Social Media Communication Factors in Energy Campaigns

Appendices

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Appendix A: Qualitative case study

Interview Questions

Table A.1 gives an overview of the interview questions asked in the semi-opened interviews in the qualitative case study.

Topics	Questions
Objectives	
Organizational goal	Could you describe the main organizational goals?
	Could you describe the aims of the energy campaigns?
Communication goal	Could you describe the communication goals?
	Could you describe how they are related to the organizational goals?
	Which aspects in the energy campaigns do you communicate to your target group?
Strategies	
General strategies	What types of strategies are used for the energy campaigns?
	What types of communication strategies are used for the energy campaigns?
Social media strategies	What types of social media communication strategies are used in the energy campaigns?
	What are the most important aspects in the strategies?
Social media	What is the relationship between the online-offline media?
	How do the online communication strategies support the goals?
	In which advantages/aspect/characteristics do you think social media can be used?
	Which aspects of social media strategies do you consider the most important?
	Which aspects of social media do you think work best to attract people who are not interested?
Participation	What types of online/offline participation do you expect from the energy campaigns?
	What types of online/offline participation do you observe?
	What are the differences between your expectations and observation?
	How do the participations levels/scales differ?
	How do you measure and track the participation of the people?

Table A.1 Interview questions

Table A.2 gives an overview of the types of organizations in the interviews, their energy campaigns and the objectives. Table A.3 summarizes the results from the interviews and observations.

Organization Type	Energy Campaigns and their Objectives
NGO/NPO	The energy campaigns aim to achieve climate neutral and CO_2 compensation, in which the offset projects will contribute to the poor in developing countries The energy campaigns aim to create a sustainable society with focus on bottom-up approach from the collective actions of the participants There are multiple goals in the campaign which aim to bind people together and motivate them to perform sustainable actions The campaign aim to mobilize participants to attack energy companies who are not sustainable
Social Initiative	An online smart tool to help individuals perform sustainable actions An online platform for people to perform good actions An online product which incorporates gaming with energy saving
Energy Company	A consumer-support platform which provides information and service and also presents the sustainable image of the company Develop practical strategies into day-to-day strategies and not only stay on the level of corporate communication, with the choice of media to suit for specific goals of the campaign
Municipality	A municipality project in which energy advices, suggestions and information are provided

Table A.3 The energy campaigns and their objectives

Topics	Results
Objectives	
Organizational goal	Develop tangible products
	Create climate neutral by compensating one's living
	Controlling and fuelling the discourse is one of the challenge
	Provide concrete solutions to the participants
	Provide people with opportunities and information
	Bottom-up approach
	Assist sustainable projects
	Guide people in energy saving
	Increase the number of members for the organization
Communication goal	Shifting goal from corporate to consumer approach
	Agenda setting, generate debate, show support for and mobilize specific action
	Creates awareness of sustainable behaviors but in a 'not-so-conscious' way
	Multiple goals
	Small steps will make a large difference
	Tell consumers that 'we create sustainability together'
Strategies	
General strategies	Social pressure as one of the drivers
	Connections to green groups
	Good timing in launching the strategies
	Petitions and other mechanisms of participation where the desired action is relatively simple
	Supports from different media platforms
	Project-based teams to work on different subjects
	Show concrete examples of the achievements of sustainable projects
Communication strategies	Simple message, story and facts
	The case (message and image) needs to be clear, individualistic and emotional
	The required action is linked to a positive outcome
	Show people that they are on the 'same ship'
	Communicate to them that 'your contribution will add to it'
	Find 'surprising facts' which spark, trigger, and express the message
	Provide something 'popular' for people to talk about
	Communicate about actions that are not too controversial and confusing
	Direct tone of voice
	Progressive approach
	Offer people incentives and options
	Be explicit, provide participants with arguments
Social media strategies	Online games
	Making steps easier
	Online quiz and suggestions
	The appeal to share and spread built-in
	Interactions with other participants online

	Listen to the participants, give them space to react, give input and be open about it
	React fast, be on the spots for the target group
	Don't provide multiple items at the same time
	Provide online platforms for individual values and network opportunities (communities, discussion forums)
	Cross-media strategies to support other types of strategies (sales, marketing)
Types of Participation	Receive information (via traditional media and social media)
	People sign up for newsletters
	People are attracted by 'other people' and join in
	Some people go back to the campaign again, some visit only one time
	People share by social media options, mouth-to-mouth
	People rate and comment on the contents
	Real-life behaviors
	Real-time feedback (posts and comments)
	Relationship building (between participants and the organization)

Table A.4 Summarized results from the interviews and observation

Appendix B: Instrument development

Pre-conditions for social media	Measurement Level	Coding guidelines	Literature/Sources
Presence of cross media campaign	Nominal	Whether the campaign is present on other forms of media (ex: TV, newspapers, etc.) 0=the campaign is only launched online 1=the campaign make use of other forms of media	Multimediality (Raessens, 2001)
User friendliness of the functions	Interval	The extent to which the action functions are perceived easy to use 1=there is a single action on the main webpage 2=there are multiple actions on the main webpage 3=the action(s) are not shown on the main webpage 4=there is no online action to perform	Persuasive Technology (B.J. Fogg, 1998) Design user aspect (Hollender et al, 2010) (Holtzblatt & Beyer, 1998)
	Interval	The extent of effort to perform an action 1=the action could be performed with a simple click 2=the action requires more than a simple click, and takes multiple steps 3=the participant need to fill in some info. to be able to participate (ex: personal profile, info.) 4= it is necessary to become a member/log in, in order to perform an action 5=the action requires a real-life action (ex: donating money)	Perceived ease of use (Venkatesh, 2000) Technology Acceptance model (Davis, 1989) Factors affecting social network (Kwon & Wen, 2010)

Table B.1 Pre-conditions for social media

Content in social media	Measurement Level	Coding guidelines	Literature/Sources
Message regarding knowledge objective of the campaign	Nominal	Whether information regarding the objectives/goals of the campaign is present 0=not present 1=present on the main webpage	Content (Basisboek crossmedia concepting, p.142) (Public Media 2.0, p.21) Domino principle (Grunig & Hunt, 1984)
The types of attitude objective of the campaign	Nominal	Whether the main objective of the campaign is proactive or attack, or multiple objectives 0=the campaign contain multiple attitude objectives 1=the campaign aim to mobilize the participants to form negative attitude towards a target (ex: energy companies) 2=the campaign creates positive attitude towards a proactive purpose	Domino principle (Grunig & Hunt, 1984)
The degree of real-life behavior objective of the campaign	Interval	The degree of real-life behavior objectives in the campaign 0=the action is purely virtual (online) 1=the action has a real-life relevance (ex: donate money, change energy supplier)	Domino principle (Grunig & Hunt, 1984)
Message regarding the call for action with suggestions/tips	Nominal	Whether suggestions/tips are present on the main webpage 0=not present 1=present	Stakeholder Power (Mitchell, 1997) Framing (Popkin, 1994)
Message regarding the cause for action with rational arguments	Nominal	Whether quantitative examples (ex: amount of CO_2 emission) are present on the main webpage 0=not present 1=present	Stakeholder Power (Mitchell, 1997) Framing (Popkin, 1994) (Fiske & S., 1991)
Message regarding the cause for action with emotional arguments	Nominal	Whether qualitative examples (ex: story-telling about a person/character/protagonist) are present on the main webpage 0=not present 1=present	Life experiences (Popkin, 1994)

Visualization of the message	Interval	The degree of visualizing messages about the campaign regarding individual/group achievements with infographics 0=there is no infographics 1=infographics which present information regarding the campaign 2=infographics which present data of individual/group achievements	Visual communication (Beeldtaal, 2010)
Entertainment in the form of a game or quiz	Interval	The extent to which entertainment elements is embedded in the content 0=not present 1=either game or quiz is present 2=both game and quiz is present	Engaging messages (Dobele et al., 2005)

Table B.2 Content in social media

Social aspects enabled by social media	Measurement Level	Coding guidelines	Literature/Sources
Interaction via discussion	Nominal	Whether it is possible to respond to other participants' comments and add personal comments 0=not present 1=present	Knowledge sharing in virtual communities (Hsu et al., 2006) (Hsu et al., 2007)
Interaction via online network	Nominal l	Whether an online community (ex: blog, forum) is present 0=not present 1=present	Social network communities (Grevet & Mankoff, 2010) Feedback and interaction (DiMicco, 2004))
Collaboration	Nominal	The possibility to collaborate with other participants online 0=not present 1=present	Social capital (add literature) Computer mediated interaction (Tanis & Postmes, 2009)
Share	Nominal	Whether the share options are available on the main webpage 0=not present 1=present	

Table B.3 Social aspects enabled by social media

Individual opportunities provided by social media	Measurement Level	Coding guidelines	Literature/Sources
Feedback on achievement	Nominal	Whether individual achievements are present 0=not present 1=present	Intrinsic motivation (Ryan & Deci, 1985)
	Nominal	Whether the group achievements are present 0=not present 1=present	
Social identity	Nominal	Whether the participant could create a personal profile online 0=not present 1=present	Social development and well-being (Ryan & Deci, 2000) Computer mediated interaction (Tanis & Postmes, 2009)

Table B.4 Individual opportunities provided by social media

Participation	Measurement Level	Description	Literature/Sources
Reach	Ratio	Estimated percentage of global internet users who visit the website daily, measured from Alexa.com	New participation behaviors (Clark, 2009) Lurkers (Preece, 2004) Alexa.com
Site linked in	Ratio	The number of links to the website from sites visited by users in the Alexa traffic panel, measured from Alexa.com	Accessibility (Basisboek crossmedia concepting, p. 119) Alexa.com
Tweetreach	Ratio	The extent to which a tweet travels and spread, measured from tweetreach.com	Tweetreach.com
Buzz	Ratio	The reputation of the website, measured from Webbedmarketing.com	Webbedmarketing.com
Number of tweets	Ratio	The numbers of tweets sent out from the campaign initiator, measured from twitter.com	Twitter.com
Number of tweeter followers	Ratio	The numbers of tweeter followers, measured from twitter.com	Twitter.com
Number of participants	Ratio	The numbers of participants in the campaign, measured by taking the numbers mentioned on the campaign website	

Table B.5 Participation levels

Appendix C: Quantitative Analysis Results

Variables	Mean	Standard Deviation
V1: Cross media	.91	.290
V2: Perceive ease of use	2.15	.848
V3: Effort to perform an action	3.82	1.172
V4: Attitude objective	.67	.840
V5: Behavioral objective	.89	.315
V6: Presence of suggestions/tips	.40	.494
V7: Rational arguments	.93	.262
V8: Emotional arguments	.76	.429
V9: Visualization	.62	.805
V10: Entertainment	.16	.420
V11: Competition	.16	.373
V12: Individual achievement	.18	.389
V13: Group achievement	.62	.490
V14: Interaction through discussion	.36	.485
V15: Online community	.45	.503
V16: Collaboration	.53	.504
V17: Share	.75	.440
V18: Social identity	.18	.389

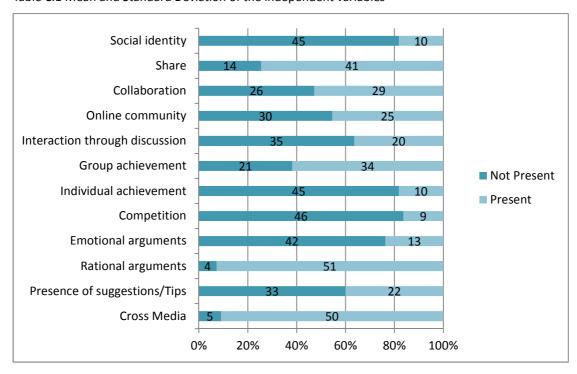Table C.1 Mean and Standard Deviation of the independent variables

Figure C.1 The Descriptive of the independent variables with nominal measurement

Types of Organizations

- NGOs/NPOs: 25%
- Social Initiatives: 53%
- Energy Companies: 15%
- Municipalities: 7%

Perceived Ease of Use

- There is a single action: 18%
- There are multiple actions: 60%
- 11%
- 11%

Effort to Perform Action

- The action requires multiple steps: 16%
- The participant need to fill in some info.: 29%
- 11%
- 44%

The Behavior Objective

- The action is purely virtual: 11%
- The action has a real-life relevance: 89%

Attitude Objectives

- Multiple: 56%
- Negative: 20%
- Positive: 24%

Entertainment

- There is no game/quiz: 85%
- Either game/quiz is present: 13%
- Both game and quizz are present: 2%

Visualization

- There is no infographics: 58%
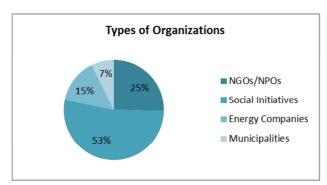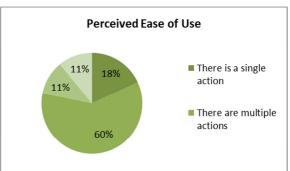- Infographics present info: 22%
- Infographics present achievements: 20%
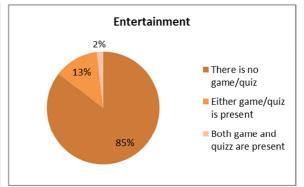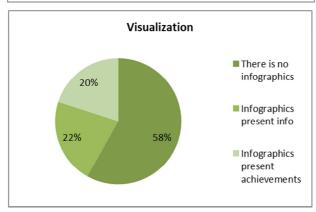
Figure C.2 The Descriptive of the independent variables with categorical/interval measurement

Correlations

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18
V1	Pearson Correlation	1	-.021	.114	.256	.498**	-.258	-.089	-.176	-.310*	-.028	-.031	-.179	.012	-.024	.162	.081	-.040	-.179
	Sig. (2-tailed)		.882	.408	.060	.000	.057	.520	.199	.021	.841	.822	.191	.932	.862	.238	.558	.774	.191
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V2	Pearson Correlation	-.021	1	.456**	-.218	.269*	.079	.048	.147	.029	-.016	.216	.087	-.220	-.176	-.245	-.139	-.247	.031
	Sig. (2-tailed)	.882		.000	.110	.047	.564	.725	.283	.836	.907	.113	.529	.106	.199	.072	.310	.070	.824
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V3	Pearson Correlation	.114	.456**	1	.183	.397**	.032	.197	.060	-.075	-.164	-.058	-.129	-.059	.151	.017	.228	.052	-.170
	Sig. (2-tailed)	.408	.000		.181	.003	.817	.149	.662	.587	.231	.676	.347	.671	.271	.901	.094	.705	.215
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V4	Pearson Correlation	.256	-.218	.183	1	.213	-.392**	-.194	-.219	-.024	-.108	-.003	-.041	.320*	.433**	.315*	.415**	.322*	.072
	Sig. (2-tailed)	.060	.110	.181		.119	.003	.155	.109	.862	.433	.981	.765	.017	.001	.019	.002	.017	.601
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V5	Pearson Correlation	.498**	.269*	.397**	.213	1	-.071	-.098	-.057	-.314*	-.003	-.161	-.289*	-.035	.022	.202	.019	-.071	-.137
	Sig. (2-tailed)	.000	.047	.003	.119		.604	.477	.677	.020	.985	.242	.033	.800	.873	.139	.890	.609	.317
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V6	Pearson Correlation	-.258	.079	.032	-.392**	-.071	1	.086	.367**	-.121	.036	.040	.096	-.428**	-.077	.000	-.491**	-.290*	.000
	Sig. (2-tailed)	.057	.564	.817	.003	.604		.534	.006	.379	.796	.771	.485	.001	.576	1.000	.000	.032	1.000
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V7	Pearson Correlation	-.089	.048	.197	-.194	-.098	.086	1	.009	-.222	-.058	-.065	-.050	-.076	-.079	-.026	.015	.158	-.231
	Sig. (2-tailed)	.520	.725	.149	.155	.477	.534		.948	.104	.673	.635	.720	.581	.565	.853	.912	.250	.090
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V8	Pearson Correlation	-.176	.147	.060	-.219	-.057	.367**	.009	1	.056	-.193	.015	.040	.003	.065	.078	-.270*	.166	.151
	Sig. (2-tailed)	.199	.283	.662	.109	.677	.006	.948		.687	.159	.915	.770	.981	.639	.571	.047	.225	.270
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V9	Pearson Correlation	-.310*	.029	-.075	-.024	-.314*	-.121	-.222	.056	1	.188	.520**	.403**	.234	.125	-.021	-.042	.139	.521**
	Sig. (2-tailed)	.021	.836	.587	.862	.020	.379	.104	.687		.169	.000	.002	.086	.363	.880	.759	.312	.000
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V10	Pearson Correlation	-.028	-.016	-.164	-.108	-.003	.036	-.058	-.193	.188	1	.298*	.268*	-.141	.066	.080	-.240	-.272*	.154
	Sig. (2-tailed)	.841	.907	.231	.433	.985	.796	.673	.159	.169		.027	.048	.306	.632	.563	.077	.045	.260
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V11	Pearson Correlation	-.031	.216	-.058	-.003	-.161	.040	-.065	.015	.520**	.298*	1	.683**	.044	.074	-.009	-.172	.033	.429**
	Sig. (2-tailed)	.822	.113	.676	.981	.242	.771	.635	.915	.000	.027		.000	.749	.590	.948	.210	.812	.001
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V12	Pearson Correlation	-.179	.087	-.129	-.041	-.289*	.096	-.050	.040	.403**	.268*	.683**	1	.176	.134	-.052	-.215	-.059	.633**
	Sig. (2-tailed)	.191	.529	.347	.765	.033	.485	.720	.770	.002	.048	.000		.198	.331	.708	.116	.669	.000
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V13	Pearson Correlation	.012	-.220	-.059	.320*	-.035	-.428**	-.076	.003	.234	-.141	.044	.176	1	.283*	.191	.305*	.314*	.370**
	Sig. (2-tailed)	.932	.106	.671	.017	.800	.001	.581	.981	.086	.306	.749	.198		.036	.162	.023	.020	.005
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V14	Pearson Correlation	-.024	-.176	.151	.433**	.022	-.077	-.079	.065	.125	.066	.074	.134	.283*	1	.676**	.186	.355**	.232
	Sig. (2-tailed)	.862	.199	.271	.001	.873	.576	.565	.639	.363	.632	.590	.331	.036		.000	.174	.008	.089
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V15	Pearson Correlation	.162	-.245	.017	.315*	.202	.000	-.026	.078	-.021	.080	-.009	-.052	.191	.676**	1	.206	.282*	.043
	Sig. (2-tailed)	.238	.072	.901	.019	.139	1.000	.853	.571	.880	.563	.948	.708	.162	.000		.131	.037	.755
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V16	Pearson Correlation	.081	-.139	.228	.415**	.019	-.491**	.015	-.270*	-.042	-.240	-.172	-.215	.305*	.186	.206	1	.199	-.215
	Sig. (2-tailed)	.558	.310	.094	.002	.890	.000	.912	.047	.759	.077	.210	.116	.023	.174	.131		.145	.116
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V17	Pearson Correlation	-.040	-.247	.052	.322*	-.071	-.290*	.158	.166	.139	-.272*	.033	.059	.314*	.355**	.282*	.199	1	.275*
	Sig. (2-tailed)	.774	.070	.705	.017	.609	.032	.250	.225	.312	.045	.812	.669	.020	.008	.037	.145		.042
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
V18	Pearson Correlation	-.179	.031	-.170	.072	-.137	.000	-.231	.151	.521**	.154	.429**	.633**	.370**	.232	.043	-.215	.275*	1
	Sig. (2-tailed)	.191	.824	.215	.601	.317	1.000	.090	.270	.000	.260	.001	.000	.005	.089	.755	.116	.042	
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table C.2 Correlations of the independent variables

Correlations

		the buzz measured from webbed marketing	the number of tweets	the number of twitter followers	the number of participants	the number of log measure	tweet reach measured by tweetreach	sites linked in
the buzz measured from webbed marketing	Pearson Correlation	1	.494[**]	.390[*]	-.083	.221	.399[**]	.299[*]
	Sig. (2-tailed)		.001	.012	.693	.105	.003	.027
	N	55	41	41	25	55	55	55
the number of tweets	Pearson Correlation	.494[**]	1	.264	-.146	.052	.222	.130
	Sig. (2-tailed)	.001		.095	.527	.747	.163	.419
	N	41	41	41	21	41	41	41
the number of twitter followers	Pearson Correlation	.390[*]	.264	1	-.111	-.006	.122	.080
	Sig. (2-tailed)	.012	.095		.633	.973	.449	.620
	N	41	41	41	21	41	41	41
the number of participants	Pearson Correlation	-.083	-.146	-.111	1	-.069	-.044	-.050
	Sig. (2-tailed)	.693	.527	.633		.743	.836	.814
	N	25	21	21	25	25	25	25
the number of log measure	Pearson Correlation	.221	.052	-.006	-.069	1	.564[**]	.988[**]
	Sig. (2-tailed)	.105	.747	.973	.743		.000	.000
	N	55	41	41	25	55	55	55
tweet reach measured by tweetreach	Pearson Correlation	.399[**]	.222	.122	-.044	.564[**]	1	.565[**]
	Sig. (2-tailed)	.003	.163	.449	.836	.000		.000
	N	55	41	41	25	55	55	55
sites linked in	Pearson Correlation	.299[*]	.130	.080	-.050	.988[**]	.565[**]	1
	Sig. (2-tailed)	.027	.419	.620	.814	.000	.000	
	N	55	41	41	25	55	55	55

[**]. Correlation is significant at the 0.01 level (2-tailed).

[*]. Correlation is significant at the 0.05 level (2-tailed).

Table C.3 Correlations of the dependent variables

Factor Analysis

From the factor analysis with rotation method Direct Olibmin with Kaise Normalization, the 18 variables load on 6 components:

Component	Variables	Load
Component 1	Visualization of the message	0.760
	Competition	0.817
	Presence of individual achievements	0.830
	Presence of personal profile	0.779
Component 2	Attitude objective	0.508
	Presence of suggestions/tips	-0.856
	Arguments for call-for-action	-0.644
	Presence of group achievements	0.455
	The possibility to collaborate	0.741
Component 3	Perceive ease of use	0.795
	Effort to perform an action	0.856
Component 4	Entertainment (game/quiz)	-0.765
	Share	0.491
Component 5	Interaction through discussion,	-0.864
	Presence of online community	-0.911
Component 6	Presence of cross media campaign	-0.559
	Behavior objective	-0.539
	Rational arguments for call-for-action	0.763

Table C.4 Factor analysis result for the independent variables

From the factor analysis with rotation method Direct Olibmin with Kaise Normalization, the 7 dependent variables load on 2 components:

Component	Variables	Load
Component 1	Sites linked in	0.920
	Reach	0.963
	Tweetreach	0.851
	Buzz	0.832
	Number of tweets	0.499
	Number of tweet followers	0.805
Component 2	Number of participants	0.954

Table C.5 Factor analysis result for dependent variables

Correlations of concepts

	Comparison of social content	Action barrier	Network opportunities	Content of communication message
Comparison of social content		-0.097	0.131	-0.093
Action barrier			-0.020	0.135
Network opportunities				-0.136

Table C.6 Correlations between the concepts

Internal reliability

Concepts	Cronbach's alpha
Comparison of social content	0.721
Action barrier	0.570
Network opportunities	0.650
The content of the communication message	0.533

Table C.7 Reliability of the concepts

Regression results

Single and Multiple Regressions on the Dependent variable: Receive

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-5.381E-17	.122		.000	1.000
Action barrier	-.002	.161	-.002	-.011	.991

Table C.8 Single regression of action barrier on participation: receive

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
(Constant)		-.077	.108		-.717	.476
Comparison of social content		.057	.151	.052	.379	.706

Table C.9 Single regression of comparison of social content on participation: receive

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
(Constant)		-.077	.105		-.735	.466
Network opportunities		.300	.180	.224	1.670	.101

Table C.10 Single regression of network opportunities on participation: receive

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
(Constant)		-.077	.104		-.745	.459
Content of the communication Message		-.265	.127	-.276	-2.093	.041

Table C.11 Single regression of content of the communication message on participation: receive

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.077	.102		-.757	.453
Action barrier	-.360	.137	-.347	-2.636	.011
Comparison of social content	-.002	.145	-.002	-.015	.988

Table C.12 Multiple regression of action barrier and comparison of social content on participation: receive

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.077	.100		-.770	.445
Action barrier	-.355	.134	-.342	-2.645	.011
Comparison of social content	-.111	.156	-.101	-.710	.481
Network opportunities	.318	.189	.237	1.682	.099

Table C.13 Multiple regression of action barrier, comparison of social content, and network opportunities on participation: receive

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.077	.098		-.787	.435
Action barrier	-.345	.132	-.332	-2.621	.012
Comparison of social content	-.095	.153	-.087	-.622	.536
Network opportunities	.260	.188	.193	1.381	.173
Content of the communication Message	-.220	.122	-.229	-1.803	.077

Table C.14 Multiple regression of action barrier, comparison of social content, network opportunities and content of the communication Message on participation: receive

Single and Multiple Regressions on the Dependent variable: Share

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-5.381E-17	.122		.000	1.000
Action barrier	-.002	.161	-.002	-.011	.991

Table C.15 Single regression of action barrier on participation: share

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-4.798E-17	.121		.000	1.000
Comparison of social content	-.157	.169	-.126	-.927	.358

Table C.16 Single regression of comparison of social content on participation: share

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-5.169E-17	.122		.000	1.000
Network opportunities	.071	.208	.047	.343	.733

Table C.17 Single regression of network opportunities on participation: share

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-5.871E-17	.121		.000	1.000
Content of the communication Message	.123	.148	.113	.831	.410

Table C.18 Single regression of content of the communication message on participation: share

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-4.527E-17	.122		.000	1.000
Action barrier	-.026	.164	-.022	-.156	.877
Comparison of social content	-.161	.173	-.130	-.931	.356

Table C.19 Multiple regression of action barrier and comparison of social content on participation:

share

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-3.719E-17	.123		.000	1.000
Action Barrier	-.023	.164	-.019	-.138	.891
Comparison of social content	-.224	.191	-.180	-1.175	.245
Network opportunities	.184	.231	.121	.797	.429

Table C.20 Multiple regression of action barrier, comparison of social content, and network

opportunities on participation: share

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-4.045E-17	.123		.000	1.000
Action Barrier	-.030	.164	-.025	-.180	.858
Comparison of social content	-.234	.191	-.189	-1.226	.226
Network opportunities	.223	.235	.147	.950	.347
Content of the communication Message	.146	.152	.135	.958	.343

Table C.21 Multiple regression of action barrier, comparison of social content, network opportunities

and content of the communication message on participation: share

Single and Multiple Regressions on the Dependent variable: Contribute

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.019	.214		-.087	.932
Action barrier	-.187	.329	-.123	-.569	.575

Table C.22 Single regression of action barrier on participation: contribute

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.057	.225		.255	.801
Comparison of social content	-.195	.270	-.156	-.722	.478

Table C.23 Single regression of comparison of social content on participation: contribute

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.051	.242		-.212	.834
Network opportunities	.178	.399	.097	.445	.661

Table C.24 Single regression of network opportunities on participation: contribute

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.041	.207		-.200	.843
Content of the communication Message	-.314	.233	-.281	-1.344	.193

Table C.25 Single regression of content of the communication message on participation: contribute

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.045	.228		.198	.845
Action barrier	-.247	.339	-.162	-.728	.475
Comparison of social content	-.237	.279	-.189	-.849	.406

Table C.26 Multiple regression of action barrier and comparison of social content on participation: contribute

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.031	.250		-.123	.904
Action barrier	-.270	.343	-.178	-.786	.441
Comparison of social content	-.319	.300	-.255	-1.064	.301
Network opportunities	.341	.432	.185	.788	.440

Table C.27 Multiple regression of action barrier, comparison of social content and network opportunities on participation: contribute

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.101	.247		-.410	.687
Action barrier	-.369	.339	-.242	-1.086	.292
Comparison of social content	-.314	.291	-.251	-1.078	.295
Network opportunities	.380	.420	.207	.905	.377
Content of the communication Message	-.363	.244	-.325	-1.489	.154

Table C.28 Multiple regression of action barrier, comparison of social content, network opportunities and content of the communication message on participation: contribute

Appendix D: 55 Energy Cases for the quantitative analysis

Case	URL	Description
ICCOClimateFund	http://www.fairclimatefund.nl/	A social entrepreneurship founded by ICCO and Kerk in Actie who set up climate projects in poor countries with poor families and trade CO_2 rights from these projects at a fair price.
EarthHourWNF	http://www.wnf.nl/nl/wat_wnf_doet/campagnes_wnf/earth_hour2011/	An online global action organized by WNF, which ask people to turn off the lights on the night of March 26th as a symbol to perserve the earth for the next generation.
GreenpeaceNuon/Essent	http://www.greenpeace.nl/ikswitchnu	An online protest campaign organized by Greenpeace, targeted at Nuon and Essent for their coal factories.
Nudge	http://nudge.nl/	An organization which aims to create a sustainable society via online consumer initatives with collaboration with education, science, government and busines.
Treemagochi	http://www.treemagotchi.nl/	An online initiative for people to become sustainable by performing easy, small actions.
Ikkominactie	http://www.ikkominactie.nl/	A website that collects all actions for a better world for people to participate. The actions are fast and easy to perform and are categorized based on time.
EnergyBattle	http://www.shifft.com/	An online energy saving project initiated by Shifft B.V in 2009, which they have been working on pilot projects with energy companies.
Nuon	http://www.nuon.com/	An energy company in the Netherlands and Belgium who produces and supplies gas, electricity, heat and cooling and offers its customers a range of energy-saving products and services.
Eneco	http://thuis.eneco.nl/Pages/Default.aspx	An integrated energy company specialized in the production, trading, transmission and supply of gas, electricity and heat and related services. The ambition of Eneco is to achieve full sustainability by 2030.
Schiedam	http://www.energieloket.nl/stadsregiorotterdam/thuis	A municipality project which belongs to the Regional Climate Agenda that drives the municipalities of the metropolitan region of Rotterdam together on a major reduction in CO2, with collaborative projects that energy waste, and renewable energy potential.
Greenseat	http://www.greenseat.com/	GreenSeat is part of Climate Neutral Group who works towards a climate-neutral world by reducing greenhouse gas emissions wherever possible and as easy as possible for everyone. For example, passengers can offset the carbon emissions caused via the website, as GreenSeat works closely together with travel agents and airlines.
HIER	http://www.klimaatbewust.nl/	A large Dutch climate program whose fundamental idea is to stress the immediate necessity to implement adaptation projects and initiatives to climate change, where 30 organizations work together.

10:10	http://www.1010global.org/	A UK project initially launched on September 2009 and now active in dozens of countries around the world. The aim of the project is to show that getting carbon under control can be easy, affordable and fun.
Stepgreen	http://www.stepgreen.org/	An online community that provides information on individual actions to help them monitor their energy usage and chart savings and opportunities over time.
OPOWER	http://www.opower.com/	An energy efficiency and Smart Grid software company which helps utilities meet their efficiency goals through effective customer engagement by applying behavioral science to connect with customers, motivate energy reductions, and increase participation.
Georgia Power	http://www.georgiapower.com/green/home.asp	A private power utility which serves the counties of Georgia in the States. The Georgia Power's Green Energy Program initiates a growing community of Georgians who support the environment and help generate more renewable power in Georgia.
GE	http://photoproject.ecomagination.com/	An ecomagination project by GE which uses the ideas of creativity to nurture the natural power in wind, water and light. By people uploading pictures about wind, water and light on Flickr, GE will contribute to the related energy projects.
10 voor energie	http://www.10voorenergie.nl/cgi-bin/mbCMS/cms.cgi?actie=toonhomepage	A municipality campaign launched from October 1st to December 10th 2010, which targets all residents in 11 municipalities in West Brabant which shows the residents how to save energy bills by taking simple actions.
100% renewable	http://www.100percent.org.au/content/about-campaign-0	An Australian community initiated campaign working to build community and political support for renewable energy. People coming from local communities get together to discuss how they could take actions for creating a clean energy future.
Boer zoekt buur	http://www.boerzoektbuur.nl/	An initiative of farmers which promotes sustainable agriculture climate neutral. The aim is to motivate organic farmers to support climate neutral by investing in solar panels on barns.
Wij willen zon	http://www.wijwillenzon.nl	Founded by Urgenda and De Betere Wereld, Wij willen Zon would like to provide consumers with the opportunities to develop their own sustainable and affordable energy to generate their own household.
Power of one	http://www.seai.ie/power_of_one	A campaign set up by Sustainable Energy Authority of Ireland (SEAI), is aimed at achieving collective force (Power for One) which will make a big difference by taking individual responsibility and changing small behaviors in small ways every day.
Energy Hog	http://www.energyhog.org/	A web initiative to provide energy & money saving tips.

1 BLOG	http://1bog.org/	A community-based program which acts as a consumer advocate to organize group discounts on residential solar panels by selecting the best price and the best quality for customers, and make the process of going solar easy.
Make me sustainable	http://makemesustainable.com/	A web initiative aimed at helping individuals track their energy consumption and stimulating them to take action aimed at reducing their environmental impact.
Atoomstroom	http://www.atoomstroom.nl/	A Dutch energy company who uses nuclear energy to generate CO2 free electricity and gas.
Oldburry	http://www.oldburynuclearviewpoint.org.uk/home	An online community which provides information on the proposals by Horizon to develop a new nuclear power station at Shepperdine, next to Oldbury near Thornbury on the Severn Vale and aim to mobilize citizens to stop the construction.
Earth Day	http://www.earthday.org/	A network which grew out of the first Earth Day which holds the mission to broaden, diversify and activate the environmental movement worldwide, driving action year-round through a combination of education, public policy, and consumer campaigns.
Greenpeace Nuclear	http://www.greenpeace.org/international/en/campaigns/nuclear/	An international campaign to stop nuclear energy.
Campaign against Climate change	http://www.campaigncc.org/	An organization which brings people together to push for the urgent and resolute action needed to prevent the catastrophic destabilization of global climate.
Friends of the earth Melbourne	http://www.melbourne.foe.org.au/?q=node	A social and environmental justice organization who aims to work towards a sustainable and equitable future in a way that empowers individuals and communities, while operating on a collective basis using consensus for decision-making.
Sustainable Energy Europe Campaign	http://www.sustenergy.org/	An organization dedicated to energy efficiency and renewable energy solutions, with the focus of spreading best practice in sustainable energy technology, build alliances and inspire new energy ideas and actions.
Celsias	http://www.celsias.com/	A web initiative to help individuals, companies and organizations do practical things to combat climate change.
Consumer energy alliance	http://consumerenergyalliance.org/	A non-profit organization which supports the utilization of energy resources to help ensure domestic and global energy security and stable prices for consumers.
CCWA	http://ccwa.org.au/	An Australian non-profit, non-government conservation organization, who facilitates effective advocacy and action on conservation and environmental issues by working with community, government and industry towards a more sustainable future for Western Australia.
Yahoo Green	http://green.yahoo.com/	An online community which helps people with answers to everyday questions related to help saving the planet while at the same time save money, time, and also become healthier.

AUSES	http://www.auses.org.au/	An Australian solar energy society which aims to protect the NSW solar industry from devastating cuts to solar feed-in tariffs, provides information and promotes the use of solar energy, lobbies on behalf of the solar industry to advance a sustainable solar future.
1 Sky	http://www.1sky.org/	A collaborative campaign aimed at bringing hundreds of diverse organizations together in support of a unified platform for transformational change, with collaborative national campaign aiming for strong federal action to tackle global climate change and invest in building the clean energy economy of the future.
Cool foods campaign	http://coolfoodscampaign.org/	A project of the Center for Food Safety and the CornerStone Campaign which makes the connections between foods and their contribution to global warming. It aims to inspire people to commit to making sustainable food choices and reduce their "FoodPrint".
Leith biomass	http://www.noleithbiomass.org.uk/	A community campaign against the proposed giant biomass plant in Leith.
CAFEB	http://cafeb.org/	An online page to co-ordinate campaign efforts between individuals, local groups, community councils, and organizations opposed to Forth Energy's proposals for 4 new Biomass Power Plants in Leith, Grangemouth, Dundee and Rosyth.
EDF	http://www.edf.org/home.cfm	A non-profit organization which linked science, economics and law to create innovative, equitable and cost-effective solutions to society's most urgent environmental problems.
Action 21	http://www.action21.co.uk/	A non-profit organization which promotes environmental, social and economically sustainable projects in and around Warwick District, specifically aimed at enabling people to change their behavior to address the causes of climate change and resource depletion.
Go Green	http://www.go-green.ae/	An e-initiative of Cyber Gear which is set up to remind people to be mindful of and sensitive to the natural environment in our daily life The main objective of the site is to increase the awareness of environmental issues that affect the future of the planet.
Clean Air	http://www.cleanair.org/	A non-profit environmental organization dedicated to protecting everyone's right to breathe clean air by working through public education, community advocacy, and government oversight to ensure enforcement of environmental laws.
Get Up	http://www.getup.org.au/	An independent, grass-roots community advocacy organization giving everyday Australians opportunities to get involved and hold politicians accountable on important issues.
Will you join us	http://www.willyoujoinus.com/	An energy company which provides customers with tools for smart energy saving.
Shame on NV	http://www.shameonnvenergy.com/	An online initiative to protest against NV energy by online petitions to go against NV for breaking its promise to retirees for slashing their health care.
NOPE	http://nope.org.uk/	A non-governmental organization who organizes a campaign to stop a biofuel power station being built in Portland, Dorset.

Stop Global Warming	http://www.stopglobalwarming.org/	An online, non-partisan, grassroots campaign which aims to bring citizens together to declare that global warming is here now and that it is time to demand solutions by the virtual march, with the support of leading scientists, political, religious, cultural and business leaders.
350	http://www.350.org/	A social initiative which aims at building a global grassroots movement to solve the climate crisis, with bottom-up mass public actions led f by thousands of volunteer organizers in over 188 countries.
Camp for climate action	http://climatecamp.org.uk/	Action event weaves four key themes: education, direct action, sustainable living, and building a movement to effectively tackle climate change, both resisting climate crimes and developing sustainable solutions.
Climate Solutions	http://climatesolutions.org/	A non-profit organization which works to accelerate practical and profitable solutions to global warming by galvanizing leadership, growing investment and bridging divides.
Earth Justice	http://www.stopsoot.org/	A non-profit public interest law firm dedicated to protecting the magnificent places, natural resources, and wildlife of this earth, and to defending the right of all people to a healthy environment, with online petition campaigns.
10% Challenge	http://www.10percentchallenge.org/	A voluntary program with the aim to raise public awareness about global climate change and to encourage households and businesses to reduce their greenhouse gas emissions by at least 10 percent.