division is between a strategic interest-based trust, and trust that is emotionally based (Rousseau, Sitkin, Burt, & Camerer, 1998). Different forms of trust are also distinguished. Social trust in people is different from

institutional trust¹ that is linked to organisations/institutions. Social trust is often divided into a general trust to people in general, and specific trust to a single person (Lewicki, Tomlinson, & Gillespie, 2006; Wollebæk, Lundåsen, & Trägårdh, 2012). Trust research has shown that the way trust is created and the way it evolves is complex and complicated. Trust must therefore be understood as something dynamic that is constantly changing (Lewicki et al., 2006; Luhmann et al., 2005). It means that a person may at the same time have both high and low trust in another person or group of people depending on the subject matter or context in question (Govier, 1994). Hardin (2013) points out precisely the dynamic and complex way in which trust relationships can develop. He is concerned with how one form of trust can have a 'spillover' effect into other forms of trust. Hardin says that few empirical studies of such 'spillover' effects have been done, although Almond and Verba, according to Hardin, were already concerned with this phenomenon in 1965 in their studies of political trust in Germany and Italy (2013, p. 33). Almond and Verba (1965) scrutinise the foundations of trust spillover. They state there will be little or no trust spillover in societies with a fragmentary political system and a weak political identity. Spillover effects are dependent on a common political identity. In the focus on the complexity of trust, attention is also paid to the scope of trust, often referred to as trust's bandwidth (McAllister et al., 1998; Rousseau et al., 1998). McAllister et al. (1998) define bandwidth as follows: 'The scope of the domains of interpersonal relating and competency that are relevant to a single interpersonal relationship' (p. 442). Applied to trust, this means that the trust a person has in other people or institutions may vary in bandwidth. If the trust has a large bandwidth it will span a variety of cases or contexts. If the trust has a small bandwidth, then it will span only a few facts or contexts (Rousseau et al., 1998). At the same time, Rousseau et al. (1998) call for more research focusing on the trust bandwidth and what affects this bandwidth; and in a search of Google Scholar today (January 2015), for instance, we find no studies that explicitly address the issue of trust bandwidth. There are some Norwegian research indirectly oriented to trust bandwidth: An overall conclusion is that trust to public institutions is broad; trust to one institution means trust to others (Christensen & Lægheid, 2005).

In this study, we are concerned with two forms of spillover mechanisms. First, a spillover mechanism that lets trust in a public institution, such as a municipality, affect trust in another public institution, such as a county council. In this way, spillover mechanisms will influence and partly control the bandwidth of trust in public institutions. The second form of spillover mechanism is about a transition between general social trust and institutional trust. The issue here is two main questions:

- 1) Are there any spillover effects between the trust of citizens in various public institutions, and what kind of impact does this have on the bandwidth of institutional trust?
Operationally, the question is whether citizens showing high/low trust in one public institution also show high/low trust in other public institutions, or is the trust high for one institution while it is low for another?
- 2) Is there any spillover effect between general social trust and institutional trust? The operational question is whether citizens who have high/low general social trust also have high/low institutional trust.

What can we expect to find?

Attention to citizens' trust in public institutions is essential since trust is seen as the basis for the legitimacy that every public authority needs in the society in which it exercises its

powers (Almond & Verba, 1965; Rothstein, 2011). There are various theories about what creates trust in public institutions.

The Social-Psychological view is that trust is a personal individual trait that governs the person's trust to institutions. The Social-cultural view is that trust is a result of interactions and experiences within the social network, humans been social creatures. Due to the Institutional Performance view, trust is neither an individual trait nor a social effect, but depends on how a person experience the actual services provided (Newton & Noriss in Pharr & Putnam, 2000).

Another distinction is between trust on a micro level, based on an interaction between an individual and an institution, and trust on amacro level. The macro level view is that the individual-institution interaction are imprinted by the norms of the surrounding society (Bachmann & Inkpen, 2011).

Generally, five key factors that affect people's trust in institutions are pointed out (Johansson, Jönsson, & Solli, 2006; Mayer, Davis, & Schoorman, 1995; Stahl & Sitkin, 2005). The factors are:

- 1) The institutions' competence and ability to perform their duties, that is, quality of service.
- 2) The service and empathy extended in the delivery of services.
- 3) The rules and procedures followed in the implementation of tasks.
- 4) Openness, transparency and the ability (of citizens) to influence decision procedures.
- 5) The values that the institution represents and symbolises in the community.

The three first factors are often referred to as output factors, and the two last are referred to as input factors.

In the political science debate about what characterises the relationship between citizens and public institutions, a distinction is often made between two main standpoints: the instrumental and the institutional (March & Olsen, 1995; Olsen, 2014; Peters, 1999). *The instrumental viewpoint* assumes trust to be a micro level issue so that society consists of utility-maximizing individuals and consumers who 'shop' for goods and services from instrumentally designed organisations established to produce a predetermined product or service (Olsen, 1978, 2010). The trust in and legitimacy of public institutions then depends on the extent to which the goods and services meet the needs and expectations the individual citizen. It is the system's output factors that will be the most important trust factors. Trust evaluations will be based on an assessment of the individual product/service, and it should thus be expected that the results of these assessments would vary from institution to institution. Several studies have shown that the expectations of those who receive goods and services are very high in Norway (Hellevik, 2008; Rothstein et al., 2012). The general expectation would be that the trust assessments of the individual citizen will vary from institution to institution. Spillover effects should then be small, and the bandwidth of citizens' institutional trust should be small. Little or no spillover effect between social trust in people and institutional trust should be expected.

The institutional viewpoint is that trust should be seen as a macro level issue. The viewpoint emphasises that humans are community-oriented, and that societies are social and normative communities in which citizens' thoughts, priorities and actions are influenced by the common norms and values that fundamentally characterise this community (March, 2008). From this perspective, citizens' trust in public institutions depends on the extent to

which they perceive themselves as part of the community and see the public institutions as their own. This can be referred to as the public ethos: common values that we as a society support (Lundquist, 1998; Olsen, 2010, 2014). It can then be expected that citizens' evaluations of trust will place the highest emphasis on the institutional input factors, as well as the values the institution represents and symbolises in society.

With this viewpoint, the trust evaluations of the individual citizen should not vary much between the different institutions. If the citizens perceive themselves as part of the community, the bandwidth of trust will be large. In cases where citizens do not consider themselves part of the community, this should imply a high degree of mistrust all over. From the institutional perspective, one should expect a high correlation between trust in people in general and trust in institutions, since people and institutions are expressions of and part of a common community. In cases where trust in people in general is low, so is the trust in government institutions. The output expectations from an institutional perspective would therefore be that the spillover effects will be large and that the bandwidth of citizens' trust/distrust will be large.

Norway is generally regarded as a highly developed welfare society, with high political stability and a distinctly common and non-contradictory political culture. (Hellevik, 2008; Rothstein et al., 2012; Weibull et al., 2013). The relationships between citizens and between citizens and public institutions should have the characteristics of the institutional standpoint with large spillover effects and a large trust/mistrust bandwidth. On the contrary, management research has indicated that the Norwegian government's way of governing may be referred to as 'New Public Management' (NPM) (Christensen & Lægred, 1999; Olsen, 2014). This could mean that citizens are perceived as individually utility-maximizing consumers of government, and that citizens should see government as a provider of services in line with any other service provider.

The NPM-inspired management ideology may give the trust relationships between citizens, and those between citizens and government institutions, the characteristic the instrumental standpoint describes: Weak spillover effects and low bandwidth.

In the study, there are two social trust variables and two groups of institutional trust variables. The social trust variables are 'people in general' and 'people who live in your neighbourhood'. The institutional trust group consists of the variables my municipality, my county council, the primary school and secondary school where I live, the university close to where I live, police and the law court in my county, my local hospital, the county's main hospital. The media variable group consist of the variables the local newspapers, the county branch of the Norwegian public radio/television company, the national newspapers, and the Norwegian national public radio/television company.

The trust-promoting factors are depicted in Figure 1 Our respondents mention both input and output factors.

In a separate principal component analysis (PCA), not fully shown here, it was found that the variables shown in Figure 1 can be grouped into two or three factors; quality, values and perhaps geography as a separate factor. This holds true nearly identically in survey 1 (68% variance accounted for by two factors, 78% variance accounted for by three factors. Kaiser–Meyer–Olkin Measure of Sampling Adequacy = 0.84, Bartlett's Test of Sphericity has p-value ≈ 0) and survey 2 (63% variance accounted for by two factors, 74% variance accounted for by three factors. Kaiser–Meyer–Olkin Measure of Sampling Adequacy = 0.80, Bartlett's Test of Sphericity has p-value ≈ 0). Note that Hutcheson and Sofroniou (1999, p. 225 Table 6.3) emphasise that values of the Kaiser–Meyer–Olkin measure of sampling

adequacy larger than 0.8 are very good, moreover since the Bartlett’s test is highly significant then PCA is appropriate.

Overall, this indicates that among our respondents there is reason to assume that conditions are such that both the instrumental and institutional expectations can be met.

Summary of expectations

Our empirical analysis is based on a set of institutional expectations and a set of instrumental expectations:

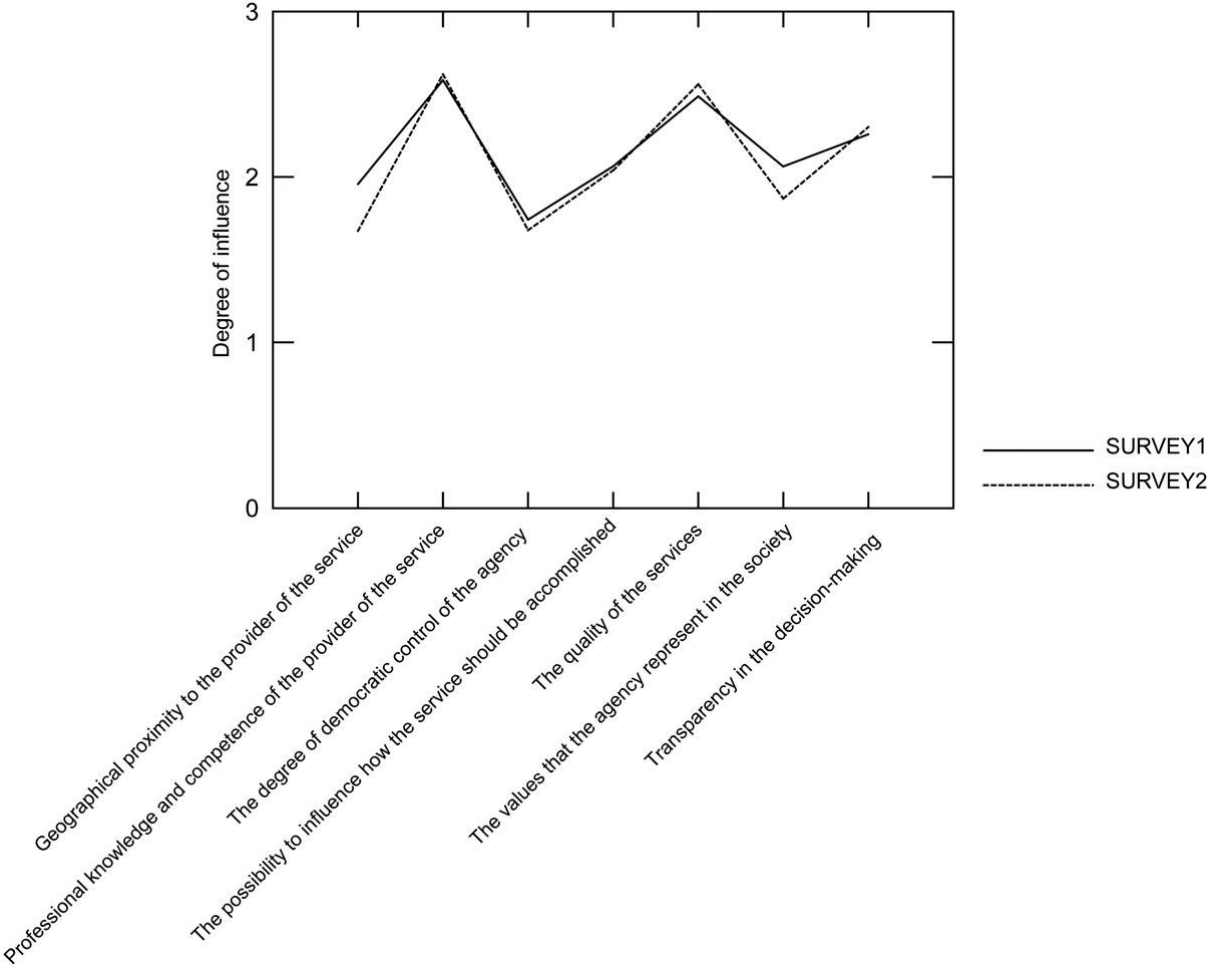


Figure 1. Level of importance of the influences upon trust in public services, Survey 1 and 2. Numbers from Tables 1 and 2.

The instrumental expectations: weak spillover effects, which imply:

Conjecture 1A: the bandwidth of trust is small.

The trust the individual citizen has varies from institution to institution, and citizens with high trust in people living in their vicinity do not necessarily have high trust in people in general, and vice versa.

Conjecture 1B: There is little or no correlation between citizens' social trust evaluations and their trust in institutions. Citizens can have high social trust and simultaneously low institutional trust, and vice versa.

The institutional expectations: strong spillover effects, which imply:

Conjecture 2A: The bandwidth of trust is large. Citizens with high trust in people in general also have high trust in people living in their vicinity, and vice versa. Citizens who have high trust in one institution have high trust in the others, and vice versa.

Conjecture 2B: There is a high correlation between citizens' social trust (trust in people in general and people living in their vicinity) and their institutional trust evaluations.

Table 1. The trust variables. Survey 1.

Variable		N of cases	Arithmetic mean	Coef. of variation
Q32	Due to your opinion, to what extent can one trust people in general? A scale from 1 = 'not at all' to 10 = 'always'	520	6.54	0.27
Q33	Due to your opinion, to what extent can one trust people where you live? A scale from 1 = 'not at all' to 10 = 'always'	517	7.07	0.27
Q34	To what degree do you have trust to the following organisations? 1 = 'Have no trust' to 10 = 'have completely trust'			
Q34_1	My municipality	514	6.73	0.33
Q34_2	My county	508	5.92	0.36
Q34_3	Primary school and secondary where I live	497	7.06	0.31
Q34_4	High school close to where I live	503	7.04	0.29
Q34_5	Police and law court in my county	511	7.09	0.30
Q34_6	My local hospital	509	7.58	0.27
Q34_7	'Sykehuset Innlandet'. The county main hospital	481	7.11	0.32
Q34_8	The local newspapers	507	6.19	0.35
Q34_9	'NRK local', the county branch of the Norwegian public radio/television company	505	6.64	0.32
Q34_10	The national newspapers	506	6.01	0.33
Q34_11	'NRK national', the Norwegian national public radio/television company	506	6.43	0.33
Q35	To what degree do the following issues influence your trust in public services. A scale from 0 = No meaning/No importance, 1 = some.. 2 = large ... 3 = Very large importance			
Q35_1	Geographical proximity to the provider of the service	514	1.96	0.45
Q35_2	Professional knowledge and competence of the provider of the service	513	2.59	0.28
Q35_3	Transparency in the decision-making	506	2.26	0.37
Q35_4	The possibility to influence how the service should be accomplished	505	2.06	0.40
Q35_5	The quality of the services	509	2.49	0.31
Q35_6	That the service is well done	513	2.51	0.28
Q35_7	The degree of democratic control of the agency	508	1.74	0.51
Q35_8	The agency's reputation	510	2.05	0.39
Q35_9	The values that the agency represent in the society	507	2.06	0.41

Citizens with high social trust levels also have high institutional trust levels. In the opposite case, if the social trust is low, so is the institutional trust.

Material

The data originate from two surveys:

Conducted by authors and company2 in the Norwegian inland counties of Hedmark and Oppland in the autumn of 2013 (Survey 1). The population size is 289,596 persons of age 20 years or older. First and second generation immigrants constitute 8%, thereof 5% from Europe excluding Turkey. The survey was about political interest and local issues. It was an adapted version of a survey conducted in Värmland (Nillsson, Aronsson, & Norell, 2012), the neighbouring Swedish county. The present survey consisted of 37 main questions in Norwegian. No ethnic information was collected (This would have been liable to special permission). A proportional random sample of 2400 persons was selected (Approximately 1–2% of the invited persons seems to have a non-western name, but who have responded is unknown). The strata were according to age group, gender and geographical region within county. The response group consisted of 532 answers (22% of invited, 1.8% of population). There are some missing values on individual variables. The practical deployment was conducted by the professional survey company Sentio Research (2014). The collected sample was compared with national public statistics (SSB, 2014). The sample was representative as measured by gender and geographical region; however, there was a lack of young respondents and an abundance of elderly respondents. It was decided to do a weighting of the data based on gender (2 levels), geographical region (10 regions) and age (7 groups of 10 years). All analyses presented here are weighted. Even then, there was a lack of responses from people with only primary school education.

A national commercial survey conducted by (Ipos-MMI, 2013), survey 2. It consisted of 40 + 311 main questions in a combined oral and paper-based survey. The number of responses was above 3700 (301 from Hedmark and Oppland). The survey experienced the same kinds of issues about response rate and representativeness as in survey 1. Survey 2 had to be weighted by gender, age and county. Too few people with only primary school education responded in this case too. The responses were gathered about the same time as survey 1, and the surveys were done partly in cooperation: some questions from survey 1 were repeated, either in identical form or modified, in survey 2. This survey is used as a validation tool.

Table 2. The trust variables. Survey 2.

Q29S	How large is your trust to the following organisations in our society?. A scale from 0 = No trust/not knowing. 1 = some.. 2 = large ... 3 = Very large trust	N of cases	Arithmetic mean	Coef. of variation
Q29S_1	Church	3744	1.37	0.67
Q29S_2	National street sale newspapers (VG and Dagbladet)	3726	0.93	0.71
Q29S_3	National parliament	3754	1.86	0.38
Q29S_4	Government	3750	1.69	0.45
Q29S_5	Health and social services	3755	1.70	0.41
Q29S_6	Banks	3759	1.65	0.46
Q29S_7	Insurance companies	3753	1.46	0.51
Q29S_8	National unions	3755	1.26	0.70
Q29S_9	'NHO' main representative organisation for Norwegian employers	3754	1.19	0.67
Q29S_10	Court of justice	3756	2.13	0.37
Q29S_11	Military	3752	1.80	0.45
Q29S_12	Police	3760	2.00	0.37
Q29S_13	Main grocery store chains	3757	0.98	0.77
Q121S	To what degree do the following issues influence your trust in public services. A scale from 0 = No meaning/No importance. 1 = some ... 2 = large ... 3 = Very large importance			
Q121S_1	Geographical proximity to the provider of the service	3731	1.67	0.50
Q121S_2	Professional knowledge and competence of the provider of the service	3728	2.62	0.24
Q121S_3	Transparency in the decision-making	3727	2.30	0.33
Q121S_4	The possibility to influence how the service should be accomplished	3730	2.04	0.41
Q121S_5	The quality of the services	3710	2.56	0.27
Q121S_6	The degree of democratic control of the agency	3710	1.68	0.52
Q121S_7	The values that the agency represent in the society	3706	1.87	0.48

The trust question formulations and the answer options in survey 1 have been previously used in other comprehensive surveys of citizens' trust in Nordic countries. The data concerning trust are presented in Tables 1 and 2. The answer distributions give an indication of citizens' social and institutional trust.

Table 1 shows the trust variables Q32 and Q33 about personal trust. The mean level is high, and their ordering might be expected, higher in 'people where you live' than 'people in general'. The variables Q34_1 to Q34_11 are about trust in several organisations or public services. The mean trust in schools, police and hospitals is about as high as in people. The mean trust in media press, municipality and county is somehow lower, but still in the upper part of the scale. It should be noted that there are fewer answers on Q34_7, concerning the county hospital. The answer distribution also shows that the citizens' trust ratings vary, meaning that there are citizens who say they do not trust the mentioned trust entity at all while there are citizens who have full trust in the same entity. It should therefore be possible to observe spillover effects of both high and low trust.

Q35_1 to Q35_9 are about the importance of factors when assessing the trust in public organisations. Geography and democracy have the lowest scores but with high coefficient of variation, while quality and competence have the highest scores with low coefficient of variation. These questions were repeated in the national survey 2 (Ipos-MMI, 2013; Weibull et al., 2013) (Ref. Figure 1).

Table 2 shows trust variables from survey 2. Q29S is comparable with Q34 in survey 1, but with some different topics, and the scale has only 4 levels. Q121S is a copy of Q35 but without two sub-questions. The mean levels and the coefficient of variations are remarkably equal between the surveys. Survey 2 also has a question on personal trust, but with only 3 levels so it is difficult to make a comparison.

Analysis: reported trust

Survey 1

The data was analysed by PCA and path diagrams (LISREL, 2014). The analysis could support or falsify the conjectures 1A, 1B, 2A and 2B. However, several models are contenders for depicting the various issues concerning trust. Through this analysis one can search for spillover mechanisms. The operational expression for spillover would be a significant correlation between high trust in one trust entity and high trust in another trust entity, and vice versa.

The Cronbach's Alpha of the 13 variables Q32–Q34_11, with N = 438, is 0.934. It is Q34_7, the county hospital, which lowers the response rate. Table 3 shows results from the PCA. Three dimensions capture 75% of the variation of the trust variables. This means that high trust in one entity imply high trust to another. In other words, there are strong spillover effects. The analyses show that there is a clear grouping by factor loadings into factors; the first factor can be named the 'government institution' factor, the second factor can be named the 'media' factor and the third factor can be called the 'personal' factor. The Q34_2, county, is weakly associated with the 'government institution' factor. The oblique rotation indicates an association between 'government institution' and both 'media' and 'personal', while the association between 'media institution' and 'person' is weaker. This means that there is a great tendency for a citizen who has high/low trust in people in general to also have high/low trust in people living in their vicinity. Moreover, there is a great tendency for a citizen who has high/low trust in public administration institutions, for example, a school, to also have the same level of trust in the municipality,

the police and the courts. Furthermore, it shows that citizens who have high/low trust in a newspaper also have the same in other media institutions. If we look at spillover effects within the three groups, it is interesting that the spillover effects are weaker between trust evaluations towards the county council and other public institutions than they are internally between the other public institutions.

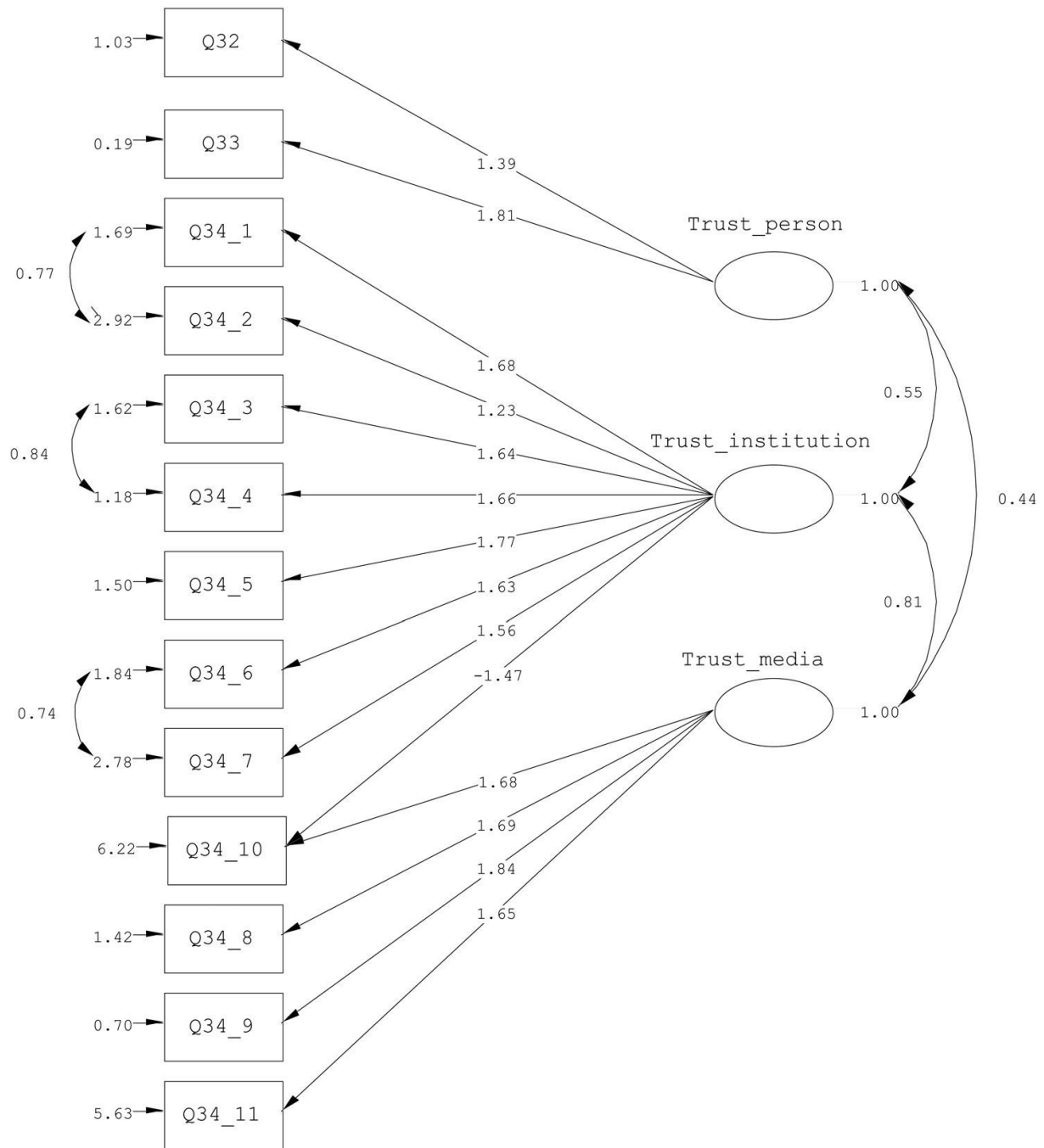
Table 3. PCA analysis of trust variables. Correlation matrix.

Eigenvalues			
Sum 1-3	1	2	3
9.77	7.28	1.39	1.09
Kaiser–Meyer–Olkin measure of sampling adequacy			0.88
Bartlett’s test of sphericity		Chi-square	4656.19
		df	78
		Sig.	0.00
Rotated pattern matrix (OBLIMIN. Gamma = 0.0)			
	1	2	3
Q34_3	0.94	–0.17	0.05
Q34_4	0.90	–0.08	0.07
Q34_6	0.82	0.04	0.00
Q34_5	0.76	0.08	0.05
Q34_7	0.71	0.12	–0.04
Q34_1	0.65	0.16	0.14
Q34_10	–0.06	0.97	0.01
Q34_11	–0.07	0.96	0.07
Q34_9	0.21	0.75	0.05
Q34_8	0.19	0.70	0.04
Q32	–0.05	0.06	0.95
Q33	0.12	0.00	0.88
Q34_2	0.48	0.28	–0.11
Per cent of total variance explained			
SUM	1	2	3
75.1	34.6	25.9	14.6
Correlations among oblique factors			
	1	2	3
1	1		
2	0.59	1	
3	0.47	0.34	1

Note: Bold text indicates the grouping into factors.

Simultaneously, there are also spillover effects between the government institutions, the media institutions and the personal variable, respectively. Also, there is a spillover effect between these three factors as seen by the correlation, especially between media institutions and government institutions.

The analysis was repeated after dividing the data into three age groups (not shown). With minor differences, the same pattern appears. However, elderly people group personal trust and media press trust together while leaving county trust as a separate entity. The data were also divided according to low, middle and high trust in persons in general (Q32). The other 12 variables were analysed by a PCA within each trust level. Here, middle and high trust people (Q32) have trust in people where they live (Q33) as a separate entity, while low trust people have the county as a separate entity. However, the overall model is reasonably stable across age and trust levels.



Chi-Square=214.05, df=58, P-value=0.00000, RMSEA=0.072

Figure 2. A LISREL model of the trust variables.

Based on the PCA results, a LISREL model was designed. It allowed for correlations between factors and between indicators (=variables). The resulting model is depicted in Figure 2.

LISREL supports an equal-level model with three intra-correlated latent variables. All paths in Figure 2 are highly significant. There is covariance between the school variables, between hospital variables and between municipal and county variables (Left, curved arrows). LISREL has proposed to add a negative path from Trust_institution to Q34_10, which is not indicated by the PCA. The variables Q32_6 to Q32_11 can alternatively be grouped as 'local' vs. 'non-local'. The 'local' variables have a smaller specific variance than

the 'non-local'. This indicates that the respondents agree more on local issues than non-local issues. The correlations between the latent variables (Right, curved arrows) have the same value pattern as seen with the PCA: the strongest association is between institution and media, the middle value is between institution and person and the smallest association is between person and media.

Figure 3 shows two alternative hierarchical models to Figure 2 (For simplicity, the already-observed part of the model has been removed from the picture. It appears in the model identical as in Figure 2). Is personal trust a basic attitude that then influences trust in organisations and media? (Figure 3, left). Alternatively, is there a general trust that influences the others (Figure 3, right)? All paths are highly significant in these models too. The overall fit is comparable with a chi-square \approx 214 as in Figure 2. Therefore, the data cannot discriminate between these three models.

Survey 2

The variables have a four-point scale, less suited for a PCA, but some insights can be revealed. Cronbach's Alpha is 0.824 based on 3639 observations.

Table 4 shows a PCA analysis of survey 2. Factor 1 may be named 'public organisations', factor 2 may be called 'private organisations, factor 3 may be called "employers and employees" organisations'. Church (Q29S_1) is not associated with any of them and would have been a separate factor, however with an eigenvalue less than 1. The correlations between factors are weaker than in survey 1. The analysis supports a bandwidth structure, but a weaker spillover effect than found in survey 1.

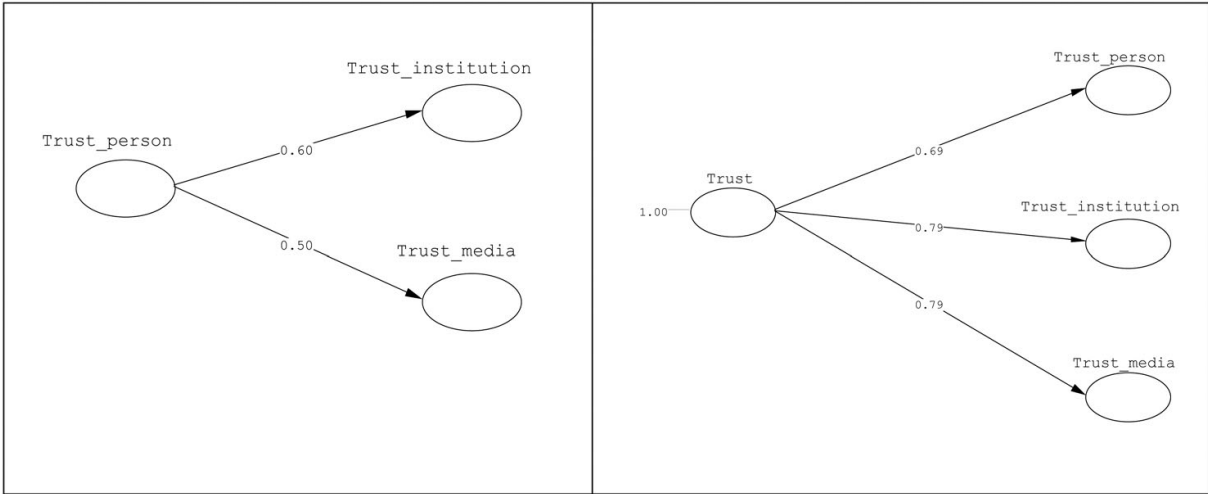


Figure 3. Alternative LISREL models: pattern of latent variables.
 JOURNAL OF TRUST RESEARCH 161

Table 4. PCA analysis, Survey 2. Correlation matrix between oblique factors.

Eigenvalues			
Sum 1–3	1	2	3
6.99	4.43	1.42	1.14
Kaiser–Meyer–Olkin measure of sampling adequacy			0.82
Bartlett’s test of sphericity		Chi-square	14593.36
		df	78
		Sig.	0.00
Rotated pattern matrix (OBLIMIN. Gamma = 0.0)			
	1	2	3
Q29S_1	0.28	0.16	–0.10
Q29S_2	0.03	0.53	–0.11
Q29S_3	0.81	–0.10	0.10
Q29S_4	0.75	–0.03	0.04
Q29S_5	0.58	0.03	0.15
Q29S_6	0.09	0.73	0.16
Q29S_7	0.02	0.74	0.21
Q29S_8	0.04	0.04	0.85
Q29S_9	0.09	0.15	0.78
Q29S_10	0.77	–0.17	0.16
Q29S_11	0.65	0.13	–0.09
Q29S_12	0.74	0.07	–0.11
Q29S_13	–0.07	0.76	0.03
Per cent of total variance explained			
SUM	1	2	3
53.746	25.376	16.056	12.314
Correlations among oblique factors or components			
	1	2	3
1	1		
2	0.4	1	
3	0.288	0.095	1

Note: Bold text indicates the grouping into factors.

Discussion

The analyses show strong spillover mechanisms between all the trust entities. The bandwidth of both the social and institutional trust is large and the bandwidth of citizens’ trust actually seems to encompass all our trust entities. The analyses show spillover effects between social trust and institutional trust. Thus, Conjecture 2A and 2B are supported while Conjecture 1A and 1B are disproved.

It is possible to group trust entities according to how strong the spillover effects are between them. The social trust entities form one group. The Grouping of the institutional trust entities reflect the function they have in the society, and whether they are private or public institutions. The bandwidth of the institutional trust is delimited and differentiated functionally. This shows that the trust in individual social institutions does not by itself seem to be characterised by citizens’ specific assessments of the trust they place in that individual institution, but just as much by the trust they have in the institutions that cover the same function in society, or belong to what Di Maggio and Powell call the same institutional field (1991).

The analyses show spillover effects between all our trust objects, and a practically limitless bandwidth. This opens the possibility that trust is a basic personality trait that is present in every Norwegian individual (Løgstrup & Fink, 2010; Sørhaug, 1996). This support the Social-Psychological trust viewpoint. The analyses also shows that respondents agree more when it comes to local institutions than non-local.

It has not been possible to discover whether there are any specific directions of the spillover effects. But the unveiling of both a weak ‘universal’ and a stronger, functionally

limited bandwidth makes it interesting to discuss what kind of basic form of trust we have revealed here. Within trust research, it is often discussed whether trust is primarily an emotional phenomenon of a general nature related to personality traits or whether it is a cognitive phenomenon. This is based on the rational interest-oriented decisions and judgments which people make in specific situations and with regard to concrete entities (Anderson & Costa, 2013; McAllister et al., 1998). Overall, the findings point to the possibility that trust have both an emotional and cognitively basis.

A possible hypothesis is that people with high trust have a trust with a high bandwidth (the institutional view) while people with low trust might have more specific trust/distrust levels depending on the institution and the service provided (the instrumental view). This does not seem to be the case; people have high trust generally or low trust generally. This also applies to age groups: even though young people have mostly experienced an NPM regime throughout most of their lifetime, they still exhibit the same trust pattern as elderly people.

Conclusion

The study shows that trust and the way it is formed in relation to both social and institutional trust entities has a self-reinforcing tendency rather than a typical functionalist tendency, comparable to what Pierson (2000) describes. The analysis suggest that it is the institutional social understanding that fits best as the mechanisms that affect citizens' trust in public institutions. This is so even though the Norwegian society has been characterized as having NPM-inspired management doctrines which many describe as a neoliberal understanding of society. Specifically, this means that there are strong spillover effects between citizens' trust evaluations of the various trust entities, and that the bandwidth of citizens' trust is large. The found spillover effects indicate that the Norwegian society still exercise a common political identity, as was found in the classical Almond and Verba study (1965). An institutionally characterised trust formation implies that the trust of citizens in both people and institutions does not change overnight. This is so far in line with other studies of trust levels in Norway (Skirbekk & Grimen, 2012).

This also means that citizens' trust evaluations are transferable and that there is a tendency for those who have high trust in one entity to also have a tendency to have high trust in other entities and vice versa. This is in line with other studies of citizens' trust evaluations in well-developed welfare societies (Weibull et al., 2013), and in line with other studies (Christensen & Lægheid, 2005). It turns out that the bandwidth of trust is functionally defined and differentiated. The strength of the institutional spillover dynamics appears to be differentiated along the functional sector boundaries that exist in society. On the other hand, the study shows that the bandwidth to some extent includes all the trust objects involved. That may indicate that trust is a characteristic of the individual citizen. The study has shown that trust to institutions is a result based on an interaction between individual and collective factors. There are psychological factors on a micro level while there are social and institutional factors on a macro level, The study confirms established theories on how trust emerges and on what basis, but a pragmatic and open-minded view is important for seeing combined effects. The findings suggest that it is not always fruitful to make a large separation between different types of trust when it comes to understanding how trust in various entities is formed and developed over time. This is a challenging result and represents particularly important knowledge when trying to influence the degree of trust in a society like Norway.

A trust formation characterised by strong spillover mechanisms may have some positive and some challenging implications for social development. As long as trust is high, spillover mechanisms and trust with a large bandwidth are a good mechanism and a positive characteristic of a society. However, if trust starts to decrease and evolve in the direction of distrust, then the same spillover mechanisms and large bandwidth could be negative, as it is difficult to imagine this having a constructive effect on societal development. The large bandwidth of trust can likewise be interpreted as citizens' trust being robust and not easily changed by specific events in an individual institutions. This can be an advantage for a society when trust is high, but can similarly become a major challenge if trust is low.

Viewed from a constructive perspective, the study suggests that if the goal is to strengthen citizens' trust in individual institutions, it is important to focus on what might strengthen the trust in the institutions that cover this particular societal feature. In the same way, it is important to be aware that the trust of citizens in a single institution has significance for their trust in other institutions specifically within the same social function. It is also important to be aware that changes to trust in social trust entities also have an impact on the trust in institutional trust entities, and vice versa.

The study has some limitations. The conclusions are based on personal statements, not actual actions. Actions might reveal a more 'true' trust level (Bakken, 2015; Grimen, 2009). Observational studies could be exercised, but it will be harder to involve the number of people a survey can involve. One might get better data from fewer people, limiting conclusions the other way around. Another limitation of the study is that the data do not allow distinguishing immigrants and people with Norwegian nationality but born in foreign countries among surveyed subjects. This lack of information may be relevant because immigration status is important when addressing trust (both social and institutional).

The study has also revealed the need for further research on the mechanisms that underlie citizens' trust in both social and institutional trust objects. It will be especially interesting to conduct studies that can say something about the direction of the spillover mechanisms, and that can reveal whether there is an underlying and more general form of trust that can explain the extensive trust bandwidth we have uncovered in this study.

Notes

1. In this regard, there is a theoretical discussion of whether it is possible to have trust in institutions (Skirbekk & Grimen, 2012). In this study, we proceed on the basis that it is possible to have trust in institutions.
2. Associate Professor Ulla Higdem, Professor Jon Helge Lesjø, at Lillehammer University College.

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