

Full Length Research Paper

Political communication and participation trend in the social media: Focus on the O1-S-O2-R model application

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This paper explores political communication in the online social network space. This study was carried out to identify systematically, the factors affecting political participation on the internet as an activity by applying the "O1-S-O2-R model," designed to survey the study. The target was male and female adults who were equal to or over the age of 19. A total of 861 respondents were considered for the final analysis to test the research questions. The data were conducted to test research questions by applying the O1-S-O2-R model. Factors affecting awareness of politics on the internet and political act on the internet were empirically analyzed and described. The result of the analyses shows that there is a relation between variables on the predisposition (demographic characteristics, individual characteristics and extent of media use) of internet users to online activity (purpose of political act on the internet, use of political websites and online network activity) in the online political activities. The result proves that factors affecting the direct act of participation in politics through the internet are demographic and individual characteristics, purpose of political act on the internet, use of political websites and awareness of comments on the internet.

Key words: Network society, political communication, O1-S-O2-R model.

INTRODUCTION

Networks, including social media as new media forms, have caused revolutionary changes throughout the public sphere and structure of political communication. In 'the rise of the network society', Castellas (2003) stressed that a social structure based on a network that is highly dynamic and open is the system that can bring about innovation without threatening social structures, and as such, can be the best social media for new political communication. In other words, the impact of social networks is felt as positive or negative and they seem to be moving toward the center of social media in a kind of personal life politics. Social media reconstruct 'political capital' (Harwood, 2001; Schugurensky, 2000; Walters, 2002; Althaus and Tewksbury, 2000), whereas social networks could become tools for online political capital, and the main source of personal orientation. Therefore,

social media is the main source of personal orientation, anonymous interactivities and social community. As such, these social media characteristics contribute to the political public sphere (Wellman, 2001; Wellman and Milena, 1996). Social capital theory is the possible way to apply for online political practices (Lin, 2001; Burt, 2001; Putnam, 1993; Portes, 1998). Therefore, this paper explores the empirical relationship between social networks, social media and political capital construction.

The new social network service has caused structural change in the theory of communicative action of Jurgen Habermas called public sphere; and this has turned out to be a change in the communicative system and an act of political communication. This study seeks to describe and explain systematically and empirically, the variables regarding how the characteristics of the social network affect online political capital, political communication and act of participating in politics on the internet, according to the recipients' predisposition to such change in political communicative action (Helsper, 2008; Lupia and Tasha,

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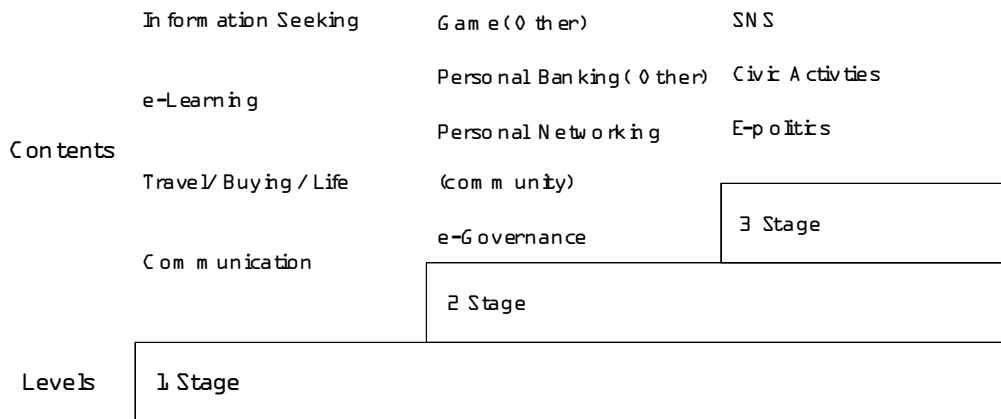


Figure 1. Internet media and social capital evolution.

2005) (Figure 1).

THEORETICAL BACKGROUND

Definition of political action variable: Application of O1-S-O2-R model

Traditionally, social capital in the real world has been based on strong ties and trust (Bourdieu, 1982). Strong ties have established their power on the basis of regionalism, school relations and kinship; and they have nothing to do with the policies or changes of the times (Norris, 2004; Garramone et al., 1986; Graeff, 2008). Note, however, that the emergence of new profit and digital IT in information society started to establish new communities on the basis of weak ties, that is, new social capital, following motion, profit, trust and experience sharing, giving birth to new political emotion, political community and political interests. Cyberspace provides another form of social connection that is different from the former real space. In other words, it breaks down geographic barriers, facilitates participation and sharing, develops new trust and emotion, forms a social community based on SNS (social network service) that promises anonymity, and leads to and shares new political communication. Thus, this study started, by finding out how internet capital or network is formed in cyber space, how it affects real social capital, and how this affects political communication. Ultimately, this study sought to find out the structure of political communication and political capital (trust, sociability and online usage) established by our society and the causal relation between them.

Social media work as the user’s first level of inter-activities, therefore, they select the social activities with what they want and what they are looking for in the answer.

Based on the theoretical background of this study, the

O1-S-O2-R (Orientation 1-Stimuli-Orientation 2-Response) model is one, wherein, complex orientations (O1 and O2) are added to the S-R (Stimulus-Response) model, a traditional psychological model (Bryant and Zillmann, 2002; Fukuyama, 2001). Predisposition 1 (orientation) of the recipient refers to the use of media or political inclination before the stimulus (S) and this includes demographic variables and the dependence of online users. Predisposition 2 (orientation 2), which appears after the use of the internet, pertains to the type, awareness and attitude of the political communication message through online activity. As a variable, R denotes the online political act. This model is very helpful in finding out the influence of personal orientation on the selection of political message and that of stimulus (S) on online political awareness (O2) as well as in determining the linear causal relation between political act variables (R).

The emergence of the network society changed the paradigm of communication that is based on the social network. Compared to the old real political communication, the demographic characteristics and personal orientation of online users, trust, regulation and personal orientation according to the type and size of the network are becoming factors that greatly affect the method of communication and pattern of the political act.

The O₁-S-O₂-R (McLeod et al., 2002) model can be described as one that is based on the activity of the online user, with personal social capital and predisposition causing the embracement of network and message in online space. As such, they in turn form the 2nd individual predisposition expressed as political communication activity.

The first orientation, called predisposition (O₁), is a factor consisting of region, social culture, recognition and motivation and it has demographic characteristics that particularly include generation (digital and analogue), education and economy. This factor has an orientation that is mostly formed structurally. This is also related to the media dependence theory. In other words, it is the

class that communicates through the digital system and online system, and depends on such from the beginning just like the digital native. The media environment and characteristics of the period from the macro viewpoint and the characteristics of individuals from the micro viewpoint, which decide the orientation (O_1) of the user and the recipient of the media, can be a factor. In other words, the male variable's media consumption mostly leans toward information and news, and the female variable, toward drama and entertainment. In the use of online media, such as: political inclination, social trust, type of network, etc., the trend in awareness of media would differ according to the characteristics of individuals.

As the second variable, S decides the key factor of online message activity with the first orientation and includes the extent, type and size of network and its use. This also covers the relation with the online activity variable based on the extent of use and trust in traditional media.

The third variable (O_2), called second level of predisposition, refers to the awareness of communication resulting from the message process activity in online media activity. It also pertains to the communication activity shown in the immediate process and complex calculation during the message process. This is expressed as a knowledge gap in political knowledge and information from the long-term perspective. The second orientation can be said to include "awareness of online public opinion" and "awareness of comments on online public opinion" (McLeod et al., 2002). R (response) as a political act variable includes the purpose of "political activity on the internet" and the actual "political activity on the internet" itself.

SUBJECT AND METHODS OF THE STUDY

Subject of the study

This study was carried out to identify systematically the factors affecting political participation on the internet as an activity by applying the " O_1 -S- O_2 -R model." Towards this end, setting the subject of the study based on the O_1 -S- O_2 -R model was necessary by an understanding of political participation. The factors affecting political participation on the internet as an activity were combined in a causal relation. According to the O_1 -S- O_2 -R model, the activity of political participation on the internet as a response results from each causal relation of orientation, online activity and result orientation. Systematically, identifying the factors affecting political participation on the internet required checking the causal relation of these factors. Thus, the hypotheses of the study subject (1) were set following the research question.

Research question 1: In political participation on the internet, how do predisposition, online activity, result orientation and response of internet users affect each other?

Hypothesis 1-1: In political participation on the internet, the predisposition of internet users affects their online activity.

Hypothesis 1-2: In political participation on the internet, the online activity of internet users affects their result orientation.

Hypothesis 1-3: In political participation on the internet, the result

orientation of internet users affects their response.

The purpose of considering the causal relation of the factors of the O_1 -S- O_2 -R model, which are predisposition, online activity, result orientation and response, was to find out specifically the factors affecting participation on the internet. Political participation on the internet as a response is affected by predisposition, online activity and result orientation as factors. Ultimately, this study sought to determine these factors. Thus, the study's subject 2 was set following the research question:

Research question 2: What are the factors affecting the political participation of Internet users on the internet?

Figure 2 shows the study model made for this study based on the explained theoretical discussion and the aforementioned study subjects.

Target of the study and collection of data

To investigate the study subjects, this study adopted survey as the study method. The target was male and female adults that are equal to or over the age of 19. Of course, the population under 19 years old has political awareness and political inclination. Since the actual participation in politics begins with voting, however, proceeding with the study by targeting subjects, at least 19 years old, who have a right to vote was only proper. Before the main survey, a preparatory one was conducted to get the finally analyzed data. Specifically, the preparatory survey was carried out to secure the appropriate questions, to come up with an effective questionnaire and to secure the predicted final result of the survey by finding out the causal relation between the variables. The preparatory survey had been carried out randomly on the internet from January 19 to 22, 2009. The final questionnaire for the main survey was prepared by addressing the defects found in this survey.

The main survey was conducted in the form of an online survey from April 1 to 9, 2009, while an online survey targeting internet users was deemed appropriate because this study was related to internet's political communication. In an online survey, securing a panel of high quality is important. For this study, the survey was commissioned to a special internet research company. Demographic allotment was decided based on the gender and age of each of the internet users. Until this requirement was satisfied, the survey had been conducted, targeting the panel (Preacher and Hayes, 2008a, b).

A total of 861 respondents were considered for the final analysis. Among them, men accounted for 55.9% (481), and women, 44.1% (380). By age, 18 - 29 years constituted 31.0% (267); 30 - 39 years, 30.5% (263); 40 - 49 years, 25.8% (222) and 50 years or more, 12.7% (109). In terms of occupation, students and office workers accounted for the highest percentage with 17.1% (147) and 16.7% (144), respectively, followed by housewives with 11.6% (100), technical workers with 11.4% (98), IT workers with 8.8% (76), educational workers with 8.0% (69), self-employed with 5.8% (50), sales and service workers with 5.6% (48), professional office workers with 5.2% (45), manufacturing workers with 3.1% (27) and unemployed/etc. with 6.6% (57). By educational attainment, college graduates numbered the highest with 54.5% (469), followed by high school graduates with 16.6% (143), college students with 13.7% (118), post-graduate degree holders with 11.6% (100), high school students with 2.0% (17) and graduate school students with 1.6% (14). With regard to the monthly family income, KRW 3 - 4 million and KRW 4 - 5 million accounted for the highest percentage with 23.0% (198) and 19.7% (170), respectively, followed by KRW 2 - 3 million with 17.1% (147), KRW 5 - 6 million with 12.9% (111), KRW 1 - 2 million with 11.0% (95), KRW 7 million or more with 7.9% (68), KRW 6 - 7 million with 4.9% (42) and less than KRW 1 million with

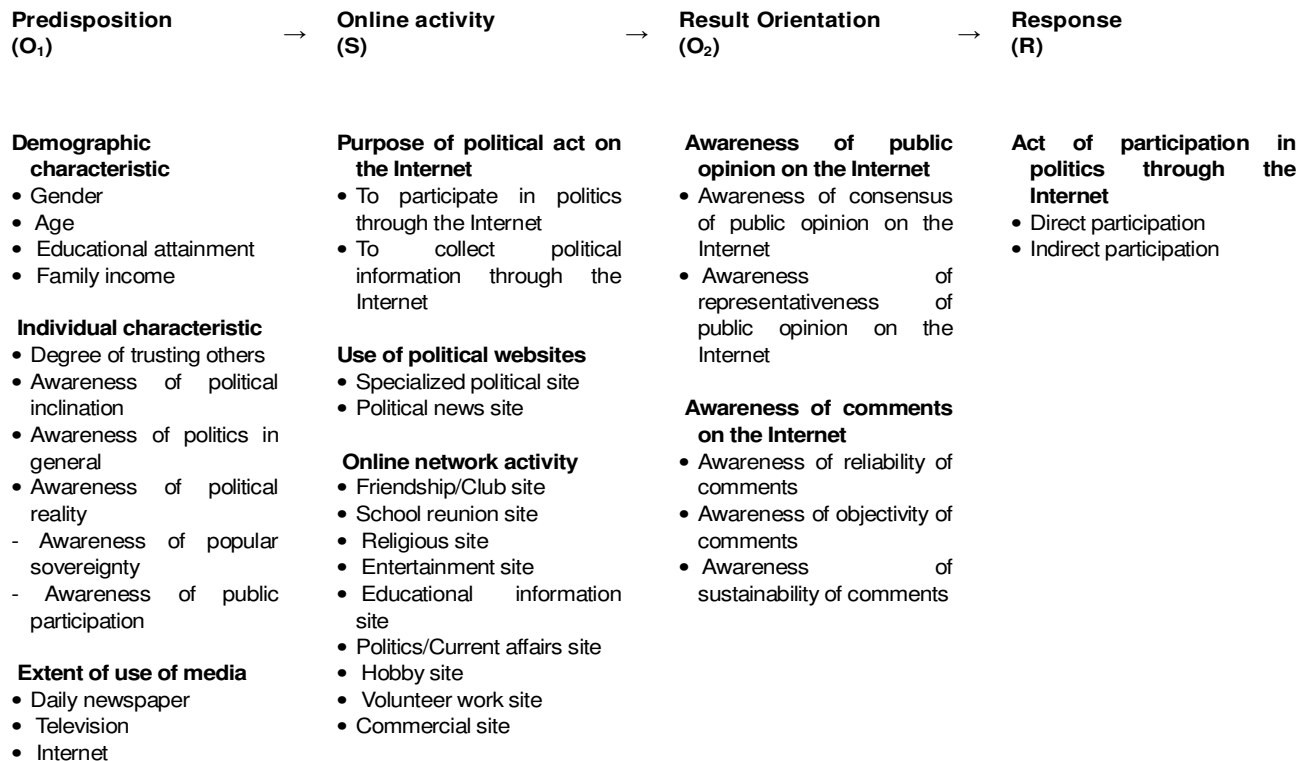


Figure 2. Study model.

3.5% (30).

Survey variable

The extent of trusting others, awareness of politics in general, and awareness of political reality in the predisposition to participate in politics through the internet in online activity; awareness of public opinion on the internet and awareness of comments on the internet in the result orientation; and the act of participation in politics through the internet in the response were evaluated using a 5-point scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree).

(1) Predisposition awareness of political reality in the predisposition to participate in politics through the internet in online activity, awareness of public opinion on the internet, awareness of comments on the internet in the result orientation, and act of participation in politics through the Internet in the response were evaluated using a 5-point scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree).

Predisposition

The predispositions for the survey on participation in politics through the internet were "demographic characteristics," "individual characteristics" and "extent of media use." First, demographic characteristics included "gender," "age," "educational attainment" and "family income". In the statistical analysis, for the performance of correlation analysis and regression analysis on gender, dummy variables (0 = female, 1 = male) were used; whereas the age was used as a ratio scale, as it is without separate categorization. Educational attainment was surveyed on an ordinal scale in the following order: High school student, high school graduate, college

student, college graduate, graduate school student and post-graduate degree holder. The average monthly family income was also surveyed using an ordinal scale in the following order: Less than KRW 1 million, KRW 1 - 2 million, KRW 2 - 3 million, KRW 3 - 4 million, KRW 4 - 5 million, KRW 5 - 6 million, KRW 6 - 7 million and KRW 7 million or more.

Furthermore, individual characteristics included the "degree of trusting others," "awareness of political inclination," "awareness of politics in general" and "awareness of political reality." First, the degree of trusting others was surveyed through 3 items: "During difficult times, there is no one you can trust except your family" (reverse coding); "to find out whether you can trust someone, you would have to be in close association with him/her for some time" (reverse coding) and "dealing with familiar people such as relatives and school friends is safer than with others" (reverse coding). The reliability coefficient as measured by Cronbach's α was 0.60 and the average was 2.35 points (standard deviation: 0.55).

Secondly, awareness of political inclination was measured using a 7-point scale (1 = very conservative, 2 = conservative, 3 = somewhat conservative, 4 = neutral, 5 = somewhat liberal, 6 = liberal, 7 = very liberal) and the average was 3.66 points (standard deviation: 1.17).

Thirdly, awareness of politics in general was measured through 4 items: "Politics is dishonest" (reverse coding); "Politics is only for the victorious" (reverse coding); "Politics pursue only the profits" (reverse coding) and "Politics uses terror" (reverse coding). The reliability coefficient was 0.91, and the average was 2.63 points (standard deviation: 0.93).

Fourthly, awareness of political reality was measured through 11 questions. Through factor analysis, they were divided into 2 factors. The first factor was "awareness of popular sovereignty" and was made up of 6 items: "After being elected, most of the politicians lose interest in voters" (reverse coding); "Although politicians and public

officials should be the servant of the people, most of them think they are the master" (reverse coding); "Politicians and public officials in my country do not carefully consider the ideas of people like me" (reverse coding); "Politicians are interested in gaining votes, not in the opinion and ideas of the people" (reverse coding); "I have a lot to say about what the government is doing" (reverse coding) and "Only a few have political power, while the others cannot argue against the way the government works" (reverse coding). The reliability coefficient was 0.70, and the average was 2.28 points (standard deviation: 0.56). The second factor was "awareness of public participation" and was made up of 5 items: "There is a way of making public officials listen to and follow the opinion of the people"; "People have the decisive right to talk about the management of state affairs"; "There are many legal ways for people to influence what the government does"; "Most of the public officials or politicians are interested in what people think" and "The vote is an effective way for people to evaluate the government or to express their opinion." The reliability coefficient was 0.71 and the average was 2.77 points (standard deviation: 0.62).

Finally, the extent of media use consisted of "daily newspaper," "television" and "the internet." These were measured by the time of use for a day in a week. The average use of daily newspaper was 31.11 min (standard deviation: 39.50), while that of the TV was 134.08 min (standard deviation: 109.23) and that of the internet was 200.63 min (standard deviation: 157.00).

Online activity

To survey participation in politics through the internet, online activity consisted of the "purpose of political act on the internet," "use of political websites" and "online network activity." First, the purpose of political act on the internet was measured through 11 questions. Through factor analysis, they were divided into 2 factors. The first factor was "to participate in politics through the internet" and was made up of 9 items: "I am using the internet to contact related institutions, authorities and politicians for political matters"; "I am using the internet to attend cyber public hearings on election or other political meetings"; "I am using the internet to contribute to a political party or a certain candidate"; "I am using the internet to work as a member of an online club of a group that is interested in political matters"; "I am using the internet to participate in debates on political issues"; "I am using the internet to mail a strong protest on political matters or to participate in online signature campaigns"; "I am using the internet to talk with others on political matters"; "I am using the internet to participate in online demonstrations on political matters" and "I am using the internet to express my ideas on the bulletin board of the site of a government agency or a politician or other political sites." The reliability coefficient was 0.93 and the average was 1.95 points (standard deviation: 0.75). The second factor was "to collect political information through the internet" and was made up of 2 items: "I am using the internet to search for information on political matters such as protest campaigns or media reform" and "I am using the internet to search for political information such as electoral commitment made by the government, politicians and other political sites." The reliability coefficient was 0.78 and the average was 2.49 points (standard deviation: 0.97).

Furthermore, the use of political websites consisted of 8 items, each of which was measured using a 5-point scale (1 = not using at all, 2 = not using heavily, 3 = neutral, 4 = using a bit, 5 = using frequently). Through factor analysis, they were divided into 2 factors. The first factor was "specialized political site" and was made up of 4 items: "site of a political party or a politician"; "site of Cheong Wa Dae (the presidential office in Korea or the Blue House), the National Assembly, the Constitutional Court, or the National Election Commission"; "political webzine or parody site" and "site of the fan club of a politician or an online political

community." The reliability coefficient was 0.92 and the average was 2.01 points (standard deviation: 0.81). The second factor was "internet political news site" and was made up of 4 items: "Political information portal or news service"; "offline subordinated newspaper and broadcasting site"; "online independent newspaper and broadcasting site" and "civic group site." The reliability coefficient was 0.70 and the average was 2.96 points (standard deviation: 0.79).

Finally, online network activity consisted of "friendship/club site," "school reunion site," "religious site," "entertainment site," "educational information site," "politics/current affairs site," "hobby site," "volunteer work site" and "commercial site." These were measured on the day of visit in a month. The average of friendship/club site was 2.94 days (standard deviation: 6.34); school reunion site, 1.57 days (standard deviation: 4.41); religious site, 0.94 days (standard deviation: 3.60); entertainment site, 0.60 days (standard deviation: 3.18); educational information site, 2.36 days (standard deviation: 5.73); politics/current affairs site, 0.32 days (standard deviation: 1.98); hobby site, 2.34 days (standard deviation: 5.81); volunteer work site, 0.43 days (standard deviation: 2.35) and commercial site, 1.95 days (standard deviation: 4.93).

Result orientation

The result orientation for measuring participation in politics through the Internet consisted of "awareness of public opinion on the internet" and "awareness of comments on the internet." First, awareness of public opinion on the internet was measured through 6 questions. Through factor analysis, they were divided into 2 factors. The first factor was "awareness of consensus of public opinion on the internet" and was made up of 3 items: "Public opinion on the internet is reasonable"; "Public opinion on the internet reflects the opinion of majority of our society" and "The opinion of the majority expressed as public opinion on the internet is often right." The reliability coefficient was 0.79 and the average was 3.03 points (standard deviation: 0.71). The second factor was "awareness of representativeness of public opinion on the internet" and was made up of 3 items: "Public opinion on the internet is swayed by emotion" (reverse coding); "Public opinion on the internet can be rigged by someone" (reverse coding) and "Public opinion on the internet can be influenced by the minority" (reverse coding). The reliability coefficient was 0.66 and the average was 2.63 points (standard deviation: 0.68).

On the other hand, awareness of comments on the internet was measured through 8 questions. Through factor analysis, they were divided into 3 factors. The first factor was "awareness of reliability of comments" and was made up of 4 items: "Comments on the internet are impartial"; "Comments on the internet are trustworthy"; "Comments on the internet are honest" and "Comments on the internet provide useful information." The reliability coefficient was 0.84 and the average was 2.70 points (standard deviation: 0.65). The second factor was "awareness of objectivity of comments" and was made up of 2 items: "Comments on the internet are mostly emotional statements" (reverse coding) and "Comments on the internet include mostly abusive words and slang" (reverse coding). The reliability coefficient was 0.72 and

the average was 2.11 points (standard deviation: 0.72). The third factor was "awareness of sustainability of comments" and was made up of 2 items: "Comments on the internet should be censored immediately" (reverse coding) and "Comments on the internet should be protected on the basis of freedom of expression." The reliability coefficient was 0.62 and the average was 3.54 points (standard deviation: 0.73).

Response: Act of participation in politics through the internet

The act of participation in politics through the internet as a response was measured through 9 questions. Through factor analysis, they were divided into 2 factors. The first factor was "direct participation" and was made up of 6 items: "I protest against public matters that I found through the internet, by calling or visiting related organizations"; "I post writings or photos on social matters on my blog or mini-homepage"; "I join online cafes or communities on social matters"; "I participate by contributing through the internet"; "I give comments on websites regarding political or social matters" and "I participate in online demonstration or signature campaigns on social matters." The reliability coefficient was 0.89 and the average was 2.03 points (standard deviation: 0.75). The second factor was "indirect participation" and was made up of 3 items: "I research on political or social matters on the internet"; "I participate in online voting or opinion poll regarding social matters on websites" and "I visit the sites of a political party or a candidate during election." The reliability coefficient was 0.74 and the average was 2.73 points (standard deviation: 0.83).

RESULTS OF THE STUDY

In this study, the values were derived by performing multiple regression analysis, which required checking multicollinearity. In multiple regression analysis, a regression coefficient of one independent variable is the change in the dependent variables when other independent variables are fixed. If there is strong interrelationship between the independent variables, however, this interpretation would become inappropriate. To check this, multicollinearity is needed. Multicollinearity can be checked by considering several related statistics. Representative statistics for judging multicollinearity include tolerance limit and VIF (variance inflation factor). When the tolerance limit is equal to or less than 0.1 or VIF is equal to or more than 10, it is said to be multicollinearity (Hair et al., 1998). The results of the multiple regression analysis performed in this study were all 60. Since multicollinearity was checked for each, tolerance limit was more than 0.1 and VIF was less than 10. Thus, it was said that there was no problem with multicollinearity. On the other hand, the interrelation between the 23

variables that were used to suggest the final result of the study is shown in Table 5.

Causal relation between predisposition, online activity, result orientation and response in politics' participation through the internet: Settlement of study subject 1

Influence of predisposition on online activity in politics' participation through the internet: Verification of study hypothesis 1

The result of the multiple regression analysis on the influence of predisposition (demographic characteristics, individual characteristics and extent of media use) of internet users to online activity (purpose of political act on the internet, use of political websites and online network activity) in politics' participation through the internet is shown in Table 1. First, demographic characteristics had statistically, significant influence on both participation in politics through the internet ($R^2 = 0.03$, $F = 6.60$, $p < 0.001$) and collecting political information on the internet ($R^2 = 0.04$, $F = 9.50$, $p < 0.001$) in terms of the purpose of political act on the internet. Also, it had statistically, significant influence on both specialized political site ($R^2 = 0.01$, $F = 2.48$, $p < 0.05$) and political news site ($R^2 = 0.05$, $F = 11.84$, $p < 0.001$) with regard to the use of political websites, as well as, on school reunion sites ($R^2 = 0.02$, $F = 3.43$, $p < 0.01$), religious sites ($R^2 = 0.02$, $F = 3.73$, $p < 0.01$), entertainment sites ($R^2 = 0.03$, $F = 6.92$, $p < 0.001$), educational information sites ($R^2 = 0.02$, $F = 4.86$, $p < 0.01$), hobby sites ($R^2 = 0.02$, $F = 3.21$, $p < 0.05$) and commercial sites ($R^2 = 0.01$, $F = 2.81$, $p < 0.001$) for online network activity.

Furthermore, individual characteristics had statistically, significant influence on both participation in politics through the internet ($R^2 = 0.11$, $F = 20.80$, $p < 0.001$) and collecting political information through the internet ($R^2 = 0.04$, $F = 7.88$, $p < 0.001$) in terms of the purpose of political act on the internet. As such, they had statistically, significant influence on specialized political sites ($R^2 = 0.14$, $F = 27.01$, $p < 0.001$) and political news sites ($R^2 = 0.04$, $F = 6.58$, $p < 0.001$) with regard to the use of political websites, as well as, on religious sites ($R^2 = 0.01$, $F = 2.24$, $p < 0.05$), educational information sites ($R^2 = 0.02$, $F = 3.67$, $p < 0.01$), hobby sites ($R^2 = 0.03$, $F = 4.37$, $p < 0.01$) and commercial sites ($R^2 = 0.03$, $F = 5.10$, $p < 0.001$) for online network activity.

The extent of the use of media had statistically, significant influence on both participation in politics through the internet ($R^2 = 0.01$, $F = 3.54$, $p < 0.05$) and collecting political information through the internet ($R^2 = 0.01$, $F = 3.07$, $p < 0.05$) in terms of the purpose of participation in politics through the internet. As such, it had statistically, significant influence on both specialized political sites ($R^2 = 0.02$, $F = 4.48$, $p < 0.01$) and political news sites ($R^2 = 0.03$, $F = 7.51$, $p < 0.001$) with regard to the use of political websites, as well as, on friendship/club

Table 1. Influence of predisposition on online activity in participation in politics through the internet (multiple regression analysis).

Division		Online activity 1: Purpose of political act on the internet		Online activity 2: Use of political websites		Online activity 3: Online network activity								
		To participate in politics	To collect political information	Politics-specialized	Political news	Friendship/club	School reunion	Religion	Entertainment	Educational information	Politics/current affairs	Hobby	Volunteer work	Commercial
Predisposition 1: Demographic characteristics	Gender (0=female, 1= male)	0.17***	0.18***	0.10**	0.15***	0.08	0.04	-0.03	-0.11**	-0.11**	0.08	0.02	-0.02	-0.08*
	Age	-0.04	-0.08*	0.01	0.05	-0.03	0.08*	0.10**	-0.12***	-0.08*	0.01	-0.09**	-0.03	-0.06
	Educational attainment	-0.03	0.05	-0.02	0.08*	0.03	0.06	0.07*	0.01	0.04	0.03	0.05	-0.02	0.04
	Family income	0.06	0.06	0.02	0.10**	-0.02	0.04	0.01	-0.01	0.06	0.01	0.08*	-0.01	0.04
	R ²	0.03	0.04	0.01	0.05	0.09	0.02	0.02	0.03	0.02	0.01	0.02	0.00	0.01
	F	6.60***	9.50***	2.48*	11.84***	1.76	3.43**	3.73**	6.92***	4.86**	1.83	3.21*	0.61	2.81*
Predisposition 2: Individual characteristics	Degree of trusting others	0.01	-0.01	0.05	-0.05	-0.02	-0.01	0.10**	0.05	0.07*	0.03	0.02	0.05	0.09**
	Awareness of political inclination	0.12***	0.13***	-0.02	0.08*	0.07	0.05	-0.01	0.08	0.06	0.09	0.10**	0.01	-0.01
	Awareness of politics in general	-0.07*	0.01	-0.08*	-0.05	0.02	-0.03	0.03	0.00	0.04	-0.04	0.07*	-0.03	0.03
	Awareness of political reality 1: awareness of popular sovereignty	0.18***	-0.03	0.22***	-0.03	-0.06	0.05	-0.06	-0.07	-0.11**	0.00	-0.12**	0.02	-0.17***
	Awareness of political reality 2: awareness of public participation	0.23***	0.17***	0.25***	0.16***	-0.04	-0.02	0.03	0.01	-0.01	0.04	0.03	0.01	0.04
	R ²	0.11	0.04	0.14	0.04	0.01	0.00	0.01	0.01	0.02	0.01	0.03	0.00	0.03
	F	20.80***	7.88***	27.01***	6.58***	2.15	0.76	2.24*	2.17	3.67**	1.92	4.37**	0.56	5.10***
Predisposition 3: Extent of the use of media	Daily newspaper	0.11**	0.08*	0.12**	0.13***	0.04	0.04	0.02	-0.03	0.01	0.04	0.02	0.02	0.01
	Television	0.01	-0.08*	0.00	-0.07	-0.03	-0.01	-0.06	0.04	0.00	-0.02	-0.04	0.01	0.08*
	Internet	-0.00	0.01	-0.03	0.09**	0.13***	0.06	0.00	0.13***	0.11**	0.03	0.09	0.04	0.12**
	R ²	0.01	0.01	0.02	0.03	0.02	0.01	0.00	0.02	0.01	0.00	0.01	0.00	0.02
	F	3.54*	3.07*	4.48**	7.51***	4.81**	1.33	0.91	6.32***	3.72*	0.54	2.22	0.63	6.48***

Table 2. Influence of online activity on the result orientation in politics' participation through the internet (multiple regression analysis).

Division	Result orientation 1: Awareness of public opinion on the internet		Result orientation 2: Awareness of comments on the internet			
	Consensus	Representativeness	Reliability	Objectivity	Sustainability	
Online activity 1: purpose of political act on the internet	To participate in politics through the internet	0.20***	0.18***	0.30***	0.29***	-0.10*
	To collect political information	0.11**	-0.01	0.11**	-0.14**	0.27***
	R ²	0.08	0.03	0.14	0.06	0.05
	F	35.35***	13.65***	70.51***	25.61***	23.71***
Online activity 2: use of political websites	Specialized political site	0.13***	0.20***	0.27***	0.28***	-0.10**
	Political news site	0.17***	-0.03	0.16***	-0.09*	0.22***
	R ²	0.06	0.04	0.13	0.07	0.04
	F	28.76***	16.74***	64.18***	30.71***	18.59***
	Friendship/club site	0.04	0.04	0.07	-0.01	0.08*
	School reunion site	0.02	-0.03	0.01	0.02	-0.01
	Religious site	-0.05	-0.05	-0.04	-0.05	-0.01
	Entertainment site	-0.01	0.02	0.02	-0.05	0.07
Online activity 3: online network activity	Educational information site	0.00	-0.01	-0.06	-0.08*	0.01
	Politics/current affairs site	0.06	0.10	0.07	0.08*	0.10**
	Hobby site	-0.02	-0.07	0.00	-0.03	0.03
	Volunteer work site	0.03	-0.03	0.01	0.00	-0.03
	Commercial site	0.03	0.04	-0.02	-0.01	-0.04
	R ²	0.01	0.02	0.01	0.02	0.03
	F	1.00	1.82	1.28	2.06*	2.53**

Note: The suggested values are regression coefficient (β). Underline refers to a statistically significant positive regression coefficient; dotted underline denotes a negative regression coefficient. * $p < 0.05$, ** $p < 0.01$ and *** $p < 0.001$.

sites ($R^2 = 0.02$, $F = 4.81$, $p < 0.01$), entertainment sites ($R^2 = 0.02$, $F = 6.32$, $p < 0.001$), educational information sites ($R^2 = 0.01$, $F = 3.72$, $p < 0.05$) and commercial sites ($R^2 = 0.02$, $F = 6.48$, $p < 0.001$) for online network.

Based on these results, in terms of participation in politics through the internet, the predisposition of internet users, that is, demographic characteristics (gender, age educational attainment and family income), individual characteristics (degree of trusting others, awareness of political inclination, awareness of politics in general, awareness of popular sovereignty and awareness of public participation) and use of media (daily newspaper, television and internet), had influence on the purpose of political act on the internet -- specifically to participate in politics through the internet and to collect political information through the internet -- and use of political websites including specialized political sites and political news sites. Predisposition was also found to have an influence on some online network activities only (Table 1).

Note: The suggested values are regression coefficient (β). Underline refers to a statistically significant positive regression coefficient, while dotted underline denotes a negative regression coefficient. * $p < 0.05$, ** $p < 0.01$ and *** $p < 0.001$.

Influence of online political activity on the result orientation in politics' participation through the internet: Verification of the study hypothesis 2

The result of multiple regression analysis on the influence of online political activity (purpose of political act on the internet, use of political websites and online network activity) of internet users on the result orientation (awareness of public opinion on the internet and awareness of comments on the internet) in politics' participation through the internet is shown in Table 2. First, the purpose of political act on the internet had statistically, significant influence on both awareness of public opinion consensus on the internet ($R^2 = 0.08$, $F = 35.35$, $p < 0.001$) and awareness of representativeness of public opinion on the internet ($R^2 = 0.03$, $F = 13.65$, $p < 0.001$) in terms of awareness of public opinion on the internet. Also, it had statistically, significant influence on awareness of reliability of comments ($R^2 = 0.14$, $F = 70.51$, $p < 0.001$), awareness of objectivity of comments ($R^2 = 0.06$, $F = 25.61$, $p < 0.001$) and awareness of sustainability of comments ($R^2 = 0.05$, $F = 23.71$, $p < 0.001$) with regard to awareness of comments on the internet.

Table 3. Influence of result orientation on the response of participating in politics through the internet (multiple regression analysis).

Division		Response: Act of participation in politics through the internet	
		Direct participation	Indirect participation
Result orientation 1: Awareness of public opinion on the internet	Awareness of consensus of public opinion on the internet	0.25***	0.26***
	Awareness of representativeness of public opinion on the internet	0.14***	-0.03
	R ²	0.10	0.06
	F	47.26***	28.06***
Result orientation 2: Awareness of comments on the internet	Awareness of reliability of comments	0.37***	0.22***
	Awareness of objectivity of comments	0.17***	-0.02
	Awareness of sustainability of comments	-0.00	0.13***
	R ²	0.18	0.09
	F	63.02***	27.35***

The suggested values are regression coefficient (β). Underline refers to a statistically significant positive regression coefficient, while dotted underline denotes a negative regression coefficient. *** $p < 0.001$.

On the other hand, the use of political websites had statistically, significant influence on both awareness of consensus of public opinion on the internet ($R^2 = 0.06$, $F = 28.76$, $p < 0.001$) and awareness of representativeness of public opinion on the internet ($R^2 = 0.04$, $F = 16.74$, $p < 0.001$) in terms of awareness of public opinion on the internet. It had statistically, significant influence on awareness of reliability of comments ($R^2 = 0.13$, $F = 64.18$, $p < 0.001$), awareness of objectivity of comments ($R^2 = 0.07$, $F = 30.71$, $p < 0.001$) and awareness of sustainability of comments ($R^2 = 0.04$, $F = 18.59$, $p < 0.001$) with regard to awareness of comments on the internet.

Meanwhile, online network activity had no statistically significant influence on both awareness of consensus of public opinion and awareness of representativeness of public opinion on the internet with regard to awareness of public opinion on the internet. It had statistically, significant influence only on awareness of

objectivity of comments ($R^2 = 0.02$, $F = 2.06$, $p < 0.05$) and awareness of sustainability of comments ($R^2 = 0.03$, $F = 2.53$, $p < 0.01$) in terms of awareness of comments on the internet.

Based on these results, in terms of participating in politics through the internet, the purpose of political act on the internet (to participate in politics through the internet and to collect political information through the internet) and use of political websites (specialized political site and political news site) as an online activity of internet users, were found to have an influence on awareness of public opinion on the internet -- which consists of awareness of consensus of public opinion and awareness of representativeness of public opinion on the internet -- and awareness of comments on the internet, which includes awareness of reliability of comments, awareness of objectivity of comments and awareness of sustainability of comments. With regard to awareness of comments on the

internet, online network activity (friendship/club site, school reunion site, religious site, entertainment site, educational information site, politics/current affairs site, hobby site, volunteer work site and commercial site) had influence only on awareness of objectivity of comments and awareness of sustainability of comments, but not on awareness of public opinion on the internet (Table 2). Note: The suggested values are regression coefficient (β). Underline refers to a statistically significant positive regression coefficient, while dotted underline denotes a negative regression coefficient. * $p < 0.05$, ** $p < 0.01$ and *** $p < 0.001$.

Influence of result orientation on the response of participating in politics through the internet: Verification of study hypothesis 3

The result of the multiple regression analysis on

the influence of the result orientation (awareness of public opinion on the internet and awareness of comments on the internet) of internet users on the response (act of participation in politics through the internet) is shown in Table 3. First, awareness of public opinion on the internet had statistically, significant influence on both direct participation ($R^2 = 0.10$, $F = 47.26$, $p < 0.001$) and indirect participation ($R^2 = 0.06$, $F = 28.06$, $p < 0.001$) in terms of the act of participation in politics through the internet. Likewise, awareness of comments on the internet had statistically, significant influence on both direct ($R^2 = 0.18$, $F = 63.02$, $p < 0.001$) and indirect participation ($R^2 = 0.09$, $F = 27.35$, $p < 0.001$).

Based on these results, in terms of participation in politics through the internet, awareness of public opinion on the internet (awareness of consensus of public opinion on the internet and awareness of representativeness of public opinion on the internet) and awareness of comments on the internet (awareness of reliability of comments, awareness of objectivity of comments and awareness of sustainability of comments) were found to have an influence on all acts of participation in politics through the internet, which consist of direct participation and indirect participation (Table 3).

Note: The suggested values are regression coefficient (β). Underline refers to a statistically significant positive regression coefficient, while dotted underline denotes a negative regression coefficient. *** $p < 0.001$.

Factors affecting the act of participation in politics through the internet: Settlement of study subject 2

The result of the multiple regression analysis on the factors affecting the act of participation in politics by internet users through the internet (direct and indirect participation) is shown in Table 4. Predisposition (demographic characteristics, individual characteristics and extent of media use), online activity (purpose of political act on the internet, use of political websites and online network activity) and result orientation (awareness of public opinion on the internet and awareness of comments on the internet) indicate 64% for direct participation and 54% for indirect participation with regards to the act of participation in politics through the internet as a response.

In terms of direct participation in politics through the internet, the purpose of participating in politics through the internet had statistically significant influence ($\beta = 0.51$, $t = 15.69$, $p < 0.001$), followed by the use of specialized political site ($\beta = 0.17$, $t = 5.92$, $p < 0.001$), purpose of collecting political information through the internet ($\beta = 0.12$, $t = 4.12$, $p < 0.001$), awareness of comments on the internet ($\beta = 0.07$, $t = 2.44$, $p < 0.05$), educational attainment ($\beta = 0.06$, $t = 2.64$, $p < 0.01$), awareness of public participation ($\beta = 0.05$, $t = 2.05$,

$p < 0.05$), degree of trusting others ($\beta = 0.05$, $t = 2.16$, $p < 0.05$) and awareness of political inclination ($\beta = 0.05$, $t = 2.13$, $p < 0.05$). In other words, the more they use the internet for the purpose of participating in politics (visit specialized sites, utilize the internet for the purpose of collecting political information, trust comments on the internet, have higher educational attainment as well as higher awareness of public participation, trust others and are inclined toward liberalism), the more they participate directly in politics through the internet.

With regard to indirect participation in politics through the internet, the purpose of collecting political information through the internet was found to have statistically significant influence ($\beta = 0.42$, $t = 13.23$, $p < 0.001$), followed by the use of political news site ($\beta = 0.23$, $t = 8.11$, $p < 0.001$), purpose of participating in politics through the internet ($\beta = 0.13$, $t = 3.53$, $p < 0.001$), awareness of popular sovereignty ($\beta = -0.11$, $t = -3.85$, $p < 0.001$), awareness of public participation ($\beta = 0.07$, $t = 2.62$, $p < 0.01$), use of daily newspaper ($\beta = 0.06$, $t = 2.51$, $p < 0.05$), activity in politics/current affairs site ($\beta = 0.06$, $t = 2.34$, $p < 0.05$) and activity in religious site ($\beta = 0.05$, $t = 2.10$, $p < 0.05$). In other words, the more they use the internet for the purpose of collecting political information (visit political news sites, utilize the internet for the purpose of participating in politics, have lower awareness of popular sovereignty but higher awareness of public participation, read the daily newspaper and engage in activities related to politics/current affairs sites and religious sites), the more they participate indirectly in politics through the internet.

By putting these together, we can see that the factors affecting the direct act of participation in politics through the internet are demographic characteristics, individual characteristics and purpose of political act on the internet, use of a political website and awareness of comments on the internet. Meanwhile, the factors affecting the indirect act of participation in politics through the internet are individual characteristics, extent of media use, purpose of political act on the internet, use of political websites and items making up an online network activity. The extent of media use, online network activity and awareness of public opinion were found to have no statistically significant influence on the direct act of participation in politics through the internet. As such, the demographic characteristics, awareness of public opinion on the internet and awareness of comments on the internet did not have statistically significant influence on the indirect act of participation in politics through the internet.

In particular, the purpose of participating in politics through the internet (purpose of political act on the internet) was found to have relatively more influence on the direct act of participation in politics through the internet, while the purpose of collecting political information had relatively more influence on the indirect act of participation in politics through the internet. Furthermore, for specialized political sites, the use of a

Table 4. Factors affecting the act of participation in politics through the internet (multiple regression analysis).

Division			Response: Act of participation in politics through the internet			
			Direct participation		Indirect participation	
			β	t	β	t
Constant			-	-4.25***	-	2.05*
Predisposition 1: Demographic characteristics	Gender (0 = female, 1 = male)	-0.04	-1.64	0.00	-0.05	
	Age	0.00	0.05	0.01	0.52	
	Educational attainment	0.06	2.64**	0.04	1.61	
	Family income	0.03	1.35	-0.01	-0.39	
	Degree of trusting others	0.05	2.16*	-0.01	-0.33	
Predisposition 2: Individual characteristics	Awareness of political inclination	0.05	2.13*	0.01	0.23	
	Awareness of politics in general	0.04	1.82	0.04	1.45	
	Awareness of political reality 1: awareness of popular sovereignty	-0.01	-0.57	-0.11	-3.85***	
	Awareness of political reality 2: awareness of public participation	0.05	2.05*	0.07	2.62**	
	Daily newspaper	0.02	0.68	0.06	2.51*	
Predisposition 3: Extent of media use	Television	0.00	-0.13	-0.01	-0.29	
	Internet	0.04	1.72	0.03	1.30	
	To participate in politics	0.51	15.69***	0.13	3.53***	
	To collect political information	0.12	4.12***	0.42	13.23***	
Online activity 1: Purpose of political act on the internet Online activity 2: Use of political Internet site	Specialized political site	0.17	5.92***	0.04	1.24	
	Political news site	0.01	0.43	0.23	8.11***	
	Friendship/club site	0.01	0.50	0.03	1.17	
	School reunion site	0.03	1.44	0.00	-0.03	
	Religious site	0.00	-0.13	0.05	2.10*	
	Entertainment site	-0.03	-1.26	0.00	-0.02	
	Online activity 3: Online network activity	Educational information site	-0.03	-1.27	0.03	1.27
		Politics/current affairs site	0.02	0.96	0.06	2.34*
		Hobby site	-0.01	-0.29	0.01	0.47
		Volunteer work site	0.01	0.27	-0.02	-0.62
Online activity	Commercial site	0.02	0.99	-0.02	-0.64	
	Awareness of consensus of public opinion on the internet	0.02	0.79	0.03	0.97	
	Awareness of representativeness of public opinion on the internet	0.02	0.93	-0.04	-1.30	
Result orientation						

Table 5: Cont'd.

Politics/current affairs site	+	°	°	°	°	+	°	°	°	°	°	°	+	+	+	+	+	°	+	°	+		
Hobby site	°	-	°	+	°	+	°	-	°	°	°	°	+	°	+	°	+	+	+	+	+	+	
Volunteer work site	°	°	°	°	°	°	°	°	°	°	°	°	°	°	+	+	°	°	+	+	+	°	
Commercial site	-	°	°	°	+	°	°	-	°	°	+	+	°	°	°	+	°	+	+	+	°	+	°
Awareness of consensus of public opinion on the internet	°	°	°	°	-	+	-	-	+	°	°	+	+	+	+	+	°	°	°	°	°	°	°
Awareness of representativeness of public opinion on the internet	°	°	°	°	°	+	°	°	°	°	°	-	+	+	+	°	°	°	°	°	°	°	+
Awareness of reliability of comments on the internet	+	°	°	°	-	+	-	°	+	°	°	+	+	+	+	+	°	°	°	°	°	°	°
Awareness of objectivity of comments on the internet	°	°	°	°	+	°	+	+	+	°	°	-	+	°	+	°	°	°	°	-	°	°	°
Awareness of sustainability of comments on the internet	+	-	°	°	°	+	°	-	-	-	-	+	+	+	°	+	+	°	°	+	°	°	°
Direct act of political participation through the internet (I1)	+	°	+	+	°	+	°	+	+	+	°	°	+	+	+	+	°	+	°	°	°	°	
Indirect act of political participation through the internet (I2)	+	°	+	+	°	+	°	-	+	+	°	°	+	+	+	+	+	°	+	°	°	°	

Note: ° = no significance, + = positive correlation and - = negative correlation.

political internet site was found to affect the direct act of participation in politics through the internet, whereas the use of a political news site affected the indirect act of participation in politics through the internet. In addition, activity in politics/current affairs was found to affect the indirect act of participation in politics through the internet only. Note: Underline refers to a statistically significant positive t value, while dotted underline denotes a negative t value. * p < 0.05, ** p < 0.01 and *** p < 0.001.

CONCLUSIONS AND IMPLICATIONS OF THE STUDY

Conclusions

Online social networks can have enormous influence on different areas. In the field of politics in particular, it provides a new online public sphere and enables awareness of new political communication and new factors for participation in

politics. Individuals and online media are factors affecting the recipients' predisposition, political communication and participation. By applying the O₁-S-O₂-R model, factors affecting awareness of politics and political act on the internet were empirically analyzed and described. By organizing the network, political capital, communication and participation in social media environment based on the O₁-S-O₂-R model, the individual predisposition (O₁) was found to have an influence on online activity (S). This, in turn, affected the predisposition to new online political communication (O₂), and these variables influenced the overall participation in politics as well as the response.

This empirical research focused on understanding online political participation, in that, online political participation itself plays a specific role in the overall political participation including real life's social demographic predisposition. Based on the previous researches, the research design mainly focused on the political participation over the

internet. The study found the valid measurements and procedures for online political participation with O₁-S-O₂-R model.

Implications of the study

Study on social network society and change in political act

This study determined the interrelation between the evolution of social networks and the ways of political communication. The new way of online political communication has recently been coined as 'online political capital' (Burt, 2001). It may apply to the social capital accumulated in real daily life. Therefore, the research confirmed that online or social media encourages what is commonly referred to as online political participation.

The following are the dimensions in online political communication revealed in this study.

First, the relation code between the emergence of the internet and social network media and changes in social cultural capital and political landscapes can be measured. Through this study, the change in the act of communication in the political sphere in future societies can be predicted.

Secondly, political capital and political activity on the internet may enable people to discover future political orientations and citizenship awareness.

Thirdly, new streams of democracy can be identified and described by understanding the causal relation among the change in social capital with direct democracy, trust in the political system, trust in politicians and trust in traditional broadcasting and newspapers.

Based on these results, this study determined the influence of the emergence of network societies on the dimension and types of modern political communication, investigated the dimension of new types of expression of political opinion, participation and communication and described the influence of newly emerging political expression and participation in social dimensions.

With regard to the research implication, this research empirically confirmed that there are no just multi-dimensions for the concept of 'social capital' and its difficulties for the measurements of the concept of 'e-political capital' as an extended social capital, but also there is a difference between offline and online political participations based on one's predisposition (O_1 - O_2).

Significance of this study

This study showed the change in the communicative act and political public sphere of Habermas. Specifically, the political public sphere emerging from online political capital, online political communication process and network, communication process, etc., shows the change in the political structure of the network society (Eveland et al., 2004). This research brought the concept of "online political capital" compiled from the concept of social capital. The online political capital is the concept of reorganizing political capital as a new variable in the network society, which can be formed and accumulated on the coming social media society. The online political capital is evaluated by various political activities such as information, political socialization, relying political news and new way of political participations.

The change in the new structure was identified through the factors influencing political awareness and participation connected with the size of the network social media (social network, communication process, certain media consumption and community activity) and awareness and activity of individuals and political participants. In other words, this study empirically determined the use of media, network forming style, capital of political communication, social media and the type of activity of political community, and systematically

analyzed, described and predicted the causal relation as to how they affect participation in politics and political capital.

For future research, the question remains how the relationships among the size of network, online trust and online norms constitute the online social capital. It is necessary to develop new ways to operationally define the three concepts, network size, trust and norm in the online network circumstance, as the construct of "online social capital." In the first dimension, the research confirmed that in the higher online social capital, including online media and network size and diversity, there are high correlation between the active political participation and online political capital. The second dimension is that one's predisposition, such as social trust, and young generation variables are more critical for participants to recognize the internet as a political medium (such as, the gathering of political information) and consider the social network media as online political tools. In addition, those who trust the internet as political media are more involved in political issues from political information, and as such, respond to participations. In fact, this research suggested that it is highly necessary to re-develop a new methodology to measure 'online political capital' in the social media environment. The new measurements of online political capital make a meaningful academic research in the network society and social media environment to measure online political participation.

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