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The impact of Argument Quality and Source Credibility on the Decision to Participate in Online Petition on Social media: The Moderator effect of Discrete Emotions

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ABSTRACT

With the advent of social media, online petition recently become a popular way for people to send a request or petition to public entities to foster social and political change. The successful of an online petition campaign not only based on the argument quality and the credibility of the source of the petition message but also the emotions that embedded in that message. Thus, this study tries to examine the impact of these factors on the trust to the campaign message under different kind of emotions and their effects on the decision to participate in online petition. The results and implication of study will be discussed in this paper.

KEYWORDS: Online petition, Emotions, Angry, Anxious, Trust

INTRODUCTION
Online petition, also known as e-petition, is the form of petition that is running online, in which, individual, group of people or non-profit organizations play the role as initiators to deliver a request in some certain circumstances. Commenced with their original purposes to word out the attitudes and perspectives toward enhancing public awareness, these initiators hope to gain a number of signatures as much as expected (Jalali, Ashouri, Herrera-Restrepo, & Zhang, 2016). From that, the effect of petitions is utilized. In many years ago, signatures of petition in the handwriting forms were mostly used. Nevertheless, todays it turns out in different collecting method since the rapid growth of global internet and social networks. Webpages such as Change.org, Avaaz.org, GoPetition or 38 Degrees become popular sites for petition initiators to start their campaign. Some governments also established similar pages such as "We the People" of United States, UK government e-petition to receive petitions of their citizen. Hence,

e-petition at present becomes more and more popular due to the convenience and utilizations of Internet and social networks.

The purpose of this study is to examine the role of the campaign message to the intention to sign the online petition under perspective of Trust to campaign message. This paper also explorer the impact of campaign message characteristics, which are argument quality and source credibility on the trust to the campaign message under different kind of emotions.

LITERATURE REVIEW

2.1. Online petition and Campaign Message

With the development of social media, more and more online petitions are held because activists could easily spread the petition campaign message, communicate with the people concerned and call for the support of an online activism. Milošević-Đorđević and Žeželj (2017) also emphasized that persuade others to vote online is one of the most important activities of online activism (Milošević-Đorđević & Žeželj, 2017).

Effectiveness of the online activism based on the ability to appeal to everyone and the campaign message play the central role in that process. Trust to the campaign message is the most important factors to the final decision to take part in the petition. The decision to sign the petition is main instrumental of online petition. However, there is still no study research on the impact of Trust to the campaign message on the intention to sign online petition and is the antecedent of the decision to participate in the petition. Thus, trust to the E-petition message has the positive impact on the Intention to sign the e-petiton

H1: Trust of the campaign message will have a significant impact to Intention to Sign the e-petition

2.2. Elaboration Likelihood Model

The ELM proposes a conceptual foundation for exploring attitude and persuasion (Corey M. Angst & Ritu Agarwal, 2009). This theory includes dual process of the formation of attitude and change (R. Petty & Cacioppo, 2012) which proposes that the information from external sources is the fundamental driver of the change in attitude and behavior (Bhattacherjee & Sanford, 2006). Conforming with this theory, persuasion process go through a central or peripheral route, where personal attributes are determinant to the relative efficiency of these processes (R. E. Petty, Cacioppo, & Goldman, 1981). A central route of persuasion is tracked when elaboration is high, in contrast, when elaboration is low, a peripheral route is detected. (R. Petty & Cacioppo, 2012)

Central route processing embodies the elaboration process on an appeal by focusing on an argument's quality and assessing it. Argument quality metions to an individual's perspective on a message's arguments that are strong and cogent as opposed to weak and specious (R. Petty & Cacioppo, 2012).

On the other hand, peripheral route processing refers to the proceeding of coming up with conclusions from rules of thumb or reliance on heuristic cues (i.e. source credibility) with little attention to the actual merits of an argument (R. Petty & Cacioppo, 2012). With peripheral route, people basically do not want to dedicate much essential cognitive energy to elaboration, or they cannot expend the effort (Corey M Angst & Ritu Agarwal, 2009)

In the Central route, individual evaluates information presented to them based on the pros and cons of it and how well it supports their values. Thus in this case individual evaluates information in the E-petition message based on the quality of arguments.

In the Peripheral route, we want to see whether some peripheral cues such as source credibility,

Moreover, with the use of social media as a tool to spread campaign message, the role of source credibility is also important to persuade people to sign the petition

In the other words, do the source credibility is a good cue for individual to take part in the online activism?

2.2.1 Central route: Argument Quality

Argument quality is defined as the degree that argument elicits primarily positive evaluative responses toward the attitude and deemphasizes primarily negative ones. According to Areni and Lutz (1988) in their famous study "The Role of Argument Quality in the Elaboration Likelihood Model", the role of argument strength is important in effects of persuasive communications to the consumer behavior. In the online petition context, the high quality of argument will increase the persuasiveness and therefore impact to the trust to campaign messages.

H2: Argument Quality will have a significant impact to Trust to campaign messages

2.2.2. Peripheral cues: Source credibility

Source credibility reflects the positive characteristics of the source of information that affect the receiver's acceptance of a message (Roobina, 1990). Source credibility are well studied and are proved to relate to the individual trust (Lowry, Wilson, & Haig, 2014; Metzger & Flanagin, 2013). In the online petition context, we propose that the trust of campaign message is heavily relied on the credibility of the source of information.

H3: Perceive of Source credibility will have a significant impact to Trust to campaign messages

2.5. Cognitive and behavioral effects of emotions

Discrete emotions are critical because they have been obtained to bring specific cognitive and behavioral responses basing individual's emotional experience and also affect many assessments and decision making processes (Han, Lerner, & Keltner, 2007). Therefore, studying on embedded emotions is necessary to understand deeply in the experience of emotions as well as the outcomes of emotion.

Relying on different situation and resulting judgments, the consequences for positive and negative emotions can be mixed (e.g., negative emotions can lead to both positive and negative outcomes)

Previous researches commonly categorize into four type of emotions which are anger, anxiety, excitement, and enjoyment as summarized in Table 1.

In accordance with the Circumplex Model of Affect (Russell, 1989), anxiety and anger are considered as negative in valence, in contrast to enjoyment and excitement which are positive in valence. In term of arousal aspect, anxiety and enjoyment are in low section while anger and excitement are in high section which is consistent with the Löveheim Model of Emotion (Lövheim, 2012).

In this research, we are interested in two specific emotions which are popular in campaign messages - anxiety and anger- that vary strongly in the certainty appraisal dimension.

Table 1:

		Valence	
		Positive	Negative
Certainty	Low	Hope	Anxiety
	High	Happiness	Anger

Source: Dezhi, Bond, and Han (2014)

Anxiety and Anger could be easily to find in negative content of E-petition message which may affect to the effectiveness of the online activism. Anxiety is defined as an unpleasant emotional state when a person had to face an ambiguous threat while Anger is defined as "an emotional state that motivates a person to alleviate personal harm attributed to others" (Dezhi et al., 2014). Due to the differences in certainty appraisals which embedded in the campaign message, the effect of each valences above will also be different.

Message writers experiencing anger can be expected to have more certain reason to become angry, then, the petition message could be more persuasive. In the other hands, message writers experiencing anxiety could be less certainty about the situation in campaign message. Therefore the different in certainty level could lead to different level of Trust of campaign message.

H5: The positive impact of Source Credibility to Trust to the E-petition message will be weaker when Anxiety embedded in the messages than Anger embedded in the messages
H6: The positive impact of Argument Quality to Trust to the E-petition message will be weaker when Anxiety embedded in the messages than Anger embedded in the messages
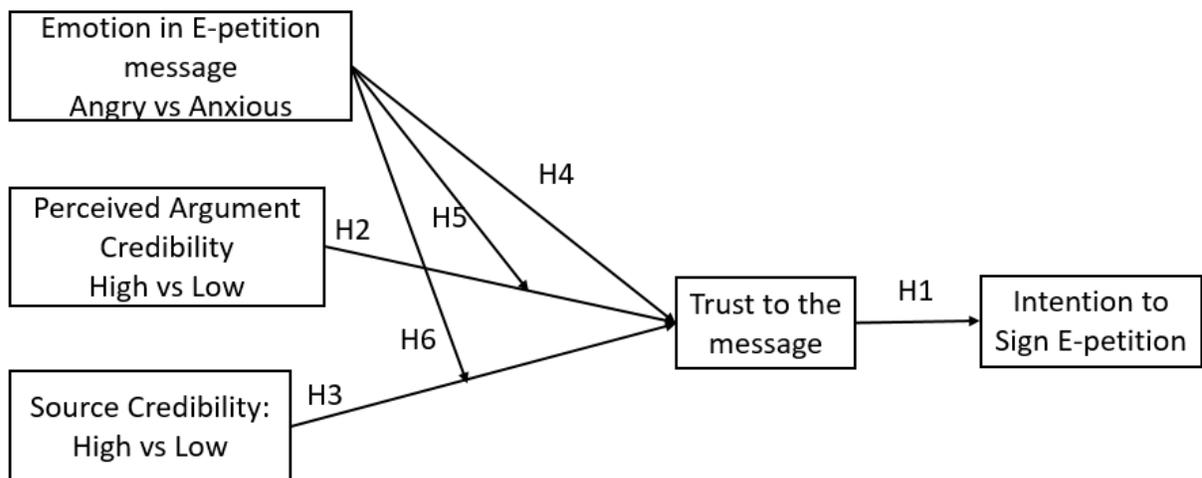

Figure 1: The framework of this study

RESEARCH DESIGN AND METHODOLOGY

This study employed a 2x2x2 full factorial design. The participants will be randomly assigned to 8 scenarios. In each scenarios, we manipulate Source Credibility, Argument Quality and Emotion as the table below:

Table 2: Experiment Design

		Argument Quality			
		High		Low	
		Emotion			
		Angry	Anxiety	Angry	Anxiety
Credibility	High	1	2	3	4
	Low	5	6	7	8

Research Procedure:

First, participants will be direct to one of 8 Facebook pages that have different campaign messages. The petition about the water polluted by a company and then it calls people to sign an petition on Change.org. The stimulation of 8 scenarios is describe in the table below:

Table 3: *Summary of stimulation*

Antecedents	Stimulation	
	High	**Low**
Argument Quality	- The logic of message is high, high quality of writing: - The reasoning use the scientific words related the environmental science. - Use the references from a research of a good university	- The message showed low quality of writing: - The reasoning doesn't include scientific words - No reference
Credibility	The message is posted by a person that was identified as close friend of participant	The message is posted by a stranger
Emotion	**Anxiety:** Use the light words, sentence such as "concern", "We are so worry about this situation"	**Angry:** Use some words, sentences such as "These companies really SUCK"

After reading the petition message on Facebook, participants will answer the questionnaire about Argument Quality, Source Credibility, Trust to messages and Intention to Sign petition.

Other measurements:
For the Trust to the campaign message, we use 3 questions as measurement: "What this post says is trustworthy, "reliable", and "accurate".
For Intention to Sign petition, we employed 3 questions : "I will sign this petition", "I think people should sign this petition", " I will take part in this petition"

RESULTS

Due to the limit of time, we've just recruited 141 young adults with 76.6% people from 23-30 and 21.3% from 30-40 to take part in our experiment. Most of them have experience in signing some online petition before this experiment (44.7% participated 1-2 times, 19.8% participated more than 3 times). According to the experiment design, the current number of participants is enough to run the basic data analysis method.

The result of manipulation check is show in the table 4:

Table 4: The result of manipulation check

		Mean	Std. Deviation	F-Value	P-Value	Levene statistic
Argument Quality	High	5.298	1.230	8.803	0.04	0.248
	Low	4.615	1.411			
Source Credibility	High	5.250	0.914	30.478	0.000	0.191
	Low	4.190	1.1516			

The manipulation check showed that the experiment has been successful in separate groups of treatments of these 2 variables. For manipulation check of Emotion, we ask participants to answers 2 questions about perceived of anxiety and anger at the same time then compare their means in each treatment. The results show in the Anger treatment, participants perceived anger higher than anxiety (M=4.420 vs M=4.203, p=0.013); and in Anxiety treatment, there is no different between perceived of anger and anxiety (M=4.694 vs M= 4.819, p=0.243). However, this result of manipulation check of emotion could be accepted because it still could separate the effect of Anger out of population.

To test the main effects and interaction effects, we employed that General Linear Model with the dependent variable is Trust to the Campaign Message. The insignificant result of Levene test of this GLM showed that the equality of variances assumption was met (F=0.570, p=0.77). The results are demonstrated in Table 5:

Table 5: The result of General Linear Model

Dependent variable: Trust to the Campaign Message	Treatments	Mean	Std	F	Sig.
Interaction effects					
Emotion * Source Credibility	Ang x HCr	5.556	1.106	4.509	.036
	Ang x LCr	4.059	1.120		
	Anx x HCr	4.875	1.016		
	Anx x LCr	4.354	1.325		
Emotion * Argument Quality	Ang x HAr	5.099	1.290	.696	.405
	Ang x LAr	4.246	1.241		
	Anx x HAr	4.722	1.319		
	Anx x LAr	4.389	1.191		
Emotion * Source Credibility * Argument Quality	Ang x HCr x HAr	5.861	1.176	.361	.698
	Ang x HCr x LAr	5.250	0.986		
	Ang x LCr x HAr	4.489	1.053		
	Ang x LCr x LAr	3.844	1.106		
	Anx x HCr x HAr	4.889	1.054		
	Anx x HCr x LAr	4.867	1.030		
	Anx x LCr x HAr	4.651	1.436		
	Anx x LCr x LAr	4.123	1.209		

The result of GLM showed that the Source Credibility has a significant effect toward the Trust to the Campaign Message (F=19.743, p<0.001) and hypothesis 2 is supported. Similarly, Argument Quality also has a significant impact on the Trust to the Campaign Message (F=4.553, p<0.05). So, Hypothesis 3 is also supported. However, the Emotion (Angry/Anxious) has no significant effect toward the Trust to the Campaign Message (F=1.169, p=..282), showing that hypothesis 4 is unsupported.

The result of GLM also showed the interaction effect between Emotion and Source Credibility toward Trust to the Campaign Message (F=4.509, p<0.05) which is demonstrated in the plot below:
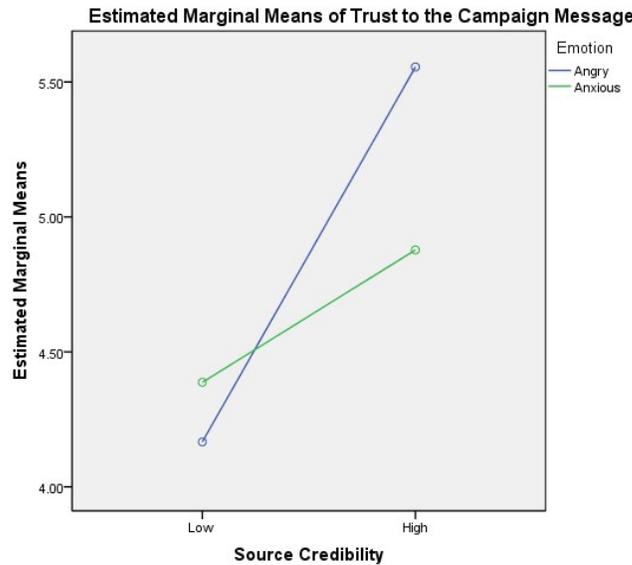
As we can see in the plot, when users read the message from the low credibility source, they tend to trust the message that embedded with anxiety more than the message that embedded with anger. But when users read the campaign message from the high credibility source, the anger embedded in the message can significantly boost up the trust to the message than the anxiety embedded in the message. Thus the Hypothesis 5 is supported.

To test the Hypothesis 1 and the role of control variables, we employed the regression analysis. The results is showed in the Table 6:

Table 5: The result of Regression Analysis of H1

Variables	Dependent variable: Intention to Sign online petition	
	Model 1 Beta (t)	Model 2 Beta (t)
Age	0.012 (0.150)	0.050 (0.881)
Number of participate in Online petition	0.272*** (3.318)	0.195* (2.557)
Trust to the Campaign Message		**0.406*** (5.305)**
R²	0.074	0.232
Adjusted R²	0.061	0.215
F-value	5.550	13.811
P-value	0.005	0.000

Based on the result of regression model 2, we could conclude that the H1 is supported or the Trust to the Campaign Message is significant impact on the Intention to sign online petition.

DISCUSSION AND CONCLUSIONS

This study provided the empirical evidence that the source credibility and argument quality could play an important role on online petition campaign of social media user. The main effect of study emphasized that the source credibility and argument quality had a significant impact on the Trust to campaign message, which lead to the intention to sign the petition. Beside that result, the study also indicate that emotion in term of Angry or Anxious does not have the direct effect on the Trust on the Campaign message. However, the interaction effect between source credibility and emotion toward the Trust to campaign message is significant which suggest that emotion still contribute a certain role on the online petition campaign.

This study also contributed to practical implications: This study suggest the petition initiators should carefully prepare the message content when it could significant impact the intention to participate the petition. The use of emotion in the campaign message also should be considered when they want to spread the message through social media. The results recommend that petition initiators should have a good quality of content and embed the anxiety because most of social media users are stranger and therefore they think that message is low credibility.

This study still has some limitation: Firstly, because the limitation of time, we couldn't collect more data which should be 240 samples. The lack of data may produce the insignificant of H4 and H6. Secondly, this study just proposed the impact of 2 types of negative emotion on the online petition. Future research should consider the positive emotion such as hope and happy may lead to the intention to participate to online petition.

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