The Impact of Transparency: A Cross-National Study

Michelle S. Mahoney* and Paul Webley**

School of Psychology, University of Exeter, Exeter, U. K.

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*m.s.mahoney@ex.ac.uk **p.webley@ex.ac.uk

1.0 Abstract

Transparency or openness is often debated in politics and academic research with respect to its use in increasing accountability and maintaining a healthy democracy, as well as theoretically fostering trust in government and society in general (e.g. Nye, 1997 and Héritier, 2003). This paper presents empirical evidence of the positive relationship between transparency and trust in government cross-nationally. An index of perceived transparency is provided for 51 countries; this is the first index to be created using the definition of transparency as detailed in this paper. The index is analysed with secondary data concerning trust in government from 31 countries together with data about freedom, power distance, literacy scores and GDP. Patterns also emerge of the differences between Scandinavian countries and other European countries with respect to transparency and trust in government, which supports previous research (e.g. Grønbech-Jensen, 1998).

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2.0 Introduction

Transparency refers to the accessibility of the processes involved in decision making in addition to the outcome and to information itself. Demand for transparency is an issue which many institutions, authorities and companies world-wide are having to face. On an international level countries are changing regimes and particularly in Europe moving towards joining international bodies such as the EU which have certain disclosure requirements. The potential impact of transparency is important for democracies. Edés (2000) comments that "Greater openness of the administration can contribute to democratic legitimacy and to societal support for democratic institutions". One important impact and consequence of perceived transparency that has been made theoretically is to trust in government, which is a necessary part of healthy democracy (e.g. Nye, 1997). Despite this there has been little empirical research into the evidence for these associations and the impact of transparency from the consumer perspective.

Firstly though, why is transparency important, what is the current political climate with regards to transparency? Secondly why is the impact that it might have on trust in government in particular important? Trust in government is a topic that has received enormous amounts of attention in political science literature (just a few examples include Nye, 1997; Braithwaite and Levi, 1998; Rothstein 2001; Uslaner 2002). In particular there is a large debate about the link between social capital and trust in government. This paper does not enter into the discussion about the antecedents for trust in government but recognises that trust in government is an essential part of a healthy democracy and that transparency may have an important impact on that trust. It provides empirical evidence for something that is often discussed but has not received any systematic scientific attention.

What is the current political climate of towards transparency? Many nations already have a Freedom of Information Act. In the UK, in addition to the Labour government's policy towards 'openness of government', the Freedom of Information Act 2000 received Royal Assent on 30th November 2000. There is debate as to

whether or not this Act will actually achieve more openness in reality (see Flinders, 2000). However, the idea is that its implementation will be gradual, and by 2005 it will be fully enacted, giving people a "general right of access to information of all sorts held by public authorities (and those providing services for them)". Anyone in the UK will have the right to "be told whether the information exists" and "the right to receive the information" (Office of the Data Protection Commissioner, 2001). One of the proposed applications of this Act is to make government more open and transparent. Grønbech-Jensen (1998) discussed the difference between the Scandinavians, who knew they had a fundamental right to access information about the workings and proceedings of government, and the other Europeans who received processed information. Transparency though is not just an issue that governments are having to face; Angulin et al (2000) reported that transparency in university management furthers perceived fairness and improves academic staff motivation. However, this idealised image of full access to information increasing trust and perceived fairness may be flawed. Grønbech-Jensen's (1998) findings showed that Scandinavian countries believe in a fundamental extensive public access to information, helping to hold public policy makers accountable. However, the style for the rest of Europe is described as "communication style transparency… primarily directed at keeping the public informed of ongoing activities". There is obviously a potential for cynicism from the general public that with greater openness, people will still only receive processed information and that transparency will be more apparent than real. This issue is not just relevant to Europeans but has world-wide ramifications. The potential implications of different levels of transparency are numerous, a few examples include perceived fairness and procedural justice; consumer satisfaction and trust and participation of citizens in a democracy.

Transparency refers to the accessibility of the processes involved in decision making and to the outcome as well as to information itself. Transparency also involves proactive dissemination to the consumer of this information, knowledge and access.
Whilst writers make reference to the positive benefits of transparency of government and the constant need or desire for it, there is no empirical evidence. Gordon (2000) for example stated although the evidence for whether fully informed members of the public who actively engage in civic life in communities have greater trust in government (the social capital argument) is scarce and inconclusive, transparency

should be increase. She stated that "Information that serves to make the actions of public officials transparent to the public improves government accountability and enhances the public's trust" (p.297). She further argued that "Responsible public officials should welcome and support these developments, Further, they should identify and work with responsible journalists to publicise, and thereby make more transparent, the processes and activities of their governments. Such action can only enhance their accountability and strengthen the public's trust" (p.309). Hértier (2003) has discussed the process of increasing transparency within the European Parliament, where it is necessary and how effective the implementation of changes might be. She states that transparency can in the right places work to increase composite democracy.

Trust in government is a necessary part of a healthy democracy (Nye, 1997). Theories and evidence as to the causes of trust in government however are many and varied, just as are the forms and purposes of various government structures and institutions world-wide (see Braithwaite and Levi, 1998, for a detailed overview). Dunn (1988) stated that a lack of confidence leads to a diffuse sentiment of dissatisfaction or alienation or anomie. If there is a lack of trust then this changes the way people decide about important issues. Trust allows for risk-taking decisions, for example, is it safe to take the train this morning? Although a certain amount of scepticism is also necessary, trust in government authorities has been shown to have a strong influence on citizens' reactions to authorities and their willingness to voluntarily comply with the authorities' directives (Tyler, 1998).

Rothstein (2001) argues that information is used by people to establish who to trust and when. However, although information in some economic settings is free, information in politics is very different. It is not free, it is not generally available and it is rarely accurate. Therefore we must have "information entrepreneurs". These are people such as political leaders who Rothstein argues produce and reproduce ideas and systems of ideas. They produce ideas about who and what can be trusted. People need knowledge about how the other person in a transaction will act. However, where does this information come from? Rothstein argues that it could come from culture, history or dominant ideology. He states that it is American culture to 'hate the government' whilst the Scandinavian countries put a very high level of trust in their political leaders and are willing to pay very high level of taxes. Italians however, for

example, have good reasons to be distrustful of their government institutions as the know it to be corrupt. There is again the possibility of power distance, because Scandinavian countries "historically have had strong popular grass-root organisations". Indeed the Netherlands and Scandinavian countries score high on generalised trust (as measured in the World Value studies, Inglehart, 1997). In these countries perhaps generalised, horizontal trust is all that is needed because there is very little vertical distance, whereas the UK and the USA have a large power distance (vertical distance) so vertical trust is needed as well as horizontal trust.

This paper does not attempt to provide clarification on the causes of trust in government or establish the direction of a causal relationship between trust and transparency. It does however, recognise the importance of trust in government and the impact that transparency may have in fostering trust and aims to examine and provide the first empirical evidence of the relationship between the two on a world-wide spectrum.

3.0 Method

The method section in this paper is divided into two sections. The first discusses the details of the primary data collections. This includes the participants, the questionnaire and the procedure for collecting data. The second discusses the details of variable selection and data collection for the secondary data.

3.1 Primary Transparency data

No suitable index of perceived transparency existed. Data sampling on the scale afforded by large international organisations was impractical and therefore a methodology was chosen to give the best approximation to this technique to provide an index of perceived transparency. This section describes the method for compiling this index, the participants used, the questionnaire and the procedure.

3.1.1 Participants

Experts were chosen from one organisation (in order for them to all have similar experiences and backgrounds with respect to their own country) to give estimates on objective and perceived levels of transparency of different countries. The criteria to be classified as an organisation with members who are experts on transparency levels were as follows:

- The organisation must have specific criteria for membership ensuring that the members have all obtained a certain level of professional competency in their field.
- The organisation and its members must work with governments and therefore have first hand experience of the transparency of government.
- The organisation and its members must work with the public and have some working knowledge of public opinion.
- The professional language of the organisation must be English

The International Federation of Surveyors (FIG – Fédération Internationale des Géomètres) fitted these criteria. Surveyors frequently work with governments and the public and members. In order for individual members of the organisation to take part as 'experts' they had to be resident and work as a member of the organisation within the country that their responses were related to (i.e. someone responding about France must be a member of FIG and be resident and working in France within the surveying profession).

3.1.2 Questionnaire

The questionnaire consisted of two sections. In one, participants gave an approximation of objective transparency from their knowledge of working with the government. In the other, they were asked to answer about perceived transparency, as they believed the majority of people in the country would respond if asked the questions they were given. The first section was a measure of objective transparency, adapted from a study by Finel and Lord (1999) which examined the level of transparency of different countries historically during conflict. Finel and Lord (1999) developed an index of transparency to measure procedures for transparency rather than perceived transparency. The index "indicates the relative ability of domestic and

foreign observers to access information about a government's capabilities, intentions, and decision-making processes. The index measures transparency along three different axes: debate, control, and disclosure." (p.318). Debate looks at the incentive that exist for the dissemination of information about government making-decisions and behaviours. Control refers to the "degree a government controls the flow of information in a given society."(p.318). Disclosure measures the "amount and frequency with which the government actively and intentionally releases information to the public.". To create their index, a "yes" score on two or more of the questions in each of three categories means a state was considered to be transparent.

Debate

Is there competition within political parties?

Are there free and contested elections?

Is there a high level of activity among nongovernmental groups seeking to mobilize support for or against particular policies?

Is there a wide spectrum of public policy debate outside of government?

Control

Are the state' borders open for travel?

Are the state's borders open to media from other states and can foreign media communicate their findings without censorship?

Does the state have a free press?

Do other nongovernmental organizations that operate domestically (such as watchdog groups and trade associations) monitor and publicize government activities?

Does the media operate without government financial support?

Is there a right to public assembly?

Disclosure

Is there a relatively regular release of accurate information from government meetings, hearings, and other official events and activities?

Does the government regularly publish documents that are critical of its performance?

Are working meetings of governing bodies open to the public?

Are government members required to disclose conflicts of interests?

Are citizens and others able to petition the government for information?

Is the regime a member of international organizations with disclosure requirements?*
Are there two or more legally recognized political parties?*

For the present study, the questions were made into statements and participants were asked the extent to which they agreed with the statements on a seven point response scale, based on their knowledge of the country and government. This change was made to allow more differentiation between countries and to match the other response scales being used. The final two questions shown above were eventually excluded from the final scale as there were many missing responses.

The second section used a measure of transparency derived and used by the present authors in previous studies (Mahoney, 2004) to measure subjective levels of perceived transparency. The wording of the questionnaire was adapted, piloted and checked on and by international staff and students within the School of Psychology at the University of Exeter, UK. This was done to ensure that the overall wording and the descriptions of the different levels of government were possible for people of all countries to understand and answer. Participants in the pilot study were from several countries: Germany, Netherlands, Japan, Spain and Singapore. The final set of questions measuring perceived transparency was made up of two sections. In one the participants had to rate a set of semantic differentials about firstly the people in national government and then the system of national government. The semantic differentials were: open – closed; evasive – not evasive; ambiguous – unambiguous; straight forward – not straight forward. They then had to rate the extent to which they agreed with a set of statements based on how they thought the majority of citizens of the country would answer. All responses were on a seven point scale. The statements were as follows:

The people in national government never try to hide things
The people in national government always abuse exemptions to rules
The citizens of the country understand why all decisions by the people in national government are made
All decisions made by the people in national government are made behind closed doors
The system of government as a whole is there to benefit all citizens of the country

The system of government as a whole is behind closed doors and the people of the country never see what happens

3.1.3 Procedure

The questionnaire was posted on the web and advertised over e-mail via the central FIG office, on the FIG website and through various affiliate organisations (i.e. member organisations within different countries, such as the Royal Institute for Chartered Surveyors). A low key security password was used to protect the questionnaire website and was given to FIG members only. It was anticipated that only low key security was needed as it was highly unlikely that anyone not connected with FIG would take the time and effort to attempt to guess the password to complete a questionnaire, considering the difficulty most researchers have in getting genuine participants to take part in research. The first author also attended a working week in Paris held by FIG for its members in April 2003 and collected data with paper versions of the questionnaire. Participants of the working week were also approached personally via e-mail following the week to encourage them to participate. Some subsequently completed the questionnaire via an electronic attachment.

3.2 Secondary Data Variables

The number of secondary data variables we were able to include was restricted based on the number of participant countries in order to maintain a satisfactory ratio of dependent to independent variables. The decision of which to include was based firstly on theoretical ideals and subsequently on the practicalities of what data were available. Due to restricted space the discussion here will be limited to the data that were available. Variable selection was based on the theoretical model proposed for the demand and supply of transparency, the concepts which transparency may impact on and the objective capabilities needed to be transparent.

3.2.1 Theoretical Model of Transparency

Background theory suggests several measures that would be associated with transparency. Mahoney and Webley (2003) claim that the relationship people form with an institution through a process of socialisation can be measured on two dimensions, perceived equality and responsibility. It is predicted that those countries with a higher level of perceived equality will have higher levels of perceived transparency as if equality was a cultural norm or value then those in government would see themselves as equal to all citizens. Equality in terms of the theory argues that both citizens and government see themselves as equal to each other, there is no 'us and them' concept. As a consequence those in government would not see themselves as having any particular right or necessity to withhold or sensor information from the citizens. There are some exceptions, such as national security. Hértier (2003) expands on certain pieces of information even the most open parliaments make the case for remaining closed.

Hofstede (1980: 2003) set out to categorise cultures and societies. He identified four (later five) dimensions of national culture. One of these was power distance – 'vertical distance', a good proxy measure of equality in society. The index was based on questions asked to employees in manufacturing and management in 56 countries. The questions deal with perceptions of the superior's style of decision-making and of colleagues' fear to disagree with superiors, and with the type of decision-making which subordinates prefer in their boss. This power distance index is defined by Hofstede as: "The power distance between a boss B and a subordinate S in a hierarchy is the difference between the extent to which B can determine the behavior of S and the extent to which S can determine the behavior of B." He argues that "power distance, thus defined, which is accepted by both B and S and supported by their social environment is to a considerable extent determined by their national culture". (p.99). Thus if society has a high power distance, they generally see those in authority as 'above' them (or they perceive that those in authority hold themselves above others) - there is a large 'vertical distance' and perceived inequality.

Responsibility is the other dimension that describes the relationship type formed between citizen and government, whether the government or citizen is ultimately

responsible for any actions and consequences (even if government holds day-to-day running). This model can be illustrated by taking extreme examples of each dimension. For instance, those who believe the government and citizens are not equal and that the government is ultimately responsible may reject information even if it is supplied as they see the government as being in charge and superior to the citizen, they do not want to know what goes on or why. This lack of demand will naturally limit the supply of transparency.

Direct measures of perceived responsibility do not exist but freedom scores (Freedom House, 2001) would serve as a proxy as to whether there is any objective possibility of the citizens having responsibility. A country where citizens are not free may indicate that they do not hold or perceive to hold ultimate responsibility, or that the government does not perceive that the citizens hold ultimate responsibility. A low level of freedom may thus be associated with a lack of transparency as either there is a lack of citizen demand for transparency, or more likely, the government does not feel that there is a duty to keep citizens informed, they have no theoretical responsibility for anything and no right to challenge things in practice. Although Freedom House is a political lobby organisation in the U.S., it is non-partisan and its measures have been found useful in other independent research, for example Norris (1999). Norris found a link between the Freedom House scores as an independent evaluation of political rights and civil liberties and public evaluations of the performance of democracy in their own country. She argues that this is the case then "lack of trust in the political system is not simply an affective attitude, or the produce of early socialisation or the result of the ability of governments to deliver peace and prosperity. Instead support for the political system among citizens seems to reflect, quite accurately, independent judgements of the actual performance of regimes in terms of the level of democratization. If political systems are characterized by extensive political rights and civil liberties, then this is associated with more positive evaluations by citizens. In contrast, where governments do not deserve trust, then it is indeed often absent." (p.231).

3.2.2 Societal Trust

The surrounding societal and cultural norms and values will be influential in the socialisation process of forming relationships with institutions. Societies will vary in the amount of social trust there is. The relationship between transparency and social trust will depend on the type of society not just social trust. Indeed there is conflicting evidence as to whether social trust and political trust can be linked. It is likely that the two are correlated even if the direction of the causal link is difficult to establish (see Newton, 1999 for a more in-depth discussion of this point). Measures of societal trust exist cross-nationally. It is predicted though that trusting societies will be associated with more egalitarian societies and so will follow the trend of this fostering transparency rather than negating the need for it as in egalitarian societies trust in citizens is linked to trust in government as there is little vertical distance.

3.2.3 Impact of Transparency

There are several key concepts that transparency is associated with and predicted to impact on (Mahoney and Webley 2003), these include trust in government and society, perceived fairness and satisfaction. Previous studies in the UK (Mahoney, 2003) have shown similar patterns of association between these measures and transparency. Measures of trust in government exist cross-nationally. Measures of satisfaction in democracy and sometimes in government do exist. However the number of variables we can include in the analysis is limited. Therefore as research has shown that these variables show positive correlations between themselves (Hetherington, 1998, showed a positive correlation between lack of trust and dissatisfaction with government in the US. Holmberg (1999) showed a positive correlation between satisfaction with democracy and confidence[1] in the Swedish parliament) it is estimated that if trust follows similar patterns to in the UK, the other concepts would also do so. It is expected that the positive relationship that has been found between transparency of and trust in government in the UK (Mahoney, 2003) will persist cross-nationally. Although transparency in the short term may show evidence to support a lack of trust, it is expected that because so many countries are

[1] Measures of confidence in government exist cross-nationally and are often used as proxies for trust in government however, it was decided here to keep to questions asking directly about trust rather than confidence in an attempt to restrict the noise in the data.

being sampled any short term major changes in a few countries will not affect the overall pattern of association between the two concepts.

3.2.4 Objective, Non-Attidudinal, Measures

Transparency is not only allowing citizens access to information but it involves timely active dissemination (late, out of date information is as useless as no information). Both aspects require effective communication. Gross Domestic Product (GDP) per capita is a good reflection of the level of infrastructure development of a country and a thus a good proxy for the level of effective technological communication abilities. Government must be capable of disseminating information in a way that citizens will be able to comprehend it and that the citizens are capable of reading or hearing information and of understanding and absorbing it. Fast effective communication is also aided by human capabilities, particularly reading ability. If citizens cannot read information this inhibits the process as it must be delivered either directly to them in person or at specified times, for example at a set time over a television or radio broadcast. Literacy rates serve as a measure of human capability as measures of proportions of the population completing a certain level of education may give false indications of ability.

The final set of secondary data measures to be used in the analysis are as follows:
Power-distance; Freedom scores; Societal trust; Trust in government; GDP per capita; Literacy rates.

3.2.5 Method for Data Selection

The data that were finally selected for use were chosen based on a variety of criteria, which were set before searching for any data. The criteria were as follows:

- Questions asked in surveys should be as similar as possible to the questions required (i.e. to what extent do you trust the government? To what extent do you think most people can be trusted?).
- All surveys should ask similar questions to each other.

- The surveys should have good and similar methodologies.
- Where possible the data should be drawn from surveys that cover several countries being used in the current study.

As much data as possible were collected in 2002 and 2003 and then examined in relation to these criteria. The questions referring to trust in government were worded differently, referring to different aspects of government (for example some referred to the country's parliament, and some to members of parliament). The concepts of politicians in general and parliament or government are different (Mahoney, 2002) and often generate different responses to trust items (Holmberg, 1999), hence questions referring to trust in politicians were ignored. Where there was some overlap the questions that gave the most similar responses in the overlapping countries were chosen. Data from the most recent survey were taken in the case of overlapping data.

A variety of surveys were used to collect trust data. The trust scores were collected in different years across the countries (1997-2003). In some cases the criteria used to choose variables conflicted. In this case priority was given to figures from surveys that measures a variety of countries, in order to provide more of a reliable cross-national comparison. Hungary was the only country with a large discrepancy between the New European Barometer (NEB) and European Social Survey (ESS) results. The ESS results were taken as they were more recent, and therefore closer in time to the date the transparency data were collected.

The trust scores, as mentioned, were taken from several different surveys, all of which used different response scales. It was necessary to reduce all data to match the simplest set (where the only data available were a score of the percentage of participants that showed trust). Therefore the scores for trust in society and government were readjusted to give the percentage of citizens who trust. Scales with an even number of response categories were simply divided into two parts of percentage that trusts and percentage that does not trust[2]. Other surveys had an odd

2 The US survey was a two point scale of can trust and cannot trust. The Australian and Afrobarometer surveys were a 4 points scale. The Hong Kong poll was already collapsed to a 3 point scale. See **Error! Reference source not found.** for more details of sources and data used.

number of points on the response scale. In these cases a percentage of responses rated as neutral was added to the trust responses[3].

The GDP per capita scores all came from the Human Development Indicators (Human Development Reports, 2003) which cited the World Bank, July 2003 as its source. Literacy ratings also came from the Human Development Indicators. The freedom scores were taken from the Freedom House surveys 2000-01 (Freedom House, 2001).

4.0 Results

Primary transparency data were collected for 51 countries. Where several data points were collected for one country, the mean was taken. Twenty four countries had 1 respondent; 11 had 2 respondents; 10 had 3 respondents; 4 had 4 respondents; 1 had 5 respondents and 1 country had 6 respondents.

These data represent transparency views for the equivalent of 44% of the world population. Dividing the world according to the human development index (an index which is a composite measure of health and life expectancy, knowledge and standard of living) these primary transparency data have sampled 32 of 55 countries with a high human development index rating (83% of the corresponding population); 16 out of 86 medium countries (40% of the corresponding population); and 2 out of 35 of the low human development index countries (4% of the corresponding population).

Greyscale analysis on world maps shows the patterns of objective and subjective transparency. The transparency scales have been evenly divided into four to enable the analysis to be done. This provides a strong visual image of the cross-national difference and in particular the difference in perceived, subjective transparency, between the Scandinavian countries and the rest of Europe.

3 The calculation is based on an underlying assumption that trust is a continuous variable. The percentage was calculated by multiplying the percentages of neutral responses by the proportion of responses that were trusting as opposed to not trusting (excluding the neutral responses). For example, where 40% trust; 20% neutral and 40% do not trust the neutral answers were split by calculating the proportion of those that trust v those that do not trust (40/80), and multiplying the total neutral responses by this then adding to the total trust scores: 40+[(40/80)*20] = 50 This is the equivalent of ignoring the neutral scores is was necessary to divide up the neutral scores.

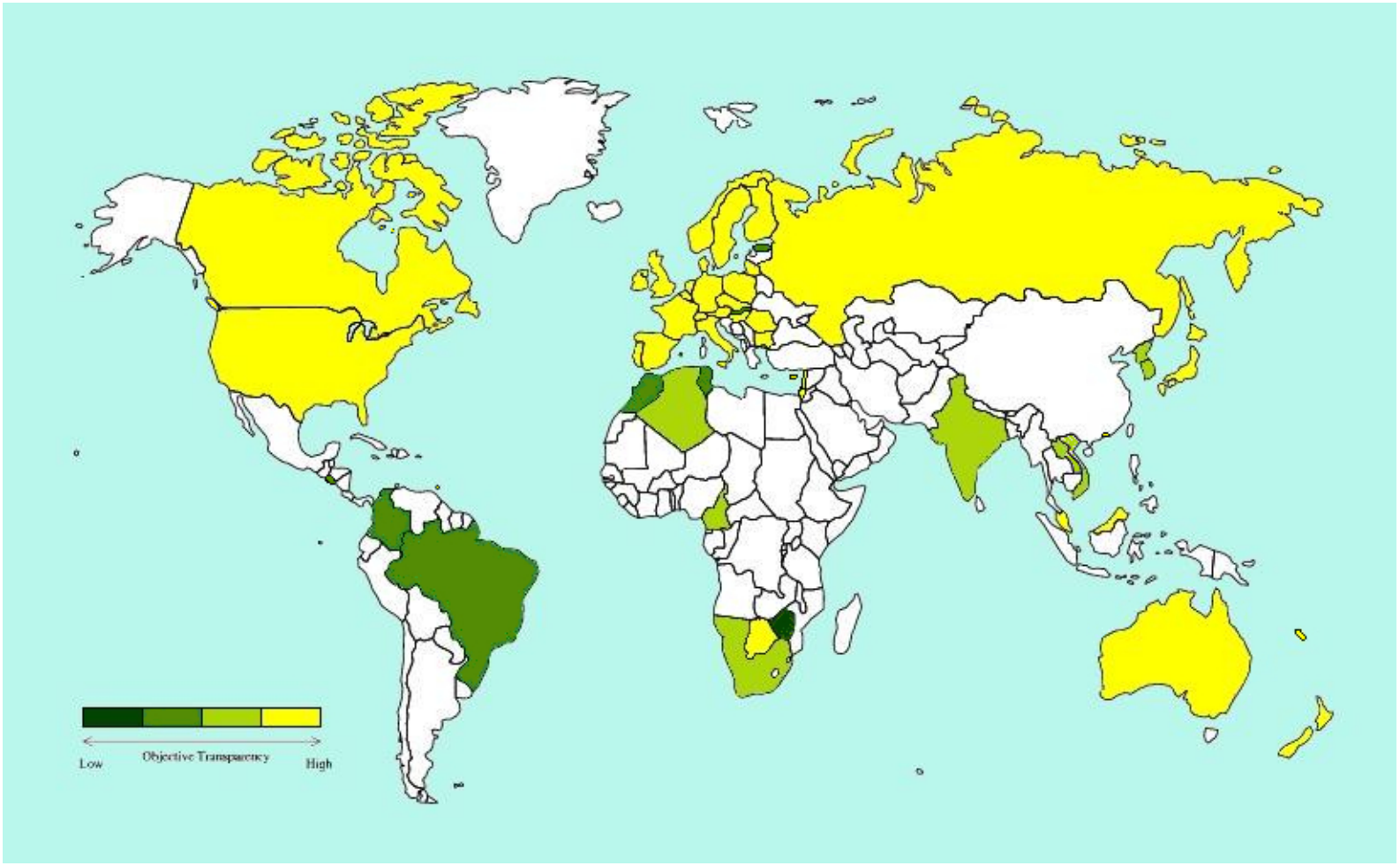

Figure 1 Greyscale analysis of the objective transparency index

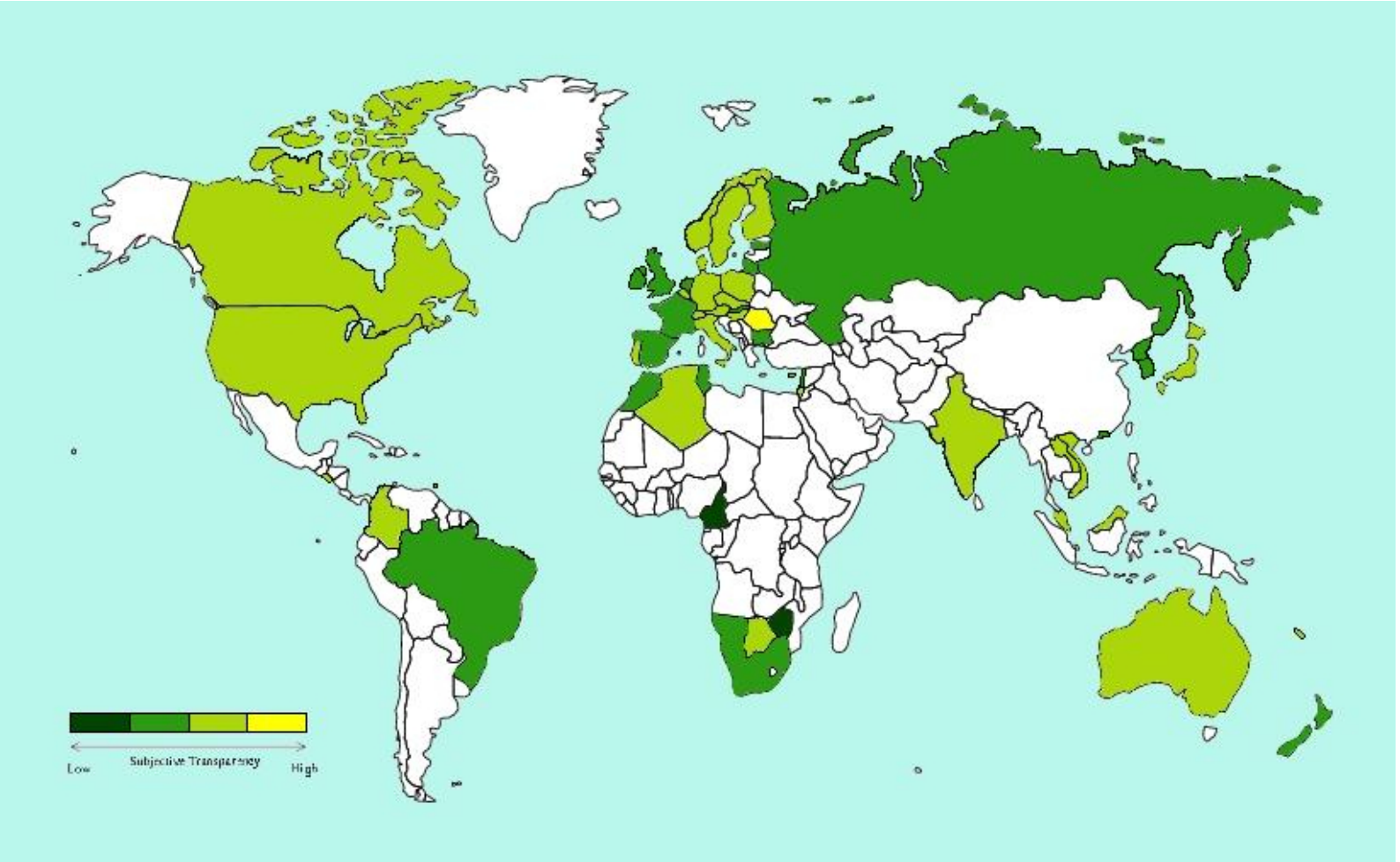

Figure 2 Greyscale analysis of the subjective transparency index

Figure 3 shows the distribution of objective versus subjective transparency data. The scatter plots (figures 4 and 5) show objective transparency scores against subjective transparency scores and the correlations with trust in government.

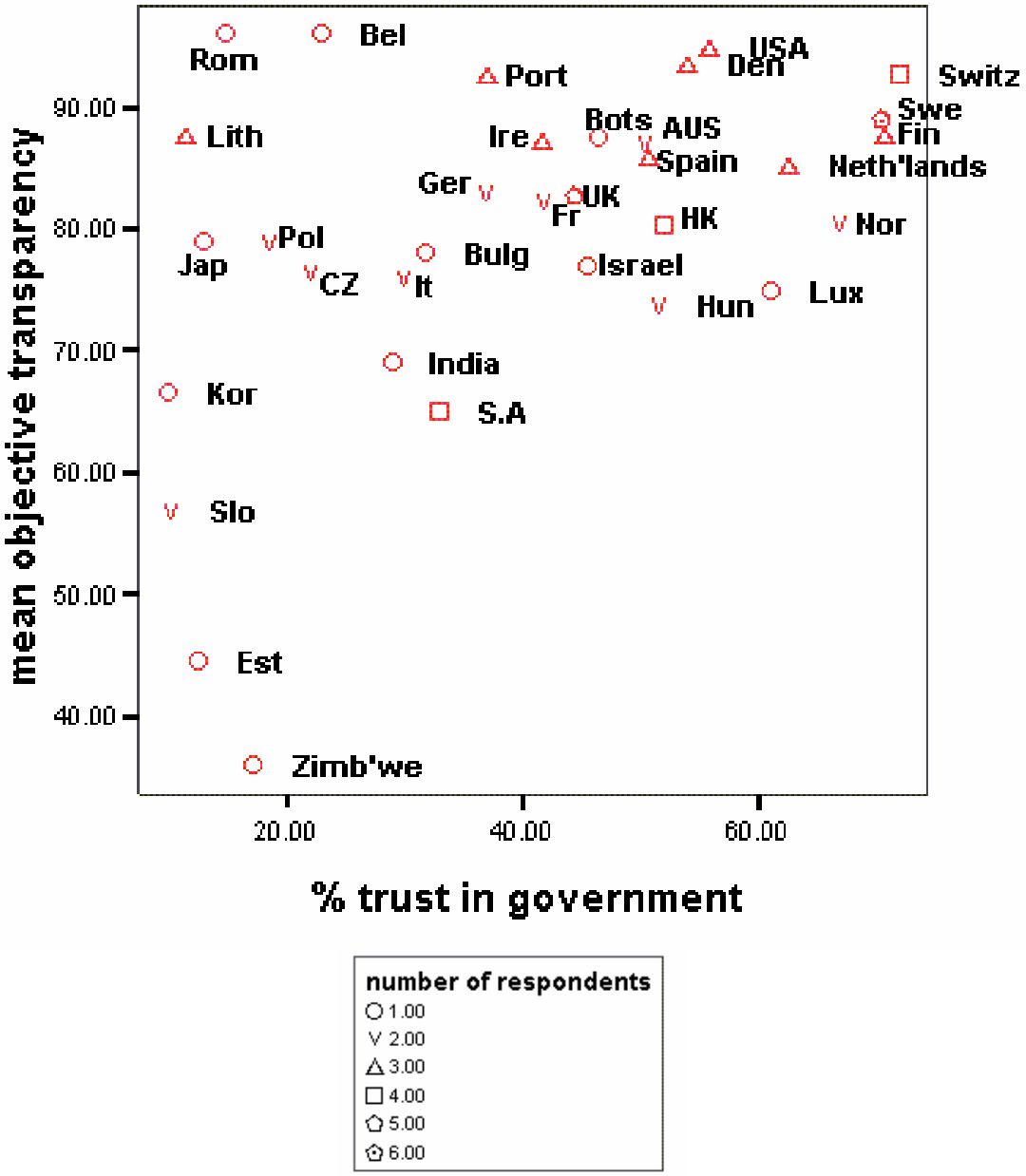

Figure 3 Objective transparency versus trust in government

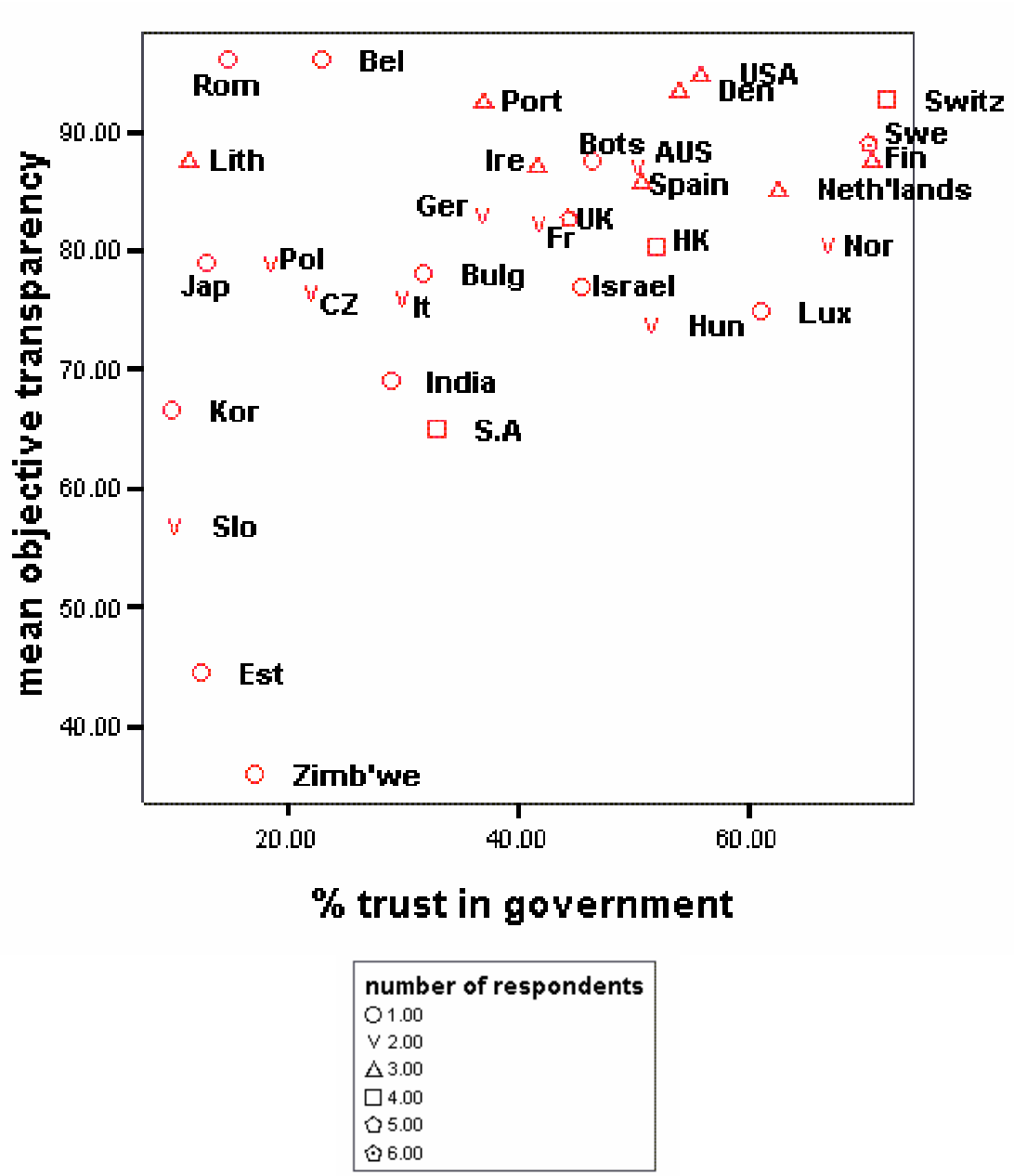

Figure 4 Objective transparency versus trust in government

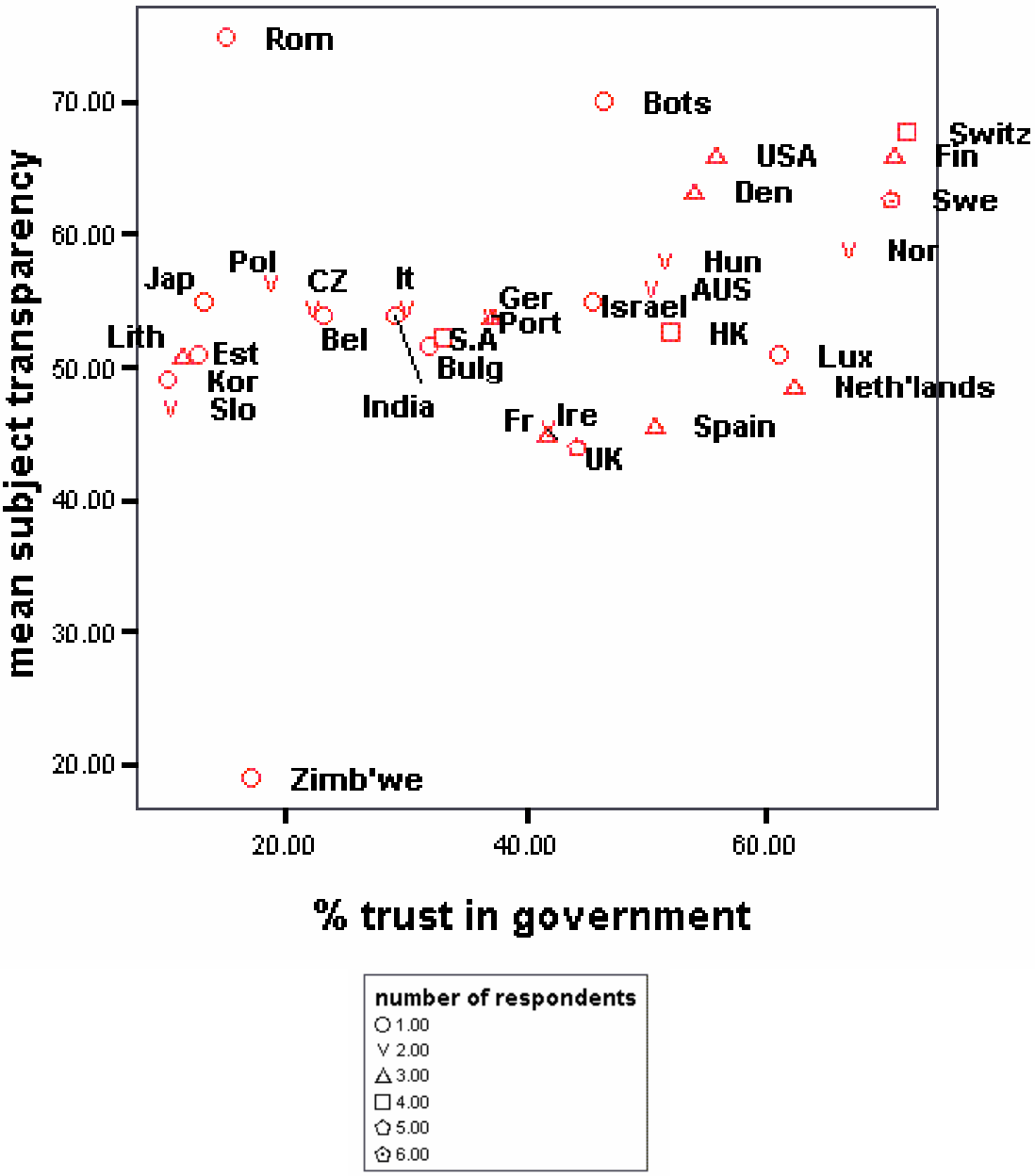

Figure5 Subjective transparency versus trust in government

Two approaches were taken to assess the reliability of the perceived transparency data scores from countries where 3 or more people responded. First, the standard deviations for objective and subjective transparency scores were examined. The range of scores for this set of countries was 44-105 for objective transparency and 33-77 for subjective transparency. The standard deviations for all 16 countries were below 10 (except for two in subjective transparency where the Netherlands had a standard deviation of 16 and Portugal of 17). Secondly, three random lists were created with 1 respondent per country using a non-replacement method. Kendall's

coefficient of concordance was used to assess similarity of rank orderings of the countries in each of the 3 random lists. For objective transparency W=0.30, n.s (using X^2_{15}). For subjective transparency W=0.68, $p<0.01$ (using X^2_{15}). The results from both these techniques must be taken into account to assess reliability. Although the rank ordering is important there is overlap between the countries and therefore the standard deviations must also be considered. Taken together the results suggest the objective transparency scores are more reliable than the subjective transparency ones. Although it was not possible to analysis the reliability of responses from each individual country, overall, given the overlap between the countries, the result suggest the scores are reasonably reliable.

The secondary data scores were not available for all countries and therefore not all 51 countries were included in the subsequent analysis. The countries included depended on the variables entered into the regressions or correlations. Recent trust in government data were available for 33 countries. Trust in society scores were accessed for 31 countries. Power distance scores were available for 25 countries (Hofstede, 1980); literacy rates for 50 countries (Human Development Reports, 2003); freedom scores for 49 countries (Freedom House, 2001), G.D.P. per capita scores for 49 countries (Human Development Reports, 2003)[4].

The correlation between objective transparency and trust in government was 0.51. Subjective transparency and trust in government had a 0.47 correlation (table 1 summaries the correlations), both were significant at the 1% level. Both support predictions. The scatterplots and correlation results show a strikingly clear pattern that high trust does not exist with low transparency. This does not establish cause and effect. However although it is not possible to say that transparency leads to trust it does suggest a strong possibility that transparency is one key factor in fostering trust as well as countries with a high trust in government providing a situation where transparency is possible from the point of view of the government in particular.

4 More detail of primary and secondary data obtained is available from the authors of this paper.

Table 1. Correlations of transparency scores and main variables

	mean objective transparency	mean subject transparency	% trust in society in general	% trust in government	literacy rate	gdp per capita	Freedom (low score = high freedom)
mean subject transparency	0.57** (n=51)						
% trust in society in general	0.53** (n=31)	0.25 (n=31)					
% trust in government	0.47** (n=33)	0.34* (n=33)	0.51** (n=28)				
literacy rate	0.49** (n=50)	0.33** (n=50)	0.58** (n=31)	0.09 (n=33)			
gdp per capita	0.5** (n=49)	0.27* (n=49)	0.67** (n=31)	0.64** (n=32)	0.49** (n=49)		
Freedom	-0.45** (n=49)	-0.4** (n=49)	-0.5** (n=31)	-0.30* (n=31)	-0.57** (n=48)	-0.59** (n=48)	
power distance (low score = high power distance)	-0.48** (n=25)	-0.44* (n=25)	-0.48* (n=18)	-0.52** (n=20)	-0.48** (n=25)	-0.48** (n=25)	0.52** (n=24)

1 tailed test. ** = significant at 0.01 level (n= number of countries)
* = significant at 0.05 level (n= number of countries)

Some correlations figures are apparently negative where a positive correlation was predicted. This is an artefact of the scoring. A free country has a score of 1 and not free has a score of 7; a high power distance score means there is a large power distance, low equality. Freedom, power distance and transparency scores were not reversed (to make interpretation of correlations easier) as other studies that use these data keep the scores in these directions. Comparison of raw data with other studies is then simpler when they are kept as the original data source.

It was predicted that countries that were freer and more equal would have higher perceived transparency and indeed correlations support these predictions (see table 1). The correlations are negative as a free country has a score of 1 and not free has a score of 7; a high power distance score means there is a large power distance, low equality. It was also predicted that perceived transparency may be higher where there was a greater human capability to enable transparency to be achieved, thus literacy rates should show a positive correlation with transparency rates. Indeed results support this. In addition it was predicted that better infrastructure would also aid transparency. The proxy measure used for this was GDP and a positive correlation was predicted, which was supported by the results (see table 1).

A variety of different regression analyses were carried out to examine the relationships between the variables. Firstly objective and subjective transparency was entered as the dependent variables in separate, stepwise, regression with the proxy

measures for responsibility and equality (dimensions on which relationship with the government can be defined). Objective transparency was significantly predicted by freedom scores (coefficient of –0.86). R^2 adjusted of 7.35 and the overall model was significant ($F_{(1,22)}$ 64.66, $p<0.01$). Subjective transparency however had a very low R^2 adjusted (0.15), thought the model was still significant ($F_{(1,22)}$ 5.1, $p<0.05$) with power distance being the significant predictor (coefficient of –0.43).

A variety of different regression analyses were carried out to examine the relationships between the variables. Firstly objective and subjective transparency was entered as the dependent variables in separate, stepwise, regression with the proxy measures for responsibility and equality (dimensions on which relationship with the government can be defined). Objective transparency was significantly predicted by freedom scores (coefficient of –0.86). The R^2 adjusted was 0.74 and the overall model was significant ($F_{1,22}$ =64.66, $p<0.01$). Subjective transparency however had a very low R^2 adjusted (0.15), though the model was still significant ($F_{1,22}$ =5.10, $p<0.05$) with power distance being the significant predictor (coefficient of –0.43).

Regressions were carried out to find the best model, a variety of methods were used. First all variables were entered into each and then stepwise, forward and backward methods were used. Using objective transparency as a dependent variable, the best model had an R^2 adjusted of 0.67 ($F_{2,13}$ =16.04, $p<0.001$). The best model had two significant predictors, freedom and literacy rates, with standardised beta coefficients of –0.43 and 0.57 correspondingly. Freedom is the proxy measure for responsibility in society. Using subjective transparency as the dependent variable, the best model had an R^2 adjusted of 0.30 ($F_{1,14}$ =8.13, $p<0.05$). The significant predictor was trust in government (standardised beta coefficient of 0.61). Using trust in government as a dependent variable the best model had an R^2 adjusted of 0.58 ($F_{2,13}$ =11.47, $p<0.01$) with two predictor variables of trust in society in general and subjective transparency (standardised beta coefficients both of 0.53).

In the above regressions all variables were entered and the number of countries included in the calculations was therefore limited as not all data were available for all countries. So, in order to examine the patterns of correlations using more countries

regressions were carried out using only the significant predictors for the regressions above.

When the transparency indexes were used as dependent variables with all other variables included freedom scores and literacy rates were the best predictors of objective transparency. These two variables were therefore entered into a regression with objective transparency as the dependent variable, to examine the effect over a larger number of countries. The R^2 adjusted was low (0.25) but the overall model was significant ($F_{2,45}$ =8.69, p<0.001) with coefficients of –0.25 and 0.37 correspondingly (only literacy rates then had a significant coefficient). When the same analysis was carried out with subjective transparency as the dependent variable the R^2 adjusted was lower (0.16, $F_{2,45}$ =5.32, p<0.01) with coefficients of –0.34 (freedom) and 0.14 (literacy rates).

When subjective transparency was used as the dependent variable with all other variables included, trust in government was the only significant predictor. Carrying out a regression with just this independent variable the overall R^2 adjusted was 0.87 with a coefficient of 0.34. The overall model was nearly significant ($F_{1,31}$ =4.07, p=0.052). With objective transparency as the dependent variable, trust in government was a significant predictor with a coefficient of 0.47. The R^2 adjusted was 0.19 and the overall model was significant ($F_{1,31}$ =8.68, p<0.01).

A separate linear regression was carried out using trust in government as the dependent variable and then objective transparency and subjective transparency as the independent variables in separate analyses. Objective transparency produced a significant result and subjective transparency was very close to significance (though with very low R^2 adjusted of 0.19 and 0.09) with coefficients of 0.47 and 0.34 ($F_{1,31}$ =8.68, p<0.01 and $F_{1,31}$ =4.07, p=0.052).

Further analysis was carried out to examine the robustness of the data in terms of stability over time. Trust literature argues that trust can be broken very easily but takes time and effort to build and maintain (Slovic, 2000). Holmberg (1999) argues that although evidence for trust in government in the U.S. has shown a relative decline, Northern European countries have remained relatively stable. Thus the rank

order of trust in government across countries is likely to be very slow to change. Data for the freedom scores were available for different years. Freedom scores from 1972-73 showed a significant correlation of 0.43 with the data used above from 2003 ($p<0.01$, $n=42$, 1-tailed) as did those from 1993-94 ($r=0.88$, $p<0.001$, $n=49$, 1-tailed). When the data were then rank ordered the '72-'73 data showed a significant correlation of 0.63 ($p<0.001$, 1-tailed) with the 2003 data, as again did the '93-'94 data ($r=0.9$, $p<0.001$, 1-tailed). GDP is also relatively stable over time (Twigger, 1998).

5.0 Discussion

The correlations and regression analysis support previous studies in this thesis which show a significant relationship of higher trust in government being correlated with higher perceived transparency. This study has analysed data cross-nationally, including data from different continents, which covers many different cultures and political structures. It has shown that this relationship persists cross-nationally. The argument is not that transparency is the only constituent necessary to create trust in government but rather than it is one of the components that is key to maintaining trust in government. Moreover, a lack of transparency is likely to maintain an air of suspicion and lack of trust. This study cannot establish a cause and effect but provides empirical evidence of the connections between the two. It also provides clear evidence that suggests high trust in government does not now exist in situations of low transparency. The scatterplots clearly show the Scandinavian countries, as predicted following Grønbech-Jensen (1998), with higher subjective transparency and higher trust in government, while the other European countries show more mid-range levels of perceived transparency and trust. Grønbech-Jensen (1998) argued that the Scandinavian countries, in contrast to the rest of Europe have a more fundamental approach to transparency that can be seen in the higher subjective transparency score here. This is reflected in higher trust in government. He argued that the difference is because the Scandinavians know they have a fundamental right to access information about the workings and proceedings of government whereas the other European's receive processed information. Though this study cannot establish a causal relationship it does provide evidence of the correlation between transparency and trust

in government. It may be the case that it is the egalitarian nature of the Scandinavian counties that is fundamental, which is the basis for the different approach to transparency. Historical data of trust in government may show similar trends of high trust in government.

Chiles et al (1996) argue that the concept of trust can indirectly affect transaction costs. If you trust someone then you have less need for information, you leave them with the power to make the decision for you. This can work both ways. If the general public trusts the agency then they will not need to search for information as much. However, if they do not trust them then they will need information. If the costs of searching are too high then it is unlikely that they will get the information thereby maintaining or increasing their distrust. This also applies to the government in terms of the attitude towards access to information. If they do not supply information to people easily, thereby lowering the publics costs in accessing information then they will not be able to increase or maintain levels of public trust.

The two different transparency measures showed a strong positive correlation. Although the objective measure of transparency naturally had a subjective element to it, it produced slightly different result to the questions that asked for a much more subjective perspective. The subjective transparency questions asked about the perceptions of the citizens of the country in general. It is not just important that citizens have transparency but that they perceive transparency. Citizens cannot always have all the information that would enable them to make a decision about whether or not to trust (Hardin, 1998). Therefore it is the perception that transparency exists that will help the belief of honesty and trust in government. To a certain extent though the perception of transparency must stem from the level of objective transparency. Indeed Thomas (1998) argues that honesty is required in conjunction with transparency. He argues that lies and misuse of power can cause trust to be lost. He argues that the theory that the lies of an individual politician not only erode trust in that individual but in the social system of trust which supports the institution (i.e. social capital) is similar to that of externalities in microeconomics; “the full social cost of a lie is not borne completely by the liar”. (p.185).

It was predicted that perceptions of responsibility and equality in the relationship between citizen and government would be involved with perceptions and impact of transparency (Mahoney and Webley 2003). Analysis showed that objective transparency was best predicted by freedom scores (the proxy for responsibility) and subjective transparency by power distance (the proxy measure for equality). However, although power distance was a significant predictor, it did not account for much of the variance in the data.

When other concepts were included in the analysis, freedom scores and literacy rates were still the best predictors of objective transparency. This provides support for the possibility that transparency may be more efficient where citizens can read as they can obtain and re-read information at their convenience and copies can be made so information can spread quickly. Where transparency is aided, trust in government may be higher. Subjective transparency however was then best predicted by trust in government. When examining trust in government, subjective transparency and trust in society were the best predictors. Trust in government was also a significant predictor of objective transparency.

Where literacy rates were a proxy measure of human capabilities, GDP per capita was taken as a proxy measure for the infrastructure of the country. With better communication technology and networks governments should be able to achieve more effective transparency. It was predicted that GDP per capita would be positively correlated with perceived transparency and this was supported by the analysis, though the correlation was low. The intentions of government and belief of the fundamental rights of citizens to transparency may be aided by increased technology where this belief exists but good infrastructure itself would not create this attitude. Indeed this can be seen when comparing the European countries. The level of GDP and infrastructure is similar, yet the fundamental believe that the Scandinavian countries have towards transparency is still clear in contrast to the processed form of information the rest of Europe sees and the lower levels of perceived transparency and trust in government. Some social capital literature links social trust to economic performance (for example, Knack and Keefer, 1997 provide evidence of this across 29 countries; however, see Nye 1997 for a full discussion and conflicting conclusion of the connection between social trust, political trust and economic performance). The

results here also show a positive correlation between GDP per capita and societal trust.

Nye (1997) suggests that information technology may help the government to get closer to people (he argues that a closer connection to government increases confidence). He also suggests that information technology may make more devolution possible and that the non-profit sector may then be able to help in providing intermediary institutions to offer services and "new ideas that make democracy flourish" (p.18). Bloomfield et al (2001) however discuss the concerns that have been raised about the technological change, particularly information technology, that is underpinning globalisation and the impact that this has on trust. They argue that globalisation underpinned by technological change:

> "affects networks by altering the ways that people communicate, manage data, and take decisions. This is not always negative because these technologies have the potential to create new social and political spaces. However, exchanges in cyberspace of IT do not meet all of the characteristics of what constitutes a meaningfully inclusionary and deliberative process. Participation is by individuals and each may feel that decisions are being made 'further away' and by less identifiable and accountable interests. The effect is more likely to create a sense of disassociatedness especially among those dependent upon networks for capacity building as opposed to those capable of using the technology to cerate new networks to their advantage." (p. 507).

They also argue that:

> "a deliberative process demands social interaction normally incorporating face-to-face meetings, not least because trust is still most easily engendered by regular face-to-face discussions over an extended period. This does not mean that various forms of information technology (for example, telephone, e-mail, television conferencing) cannot be used as a partial substitute or

> complementary activity, but it is the sense that it is conversation rather than written text which assumes considerable significance." (p.503).

Moreover, Baba (1999) argues that information technology does not change the tendency for groups to misrepresent the information they give out (in order to retain their competitive advantage) or to discount information given by others. Therefore although technology may increase the ease of access to a larger quantity of information in a shorter space of time it "does not guarantee reductions in perceived risk or increases in trust between groups" (p.336).

This study examines one point in time. However, there is evidence to suggest that these patterns would be found if the data were collected at a different time. Freedom scores from two time slots in the past few decades showed strong correlations with the scores used from 2000-2001. Trust scores may vary but literature suggests that levels of trust are hard to increase and take a long time to slowly build (Slovic, 2000). However, they are easy to break, something such as a dramatic negative regime change may do this for example. Although literature suggests that there is trend towards a decrease in trust in government in the US (Nye, 1997) the rank order of the countries involved in this study is unlikely to change dramatically over time. Holmberg (1999) argues that looking at Northern Europe as opposed to American shows trust in politicians to be stable over the last few decades, in some cases increasing. Since the freedom scores over time across all the countries show a strong correlation with the latest figures it would suggest that trust scores would do the same. If it were possible to have historical data that examined changes in culture it would be expected that these remain relatively constant. Hofstede (2003) argued for strong historical continuity in cultures. GDP per capita does change but the rank ordering of countries is slow to change. Literacy rates are also slow to change. Geographical boundaries of countries do change over time and therefore different cultures become included in different countries, however the main type of basis for a society may remain stable (e.g. egalitarian in nature, Hofstede, 1980; 2003). In the long term of 50-100 years it is possible to predict where some positive changes might take place, for example where countries become members of bodies such as the European Union with policies towards openness. However, negative regime changes or moves towards

bodies with distinct secrecy policies are less easy to predict. It is predicted though that the trends and associations of the patterns of transparency with the concepts measured here would remain the same as reported in this paper.

5.1 Limitations

To the best of the author's knowledge this study provides the first empirical evidence of cross-national trends in the patterns of association between transparency and other variables. There are however, several limitations to the project that are due to the methodology used. Firstly the collection of the primary data relied on participants having a good standard of the English language. This was a reasonable assumption however, as all participants worked internationally and English is the standard language used in the association that was used to collect participants. The questionnaire was designed to be comprehensible by all participants no matter which form of English they had learnt (e.g. American or UK English).

The objective transparency questions do have a subjective element to them because they ask questions on a scale of 1-7 and therefore participants are also required to express an opinion. The primary data collection relied on a few expert opinions rather than quantity of participants. In many cases there was only one expert for each country and this affects the reliability of the data and makes it difficult to assess.

The secondary data were collected using different methodologies over different countries, and this can mean different sample selection procedures and samples, different questions, and different techniques of collecting data. The different wording of questions is perhaps the most important limitation resulting from using different surveys. Questions about trust in society from the different surveys had all been translated into English to report the results. The questions all read exactly the same in English "To what extent do you trust most people?". However, as Knack and Keefer (1997) point out, the wording is ambiguous as to which "people" respondents might be thinking of. They argue that if respondents interpret "most people" as most people that they interact with, then the variation of the trust measure is reduced. The trust in government questions also varied slightly in their wording. However, all surveys

used made reference to trust rather than confidence in parliament, or members of parliament or national government.

5.2 Further Research

This study has provided the first empirical evidence of the correlation between transparency and trust in government, and other mechanisms that may lie behind the impact of transparency cross-nationally. There are many ways in which the procedure could be improved. Data for transparency could be collected using more representative samples of the populations, and questions translated into different languages. Data could be collected by people living in the countries concerned, and across more countries. The data collection could also be expanded to allow the analysis to include other concepts. There are several avenues for research that could be followed. How exactly does the relationship that citizens form with their government, perceptions of responsibility and equality play a part in the impact of transparency and trust in government? How does the education of citizens play a part in the impact of transparency? Do human capabilities for reading and communication increase a demand for transparency or is there a fundamental cultural belief in its importance? This study has provided evidence that there is a relationship between transparency and trust in government that persists through cultural and international variations. Further work is necessary to understand the theory underpinning these relationships and the relationships between citizen and government or more generally between institutions and consumers.

6.0 Conclusion

This paper collected primary data to provide an index of transparency across 51 countries. The data were then matched with secondary data collected from different surveys around the world to examine the connection with transparency. The secondary data variables covered the factors considered to be important in the consumer-institution relationship (responsibility and equality), societal factors influencing the development of the relationship, factors that transparency impacts on

and objective factors that aid transparency. Evidence of a strong positive correlation between transparency of government and trust in government was found. Evidence also showed patterns of cultural differences and of a connection between the factors important in the consumer-institution relationship and transparency.

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