Transparency is in the Eye of the Beholder: The Effects of Identity and Negative Perceptions on Ratings of Transparency via Surveys

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Abstract

Surveys are a commonly used means of measuring transparency levels, but are potentially

vulnerable to perceptual biases. This study sought to examine perceptual differences by the respondents' identities as general citizens or public employees, and the possible negative perceptions one group may have towards the other concerning responses to a survey-based measure of transparency. The survey was designed on the basis of existing literature, suggesting that transparency has up to six facets. Two samples were taken, from citizens who visited district offices to file civil applications during the survey period, and public employees involved in processing these applications. A total of 472 surveys were used for analysis: 233 citizens and 239 public employees. The results indicated the two groups had different understandings of transparency; data from public employees produced a three-factor solution, which was labeled as Efficiency, Reliability, and Access. For citizens, a two-factor solution was a better fit, with the factors being described as Accessibility (a wider notion than Access) and Utility. The findings suggest that public employees adopt a somewhat technical view of transparency, whereas citizens have more practical concerns about it. Only citizens' unfavorable perception of public employees had a negative influence on the level of transparency. This study contributes to the understanding of how public employees and citizens have qualitatively different perceptions of transparency.

Keywords Transparency, Public Administration, Administration and democracy, e-government, Trust

Points for practitioners

To assess progress in governmental transparency we must measure it, and surveys offer an accessible and potentially cost-effective approach. However the survey responses of citizens and public employees shows they understand transparency in qualitatively different ways, with citizens' perceptions of transparency also influenced by their perceptions of public employees. If governments are to increase public trust in policy making and administration they must focus on improving transparency as it is understood by the public rather than how it is understood by public servants.

Introduction

Studies have highlighted the positive effects of transparency on democracy and political legitimacy, good governance, elimination of corruption, trust, accountability, and national competitiveness (Hollyer, Rosendorff, & Vreeland, 2011; Bauhr & Grimes, 2012; Grimmelikhuijsen & Meijer, 2014; Vishwanath & Kaufmann, 2001; Heald, 2003; Rawlins, 2009; Park & Blenkinsopp, 2011). Many governments and agencies have shown a strong commitment to transparency and taken steps to incorporate it into their policies (Otenyo & Lind, 2004: 288; Coglianese, 2009; Sternstein, 2011). In order to assess the progress being made in improving transparency, it is vital to be able to measure it. Yet, it has been found to

be difficult to measure directly. Although, when attempting the task, proxy measures have been used, which include access-to-information laws, e-government, official websites, free press, data dissemination, feedback on public policies and practices, delays in information disclosures, and the number of citizen complaints about the quality of information (Hollyer, Rosendorff, & Vreeland, 2011: 1194; Islam, 2006; Bertot, Jaeger, & Grimes, 2010). However, surveys remain the most widely used method of gauging transparency (da Cruz et al., 2015: 10; Rawlins, 2009). Any survey of transparency is inevitably a survey of *perceived* transparency, a "measure of opinion" regarding “what [people] think of transparency in government” (Sternstein, 2011: 25), with citizens' evaluations being influenced by many factors, "in complex and changing ways" (Wang & Gianakis, 1999: 550). Therefore, responses to survey-based measures of transparency may be prone to perceptual biases, such as self-serving interests and one's negative perception to another, depending upon who completes the survey. Surveys asking about the perception of transparency in government agencies or public services risk obtaining data that are as much subjective as a rating of satisfaction with public service (Rawlins, 2009). Furthermore, public employees have all the information on the transparency levels of public services they provide, whereas citizens do not. While public employees are demanded to grasp the problems in information disclosure and to improve their ability to increase transparency, citizens' perceptions of transparency

may vary greatly from those of public employees. This is not necessarily a problem in cases where agencies are concerned with what citizens think about transparency, but it *is* a concern for researchers looking to use perception of transparency as a proxy for actual transparency.

Unlike the majority of earlier transparency studies tied to identifying properties of transparency and assessing the level of government transparency using an index, this study focused on whether or how transparency measurements based on survey methods are affected by the respondents' identities and negative perceptions. The administration of civil applications was chosen as a case to examine the differences of perceived transparency between two groups: citizens using the service and public employees working within it. This study contributes to the understanding of how survey-based measurement of transparency can be biased by the respondents' identities, the negative perceptions one group may have towards the other, and how public employees and citizens have qualitatively different perceptions of transparency.

Literature Review

Transparency and Its Measurements: An Overview

Through the last decade, there has been a rapidly growing consensus among researchers and practitioners about the need for greater transparency in government and public

administrations (Bauhr & Grimes, 2012). The improvement of transparency as a policy initiative, particularly along with good governance, has been well noted to involve the public in government decision making (Coglianese, 2009; Islam, 2006). Transparency, in a governmental context, can refer to transparency in the decision-making processes or as an organization in and of itself, transparency of public service, budget, policy content, or transparency of policy outcomes or effects (Grimmelikhuijsen & Welch, 2012; Relly & Sabharwal, 2009; Rawlins, 2009). The present study focused on transparencies based on public service processes; specifically, the transparency of processing citizens' applications for permits, licenses, and registrations, rather than their outcomes.

For full transparency in providing public services, all information should be accessible to anyone, at any time, and in any place, so that citizens are informed of the whole public service or decision-making process that might affect their interests. However, simple availability of information does not constitute full transparency. Useful information should be disclosed in a timely and convenient way, so that people can easily determine the expected benefits and risks. Raw data need to be processed to meet public interest, producing complete and substantial information. Based on these characteristics of information required for full transparency, scholars have developed a multi-dimensional approach to measuring transparency. Rawlins (2009: 84) suggested for organizational transparency, information

should be "complete, relevant, verifiable, accurate, balanced, comparable, clear, timely, reliable, and accessible." When discussing transparencies of public service, Vishwanath and Kaufmann (2001) identified five attributes: accessibility, comprehensiveness, relevance, quality, and reliability.

Most instruments developed to gauge transparency were for subjective assessments. For example, Bauhr and Grimes (2012) measured government transparency via a survey, asking public administration experts to respond to some pertinent questions concerning transparency. Caamaño-Alegre et al. (2013) used a Likert-type survey questionnaire composed of 15 items to measure budget transparency in 33 small municipalities. The International Institute for Management Development and the World Economic Forum have measured transparency of government policy or policymaking by an expert or business leader survey on a regular basis to announce the rankings of national competitiveness. However, there were also studies that have employed objective indicators. For example, Hollyer, Rosendorff, and Vreeland (2014) suggested a transparency index based on information available on local government official websites. Esteller-Moré and Otero (2012) developed the index of fiscal transparency computed by identifying whether a municipality has provided the required budgetary information on the Internet. da Cruz et al. (2015: 10) stated that the use of surveys in assessing transparency levels entails the problem of self-administered responses and, in turn,

of inconsistencies with "the actual level of transparency."

Identity, Self-interest, and Biased Views

The results of transparency surveys may be influenced by respondents' identities. Vadera, Aguilera, and Caza (2009: 559) stated, “identity is rooted in the very core of one's being” (as cited in Erikson, 1964), and stressed that identity affects a person's cognition, judgments, and behaviors. Identity has been identified as a typical source of self-serving bias in a survey, which is the tendency for people to interpret information in ways that serve their own interests. This occurs “where an individual's preferences affect his beliefs in an optimistic direction, one favoring his own payoff” (Kaplan & Ruffle, 1998: 243). Most people tend to have a bias in self-assessment, believing they are "above average" in their abilities and performance (Zábojník, 2004; Mezulis, Abramson, Hyde, & Hankin, 2004). This bias often appears as the result of the efforts to increase or protect one's self-esteem (Felson, 1981). It operates in eliciting judgments of performance via a survey, and tends to be greater especially when not enough information is given, or the criteria are unclear for assessing performance.

The relationship between the principal and the agent, which is used widely in the study of performance management in the public sector, is a special arrangement in which principals

and agents differ in their interests (Heinrich & Marschke, 2010: 187). Agents are likely to perceive that they are trying fully to meet the principals' expectations, while principals are seldom satisfied with the agents' performances. Public employees are likely to report a higher perceived transparency for several reasons. First, when administering the system, they are aware of more channels and procedures to disclose information produced by the government, and thus may estimate a higher level of transparency than citizens. Second, their identity as public employees would be threatened by acknowledging that they worked for an institution that had poor transparency, consequently reporting higher levels of transparency than actually exist. Agents are likely to inflate their own performance, while the principals who pay for it might query or dispute this performance.

Negative Perceptions

Negative perceptions are also likely to foster a biased report of transparency between citizens and government, which is often based on opposing needs or demands. Dissatisfaction with and mistrust of each other promote negative perceptions, which lead to a bias in an unfavorable direction. On the other hand, a favorable perception in a dyad relationship may also have a significant impact on performance ratings (Lefkowitz, 2000: 69; Varma & Pichler, 2007; Varma, Pichler, & Srinivas, 2005; Lefkowitz & Battista, 1995). According to Marvel

(2015: 2, 21), citizens have traditionally developed negative attitudes regarding government performance through "repeated exposure to anti-public sector messages," and as a result, people "automatically and unconsciously associate public sector organizations with inefficiency, inflexibility, and other pejoratives." The negative views of such citizens may influence individuals to further downgrade performance in the public sector to lower than it actually is.

Hypotheses

Based on the previous literature reviews on the relationships between transparency, identity, and negative perception, along with the aims of this study, the following hypotheses were tested:

Hypothesis 1 (H1): A person's identity (citizen vs. public employee) will influence his or her reports of perceived transparency.

Hypothesis 2 (H2): Citizens will tend to perceive lower levels of transparency in public service than public employees.

Hypothesis 3 (H3): A person's negative perception (citizen vs. public employee) towards the other will influence his or her reports of perceived transparency.

Hypothesis 4 (H4): Citizens with increased negative perceptions towards public employees will perceive lower levels of transparency in public service.

Methods

Research Design and Data Collection

We selected administration of civil applications as a particularly appropriate site for the study, being that it is a process in which systems must be rigorously transparent to prevent corruption in government (Cho & Choi, 2004). The research design, in which two samples were taken from citizens who visited district offices to file civil applications during the survey period and the public employees involved in processing these applications, allowed us to analyze differences in perceived transparency between citizens and public employees, and thus to assess the influence of identity and negative perceptions of each group. Both parties were directly involved in the process so we could be confident these perceptions were grounded in actual experience. Data were collected from three districts (Yeongdeungpo-Gu, Seodaemun-Gu, and Gangdong-Gu) that were randomly selected out of the 25 autonomous districts of the Seoul Metropolitan Government, South Korea. After gaining permission from the district offices, two investigators visited them to distribute and collect the surveys. Face-to-face surveys were administered to a total of 600 individuals: 300 citizens and 300 public

employees; 200 individuals from each district. Participants were assured of confidentiality, and it was explained that the data would be used for academic purposes only. Data gathering was completed in July 2010. Of the 600 citizens and public employees that were approached to participate, 485 completed a survey, giving a response rate of 80.8%; removing incomplete surveys resulted in a total of 472 surveys for analysis: 233 citizens and 239 public employees. Table 1 provides detailed demographic information on the sample.

Table 1

Demographic Characteristics of the Sample (*n* = 472)

		Public Employees	Citizens	Total
Gender	Male	115 (48.1)	148 (63.5)	263 (55.7)
	Female	124 (51.9)	85 (36.5)	209 (44.3)
Age, years	< 30	24 (10.0)	41 (17.6)	65 (13.8)
	30–39	74 (31.0)	43 (18.5)	117 (24.8)
	40–49	94 (39.3)	63 (27.0)	157 (33.3)
	≥ 50	47 (19.7)	86 (36.9)	133 (28.1)
Level of	High school	31 (13.0)	69 (29.6)	100 (21.2)

Education	4-year university	192 (80.3)	154 (66.1)	346 (73.3)
	Post-graduate	16 (6.7)	10 (4.3)	26 (5.5)
Total		239 (50.6)	233 (49.4)	472 (100.0)

Note. Figures in parentheses are the percentages of respondents for each condition.

There were some demographic differences between the two sub-samples. For example, public employees were more likely to hold 4-year university and post-graduate degrees. Nonetheless, the results were considered to have appropriately represented demographic samples of both citizens and public employees.

Measures

Scholars have developed various indexes for measuring different kinds of transparencies, including transparencies in websites (Hollyer, Rosendorff, & Vreeland, 2014; Pina, Torres, & Royo, 2007), budget or fiscal transparencies (Caamat or fiscal tal., 2013; Heald, 2003), local government transparencies (da Cruz et al., 2015), transparencies in service provision (Vishwanath & Kaufmann, 2001), and organizational or government transparencies (Bauhr & Grimes, 2012; Rawlins, 2009). Since the purpose of this study was to measure perceived transparencies of government provisions of public services, a scale was developed that

comprised 18 questionnaire items, drawing on Vishwanath and Kaufmann's (2001: 42) conceptual definition of transparency in providing services. The 18 items comprised three for each of the six attributes of transparency: access, comprehensiveness, timeliness, relevance, quality, and reliability. Public employees and citizens were invited to respond to these items as they related to the transparency of the Gu Office administration of civil applications on a five-point scale, where 5 = strongly agree and 1 = strongly disagree (Table 2).

Table 2

Question Items for Transparency

Attributes	Items	
Access	t1	Few expenses are needed for citizens to get information.
	t2	Citizens can readily access necessary information anywhere.
	t3	The information is available when needed.
Comprehensiveness	t4	The Office provides information that is easy to understand.
	t5	Clear explanations are given.
	t6	Application instructions are easy to follow.
Timeliness	t7	Citizens can confirm the status of their application at any time.
	t8	The Office provides information when changes are made.

	t9	The information is provided in a timely fashion.
Relevance	t10	Civil application guides include all needed information.
	t11	The Office provides information that is essential for the applicants.
	t12	The disclosed information is relevant to citizens in helping them not to make mistakes in their applications.
Quality	t13	The disclosed information is complete.
	t14	The Office provides information that is accurate.
	t15	There are seldom flaws in the information.
Reliability	t16	The information is largely trustworthy.
	t17	The information is correct.
	t18	The Office provides information that is reliable.

First, an exploratory factor analysis for a total sample of 472 responses was completed in order to test the scale's validity of transparency and to uncover the factor structure underlying that transparency. The results are shown in Table 3.

Table 3

Results of Factor Analysis on the Items for Transparency
(data for the whole sample, *n* = 472)

Scale/Items	Factor Loading

		F1	F2
t1	Few expenses are needed for citizens to get information.	.248	**.737**
t2	Citizens can readily access necessary information anywhere.	.280	**.881**
t3	The information is available when needed.	.311	**.834**
~~t4~~	Office provides information that is easy to understand.		
~~t5~~	Clear explanations are given.		
~~t6~~	Application instructions are easy to follow.		
~~t7~~	Citizens can confirm the status of their application at any time.		
~~t8~~	Office provides information when changes are made.		
~~t9~~	The information is provided in a timely fashion		
~~t10~~	Civil application guides include all needed information.		
t11	Office provides information that is essential for the applicants.	**.666**	.252
t12	The disclosed information is relevant to citizens in helping them not to make mistakes in their applications.	**.715**	.288
t13	The disclosed information is complete.	**.738**	.278
t14	Office provides information that is accurate.	**.741**	.279
t15	There are seldom flaws in the information.	**.767**	.198
t16	The information is largely trustworthy.	**.762**	.363
t17	The information is correct.	**.796**	.236

t18	Office provides information that is reliable.	**.808**	.236
Eigenvalues		6.190	1.150
Cumulative %		56.273	66.726
Reliability (Cronbach's α)		.916	.833

Note. Factor loadings > .60 are in boldface. The slash (/) indicates a deleted item during a factor analysis.

Data from the whole sample gave a two-factor solution having an eigenvalue of > 1.0, where factor F1 was labeled as Information Quality and F2 as Access, while a total of seven items were eliminated because they failed to meet the minimum criterion of having a factor loading of .4 or above. The proportion of variance accounted for by these two factors was 66.73%. Cronbach's α values for the two factors, commonly used as a measure of internal consistency, were .916 and .833, respectively. To identify whether there were systematic differences between citizens and public employees in how they responded to a survey-based measure of transparency, factor structures were examined using an exploratory factor analysis on each of the two sub-groups. The results are shown in Table 4.

Table 4

Results of Factor Analysis on the Items for Transparency

(data from each of the two samples)

	For Public Employees (n = 239)			For Citizens (n = 233)		
Scale/Items	**Factor Loading**			**Scale/Items**	**Factor Loading**	
	F1	**F2**	**F3**		**F1**	**F2**
t1	.086	.277	**.720**	t1		
t2	.253	.135	**.868**	t2	**.624**	.321
t3	.341	.138	**.779**	t3		
t4				t4	**.778**	.196
t5				t5	**.713**	.333
t6				t6	**.808**	.286
t7				t7	**.820**	.192
t8	**.689**	.166	.341	t8	**.730**	.295
t9	**.772**	.315	.190	t9	**.732**	.354
t10	**.690**	.272	.300	t10		
t11	**.824**	.200	.173	t11	.232	**.776**
t12	**.783**	.241	.091	t12	.295	**.787**
t13				t13	.298	**.807**

t14				t14	.286	**.747**
t15				t15		
t16	.271	**.771**	.318	t16		
t17	.247	**.875**	.153	t17		
t18	.359	**.849**	.171	t18		
Eigenvalues	5.771	1.216	1.112	Eigenvalues	6.008	1.215
Cumulative %	52.463	63.518	73.623	Cumulative %	54.620	65.665
Cronbach's α	.878	.896	.800	Cronbach's α	.903	.848

Note. Factor loadings > .60 are in boldface. The slash (/) indicates a deleted item during a factor analysis.

The results of the factor analysis revealed that data from public employees alone produced a three-factor solution: F1 = Efficiency, F2 = Reliability, and F3 = Access. For citizens, a two-factor solution was a better fit, with the factors referred to as F1 = Accessibility (a wider notion than Access) and F2 = Utility. The factor structures of the two groups differed from each other and those of the whole sample. The factor analysis produced an apparently robust two-factor solution, but a three-factor solution emerged in the sample of public employees. Another two-factor solution (differing from that for the whole sample) emerged for the sub-sample of citizens. This result suggested that the two groups used different dimensions when

perceiving transparency of the same public service.

Previous literature on negative perceptions between two or more individuals or groups has suggested two primary dimensions: relationship and task (Solansky, Singh, & Huang, 2014: 83; Szulanski et al., 2008: 467). When one individual or group has a negative perception of the other, they are prone to underestimate their counterpart in terms of relationship and task. To measure negative perception, 10 items were created. Each dimension of relationship and task was comprised of five items, drawing on previously developed conflict scales (Rahim, 1983). After instructing the public employees to indicate their perceptions of citizens who visit district offices for the public service of civil applications, we asked them to respond to 10 questions on a five-point scale (5 = strongly agree, … and 1 = strongly disagree). This was repeated with the citizens who visited to file their applications, asking about their perceptions of the public employees. The items are shown in Table 5.

Table 5

Question Items for Negative Perception

	Items
Relationship	Public employees (or citizen applicants): c1 They tend to be not favorable to me.

	c2	They sometimes make me feel unpleasant.
	c3	They are not my supporters.
	c4	They have different views from mine.
	c5	They are in opposition to me.
Task	c6	They tend not to agree with my opinions about the work.
	c7	They use different standards.
	c8	They have different interests from mine.
	c9	They hardly cooperate with me.
	c10	They are in conflict with me.

A factor analysis was run to explore the underlying structures of the 10 items developed to measure negative perceptions. Contrary to our expectation that two clusters of items—relationship and task—would be identified, only one component was extracted, which explained 70.11% of the variance. The reliability α for the items of a factor (*n* of items = 10) was .952. The responses to the 10 items were averaged to form a variable of negative perception.

Results

To examine the magnitude and direction of the association between the variables, a Pearson's correlation analysis was performed. Table 6 reports the means, standard deviations, and correlations among the study variables.

Table 6

Descriptive Statistics and Correlations Between the Important Variables (*n* = 472)

	MEAN	SD	TR1	TR2	ID	NP	GN	AG	ED
TR1	3.66	.79	1.00						
TR2	3.71	.65	.620***	1.00					
ID	.51	.50	.358***	.328***	1.00				
NP	2.76	.88	−.067	−.162***	.198***	1.00			
GN	.56	.50	.000	.043	−.155***	−.052	1.00		
AG	2.84	1.14	.029	−.053	−.136**	.092*	.099*	1.00	
ED	1.84	.49	.015	.000	.193***	.031	−.007	−.215***	1.00

Note. Correlations with ID and GN are Spearman's rho.

The responses for gender were coded as 1 = male, 0 = female, those for age as 1 = < 29, 2 = 30–39, 3 = 40–49, and 4 = ≥ 50, and level of education as 1 = less than a high school diploma or equivalent, 2 = junior college degree, 3 = 4-year university degree, and 4 = post-graduate degree.

$^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$; two-tailed tests.

AG = age; ED = level of education; GN = gender; ID = Identity (public employees = 1, citizens = 0); NP = public employees' negative perception towards citizens or vice versa; TR1 = Information Quality; TR2 = Access.

TR1 and TR2 were very closely related to each other ($r = .620$, $p < .001$). ID was significantly associated with TR1 and TR2 ($r = .358$, $p < .001$; $r = .328$, $p < .001$), indicating that public employees had a higher tendency to positively rate the two types of transparencies than citizens. NP (negative perception) did not have a significant relationship with TR1 (Information Quality; $r = -.067$, $p > .05$), but its relationship with TR2 (Access) was significant and negative ($r = -.162$, $p < .001$). NP had a positive relationship with ID ($r = .198$, $p < .001$), indicating that public employees experience greater negative perceptions towards citizens. Regarding demographic variables, some significant associations between ID and GN, AG, and ED indicate significant differences in the ratios of gender, and the distribution of age and education level, between citizens and public employees. **For these reasons, demographic variables were controlled for, testing the hypothesis regarding identity and negative perception and examining how they affect the perceptual differences between citizens and public employees.**

Effects of Respondent Identity on Transparency

As noted above, we found public employees and citizens had qualitatively different understandings of the level of transparency. Responses from public employees indicated a three-factor solution (Efficiency, Reliability, and Access), while those from citizens produced a two-factor solution (Accessibility and Utility). These results showed a significant difference between citizens and public employees with regards to their perceptions of transparency. The results supported H1 (a person's identity, citizen vs. public employee, will influence his or her reports of perceived transparency). This study examined in more detail whether citizens, compared to public employees, perceived lower levels of transparency in public service, cross-correlating the means of the two groups in terms of perceived transparency.

Table 7

Differences in Transparency Perception between Public Employees and Citizens

	Dimensions of Transparency	Mean (s.d.)
Public Employees (n = 239)	Efficiency	3.78 (.63)
	Reliability	4.01 (.65)
	Access	3.93 (.64)

Citizens (*n* = 233)	Accessibility	3.22 (.75)
	Utility	3.46 (.71)

The means of the three dimensions (Efficiency, Reliability, and Access) for public employees was greater than those of the two dimensions (Accessibility, Utility) for citizens, and high enough to ensure a significance. H2 (citizens will tend to perceive lower levels of transparency in public service than public employees) predicted that citizens have fewer positive perceptions regarding the transparency of public service than public employees do. This hypothesis was supported.

Effects of a Negative Perception on Transparency

Before testing the effects of a negative perception on transparency, we also compared the means of negative perception between the two groups (citizens and public employees) to identify which group was more negatively perceived by the other. When first running the Levene's test for equality of variances, the two groups were found to be equal (F = .411, *p* = .522), so a t-test was run with an assumption of equality.

Table 8

Differences of Negative Perception Between Public Employees and Citizens

	Mean (s.d.)		Mean Differences	t-value	Sig. (2-tailed)
	Public Employees (n = 239)	Citizens (n = 233)			
Negative Perception	2.93 (.87)	2.58 (.86)	.35	4.379	.001

The results showed a significant difference between citizens and public employees in their negative perceptions of each other. The mean negative perception of public employees was 2.93, while that of citizens was 2.58, and the mean difference between the two groups was .35 (t = 4.379, $p < .001$). This suggests the view that public employees rate citizens more negatively than vice versa, at least with regard to the public service of civil applications. To analyze the effects of negative perception, we performed a linear regression analysis, controlling for demographic variables. Table 9 details the results of the regressions of negative perception on three types of transparency.

Table 9

Effects of Negative Perception on Transparency
(Public Employees, *n* = 239)

	Dependent Variables: Transparency
Predictors	

	Efficiency		Reliability		Access	
PNP	−.072	(−.101)	−.101*	(−.137)	.014	(.019)
GN	−.054	(−.044)	.049	(.038)	−.061	(−.048)
AG	.090	(.130)	.134**	(.187)	.111*	(.158)
ED	.030	(.021)	−.051	(−.035)	−.017	(−.012)
Constant	3.713***		4.022***		3.656***	
Adjusted R square	.009		.043		.007	
F value	1.512		3.691		1.446	
Sig.	.200		.006		.219	

Note. The figures in parentheses are standardized regression coefficients.

See Table 4 for the three types of transparencies.

$^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$; two-tailed tests.

AG = age; ED = level of education; GN = gender; PNP = public employees' negative perception towards citizens.

When three types of transparencies were regressed on independent variables, only the Reliability model, which represents the reliability of government information provided to the public, was significant (F = 3.691, p = .006). The variance explained was .043, and PNP (public employees' negative perception towards citizens) was significant but negatively associated with perceived transparency (b = −.101, $p < .05$). This indicates that public

employees tend to rate the level of transparency higher (reliability of information provided by themselves) when their negative perception towards citizens is low. Table 10 presents the regression results of citizens' negative perceptions towards public employees on two types of transparencies.

Table 10

Effects of Negative Perception on Transparency (Citizens, *n* = 233)

Predictors	**Dependent Variables: Transparency**			
	Accessibility		**Utility**	
CNP	−.299***	(−.339)	−.234***	(−.281)
GN	.124	(.079)	.083	(.056)
AG	.057	(.100)	−.048	(−.089)
ED	−.070	(−.049)	−.165	(−.122)
Constant	3.859***		4.442***	
Adjusted R square	.110		.092	
F-value	8.151		6.910	
Sig.	.000		.000	

Note. The figures in parentheses are standardized regression coefficients.

See Table 4 for the two types of transparency.

$^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$; two-tailed tests.

AG = age; CNP = citizens' negative perception towards public employees; ED = level of education; GN = gender.

Unlike the results from the analysis of public employees, both the Accessibility and Utility models of data from citizens were significant. In the Accessibility model, the variance explained was .110 (F = 8.151, $p < .001$). The more negative the perception civil applicants had towards public employees, the lower they rated the level of transparency regarding the accessibility to provided information (b = −.299, $p < .001$). The Utility model that represents usefulness of information was also significant (F = 6.910, $p < .001$), with about 9% of the variance explained. Controlling for other variables, negative perception was a significant predictor of Utility (b = −.234, $p < .001$). In the two models, civil applicants' unfavorable perception towards public employees had negative effects on the perceived level of transparency. Compared with Table 9, the results showed that civil applicants' negative perceptions decreased their perceived level of transparency more than vice versa. H3 predicted that between principal and agent, a person's negative perception (citizen vs. public employee) towards the other will influence his or her reports of perceived transparency. According to the regression results, H3 was partially supported for public employees, but fully supported for citizens. Hypothesis H4 predicted that citizens with more negative

perceptions towards public employees will perceive lower levels of transparency in the public service; this was supported. The results of this analysis showed that the effects of negative perceptions on transparency differed between the samples of public employees and citizens. In addition, the influence of citizens' negative perception towards public employees on perceived levels of transparency was greater than that of the public employees' negative perception towards citizens.

Discussion

The findings reveal that the two groups do indeed respond differently to a survey-based measure of governmental transparency. The sample of public employees used three dimensions to understand transparency—Efficiency, Reliability, and Access—while citizens described transparency in two dimensions of Accessibility (a wider notion than access) and Utility. In some cases, the items were loaded onto similar factors for both samples, but in other cases it is clear that they had different or almost opposing meanings; for example, items 8 and 9 loaded on Efficiency for public employees but on Accessibility for citizens; items 11 and 12 loaded on Efficiency for public employees but on Utility for citizens. Furthermore, public employees had more favorable views of transparency than citizens. In contrast, citizens reported lower ratings of transparency when compared to public employees, in

responding to the same items about the administration of civil applications. Concerning negative perception, public employees rated citizens more negatively than vice versa. Citizens' negative views towards public employees produced a perception of lower transparency. Of the three types of transparency from the sample of public employees, only the Reliability model significantly presented the effect of negative perception on transparency, while both models from the sample of citizens were significant. This indicated **that citizens' negative perceptions towards public employees had a consistently negative and much greater influence on the level of transparency than public employees' negative perceptions towards citizens**. These results will be valuable and will offer new insights into the study of measuring and improving transparency. If participants (as citizens or public employees) interpret the items differently, then it becomes much more difficult to compare their responses. The findings also suggest that public employees adopt a somewhat technical view of transparency, whereas citizens have more practical concerns about it.

The survey method is claimed to offer greater validity and reliability than qualitative methods. A key element is its assumed consistency; all participants are asked to respond to the same items with the same choices of answer. It is believed that a survey method produces the exact attributes of a population if a sufficiently large number of people answer the survey. However, this study shows that when a survey method is used to measure levels of

transparency**, responses could be significantly refracted through respondents' identity of general citizens or public employees, and through the negative perceptions between the two groups that notably worked in a principal–agent relationship.** To use a survey method as a valid method for data gathering, researchers should understand such perceptual biases stemming from subjectivity.

Many critical questions have been raised regarding a survey conducted to determine the level of transparency of the White House, Congress, and other government agencies. According to them, the survey may be a measure of what people think of transparency in government—essentially a measure of opinion (Steirnstein, 2011). Although it has inherent flaws, the survey method is important because both types of actual and perceived transparency are needed. da Cruz et al. (2015: 20) stated that the policies for sustainable transparency practices can be developed based on citizen-centered or various stakeholders' perspectives. Rawlins (2009: 73) maintained, “if the pragmatic value of transparency is to increase trust, then transparency needs to be measured from the perspective of the stakeholders.” In cases where agencies are concerned with what citizens think about transparency, a survey will be a useful tool. If not, an alternative approach for measuring transparency would be to employ objective measures.

This study also suggests how governments will be able to improve the level of

transparency. Some scholars contend that society requires an optimal level of transparency (Heald, 2003; Cornand, 2008). The results of this study suggest that the optimal level in perceived transparency will differ depending on who evaluates it. Public employees may think that transparency has reached an optimal level already, while citizens may think it is still lower than the level they desire. This implies that the optimal level of transparency in public service can be reached by a different approach according to dimensions of transparency. Our results suggest that where the main objective is to increase levels of transparency assessed by citizens' views, it would make sense to focus resources on activities that might improve accessibility and utility—the two dimensions that citizens used in perceiving transparency. The effects of negative perception that public employees have towards citizens were partially significant when evaluating their own performance, whereas the negative perceptions of citizens towards public employees had a higher negative influence on transparency for the same government service. In this case, creating a positive feeling towards public service will help. One fundamental approach would be to develop public service motivation in which the motivation of public employees—identified by their commitment to the public interest, compassion, and willingness for self-sacrifice—contributes to the sharing of their knowledge with others in the interests of serving the public (Chen & Hsieh, 2015). Another (more direct) way is to create a favorable feeling by

promoting citizen involvement in the Internet and mobile space, which is widely known to be an effective means of accessibility to government information (Bertot, Jaeger, & Grimes, 2010; Pina, Torres, & Royo, 2007; Grimmelikhuijsen & Welch, 2012).

Conclusions

Recently, many governments have sought to increase the volume of information they release to the public (Pina, Torres, & Royo, 2007; Bertot, Jaeger, & Grimes, 2010). The next step will be to assess their progress by measuring transparency. However, few studies have addressed how to measure transparency and its limitations. This study sheds light on the limitations of survey-based measurements of transparency, showing that evaluations of transparency by citizens or public employees may differ if the citizen or public employee is affected by an identity and/or negative perception. Wang and Gianakis (1999) opined that performance measures are often invalid, in that public officials do not assess the activities or the results of governmental service simply. This applies when citizens perceive transparency levels. Although agreeing that an identity is likely to affect responses, Kaplan and Ruffle (1998) contended that there is a lack of evidence to support the bias assumption since alternative interpretations are possible. According to the authors, even though public employees perceived higher transparency, this might be due to the effect of their motives to

increase the degree of their esteem or acts of bettering their performance in situations in which their work may be neglected (called the self-enhancement effect) but not of the effect of bias. Accordingly, contextual factors need to be examined in future studies. The data used for the analysis in this study were collected from citizens who had actual experience in perceiving transparency from visiting an office of civil applications. One limitation of the study is that the findings may not be generalizable to people who didn't have such encounters due to the effects of various contextual factors on them; these factors govern the situations in which our survey was conducted.

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