

The concept of trust in disasters: the Slovenian experience

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in disasters

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Abstract

Purpose – The purpose of this paper is to identify the level of public trust in disaster response actors, i.e. the government, civilian disaster response institutions, the military, NGOs and the media.

Design/methodology/approach – The data source is the 2015–2016 Slovenian Public Opinion Survey, which used face-to-face interviews (computer-assisted personal interviewing software), and a standardised instrument (questionnaire). A two-stage probability sampling design with stratification at the first stage was applied. The first stage involved a probability proportional to size selection of 150 small areas (statistical areas), where the size measurement was a the number of adult persons in the Central Population Register. The second stage involved the simple random sampling of 12 persons from each of the 150 primary sampling units. A total of 1,024 adult residents participated in the survey.

Findings – The findings suggest that trust in the government under normal situations is low; however, it becomes slightly higher during disaster conditions. Civilian disaster response institutions (especially firemen and civil protection), the military and NGOs (humanitarian and other volunteer organisations) are highly trusted before and during disasters. Trust in the authorities and media to inform the public in a timely and comprehensive manner about the disaster is also relatively high.

Research limitations/implications – Perhaps in another period of research, disaster-related experiences of the population might be different, which could certainly change the survey results about trust. Nevertheless, the main finding that low pre-disaster trust can be recovered during a disaster by adequate performance of the institution is not jeopardised.

Originality/value – The survey results are original.

Keywords Disaster, Trust, Public, Disaster and emergency management

Paper type Research paper

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Introduction

Trust between stakeholders is widely regarded as a precondition of successful disaster response. This paper contributes to the recent research in the field by exploring the issue of trust with regard to disaster response in Slovenia, a country frequently affected by disasters, especially floods, storms, drought, fires, and also occasionally earthquakes and ice storms. The main purpose of the analysis is to identify the level of public trust in disaster response actors, i.e. the government, civilian disaster response institutions and the military, based upon their performance during disasters. This paper offers an analysis of Slovenian public opinion data in order to test hypotheses on trust in government both in normal times and in times of disaster, on trust in civilian disaster response institutions, on the role of the military in disaster response, and on authorities' and media communication activities during disasters.

The paper first introduces a brief theoretical basis of trust and recent empirical evidence to underpin the discussion of trust in disaster management actors, as well as on the communication activities of the authorities and the media during a disaster. The focus is on the performance thesis as a basis to form hypotheses and to introduce and interpret survey data on trust in disaster response actors. This paper then explains the methodology and the research sample, introduces the data and discusses it in light of the theoretical framework and the empirical findings of other researchers. The validity of hypotheses is checked through discussion, whereas the main findings are presented in the conclusion.

Theoretical background

The modern concept of trust in institutions dates back to the 1960s when Almond and Verba (1965) examined political culture and made a connection between political culture



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and democracy. Their work was continued by Inglehart (1990), who claimed that a sense of trust is necessary for the functioning of the democratic rules of the game. Almond and Verba, as well as Inglehart, actually addressed the question of interpersonal trust. When referring to measurements of interpersonal trust in society, they referred to national levels of trust. Today, the concept of trust is commonly understood and applied as a tool for assessing the legitimacy and social position of institutions.

Analysts offered several theses on the factors that influence public trust in institutions: a social capital thesis, media coverage thesis, motivational thesis, encapsulation of interests thesis and performance thesis (e.g. Hardin, 1999; Warren, 1999; Putnam, 2001). The latter is the key to our analysis. It claims that public trust in institutions depends primarily on their performance. Trust is the expected utility obtained from institutions performing satisfactorily, and it is a cause and not a consequence of institutional performance. Institutions that perform well generate trust; untrustworthy institutions generate scepticism and distrust (Mishler and Rose, 2001). The ratio of people's evaluation of government performance relative to their normative expectations of how a government ought to perform is of key importance (Hetherington and Husser, 2012). Or, as Yang and Holzer (2006) noted, the link between the government's performance and a citizen's trust in the government seems intuitive. Similarly, Kestilä-Kekkonen and Söderlund (2016) established that the most powerful predictors of political trust are individual-level attitudes on system performance, i.e. (dis)satisfaction with various policy outputs, political actors and general government performance. The impact of performance in different policy fields, however, tends to vary.

In the field of risk, Löfstedt (2005) defined trust in institutions as "an acceptance of decisions by the constituents without questioning the rationale behind them". According to Cvetkovich and Löfstedt (1999), getting people to trust institutions in disaster management requires an understanding of their goals, motives and actions based on their values. Slovic (1997) referred to trust as a general concept, and he assumed that trust is fragile. It is hard to establish trust and is easy to lose; moreover, the re-establishment of lost trust is extremely difficult. According to Löfstedt (2005), public trust in institutions has been heavily eroded in western societies; this has led to them being characterised as "post-trust societies". This concept stresses the declining public trust in institutions, which makes communicating risk difficult.

White and Fu (2012) addressed the notion of trust as "an important determinant of shaping social perception of risk during crises [...] with respect to levels of trust in social institutions". However, the problem is the previously mentioned declining public trust in institutions in the developed world. Apart from incompetence, government irresponsiveness and dishonesty may additionally contribute to diminished trust. White and Fu (2012) distinguished between political trust and social trust. The former is defined as "the positive appraisal by citizens of their government and institutions", whereas the latter represents "a broader idea that others in society will act in accordance with values, such as honesty and fairness, which make relationships between individuals worthwhile". The institutional trust could be defined as a favourable attitude of the public towards institutions that are not political, e.g. disaster response institutions. Political, institutional and social trust overlap, and therefore it is crucial to have a credible social context and also a high degree of trust in authority and other institutions by the citizenry.

Overview of recent research of trust related to risk and disasters

A number of researchers have analysed trust in politics, institutions, organisations, and experts, and trust among citizens themselves in relation to risk and disasters. Kervyn *et al.* (2014), for instance, established that, following a disaster, political trust impacts an organisation's reputation and concurrently affects the public's expectation of the organisation's mitigation and intervention efforts. An institution (e.g. local government)

that depends on the cooperation of the population for its disaster response efforts will have difficulties mobilising the public if it is perceived to have a poor reputation and is not well trusted.

Liang (2016) interviewed earthquake survivors in Sichuan, China, and revealed that survivors had low trust in the government's work on all levels, even though the trust was relatively higher in upper levels of government. Thoresen *et al.* (2018) conducted a cross-sectoral study of institutional trust of victims of the disaster, and found out that "the levels of institutional trust in the police and judicial system were notably lower in survivors and the bereaved than in the general population". In contrast, Schupp *et al.* (2017) examined how individuals' trust levels and patience were affected by a tornado event in 2013 in Moore, Oklahoma, USA. The findings suggest that those who self-identified as affected by the disaster became more trusting in general as well as more trusting of police and fire authorities.

Dussaillant and Guzman (2014) reported on the possibility to enhance social trust after the 2010 Chile earthquake. They assumed that the earthquake could serve to build trust by promoting new trust networks through the enhancement of distant family ties and the interaction between affected neighbours. However, the empirical evidence revealed that low initial social capital, allowing for post-earthquake looting and violence, reduced the impact of the trust-increasing effect. Furthermore, the impact of the disaster was not transitory, but long term and even increased over time. In contrast, Scott *et al.* (2016) investigated the long-term effects of a coal waste disaster on social trust in Kentucky, USA, and established that levels of trust in the directly impacted community increased notably over the ten years following the disaster.

Kang and Skidmore (2018) established that, in general, social trust develops when victims, neighbours and disaster managers interact, whereas a slow response to disaster generates dissatisfaction and decreases social trust. The level of trust is, thus, very much dependent on the speed of government support and on active support for the victims from their neighbours. Akbar and Aldrich (2017) established in their survey, after the 2010 Pakistani floods, that social and institutional trust were correlated with flood damage. High material loss during the floods was negatively correlated with post-disaster trust levels, whereas housing stability and perceived fairness in the distribution of disaster aid were positively correlated with post-disaster levels of trust. Similarly, Eadie and Su (2018) reported that inequitable distribution of relief goods and services generated discontent and distrust within affected communities.

The dimension of public trust in the information activities of the government and the media in disasters is also important for this analysis. According to Slovic (1997), the main question in disaster management is how to establish trust between the public (media), experts and state institutions.

Several researchers explored disaster communication and the level of public trust in authorities and the media. A secondary analysis of various crises in Europe and elsewhere revealed that the source of numerous difficulties in crisis management is inadequate communication (e.g. Kitfield, 2005; Malešič *et al.*, 2006). Rosenthal *et al.* (2001) also reported that one of the universal problems of crisis management is communication: either information shortages or information overload in combination with organisational deficiencies and psychological pathologies. Communication problems cause the erosion of public trust in institutions and the media, and negatively impact the functional dimensions of the entire crisis management operation.

Kirschenbaum *et al.* (2017) reported that regardless of whether an information source is formal or informal, trust in it contributes significantly to the earthquake-preparedness of a population. White and Fu (2012) claimed that the credibility of a source is a key positive variable affecting how people receive and respond to warning messages. Furthermore,

people caught in a disaster can be a huge source of information that can be aggregated, processed and disseminated to other people at risk and to first responders. Based on their findings that interpersonal communication is efficient in a crisis, White and Fu (2012) also suggested that trust is an important element of the communication process. Additionally, Mileti (1999) reported that the credibility of a warning message strongly depends on the trust people place in the authority of the institution that sends the message.

Williams *et al.* (2018) explored public trust in the context of social media utilisation during disasters. Their research revealed that citizens prefer friends and family as sources of trustworthy information, as opposed to local and federal disaster management actors and official non-governmental organisations. When only official actors are taken into account, local emergency actors are the most trustworthy source of information.

To summarise, empirical analyses have come to different findings as far as trust in government and other institutions is concerned. Kervyn *et al.* (2014) established that the level of trust positively influences the mobilisation of a population for disaster response. Some researchers reported that the level of trust in institutions after a disaster decreased (Liang, 2016; Thoresen *et al.*, 2018), whereas Schupp *et al.* (2017) claimed the opposite. As to social trust, its levels are higher if losses are not devastating (Akbar and Aldrich, 2017), if distribution of help is prompt and fair (Eadie and Su, 2018; Akbar and Aldrich, 2017; Kang and Skidmore, 2018), and if the affected people, neighbours and responders interact (Kang and Skidmore, 2018). Low social capital, however, has a long-term negative impact on social trust in general (Dussaillant and Guzman, 2014).

Research on trust in information sources and in the communication activities of authorities and the media suggest that trust is crucial for the endorsement of various information sources by the public, and increases the disaster preparedness of citizens (Kirschenbaum *et al.*, 2017). Rosenthal *et al.* (2001) emphasised the functional importance of an adequate communication process during a disaster. The emerging role of social media in disaster communications is also seen as key (White and Fu, 2012; Williams, 2018).

Three main types of trust have been defined and examined by researchers, namely, political, institutional and social trust. In some cases, social trust is understood as a general term encompassing all social institutions and organisations while in other cases it pertains to trust among individuals, groups and organisations within society. Political trust is meant either as trust in government and its institutions or as trust in political and professional (disaster response) institutions. In some cases, trust in institutions is referred to as institutional trust, but in other cases it is an element of political trust or social trust (e.g. trust in political or social institutions). Theoretically and practically, the various types of trust overlap and complement each other. This paper explores trust in government (political trust), trust in disaster response structures (institutional trust), trust in NGOs (social trust) and trust in formal and informal information sources (institutional/social trust).

Trust in disaster response actors in Slovenia

Hypotheses

On the basis of the above introduced theoretical assumptions and empirical evidence on trust in institutions related to their performance and on trust in information sources pertaining to communication during disasters, the following hypotheses were developed:

- H1. Public trust in the government in Slovenia in everyday normal situations is relatively low; however, in times of a disaster, public trust in the government increases. Meanwhile, public trust in civilian disaster response institutions and NGOs is high. Performance is the key influencer of public trust in an actor.
- H2. The population has high trust in the military's assistance during disasters, and perceives disaster relief as a key mission of the armed forces.

H3. The population trusts that authorities and the media will adequately perform their communication tasks during disasters.

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In order to prove the hypotheses on trust in government, civilian disaster response institutions and the military, and their performance during disasters, as perceived and assessed by the public will be measured. Additionally, trust in authorities and media to provide timely and adequate information about the disaster will be measured through preferable sources of information about disaster and disaster management system, through trust in authorities' and media disaster communication, and through evaluation of media reporting in the case of a disaster.

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Data source and methodology

The data source is the 2015–2016 Slovenian Public Opinion Survey carried out by the Defence Research Centre in conjunction with the Public Opinion and Mass Communication Research Centre at the Faculty of Social Sciences, University of Ljubljana. The survey used face-to-face interviews (computer-assisted personal interviewing software) and a standardised instrument (questionnaire). In order to develop the questionnaire, the theoretical conceptualisation of trust was explored, and the empirical findings of political, institutional and social trust were studied. The survey research comprised a cross-sectional design in relation to which data were collected through structured interviews. The questionnaire consisted of a collection of questions (scaled items) that could be classified into a core section (with the dependent variables and indicators) and a set of independent (demographic) variables (gender, age, level of education, type of settlement, region of residence, employment status and income).

The gross survey sample involved 1,800 adult persons. The statistical characteristics of the sample matched the characteristics of Slovenian population. The survey was therefore representative of all persons aged 18 and over (no upper age limit) and a resident of private households in Slovenia, regardless of nationality, citizenship, language or legal status. A two-stage probability sampling design with stratification at the first stage was applied. The first stage involved a probability proportional to size selection of 150 small areas (statistical areas), where the size measurement was the number of adult persons in the Central Population Register. The second stage involved the simple random sampling of 12 persons from each of the 150 primary sampling units. A wider selection was carried out by the Statistical Office of the Republic of Slovenia. The response rate according to the sampling framework was 57 per cent. The completion rate calculated on the basis of the ratio between the surveys conducted and the number of eligible contacts reached 68 per cent. A total of 1,024 respondents participated in the survey. The field research was carried out from November 2015 to February 2016. The data were analysed using SPSS 19. Descriptive statistics and basic bivariate analyses (crosstabs, ANOVA) were performed.

Results

Evaluation of disaster response actors

To complement the empirical evidence summarised in the previous chapter, we first introduce data on the performance of disaster response actors during recent disasters in Slovenia[1]. The responses of the disaster management system to the three most recent severe disasters that occurred in the country were graded by the public as follows: floods (52 per cent of the answers “successful” and “very successful”), ice storm (45 per cent) and drought (28 per cent). The cross-tabulations with independent variables (SPO, 2015–2016) showed that in the region where the consequences of the recent disasters were the worst (Primorsko-notranjska), the majority of the population evaluated the performance of disaster management system as rather successful.

Answers to the question, “how successful were the following actors in dealing with recent disasters consequences?” offered the following results: 97 per cent of respondents replied that firemen were “successful” or “very successful”; 89 per cent of respondents replied that civil protection was “successful” or “very successful”; 80 per cent of respondents replied that humanitarian organisations were “successful” or “very successful”; 79 per cent of respondents replied that volunteer associations were “successful” or “very successful”; 79 per cent of respondents replied that the military was “successful” or “very successful”; 72 per cent of respondents replied that the police were “successful” or “very successful”; and 14 per cent of respondents replied that the government was “successful” or “very successful”.

When it comes to the performance of individual actors, the older population is less critical of the government and non-governmental organisations than the younger population. Gender, level of education, and income did not yield any statistically significant differences (Table I).

Although the overall success of government is rated as low, it is interesting to note that the inhabitants of the recently most-affected region (Primorsko-notranjska) are slightly less critical of the government compared to inhabitants of other regions. Concurrently, the

	Government	Military	Police	Civil protection	Firemen	Humanitarian org.	Volunteer assoc.
Gender	Sig.: 0.370	Sig.: 0.057	Sig.: 0.124	Sig.: 0.108	Sig.: 0.140	Sig.: 0.036	Sig.: 0.003
Male	2.67	3.89	3.82	4.25	4.74	4.07	4.10
SD	0.832	0.685	0.690	0.609	0.471	0.745	0.714
Female	2.62	3.97	3.88	4.31	4.69	4.17	4.23
SD	0.877	0.644	0.648	0.645	0.528	0.719	0.697
Age	Sig.: 0.008	Sig.: 0.651	Sig.: 0.001	Sig.: 0.000	Sig.: 0.195	Sig.: 0.000	Sig.: 0.000
18–30	2.66	3.91	3.74	4.12	4.67	3.93	3.93
SD	0.765	0.679	0.678	0.635	0.495	0.774	0.715
31–45	2.54	3.93	3.83	4.25	4.69	4.07	4.20
SD	0.837	0.704	0.695	0.647	0.502	0.712	0.737
46–60	2.56	3.91	3.80	4.30	4.71	4.14	4.21
SD	0.844	0.678	0.652	0.613	0.492	0.730	0.654
61 +	2.77	3.97	3.97	4.37	4.76	4.23	4.24
SD	0.910	0.620	0.647	0.611	0.513	0.703	0.708
Education	Sig.: 0.44	Sig.: 0.505	Sig.: 0.066	Sig.: 0.015	Sig.: 0.059	Sig.: 0.056	Sig.: 0.055
Primary	2.76	4.00	3.98	4.24	4.64	4.19	4.17
SD	0.957	0.631	0.640	0.671	0.595	0.720	0.702
Vocational	2.51	3.90	3.83	4.37	4.78	4.20	4.28
SD	0.865	0.699	0.685	0.539	0.416	0.670	0.673
Secondary	2.68	3.91	3.84	4.32	4.71	4.10	4.16
SD	0.823	0.692	0.696	0.649	0.521	0.774	0.739
Higher edu.	2.64	3.93	3.85	4.28	4.71	4.12	4.17
SD	0.808	0.632	0.639	0.636	0.470	0.726	0.702
Monthly income per person	Sig.: 0.548	Sig.: 0.929	Sig.: 0.554	Sig.: 0.202	Sig.: 0.207	Sig.: 0.591	Sig.: 0.492
Up to €500	2.57	3.93	3.84	4.23	4.67	4.09	4.12
SD	0.869	0.632	0.678	0.640	0.528	0.760	0.685
€501–750	2.63	3.97	3.90	4.29	4.78	4.19	4.20
SD	0.924	0.645	0.589	0.606	0.452	0.689	0.687
€751–1,000	2.64	3.93	3.89	4.35	4.73	4.11	4.21
SD	0.811	0.702	0.697	0.594	0.469	0.699	0.661
€1,001 +	2.70	3.94	3.81	4.32	4.74	4.12	4.13
SD	0.826	0.664	0.736	0.575	0.457	0.775	0.802

Table I.
Performance of
individual actors by
demographic groups

Note: Average 1–5, 1 – not at all successful ... 5 – very successful
Source: Defence Research Centre and Public Opinion and Mass Communication Research Centre

inhabitants of the same region grade, on average, the responses of other disaster response actors slightly higher than the inhabitants of other regions (Table II).

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Trust in the military as a disaster response actor

In Slovenia, public trust in the military as a disaster response actor is high, with 97 per cent of the public regarding the provision of assistance during disasters as the armed forces' most important task (SPO, 2015–2016). The population of the Primorsko-notranjska region agrees most strongly with this (SPO, 2015–2016). At the same time, the public's performance ratings received by the military were high, especially in the recently most-affected region of Primorsko-notranjska (Table II). The majority of the public (53 per cent) believes that the military should be allowed to decide on its own whether to offer help to the affected population, without waiting for civilian authorities to officially activate military assistance[6].

Trust in authorities and the media to warn and inform the public about disasters in a timely and adequate manner

Public trust in political authorities in Slovenia in normal circumstances is relatively low. In response to the question "how much do you trust the following social institutions on a scale of 1–10?", the parliament was rated 2.9, the president of the republic rated 4.5, and the

	Government	Military	Police	Civil protection	Firemen	Humanitarian org.	Volunteer assoc.
Region	Sig.: 0.003	Sig.: 0.520	Sig.: 0.364	Sig.: 0.000	Sig.: 0.002	Sig.: 0.001	Sig.: 0.000
Pomurska	2.68	3.89	3.78	4.26	4.56	4.13	4.09
SD	0.802	0.815	0.750	0.645	0.522	0.627	0.663
Podravska	2.74	4.03	3.84	4.30	4.70	4.11	4.12
SD	0.866	0.586	0.735	0.592	0.461	0.718	0.705
Koroška	2.62	3.82	3.84	4.23	4.75	4.15	4.06
SD	0.758	0.675	0.553	0.667	0.439	0.709	0.826
Savinjska	2.49	3.93	3.81	4.25	4.72	4.04	4.09
SD	0.918	0.731	0.699	0.692	0.495	0.812	0.712
Gorenjska	2.70	3.99	4.02	4.54	4.90	4.46	4.51
SD	0.979	0.584	0.570	0.526	0.297	0.762	0.636
Zasavska	2.43	3.90	3.86	4.21	4.66	4.04	4.23
SD	0.879	0.724	0.743	0.568	0.484	0.649	0.514
Osrednje- slovenska	2.76	3.92	3.86	4.16	4.73	4.12	4.15
SD	0.793	0.634	0.647	0.564	0.510	0.694	0.664
Posavska	2.43	2.43	3.88	4.58	4.82	4.20	4.44
SD	0.773	0.570	0.526	0.642	0.388	0.756	0.644
Jugo-zhodna	2.34	3.81	3.71	4.18	4.64	3.91	4.00
SD	0.795	0.876	0.762	0.759	0.715	0.762	0.847
Goriška	2.74	3.98	3.89	4.25	4.59	3.95	4.08
SD	0.738	0.522	0.623	0.606	0.497	0.699	0.657
Obalno-kraška	2.80	3.98	3.91	4.29	4.71	4.17	4.22
SD	0.978	0.526	0.590	0.506	0.459	0.595	0.728
Primorsko- notranjska	2.83	4.09	3.96	4.57	4.83	4.26	4.35
SD	0.778	0.515	0.562	0.590	0.388	0.864	0.647

Note: Average 1–5, 1 – not at all successful ... 5 – very successful

Source: Defence Research Centre and Public Opinion and Mass Communication Research Centre

Table II.
Performance of
individual actors
by regions

government rated 3.6. This is significantly lower than the levels of trust in the military (6), the police (6), humanitarian organisations (5.4) and media (4.4) (SPO, 2015–16).

Trust in the Slovenian authorities to notify the population of the danger of a disaster is relatively high (63 per cent expressed trust or full trust); a quarter of the population is indecisive (neither trust nor distrust); and those who do not trust the authorities do not exceed 9 per cent of the surveyed population[2]. It is therefore interesting to note that the level of trust in authorities in the event of a disaster is higher than it is in a non-disaster situation. Trust that the authorities will notify the population about the dangers and comprehensively inform them of the disaster is slightly higher among men than among women, and increases moderately with age. Conversely, income and education did not have any significant impact on trust levels. The data are presented in Table III.

The most significant sources of information on disasters and disaster management systems are television (86 per cent), radio (64 per cent), internet websites and blogs (49 per cent), newspapers (41 per cent), and social media networks such as Facebook and Twitter (14 per cent)[3]. Public trust in traditional media reports on disasters mirrors the public's trust in authorities: 65 per cent of those either trust or fully trust the media; 25 per cent are indecisive; and 7 per cent express distrust[4]. In contrast, the majority of the

	Government	Media
Gender	Sig.: 0.258	Sig.: 0.895
Male	2.33	2.33
SD	0.786	0.771
Female	2.39	2.34
SD	0.868	0.736
Age	Sig.: 0.057	Sig.: 0.000
18–30	2.50	2.65
SD	0.794	0.847
31–45	2.36	2.42
SD	0.852	0.783
46–60	2.30	2.23
SD	0.770	0.667
61 +	2.32	2.20
SD	0.877	0.688
Education	Sig.: 0.151	Sig.: 0.026
Primary	2.28	2.25
SD	0.892	0.710
Vocational	2.42	2.28
SD	0.798	0.692
Secondary	2.41	2.43
SD	0.838	0.835
High	2.30	2.33
SD	0.805	0.713
Monthly income per person	Sig.: 0.630	Sig.: 0.148
Up to €500	2.40	2.37
SD	0.872	0.796
€501–750	2.35	2.22
SD	0.830	0.670
€751–1,000	2.31	2.35
SD	0.795	0.751
€1,001 +	2.32	2.31
SD	0.745	0.804

Table III.
Trust in the
authorities to inform
the public of disasters

Note: Average 1–5, 1 – fully trust ... 5 – fully distrust

Source: Defence Research Centre and Public Opinion and Mass Communication Research Centre

population believes that the media's reporting on disasters is sensationalist (67 per cent of answers "agree" or "fully agree" with this statement). The public is satisfied with the timely reporting of the media on disasters (69 per cent), but are less satisfied with media objectivity (41 per cent), the comprehensiveness of reporting (39 per cent), and the extent of coordination between the authorities and the media in disaster communication (38 per cent)[5]. The data reveals that trust in the media significantly increases with age and among inhabitants of urban areas. The younger population is evidently more critical of the objectivity, comprehensiveness, and timeliness of media reporting during disasters. This critical attitude towards the media increases with the participants' level of education. Income has little statistical significance on the results. The data are presented in Table III. As seen, similar to the public trust in authorities, public trust in traditional media in the event of a disaster is higher than in normal communication situations.

Discussion

Previous empirical analyses have made contradicting findings as far as trust in government and other institutions is concerned. Some researchers reported that the level of trust in institutions after a disaster decreased (Liang, 2016; Thoresen *et al.*, 2018), whereas Schupp *et al.* (2017) claimed the opposite. Additionally, Slovic (1997) warned that re-establishment of trust is extremely difficult. The survey results in Slovenia are somewhat peculiar and idiosyncratic. Under normal circumstances, public trust in political authorities, especially in the parliament and government, is low. However, the trust is slightly higher after a disaster, especially in the recently most-affected region of Slovenia. Therefore, there is a positive correlation between the public's perception of the government's performance during a disaster and the level of public trust in the government. Trust in the government to inform the public in a timely and comprehensive manner about the disaster is also relatively high, meaning that the public expects politicians to perform responsibly in challenging times. Other institutions that are responsible for disaster response are highly trusted. Chief among these are firemen and civil protection structures, closely followed by humanitarian and other volunteer organisations. Firemen and civil protection originate from local communities where the social capital is rather developed. They are key actors of social and functional dynamics during disaster, especially firemen who have excellent image, and their response to disaster is often prompt and effective. It can be said that, while Slovenian society is a "post-trust society", low levels of trust can be increased in the context of a disaster. As we can see, the population in the recently most-affected region gave high performance ratings to the disaster management system as a whole and to individual actors, and consequently attributed high levels of trust to them. The data clearly showed that the performance of individual actors and the disaster management system as a whole is a key indicator of public trust. This confirms *H1*.

Trust in the military as a disaster response actor has proved to be somewhat controversial (Malešič, 2015). Generally speaking, some stakeholders in disaster management fear a militarisation of the disaster response. Some emphasise that military assistance is required due to the skills, equipment and resources that the military can provide. Many members of the military perceive disaster response as an opportunity to improve the military's public image and legitimacy, although some worry that disaster response engagement might impede the effectiveness of their other duties (e.g. combat missions, fighting terrorism, peace operations). Civilian disaster management structures compete with military structures (disaster as opportunity) and are often reluctant to call for military assistance in the early stages of a disaster. Civilian disaster management structures also fear that their culture and values may become contaminated if they were to collaborate frequently with the military.

Nevertheless, the Slovenian public appears convinced that offering assistance to the affected population during a disaster is the military's primary mission (SPO, 2015–2016). This attitude is most probably a consequence of the changed perception of threats, the military's positive tradition in the field, and the fact that the Slovenian Armed Forces (SAF) is an all-volunteer force that has disaster response as one of its legal duties (Act on Changes and Amendments of Defence Act, 2004). Trust in the SAF is relatively high before and during disasters, which confirms *H2*. In democratic countries, a strict procedure must be followed before engaging the military in domestic interventions. In Slovenia, military activation during disasters ought to come from the National Civil Protection Commander or his deputy when it is determined that the civilian structures are overwhelmed by the circumstances and military assistance is required. The decision to deploy the military is then made by the government or in urgent cases by the Ministry of Defence, and even by the Chief of General Staff if he is authorised by the Minister of Defence (Act on Changes and Amendments of Defence Act, 2004). Despite this procedure, the majority of the population believes that during a disaster the military should intervene on its own without a call from civilian authorities, which contradicts an important democratic principle.

Trust in the communication activities of authorities and the media during disasters has been explored in recent empirical analyses (Cvetkovich and Löfstedt, 1999). Rosenthal *et al.* (2001) exposed the functional importance of an adequate communication process during a disaster. Communication is one of the critical activities of the Slovenian disaster response[7]. Poor communication contributes to the erosion of public trust in politics, professional institutions, and the media. The data presented in this paper suggests that the majority of the population believes that authorities and the media will adequately perform their communication tasks during disasters, which confirms *H3*. On the basis of the previous findings that the credibility of a source predicts how people respond to warning messages (White and Fu, 2012; Mileti, 1999; Kirschenbaum *et al.*, 2017), we can expect the Slovenian public to respond actively to warning messages issued by authorities and the media.

The emerging role of social media as a source of information in disaster communication is also a key (White and Fu, 2012; Williams, 2018), although in Slovenia the most trusted sources of information remain television and radio. Perhaps previous research on disaster communications placed too much emphasis on traditional top-down communication, whereas new media stimulates the bottom-up approach, allowing the inhabitants of affected regions to gather and disseminate key information in real time. This means that social trust, a concept broader than political or institutional trust, will become increasingly important in disaster communication.

Conclusion

A number of researchers have examined the level of public trust in politics, institutions, the media and experts in the context of disasters. The present research contributes to this body of literature by examining the Slovenian public's trust in government, civilian disaster response institutions, the military, NGOs and the media, based on their performance during disasters. The key findings about the level of public trust in these disaster response actors are as follows:

- although in normal circumstances trust in government performance is low, it becomes slightly higher during disasters if performance is adequate;
- civilian disaster response institutions (especially firemen and civil protection) and NGOs (humanitarian and other volunteer organisations) are highly trusted before and during a disaster;
- disaster response is seen as a key task of the SAF, and trust in their performance is high;
- trust in authorities and the media to inform the public in a timely and comprehensive manner about disasters is also relatively high; and

- the most trusted sources of disaster information are traditional media, especially television and radio.

The concept
of trust
in disasters

Data analysis of the Slovenian public's opinion reveals that public trust in the disaster management system as a whole and in the majority of its actors is not at all an obstacle to the system performing adequately. On the contrary, given that the population of the recently most-affected region expresses the highest level of trust in the system, and given that trust in political institutions and the media in times of disasters is generally higher than in everyday situations, it is possible to believe this represents a solid basis for achieving good practical results in the domain of disaster response in the future. However, trust is merely a necessary condition for successful disaster management, but is by no means a sufficient one.

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Notes

1. Q: How would you evaluate the Slovenian disaster protection and relief system during the following recent events? Events: floods of 2012, drought of 2013, and ice storm of 2014. Possible answers: 1 – not successful at all, 2 – not successful, 3 – neither successful nor unsuccessful, 4 – successful, 5 – very successful and 6 – do not know.
2. Q: How much do you trust that Slovenian authorities will warn you about a danger and fully inform you about a disaster? Possible answers: 1 – fully trust, 2 – trust, 3 – neither trust nor distrust, 4 – do not trust, 5 – do not trust at all and 6 – do not know.
3. Q: Where do you primarily receive information from about natural hazards and Civil Protection and Disaster Relief system? Possible answers: 1 – internet (websites, blogs), 2 – social media networks (Facebook, Twitter), 3 – books, brochures and leaflets, 4 – newspapers, 5 – radio, 6 – TV, 7 – information campaigns, 8 – other, 9 – from nowhere, do not want information and 10 – do not know.
4. Q: How much do you trust in media reporting (TV, radio, newspapers, etc.) on natural and other hazards? Possible answers: 1 – fully trust, 2 – trust, 3 – neither trust nor distrust, 4 – do not trust, 5 – do not trust at all and 6 – do not know.
5. Q: To what extent do you agree with the following statements about media reporting (TV, radio, newspapers, etc.) on natural and other hazards? Statements: 1 – the media reports objectively, 2 – the media reports comprehensively, 3 – the media reports timely, 4 – the media reports in a sensationalistic way, and 5 – the media reports in coordination with authorities in the field of disaster relief. Possible answers: 1 – I do not agree at all, 2 – I do not agree, 3 – I neither agree nor disagree, 4 – I agree, 5 – I fully agree and 6 – do not know.
6. Q: The military in the case of a disaster should ... Possible answers: 1 – promptly and independently offer help, 2 – wait for civilian authorisation, 3 – stand aside and let civil protection to do the rescuing and 4 – do not know.
7. In Slovenia, mass media is obliged by the law (Mass Media Act and Civil Protection and Disaster Relief Act) to convey messages issued by authorities to the public instantly, entirely and without comments.

References

- Act on Changes and Amendments of Defence Act (2004), "Zakon o spremembah in dopolnitvah Zakona o obrambi", Uradni list RS, 40/04.
- Akbar, M.S. and Aldrich, D.P. (2017), "Determinants of post-flood social and institutional trust among disaster victims", *Journal of Contingencies and Crisis Management*, Vol. 25 No. 4, pp. 279-288.
- Almond, G.A. and Verba, S. (1965), *The Civic Culture: Political Attitudes and Democracy in Five Nations. An Analytic Study*, Little, Brown and Company, Boston, MA and Toronto.

- Cvetkovich, G. and Löfstedt, R.E. (Eds) (1999), *Social Trust and the Management of Risk*, Earthscan, London.
- Dussailant, F. and Guzman, E. (2014), "Trust via disasters: the case of Chile's 2010 earthquake", *Disasters*, Vol. 38 No. 4, pp. 808-832.
- Eadie, P. and Su, Y. (2018), "Post-disaster social capital: trust, equity, Bayanihan and Typhoon Yolanda", *Disaster Prevention & Management*, Vol. 27 No. 3, pp. 334-345.
- Hardin, R. (1999), "Do we want trust in government?", in Warren, M.E. (Ed.), *Democracy and Trust*, Cambridge University Press, Cambridge, pp. 22-42.
- Hetherington, M.J. and Husser, J.A. (2012), "How trust matters: the changing political relevance of political trust", *American Journal of Political Science*, Vol. 56 No. 2, pp. 312-325.
- Inglehart, R. (1990), *Culture Shift in Advanced Industrial Society*, Princeton University Press, Princeton, NJ.
- Kang, S. and Skidmore, M. (2018), "The effects of natural disasters on social trust: evidence from South Korea", *Sustainability*, Vol. 10 No. 9, pp. 1-16.
- Kervyn, N., Chan, E., Malone, C., Korpusik, A. and Ybarra, O. (2014), "Not all disasters are equal in the public's eye: the negativity effect of warmth and brand perception", *Social Cognition*, Vol. 32 No. 3, pp. 256-275.
- Kestilä-Kekkonen, E. and Söderlund, P. (2016), "Political trust, individual-level characteristics and institutional performance: evidence from Finland 2004–2013", available at: <https://ecpr.eu/filestore/paperproposal/4d5b3066-98fe-4421-b818-06e0cb58d73c.pdf> (accessed 20 March 2019).
- Kirschenbaum, A., Rapaport, C. and Canetti, D. (2017), "The impact of information sources on earthquake preparedness", *International Journal of Disaster Risk Reduction*, Vol. 21 March, pp. 99-109.
- Kitfield, J. (2005), "Poor communications slowed military's hurricane response", *Government Executive Magazine*, September 19, available at: <https://www.govexec.com/defense/2005/09/poor-communications-slowed-militarys-hurricane-response/20145/> (accessed 8 June 2019).
- Liang, Y. (2016), "Trust in Chinese Government and Quality of Life (QOL) of Sichuan Earthquake Survivors: does trust in government help to promote QOL?", *Social Indicators Research*, Vol. 127 No. 2, pp. 541-564.
- Löfstedt, R.E. (2005), *Risk Management in Post-Trust Societies*, Palgrave Macmillan, Houndmills and New York, NY.
- Malešič, M. (2015), "The impact of military engagement in disaster management on civil-military relations", *Current Sociology*, Vol. 63 No. 7, pp. 980-998.
- Malešič, M., Hrvatinić, S.B. and Polič, M. (2006), *Komuniciranje v krizi (Crisis Communication)*, Založba FDV, Ljubljana.
- Mileti, D. (1999), *Disasters by Design: A Reassessment of Natural Hazards in the United States*, Joseph Henry Press, Washington, DC.
- Mishler, W. and Rose, R. (2001), "What are the origins of political trust?: Testing institutional and cultural theories in post-communist societies", *Comparative Political Studies*, Vol. 34 No. 1, pp. 30-62.
- Putnam, R.D. (2001), *Bowling Alone: The Collapse and Revival of American Community*, Simon and Schuster, New York, NY.
- Rosenthal, U., Boin, A.R. and Comfort, L.K. (Eds) (2001), *Managing Crises. Threats, Dilemmas, Opportunities*, Charles C Thomas, Springfield, IL.
- Schupp, R., Loveridge, S., Skidmore, M., Lim, J. and Rogers, C. (2017), "Trust and Patience after Tornado", *Weather, Climate & Society*, Vol. 9 No. 4, pp. 659-668.
- Scott, S.L., Westgate, P.M. and McSpirit, S. (2016), "The long-term effects of a coal waste disaster on social trust in eastern Kentucky updated", *Journal of Appalachian Studies*, Vol. 22 No. 2, pp. 261-274.

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- Slovic, P. (1997), "Trust, emotion, sex, politics, and science", in Bazerman, M.H., Messick, D.M., Tenbrunsel, A.E. and Wade-Benzoni, K.A. (Eds), *Environment, Ethics, and Behavior*, The New Lexington Press, San Francisco, CA, pp. 277-313.
- SPO (2015–2016), *Faculty of Social Sciences*, Slovenian Public Opinion, Ljubljana.
- Thoresen, S., Birkeland, M.S., Wenzel-Larsen, T. and Blix, I. (2018), "Loss of trust may never heal. Institutional trust in disaster victims in a long-term perspective: associations with social support and mental health", *Frontiers in Psychology*, Vol. 9, July, pp. 1-10.
- Warren, M.E. (1999), "Democratic theory and trust", in Warren, M.E. (Ed.), *Democracy and Trust*, Cambridge University Press, Cambridge, pp. 310-345.
- White, J.D. and Fu, K.W. (2012), "Who Do You Trust? Comparing people-centred communications in disaster situations in the United States and China", *Journal of Comparative Policy Analysis*, Vol. 14 No. 2, pp. 126-142.
- Williams, B.D., Valero, J.N. and Kim, K. (2018), "Social media, trust and disaster: does trust in public and non-profit organisations explain social media use during a disaster?", *Quality and Quantity*, Vol. 52 No. 2, pp. 537-550.
- Yang, K. and Holzer, M. (2006), "The performance-trust link: implications for performance measurement", *Public Administration Review*, Vol. 66 No. 1, pp. 114-126.

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