

---

# Public segmentation using situational theory of problem solving: Illustrating summation method and testing segmented public profiles

---

Jeong-Nam Kim

Purdue University, West Lafayette

---

## Abstract

*In this short article, the summation method of public segmentation is introduced. The summation method is an alternative to the canonical correlations procedure that has been used extensively in the past. It is methodologically simpler and more accessible to researchers and applicable to more research contexts. In this article, examples of the public segmentation method have been illustrated and also tested for its validity in segmenting groups using the situational theory of problem solving.*

## Introduction

Public segmentation is a crucial element in public relations theory and practice. It aids practitioners in developing strategies for problem solving and relationship building with members of diverse publics. Via segmentation, organisations can identify consequence-specific proactive subgroups out of a rather broad category of stakeholders or the general population. Segmentation in public relations can help increase “*cost effectiveness* in reaching current/potential publics” and further increase an “*organization’s effectiveness* in obtaining stakeholders’ and publics’ support and resources” to help fulfil organisational strategic goals (Kim, Ni, & Sha, 2008, p. 755). If used adequately, identifying strategic publics in public relations may help organisations achieve both *micro-level* (decreasing cost of communication) and *macro-level* (decreasing strategic threats and

increasing strategic opportunities created by strategic publics) effectiveness.

The classical review of public segmentation and its principles is provided by James Grunig (1989, 1997; Grunig & Hunt, 1984; Grunig & Repper, 1992), while his students have provided a more updated review and detailed conceptual frame of public segmentation illustrated by different stages of strategic management of public relations and by different types of public relations problems (Kim, Ni, & Sha, 2008; Kim & Ni, in press; Ni & Kim, 2009). At the heart of the conceptual frame and procedures of public segmentation are the situational theory of publics (e.g., Grunig, 1997) and situational theory of problem solving (Kim & Grunig, 2011). The situational theories help define and identify publics and explain the perceptual, motivational, and cognitive antecedents that increase communicative actions among members of publics.

One widely used method of segmentation using the situational theory of publics is that of canonical correlations. In this method, researchers and practitioners calculate canonical covariates using those independent and dependent variables of the theory of publics that are clustered across multiple problems/issues. Once calculated, the derived canonical covariates are used to interpret the nature of subgroups of publics across the problems/issues. Quite a few studies and public relations programmes have used canonical correlations for segmentation over the years (e.g., Grunig & Disbrow, 1982; Sha, 2006; Sha & Pine, 2004).

Although the canonical correlations method is easy to use and has had acceptance from theorists and practitioners for its utility in public segmentation, access to statistical programmes and perception of canonical correlations as a difficult statistical technique discourage more wider use of the method. This often discourages practitioners and researchers from using this method for practice and research. Interestingly, Grunig also hinted at an alternative segmentation method in his book, *Managing public relations* (Grunig & Hunt, 1984) but did not provide detailed procedures or examples. In this article, therefore, I will introduce an alternative segmentation procedure, which I named the *summation method*, in detail and illustrate specific steps, examples, and tests to check its validity based on the situational theory of problem solving. It is hoped that this new method will supplement the existing method of canonical correlations of public

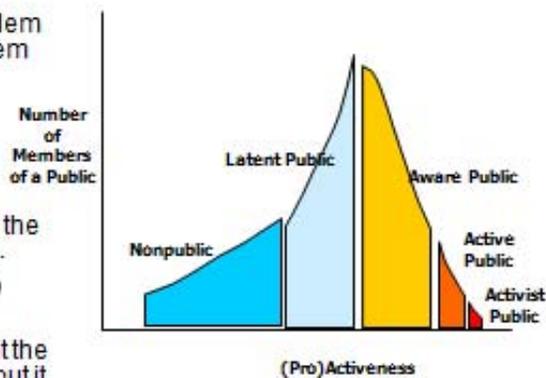
segmentation and promote the use of public segmentation in practice and research.

### Segmentation procedure using situational theory

Segmenting publics before and after public relations intervention is a necessary task for strategic public relations. The assumption that all individuals are equal and display similar behaviours is a common misconception that leads to *nonstrategic* management of public relations. The situational theory of problem solving provides a conceptual frame and practical tool to break down a general population into strategic subgroups such as *active/activist public*, *aware public*, *latent public*, and *nonpublic*. One easy but still powerful public segmentation method is the “*summation method*” (Kim, Shen, & Morgan, 2011). The summation method helps classify the population into the abovementioned four subtypes of public *within* a problem/issue.

Figure 1: Types of publics within an issue.

- **Nonpublic (0):**  
has no consequence.
- **Latent public (1):**  
a consequence creates a problem but has not detected the problem yet.
- **Aware public (2):**  
has recognised the problem.
- **Active public (3):**  
has started working for solving the problem and creating an issue.  
(*Individual Effectuating Phase*)
- **Activist public (3):**  
has organised to discuss about the problem and do something about it with others.  
(*Collective Effectuating Phase*)



**Table 1: Public typology using three situational-perceptual independent variables**

	<i>High Involvement (HI)</i> (1)		<i>Low Involvement (LI)</i> (0)	
	Behavior Type	Type of Public	Behavior Type	Type of Public
<b>Problem-Facing Behavior (PF):</b> Hi PR (1) / Lo CR (1)	<b>HIPF</b>	<b>Active/Activist</b> (3)	<b>LIPF</b>	<b>Aware/Active</b> (2)
<b>Constrained Behavior (CB):</b> Hi PR (1) / Hi CR (0)	<b>HICB</b>	<b>Aware/Active</b> (2)	<b>LICB</b>	<b>Latent/Aware</b> (1)
<b>Routine Behavior (RB):</b> Lo PR (0) / Lo CR (1)	<b>HIRB</b>	<b>Active (Reinforcing)</b> (2)	<b>LIRB</b>	<b>None/Latent</b> (1)
<b>Fatalistic Behavior (FB):</b> Lo PR (0) / Hi CR (0)	<b>HIFB</b>	<b>Latent</b> (1)	<b>LIFB</b>	<b>None</b> (0)

\* Modified from Grunig & Hunt (1984)

In a survey conducted on public segmentation, public relations managers typically measure three situational independent variables – *problem recognition*, *involvement recognition*, and *constraint recognition* – about the problem/issue of their interest (see Kim & Grunig’s forthcoming book for the usable measures).<sup>1</sup> In brief, problem recognition refers to the perceived magnitude of discrepancy between what one expects and what one experiences in a given situation; involvement recognition refers to the perceived connection between the self and the problem situation; and constraint recognition refers to the perceived obstacles in the situation that limit one’s ability to do anything about the problem (Kim & Grunig, 2011). While problem and involvement recognition increase one’s situational motivation to engage in cognitive efforts and communicative action, constraint recognition decreases situational motivation and thus

reduces cognitive efforts and communicative action.

The summation method uses the midpoint of the survey data as the cut-off point. Once public relations managers have identified the problems/issues with measures of situational variables and assessed participants’ situational perception, they can take the midpoint of the survey scale (e.g., 3 on a 5 point Likert-type scale) as the cut-off point and recode the data into high (=1) versus low (=0). For example, a participant who responds with a rating of 4 for problem recognition, 3 for involvement recognition, and 2 for constraint recognition on a 5-point scale, the responses will be recoded into high (more than 3) problem recognition (=1), high (more than 3) involvement recognition (=1), and low (less than 3) constraint recognition (=1) using the midpoint 3 as the point of cut-off. It is important to note that constraint recognition is reversed, i.e., high constraint recognition (=0) and low constraint

recognition (=1), so that the resulting summed score can consistently indicate the likelihood of situation-specific motivation, cognitive, and communicative action – i.e., the higher the score, the more active one is regarding the problematic situation.<sup>2</sup>

In the final step, public relations managers can simply sum up all three recoded values. This will result in four possible values – 0 = nonpublic, 1 = latent public, 2 = aware public, 3 = active/activist public (see Figure 1 and Table 1). Continuing with the example above, the participant's summation is 1 + 1 + 1 = 3, and she/he is identified as a member of an active/activist public in the given problem/issue. In practice, this summation method can be easily done by any spreadsheet software (e.g., Excel) or statistical analysis package (e.g., SPSS) with basic computation procedures (i.e., recode and summation function). Once publics are segmented using the summation procedure, public relations managers can use the segmented groups to explore profiles of subpublics such as their current knowledge, attitude, behavioural tendency, and where to go to communicate with the chosen subpublic of their interests.

### **Public segmentation procedure and an illustrative example**

#### *Before segmentation*

To collect survey data for segmenting publics, public relations managers (researchers) need to identify current and potential problems or issues by monitoring “consequences” of organisational decisions, policy, and operational practices (Kim, Ni, & Sha, 2008). In general, the primary source of information in identifying emerging problems or issues is the management that is responsible for the organisational decision-making. Thus, public relations managers should pay careful attention to client meetings, and formal interactions and informal conversations with decision makers and top managers because these interactions will enable them to identify current or upcoming problems/issues out of decisions and

their possible consequences (cf. environmental scanning).

Once the focal problems and issues to be tested in the given research (typically, 3-4 problems) have been selected, these problems/issues must be stated in short phrases (e.g., subprime mortgage crisis; widespread abuses and violence in Darfur, Sudan; shortage of organ donors) and asked with the measurement items of the situational variables. For example:

*In your mind, how much of a connection do you see between yourself and this problem/issue? (\*involvement recognition)*

Widespread abuses and violence in Darfur, Sudan (Not at all (=1) ----- Extremely (=5))

Shortage of organ donors for patients (Not at all (=1) ----- Extremely (=5))

Subprime mortgage crisis (Not at all (=1) ----- Extremely (=5))

In addition to the situational variables, researchers can check for information behaviours such as information seeking, forwarding, information forefending and knowledge, attitude, behaviours (intention) related to problems/issues. These variables are often communication goals and objectives of the given public relations context. Further, it is recommended that researchers include questions about cross-situational variables such as demographics, psychographics, and geographic questions (cf., nested model of segmentation, Grunig and Repper, 1992). While the situational variables help identify ‘who are relevant public groups about the problem/issue’ in the given period, these cross-situational questions are helpful in identifying ‘where to go’ after publics have been segmented. This type of information can help researchers and practitioners formulate strategies to communicate with the segmented subpublics.

Another consideration in data collection for public segmentation is the sampling procedure. In general, probability sampling with a known sampling frame is desirable because then segmented publics’ profiles and the information to contact/communicate are more valid and

useful – i.e., it is possible to extrapolate the findings from the sample to the population of interest. However if resources are limited or the research purpose would not require generalisability, alternative sampling methods (e.g., snowball sampling) can be used with caution.

### Illustrative example

In this section, I will explain the summation method with a web survey dataset (N =614; used 9 point Likert-type Scale, 1 = not at all – 9 = extremely) collected with a convenience sample (snowball sampling) on three problems/issues: widespread abuse and violence in Darfur, Sudan; the subprime mortgage crisis; and the lack of organ donors. To note in this study for illustration, multiple measures were asked for each variable used for segmentation. If it is possible for researchers to have a multiple-item approach to measure variables, this will increase the quality of findings and the interpretability of segmentation results. In case multiple items are used for each variable, it is necessary to make a single composite variable before segmentation, such as computing the means of those items.<sup>3</sup> In the present example, three items were used for each situational independent variable. Thus, in SPSS, these three variables were computed into single variables (i.e., composites) using the syntax below.

#### SPSS syntax example

*Making composite variables for three situational independent variables:*

*(PR= problem recognition items)*

```
COMPUTE PRw=(PR1w + PR2W + PR3W)/3.
EXECUTE.
```

```
COMPUTE PRb=(PR1b + PR2b + PR3b)/3.
EXECUTE.
```

```
COMPUTE PRs=(PR1s + PR2s + PR3s)/3.
EXECUTE.
```

*(IR = involvement recognition items)*

```
COMPUTE IRw=(IR1w + IR2W + IR3W)/3.
EXECUTE.
```

```
COMPUTE IRb=(IR1b + IR2b + IR3b)/3.
EXECUTE.
```

```
COMPUTE IRs=(IR1s + IR2s + IR3s)/3.
EXECUTE.
```

*(CRR = constraint recognition reversed items)*

```
COMPUTE CRRw=(CR1R_w + CR2R_w +
CR3R_w)/3.
```

```
EXECUTE.
```

```
COMPUTE CRRb=(CR1R_B+ CR2R_B +
CR3R_B)/3.
```

```
EXECUTE.
```

```
COMPUTE CRRs=(CR1R_S + CR2R_S +
CR3R_S)/3.
```

```
EXECUTE.
```

*Recoding using midpoint (= 5) into dichotomous variables:*

*(e.g., PR = problem recognition recoded in dichotomous values, 0 = low vs 1 = high)*

```
RECODE IRw IRb IRs PRw PRb PRs CRRw
CRRb CRRs (SYSMIS=SYSMIS) (Lowest thru
5=0) (5 thru Highest=1)
```

```
INTO IRW_ IRB_ IRS_ PRW_ PRB_ PRS_
CRRW_ CRRB_ CRRS_.
```

```
EXECUTE.
```

*Summing those recoded dichotomous situational variables:*

*(WPUBLIC, BPUBLIC, SPUBLIC are new variables created by summation procedure values are varying from 0 to 3)*

```
COMPUTE WPUBLIC=PRW_ + CRRW_ +
IRW_.
```

```
EXECUTE.
```

```
COMPUTE BPUBLIC=PRB_ + CRRB_ +
IRB_.
```

```
EXECUTE.
```

```
COMPUTE SPUBLIC=PRS_ + CRRS_ +
IRS_.
```

```
EXECUTE.
```

These three steps in SPSS could also be conducted easily in any statistical software and spreadsheet software (e.g., Excel). The resulting four quantities identify the publics' status for the given problem/issue as: nonpublic (=0), latent public (=1), aware public (=2), and active/activist publics (=3) as shown in Figure

1 and Table 1. Once segmentation has been conducted, public relations managers can use the segmented publics to analyse the current states of information behaviours, knowledge, attitude, and behaviours regarding problems/issues. Further, it is possible to analyse specific profiles and characteristics of each subpublic using various cross-situational variables such as gender, political orientation, psychographics, and media-use patterns. Such analysis of segmented publics' profiles helps communicators to set and adjust their communication goals and objectives and future strategies and tactics that are commensurate with the characteristics of subpublics of interest.

**Validity of the summation procedure:  
Testing communicative activeness of  
identified subpublics**

While the summation procedure is relatively easy to apply in a research context, it is important to ask whether the procedure could generate theoretically valid subgroups. In this section, I examine the validity of this new approach to public segmentation. One way to examine the validity of the new segmentation procedure is to predict whether those classified as subpublics (i.e., nonpublic, latent, aware, and active publics) by the new procedure possess different extents of communicative activeness about the problem/issue using theoretical propositions of the situational theory. The situational theory of problem solving proposes that the more active the problem solver is, the more likely they are to engage in communicative actions regarding the problem (Kim & Grunig, 2011). If the new identification procedure is valid, then the members of classified subpublics should be different in their

magnitudes of information behaviours of information seeking, information forwarding, and information forefending. For example, it is expected that members of active publics should be the most motivated individuals of the overall population, and thus most likely to show the highest information seeking, information forwarding, and information forefending. Likewise, aware publics will be higher in these proactive information behaviours than latent and nonpublic in information behaviours.

H1. Information seeking about the problem/issue will be higher as a public's status changes from nonpublic to active public.

H2. Information forwarding about the problem/issue will be higher as a public's status changes from nonpublic to active public.

H3. Information forefending about the problem/issue will be higher as a public's status changes from nonpublic to active public.

Using the abovementioned three illustrative problems/issues, I tested these predictions and examined the validity of the summation method of public segmentation. In the illustrative dataset, I asked about three domestic and international problems/issues.<sup>4</sup> These were: widespread abuses and violence in Darfur, Sudan; becoming an organ donor through the state registry or signing an organ card, and; subprime mortgage crisis.

A univariate analysis of variance using SPSS16 was conducted with the segmented publics as the independent variable and the three active information behaviours as dependent variables. The test results are summarised in Table 2.

**Table 2: Mean differences of communicative behaviours among segmented publics in three problems/issues (9 point Likert-type scale)**

		Communicative activeness		
		Information seeking*	Information forwarding*	Information forefending*
<b>Widespread abuses and violence in Darfur, Sudan</b>	Nonpublic	1.70 (1.20)	1.71 (1.31)	2.03 (1.30)
	Latent public	2.03 (1.35)	1.75 (1.26)	2.85 (1.46)
	Aware public	3.67 (2.02)	3.29 (2.16)	4.67 (1.95)
	Active public	5.47 (2.08)	5.01 (2.41)	6.33 (1.56)
<b>Becoming an organ donor through the state registry or signing an organ card</b>	Nonpublic	1.69 (1.17)	1.66 (1.21)	2.03 (1.30)
	Latent public	1.74 (1.21)	1.57 (1.14)	2.85 (1.46)
	Aware public	2.11 (1.53)	1.96 (1.45)	4.67 (1.95)
	Active public	3.36 (2.10)	3.56 (2.37)	6.33(1.56)
<b>Subprime mortgage crisis</b>	Nonpublic	1.50 (.91)	1.42 (.91)	1.88 (1.07)
	Latent public	1.86 (1.14)	1.65 (1.04)	2.71 (1.53)
	Aware public	2.59 (1.86)	2.33 (1.82)	3.48 (1.66)
	Active public	5.32 (2.25)	4.53 (2.40)	5.74 (1.57)

\* All tested mean differences among segmented publics by omnibus tests (F-tests) in three problems/issues were significant at  $p < .001$ .

Test results showed that information behaviours are different in all three problems/issues such that active publics are highest, followed by aware publics, latent publics, and nonpublics. The situational theory posits that active publics tend to show higher information seeking, information forwarding, and information forefending than passive or nonpublics. The findings show that the segmented subpublics in this illustrative study are consistent with theoretical predictions from the situational theory of problem solving, and thus provide support for the validity of the summation method as a segmentation procedure.

#### **Illustrative examples of crosstab analysis between public status and cross-situational variables**

As noted, once segmentation has been made using the summation procedure, the segmented publics can be used for developing public profiles in various ways. One easy but powerful method is ‘cross-tabulation’, by specifying segmented publics as row variables and entering other cross-situational variables as column variables. For example, one can cross-tabulate public segmentation with gender,

socioeconomic status, geographics, political view, zip code, media subscriptions, and any other cross-situational variables. Such analyses provide clues to map out different characteristics (public profiles) of the segmented publics and furthermore give ‘where to go’ type information before planning communication. In addition, as formative research, it is possible to conduct cross-tabulation and compute mean scores of key communicative objectives such as knowledge or behavioural intention about the problem/issue. Such formative research using segmented publics can give baseline statistics that could be compared after implementation of proposed communication and intervention programmes. I have illustrated how cross-tabulation can be done below. The first two graphs are the results of Wpublic (the issue of widespread abuse and violence in Darfur) with gender and political perspectives. The following table is an output from SPSS cross-tabulation that gives estimated cell percentages and counts by Wpublic and political view. Mapping public profiles using these simple descriptive structures becomes more powerful if the dataset is collected through probability sampling (e.g., CATI) with a clearly defined sampling frame.

Figure 2: WPublic (publics about widespread abuses and violence in Darfur, Sudan) x gender

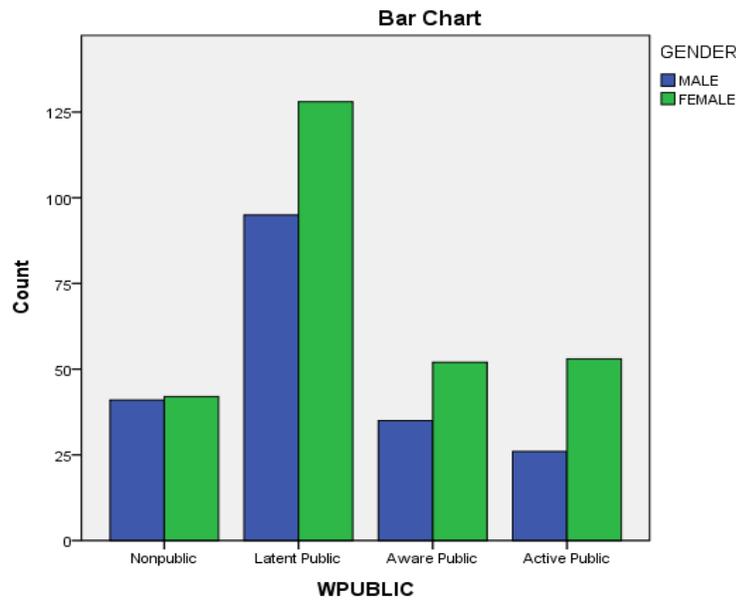
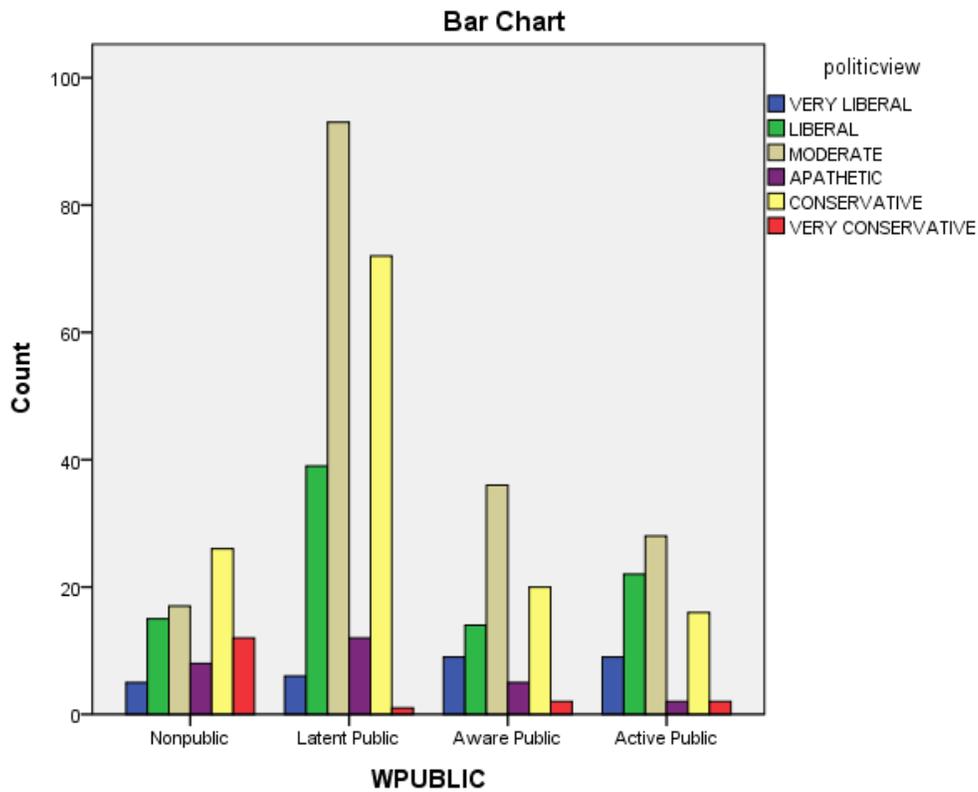


Figure 3: WPublic x political affiliation



**Table 3: An example cross-tabulation analysis: WPublic x political view**

WPublic		Political view					VERY CONSERVATIVE	Total
		VERY LIBERAL	LIBERAL	MODERATE	APATHETIC	CONSERVATIVE		
<b>Nonpublic</b>	Count	5	15	17	8	26	12	83
	% within WPublic	6.0%	18.1%	20.5%	9.6%	31.3%	14.5%	100.0%
	% within political view	17.2%	16.7%	9.8%	29.6%	19.4%	70.6%	17.6%
	% of Total	1.1%	3.2%	3.6%	1.7%	5.5%	2.5%	17.6%
<b>Latent public</b>	Count	6	39	93	12	72	1	223
	% within WPublic	2.7%	17.5%	41.7%	5.4%	32.3%	.4%	100.0%
	% within political view	20.7%	43.3%	53.4%	44.4%	53.7%	5.9%	47.3%
	% of Total	1.3%	8.3%	19.7%	2.5%	15.3%	.2%	47.3%
<b>Aware public</b>	Count	9	14	36	5	20	2	86
	% within WPublic	10.5%	16.3%	41.9%	5.8%	23.3%	2.3%	100.0%
	% within political view	31.0%	15.6%	20.7%	18.5%	14.9%	11.8%	18.3%
	% of Total	1.9%	3.0%	7.6%	1.1%	4.2%	.4%	18.3%
<b>Active public</b>	Count	9	22	28	2	16	2	79
	% within WPublic	11.4%	27.8%	35.4%	2.5%	20.3%	2.5%	100.0%
	% within political view	31.0%	24.4%	16.1%	7.4%	11.9%	11.8%	16.8%
	% of Total	1.9%	4.7%	5.9%	.4%	3.4%	.4%	16.8%
<b>Total</b>	Count	29	90	174	27	134	17	471
	% within WPublic	6.2%	19.1%	36.9%	5.7%	28.5%	3.6%	100.0%
	% within political view	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	6.2%	19.1%	36.9%	5.7%	28.5%	3.6%	100.0%

## Conclusion

In the past, the canonical correlations method has been the primary public segmentation procedure within the situational theory frame. While canonical correlation provides a powerful segmentation tool for researchers and practitioners, it is considered methodologically difficult to perform. Through this short article, I have introduced the summation procedure for public segmentation as an easier alternative. The purpose of proposing the summation procedure is to provide a simple and accessible tool for practitioners and researchers who want to utilise the situational theory. It should be noted that the canonical correlations approach is statistically a more *efficient* method, meaning that it utilises more statistical information in analytic procedures than the summation method given that one uses the same dataset – in the summation process, researchers lose a substantial amount of statistical information when making composites and dichotomising continuous variables. However, for some research contexts (e.g., planning communication programmes/interventions), the trade-off between statistical efficiency with methodological accessibility might be worthwhile. Therefore, I hope to see more researchers and practitioners utilise this alternative segmentation procedure in the future.

## References

- Grunig, J. E., & Disbrow, J. B. (1982). The message-attitude-behavior relationship: Communication behaviors of organizations. *Communication Research*, 9, 163-200.
- Grunig, J. E., & Repper, F. C. (1992). Strategic management, publics, and issues. In J. E. Grunig (Ed.), *Excellence in public relations and communication management* (pp. 117-158). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Grunig, J. E. (1989). Publics, audiences and market segments: Models of receivers of campaign messages. In C. T. Salmon (Ed.), *Information campaigns: Managing the process of social change* (pp. 197-226). Newbury Park, CA: Sage.
- Grunig, J. E. (1997). A situational theory of publics: Conceptual history, recent challenges and new research. In D. Moss, T. MacManus, & D. Vercic (Eds.), *Public relations research: An international perspective* (pp. 3-46). London: Thomson.
- Grunig, J. E. & Hunt, T. (1984). *Managing public relations*. New York: Holt, Rinehart & Winston.
- Kim, J.-N., & Grunig, J. E. (2011). Problem solving and communicative action: A situational theory of problem solving. *Journal of Communication*, 61, 120-149.
- Kim, J.-N., & Grunig, J. E. (in press). *Situational theory of problem solving: Communicative, cognitive, and perceptive bases*. New York: Routledge.
- Kim, J.-N., & Ni, L. (in press). Integrating formative and evaluative research in two types of public relations problems: A review of research programs within the strategic management approach. *Journal of Public Relations Research*.
- Kim, J.-N., Ni, L., & Sha, B.-L. (2008). Breaking down the stakeholder environment: A review of approaches to the segmentation of publics. *Journalism & Mass Communication Quarterly*, 85(4), 751-768.
- Kim, J.-N., Shen, H., & Morgan, S. (2011). Information behaviors and problem chain recognition effect: Applying situational theory of problem solving in organ donation issues. *Health Communication*, 26, 171-184.
- Ni, L., & Kim, J.-N. (2009). Classifying publics: Communication behaviors and problem-solving characteristics in controversial issues.
- Kim, J.-N. (2011). Public segmentation using situational theory of problem solving: Illustrating summation method and testing segmented public profiles. *PRism* 8(2): <http://www.prismjournal.org/homepage.html>

**Author contact details:**

Sha, B.-L. (2006). Cultural identity in the segmentation of publics: An emerging theory of intercultural public relations. *Journal of Public Relations Research*, 18(1), 45-65.

Sha, B.-L., & Pine, P. (2004, March). *Using the situational theory of publics to develop an education campaign regarding child sexual abuse*. Paper presented to the Seventh Annual Interdisciplinary Public Relations Research Conference sponsored by the Institute for Public Relations Research, Miami, FL, USA.

Jeong-Nam Kim  
Brian Lamb School of Communication  
Purdue University  
Beering Hall of Liberal Arts and Education,  
Room 2114  
100 N. University Street  
West Lafayette, IN 47907-2098  
jnkim@purdue.edu  
situationaltheory@gmail.com  
(765) 496-6138 (Office)  
(765) 496-1394 (Fax)

**Copyright statement:**

The author retains copyright in this material, but has granted *PRism* a copyright license to permanently display the article online for free public viewing, and has granted the National Library of Australia a copyright licence to include *PRism* in the PANDORA Archive for permanent public access and online viewing. This copyright option does not grant readers the right to print, email, or otherwise reproduce the article, other than for whatever limited research or educational purposes are permitted in their country. Please contact the author if you require other uses.

## Appendix 1: A brief guideline for preparing public segmentation using situational theory of problem solving for formative and evaluative research

### 1. *Create survey using situational theory*

- Use client meetings to identify ‘consequences’ or ‘problems’ or ‘issues’ (from organisation to publics as well as from publics to organisation)
- Select **three** or more important consequences, problems, issues. Prepare the problem statements for questionnaire.
- Add open-ended questions at the beginning about the problems/issues.
- Select items from situational theory - Select ‘knowledge, attitude, behaviour (intention)’ related with the public relations programme.
- Select ‘cross-situational variables’ (e.g., demographics, psychographics, etc.)
- If necessary (e.g., organisation-initiated public relations problem), add ‘relationships’ assessment.

### 2. *Select population and sample frame*

- Random sampling? Purposive sampling? Stratified? Convenient sampling? etc.
- Telephone survey? Web-survey?

### 3. *Analysis*

- Segment publics. Summation segmentation method (within-a-problem typology, across-typology)
  - \* descriptive statistical analysis, cross-tabulation, mean analysis, ANOVA, etc.
  - Check **knowledge, attitude, behaviour** (intention).
  - Check ‘**where to go**’ to communicate with ‘selected groups of publics’
  - If necessary (i.e., TYPE 1 public relations problem), check relationships within-an-issue public, across-issue-publics, also you may compare relationships quality/types across ‘cross-situational variables’
  - Prepare ‘evaluation matrices’

### 4. *Go back to your initial gut strategies/tactics – refine strategy building*

- Based on research finding and using client meeting, focus groups/in-depth interviews and using secondary research, build, refine, and elaborate communication strategies and tactics to solve public relations problems.

## Notes:

1 By using referent criterion, another independent variable of STOPS, a more comprehensive classification is possible. In this article, I focused on introducing the basic summation method, but there are several modified segmentations that are possible derived from the basic summation method introduced here.

2 This reversal of constraint recognition can be done either in using reversed measures in survey or the reversal of variables if non-reversed items.

3 However, quite often, it is costly or difficult to adopt a multiple-item approach for practice (e.g., computer-assisted telephone interview (CATI)). In such cases, researchers can still utilise the summation method.

4 The survey was conducted in 2006 in a Midwestern university among college students. The survey was an online survey with a nonprobability sampling procedure, taking about 10 minutes or less to finish. Participation was voluntary and could be skipped or stopped at any time if the participant wanted. The final sample was N=614. In the summation method of segmentation, a listwise method was used, that is, if participants skipped responses on one of questions of three problems/issues, they were excluded in the segmentation analysis. For that reason, the sample sizes of subpublics are different after segmentation across problems/issues and smaller than the total participant number.