



Maham Fatima

**Exploring the Impact of Government's Social Media on the Citizens' Trust in the  
Government in times of Crisis:  
A case evidence from North-Rhine Westphalia**

**Master Thesis**

at the Chair for Information Systems and Information Management  
(Westfälische Wilhelms-Universität, Münster)

Supervisor: Dr. Bettina Distel

Presented by: Maham Fatima  
Schlossplatz 2  
48149 Münster  
+49 251 8338100  
f\_maha01@uni-muenster.de

Date of Submission: 2020-08-10

**Abstract**

User perspective has been widely ignored by previous studies that explored social media and trust in government linkage. The gap even widens when literature on crisis communication, social media and trust is studied together. The recent crisis of COVID-19 has forced governments to use social media as one of the information dissemination mediums. This provided the opportunity to study how from an audience-oriented perspective government's social media is perceived and how the perceptions are associated with trust in the government. North-Rhine Westphalia (NRW), a German Federal state being impacted severely by the COVID-19 crisis, provides a perfect case example to conduct research on the matter. Relying on the purposive sampling, the study took a qualitative approach to explore research questions with the help of semi-structured interviews. Citizens residing in Münster, Köln, Aachen and Dusseldorf who follow the state government either on Facebook or Twitter were part of this study. By transcribing the interviews, an inductive content analysis was performed to determine how citizens perceive the state government's social media in times of COVID-19 crisis. Moreover, the study also found interesting factors that are associated with citizens' trust in the government of NRW. The results produced by this study are not only academically substantial, but they also provide practical implications for the government of NRW. A suggestive detailed section is presented in the study, which can play an integral role when applied in the context of the government's social media. Nevertheless, the study has some limitations that it accounts for and presents relevant future research directions to overcome them.

**Keywords:** *Social Media, Government, Crisis Communication, Trust, COVID-19*

**Acknowledgement**

When I started the PIONEER journey two years ago, I was excited but was not sure of the challenges that I had to take. The two years have been a roller coaster ride for me personally as well as academically. The programme made me understand the worth of working together, having each other's back and supporting and cherishing achievements. I am thankful to all the PIONEER family, my classmates, the professors and teachers from Leuven, Münster and Tallinn for their immense support to finally reach this stage.

I would like to express my special appreciation and gratitude for my supervisor Dr. Bettina Distel who guided me with valuable feedback and helped me with all my queries. Her encouragement at all the steps to produce this research made me more confidence.

Lastly, I would like to say thank you to my parents; their support has been a strength for me. I would not have been here without the sacrifices and the prayers of my parents.

**Content**

Figures .....	V
Tables .....	VI
Abbreviations .....	VII
1 Background of the Study .....	1
1.1 Research Question .....	4
1.2 Research Terminologies .....	4
1.3 Structure of the work .....	5
2 Literature Review and Theoretical Foundations .....	7
2.1 e-Government .....	9
2.1.1 Benefits of e-Government: Government and Citizens Perspective .....	10
2.1.2 Challenges of e-Government .....	11
2.1.3 Web 2.0 and Government 2.0 .....	12
2.1.4 Social Media and Government.....	14
2.2 Defining Risk and Crisis .....	15
2.3 Risk Communication and Crisis Communication .....	16
2.3.1 Crisis Communication and Social Media.....	18
2.3.2 Crisis Communication and Audience Oriented Perspective .....	19
2.3.2.1 Audience Oriented Crisis Communication Theories .....	20
2.4 Defining Trust .....	23
2.4.1 e-Government and Citizens Trust .....	24
2.4.2 Social Media and Trust in Government .....	26
2.5 Limitations of the Literature Review .....	28
2.6 Chapter Summary .....	29
3 Overview of the case .....	30
3.1 General Information on COVID-19 .....	30
3.2 Information on North-Rhine Westphalia.....	30
3.3 Justification for selecting NRW as Study Case.....	31
4 Research Methodology .....	33
4.1 Research Paradigm/Philosophy .....	33
4.2 Research Approach.....	33
4.3 Research Strategy .....	34
4.4 Research Choices.....	35
4.5 Time Horizons .....	35
4.6 Techniques and Procedures .....	35
4.6.1 Primary Data Collection.....	36
4.6.1.1 Sampling Methodology .....	36
4.6.1.2 The interview Setting .....	37
4.6.2 Instrument Development.....	37
4.6.3 Data Analysis Technique and Software .....	38
4.7 Ethical Considerations.....	39
4.8 Chapter Summary .....	40
5 Findings and Analysis .....	41
5.1 Demographic Profile of Respondents.....	42

## IV

5.2	Word Cloud: Frequent Words used by Cases.....	43
5.3	Factors Associated with Governmental Social Media.....	44
5.3.1	Usefulness of Information.....	44
5.3.2	Reliability of Information .....	45
5.3.3	Responsiveness .....	48
5.3.4	Feedback .....	49
5.3.5	Inclusivity.....	51
5.3.6	Frequency of Information .....	53
5.3.7	Unfulfilled Expectations .....	54
5.3.8	Citizens Engagement.....	55
5.4	Factors determining Citizens Confidence in Government .....	56
5.4.1	Honest Crisis Representation .....	57
5.4.2	Concern for Citizens .....	58
5.4.3	Information Openness .....	60
5.4.4	Feedback to Query .....	60
5.4.5	Embedded Confidence in Institutions .....	61
5.4.6	Timeliness of Information.....	63
5.4.7	Relatable Information .....	65
5.4.8	Ability of Government.....	66
5.5	Summary of Chapter.....	67
6	Discussion.....	72
7	Research Implications.....	79
7.1	Practical Implications .....	79
7.2	Theocratical Implications .....	80
8	Conclusion.....	82
8.1	Limitations and Future Direction .....	82
8.2	Final Remarks.....	83
9	References .....	85
	Appendix .....	97
	A Code book based on Nvivo Nodes.....	97
	B Inductive Category Development Steps.....	99
	C Interview Guide .....	101
	D Transcripts .....	104

**Figures**

Figure 1 Study Positioning .....	3
Figure 2 Steps involved in Hermeneutic Approach .....	7
Figure 3 COVID-19 cases Growth in NRW .....	32
Figure 4 Inductive Content Analysis Approach .....	39
Figure 5 Representation of Themes Extracted .....	41
Figure 6 Study Respondents by Gender and Occupation.....	42
Figure 7 Study Respondents by Age .....	42
Figure 8 Study Respondents by Social Media Following .....	43
Figure 9 Word Cloud: Highest Frequency .....	43
Figure 10 Factors Associated with Trust in Government .....	81

**Tables**

Table 1 Example of Literature Extraction .....	8
Table 2 Web 2.0 tools use in Germany .....	13
Table 3 Trust Dimensions Across Disciplines .....	24
Table 4 Summary of e-Government and Trust Research .....	25
Table 5 Summary of Research Methodology .....	40
Table 6 Summary of Key Research Findings.....	68

**Abbreviations**

AI	Artificial Intelligence
ASta	Allgemeiner Studierendenausschuss der Universität Münster
CAGR	Compound Annual Growth Rate
COVID-19	Coronavirus Disease 2019
e-	Electronic
EC	European Commission
EU	European Union
ICM	Integrated Crisis Mapping
ICT	Information and Communication Technology
IOTs	Internet of Things
IS	Information Systems
NCC	Networked Crisis Communication
NRW	North-Rhine Westphalia
OECD	Organization for Economic Cooperation and Development
RKI	Robert Koch Institute
SMCC	Social-Mediated Crisis Communication
WHO	World Health Organization



## **1 Background of the Study**

The rapid information and technology (ICT) evolution has provided the government with the opportunity to leverage it for its communication with the citizens. Social media, one of the Web 2.0 technologies, created a distinct effect on how governmental information can be communicated to the citizens (Porumbescu 2016). Social media offers the government a platform for dialogue with citizens (Hofmann 2014) by providing a two-way interaction (Bonsón et al. 2019; Born et al. 2019; Hong 2013). Because of its increased importance, social media such as YouTube, Twitter and Facebook are widely used by public agencies to spread information to a wider set of stakeholders (Cameron and Shin 2014; Porumbescu 2016). A key motivation for the public sector to use social media for information dissemination is the fast access and wide information distribution that can result in citizens' participative behaviour (Born et al. 2019) along with trust in their government (Bannister and Connolly 2011). Hofmann et al. (2013) found that Facebook is widely used social media medium by the government agencies in Germany. A very recent study by Born et al. (2019) identified that 48% of governmental authorities in Germany use at least one social media (either Facebook or Twitter) to connect with the citizens. More specifically, in the state of North-Rhine Westphalia, the same study identified that though governmental authorities use several social media channels including; YouTube, Facebook and Twitter, where Facebook has the most dominant presence (Born et al. 2019). Despite the significant contributions made by the previous literature on government social media and trust in government linkage (Hong 2013; Kim et al. 2015; Song and Lee 2016; Park et al. 2015), there still lacks a substantive gap regarding how the citizens perceive social media use of their government (Gintova 2019).

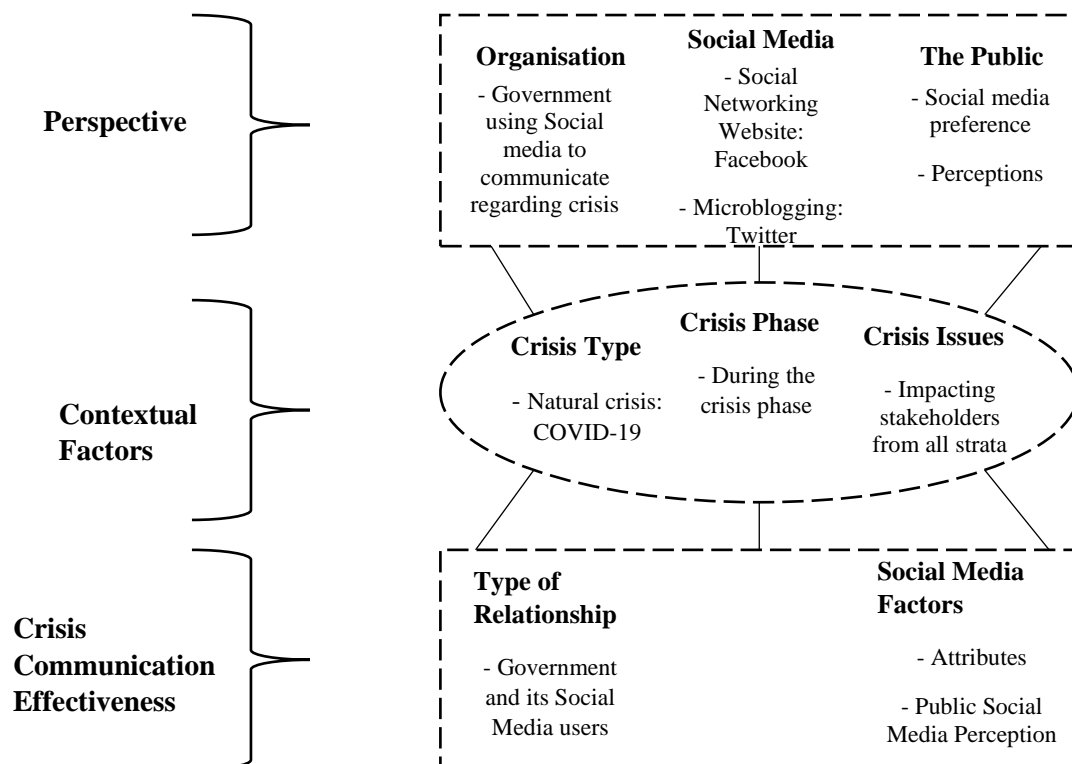
In addition to previously mentioned benefits, social media is not only an effective tool for government's regular communication, but it is also an evolutionary stimulus responsible for increasing link between citizens and government in crisis communication (Cheng 2018). Crisis which goes beyond the normal course of action, cannot be controlled beforehand and impacts different individuals, organizations and societies relatively (Drennan et al. 2015). A crisis can hit anytime, government at any part of the world needs to stay vigilant to communicate with the stakeholders who are impacted by the crisis (Fearn-Banks 2016). One critical role of crisis communication is managing the perceptions of citizens regarding government in case of unforeseen events (Reynolds and

Seeger 2005) and social media is a useful tool to handle them (Austin et al. 2012). The reason why social media is considered as an emerging technology for improving crisis communication is that it has the inherited property of enhanced information capacity, improved interactivity and dependability (Jaeger et al. 2007). In addition to this, social media offers easy access, availability and receiver's control to information in crisis communication which improves the effectiveness of the message (Ferrante 2010). Golbeck et al. (2010) identified social media allows governments to offer citizens critical information, better governmental services and a feedback channel to connect with the government removing many communication barriers of crisis communication (Graham et al. 2015).

Furthermore, Fearn-Banks (2016) is of the view that using social media for crisis communication "can build trust or they can destroy trust depending upon how they are used" (p. 77). From an audience-oriented approach, Jin et al. (2014) assessed that the public tends to use social media more in crisis for information reception as compared to traditional media. Moreover, social media is considered more credible by the public as compared to traditional media information. Several studies have focused on government social media and crisis communication (Cheng 2018; Graham et al. 2015) but questions have been raised regarding the social media user perspective (Gintova 2019) which the previous researches have ignored. Not only this, Fraustino and Liu (2017) mentioned that previous studies have primarily focused on using the artificial experimental environment for crisis communication studies and a real crisis based studies need the attention of academia. Recently, the world has been badly hit by a novel pneumonia-like disease known as Coronavirus Disease 2019 (COVID-19) that has impacted around 0.2 Million people in Germany (World Health Organization 2020b) with 23% cases alone reported in the state of NRW (Robert Koch Institute 2020b).

Figure 1 illustrates the positioning of this study that helped in finding gaps in the literature which needs specific attention. This research intends to contribute firstly towards the audience-oriented perspective regarding how the citizens perceive crisis communication via social media in order to contribute towards the growing body of knowledge (Gintova 2019). Moreover, as the focus of the study is NRW, the highly impacted German state with COVID-19, social media channels of Facebook and Twitter are selected as these mediums are significantly used by the government (Hofmann 2014) as well as the citizens (Eurostat 2019). Moreover, as mentioned, the study takes a citizens'

perspective in contrast to the previous studies, it emphasises on citizens perceptions in case of communication regarding COVID-19. The second area where the research aims to contribute is regarding conducting research during the actual crisis rather than using the artificial experimental environment (Fraustino and Liu 2017). Thirdly, the research tends to take an approach that focuses on the relationship between citizens and government, as recommended by Bonsón et al. (2019). Also, the focus of the study is not only on the surface social media factors like frequency and amount of posts but also how their factors are perceived by the citizens (Cheng 2018). Lastly, recently Lovari (2020), conducted a study to see how COVID-19 information sharing via social media of the Ministry of Health, Italy is effective for crisis communication. The same study also finds an implication on citizens trust in government. All these arguments lay the foundation to conduct this research and contributes towards the growing body of knowledge on social media, crisis communication and citizens trust in government.



Source: c.f. (Fraustino and Liu 2017, p. 15)

**Figure 1 Study Positioning**

## 1.1 Research Question

Based on the conclusive statements mentioned earlier, the research focuses on answering the research question concerning how the citizens perceive Facebook and Twitter channels of the government when used for crisis communication. Along with this, the study emphasizes on the association between citizens perceptions and their trust in the government. The main research question this study address is as:

*RQ: How the use of social media by the government is associated with citizens' trust in the government in times of crisis?*

To answer the main research question presented above in a comprehensive manner, this study relied on two sub-questions. The reason for addressing the research question via additional sub-questions is the exploratory nature of the study, which calls for an in-depth investigation. Moreover, in qualitative exploratory studies, researchers need to understand the context at a deeper level to provide answers to the research question (Babbie 2013). Although these questions do not have “crisis” term in them, they should be interpreted in association with the main question and are represented below:

- a. How do citizens perceive social media use by their government?*
- b. How is the perception of government's social media use associated with citizens' trust in their government?*

## 1.2 Research Terminologies

Since there are several terminologies used alternatively in this document that literature might define differently. This section provides clarification on how certain terms and expressions are used specific to the context of this study, and they should be understood in a similar manner throughout the document. These terms are:

**Social Media:** Social media is the umbrella term for interactive Web 2.0 technologies that include but is not limited to, social networking websites such as Facebook, multi-media sharing such as YouTube and microblogging such as Twitter. For the scope of this document, social media used anywhere refers to the official Facebook page of the state government of NRW (<https://www.facebook.com/NRW>) and official

Twitter handle of the government (<https://twitter.com/landnrw>). The justification for selecting only these channels can be read in the later chapters.

**Crisis:** The unforeseen event, which results in negative consequences for several stakeholders, impacts the government, public, organizations, businesses, and the citizens overall create hurdles for the whole system. The term crisis wherever it is used in this document refers to the natural crisis COVID-19. Similarly, crisis communication anywhere cited refers to government's interaction with the public/citizens via the above-mentioned social media channels only.

**Citizens:** This research alternatively uses public, people, stakeholders, citizens and audience without any distinction between them. All five terms hold the same meaning throughout all the sections of the study. They are the entities impacted significantly by the crisis, share a similar interest concerning crisis and impact the government's long-term progress. The citizens can be defined as businesses, the general public, private sector employees, government sector employees, students, freelancers and entrepreneurs. It should be interpreted carefully that this is not an exhaustive collective list, and several other entities might have stake categorizing them as citizens too.

**Trust:** Trust in the government in this study refers to whether or not the state government of NRW is performing in accordance with the expectations held by the public. These expectations include; government being honest, efficient, capable and responsive and open to the needs of citizens. A detailed review of the variable is presented in the literature section.

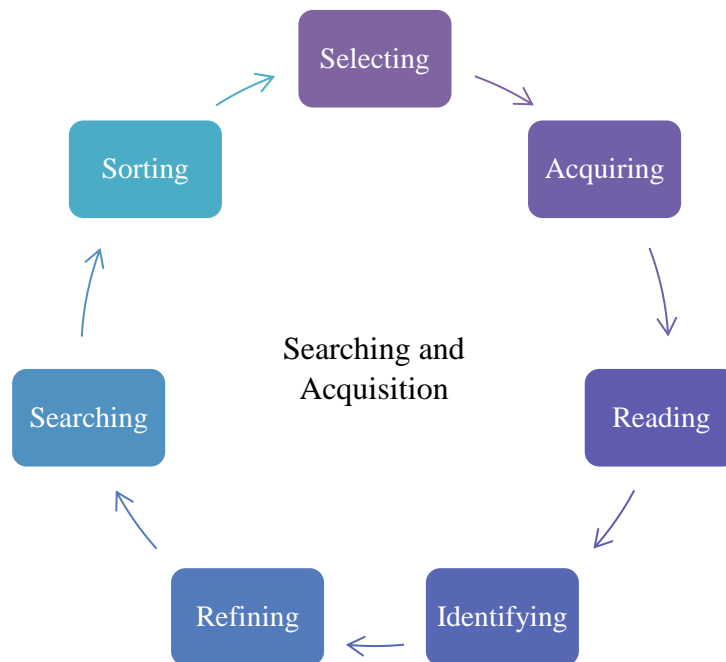
### 1.3 Structure of the work

This sub-section addresses the structure of this thesis to provide a comprehensive overview of the chapters. The next section of this thesis discusses the literature review approach taken for this study followed by the literature on electronic government (e-Government), social media and government, crisis communication, crisis communication theories and lastly, trust and social media and trust in government. The section also includes the gaps found in literature and a limitation of the taken literature review approach. Chapter 3 represents the overview of the study case, background information and justification for case selection. Section 4 of the study outlines the methodological approach deployed for this study and reasoning along the steps taken to conduct

qualitative research, data analysis approach and the ethical considerations. The next chapter delineates the findings and analysis of the study, along with the demographic data representation and provides an answer to the study research question. Chapter 6 presents a detailed discussion of the study findings for answering the research questions. The next section 7 discusses the theoretical and practical contributions this study offers, making it substantial for academia as well as the government. Lastly, chapter 8 provides a conclusive argument along with study limitations, future directions and final remarks.

## 2 Literature Review and Theoretical Foundations

In order to conduct the literature review in systematic manner, hermeneutic approach suggested by Boell and Cecez-Kecmanovic (2014) was deployed. The circle-based approach, as represented in figure 2, focuses on seven steps. Since hermeneutic approach is more adaptive and flexible (Boell and Cecez-Kecmanovic 2014), it allows the researcher to explore newer research topics (Hofmann et al. 2019). Moreover, hermeneutic approach is considered a recognized approach in the field of Information Systems (IS) and e-Government for instance, (Hofmann et al. 2019; Lindgren et al. 2019).



Source: c.f. (Boell and Cecez-Kecmanovic 2014), p. 269

**Figure 2 Steps involved in Hermeneutic Approach**

For the literature review of this study, three searches (each with three cycles) were conducted from February 2020 to May 2020. The first search was conducted to identify literature related to e-Government, Web 2.0 and social media. The second search was related to crisis communication, social media and government and the last search was based on social media, trust and trust in government. For all the searches, the database of Web of Science was used to identify keywords in Title, Abstract and Keywords of the relevant literature. Table 1 given below represents an example to understand better how hermeneutic approach was used for the identification of relevant literature.

**Table 1 Example of Literature Extraction**

<b>Steps taken to conduct a review of Social Media related literature</b>		
<b>Step</b>	<b>Description</b>	<b>Actual Step Performed</b>
Searching	The first step aims at identifying relevant publications. The first cycle helped in the identification of highly cited relevant literature that later formed basis for other two search cycles.	For example, in the first cycle, Boolean operators' search was performed, which is represented below:  "e-Government" AND ("Social Media" "Facebook" OR "Twitter") AND "Web 2.0")  The query returned a total of 49 articles.
Sorting	After the initial search, literature can be sorted based on ranking, the number of citations, year of publication and specific sources.	In the next step, the literature returned was sorted based on the highest number of citations. A total of 22 papers were sorted for further reading.
Selecting	This step involves criteria to include or exclude certain publications. The criteria can include looking for keywords in title, abstract and in keywords of the publications.	The relevant articles were selected based on the title of the article, keywords and after reading the abstracts. Out of 22 articles, only 2 papers were completely discarded, and 20 were selected.
Acquiring	This step simply involves downloading or acquiring the full version of selected publications.	Based on the selected abstract, the full versions of selected papers were acquired.
Reading	This step involves an analytical reading of the selected literature.	The simplest step in the whole cycle was to read the full version of selected papers.
Identifying	This step helps the researcher further to identify search terms, relevant literature and additional sources.	Based on reading the primary literature, a further selection of keywords and relevant sources was commenced As suggested by (Boell and Cecez-Kecmanovic 2014) when new keywords, sources and journals are



		identified it is called snowball citation which helps to identify relevant literature.
Refining	Lastly, the researcher can use a search strategy to refine literature selection. The selection strategy can be used to further select literature for another cycle related to the same domain.	Citation Pearl Strategy, which suggests using keywords of relevant articles to identify new associated literature, was used in cycle two and three of the same literature search.

## 2.1 e-Government

The concept of e-Government is multi-fold and is defined based on the disciplinary context. According to the definition of Heeks and Bailur (2007), the concept has its roots in “computer science, information systems, public administration, and political science” (p. 252). There are several established definitions available which are used to define the term even though no single universal definition is available or widely accepted (Tohidi 2011). For example, e-Government is associated with the delivery of government services to citizens, employees, agencies and businesses (Bélanger and Carter 2005) via deployment of these services through digital channels or internet (Teo et al. 2008; West 2004). One of the precise definitions presented by Ruano de la Fuente (2014) is in the following terms: “e-government is defined as service delivery through the internet...e-government is not simply an instrument for citizens to interact electronically with government, but has also to do with the transformation of the basic relations between public administrations and the public in general” (p. 604). Another definition defines it as: “e-Government refers to the use by public bodies of information and communication technologies (ICTs) to deliver information and/or services to citizens, external organisations, elected representatives and other stakeholders in such a way as to complement, replace or improve existing delivery systems” (O’Donnell et al. 2003, p.23).

The e-Government concept is not merely defined by the academic literature, but various definitions have been provided by agencies such as World Bank and Organization for Economic Cooperation and Development (OECD). The European Commission (EC) defines e-Government as “the use of information and communication technologies in public administrations combined with organisational change and new skills in order to improve public services and democratic processes and strengthen support to public

policies” (European Commission 2003, p. 7). The core factor which differentiates e-Government from traditional government services is the non-hierarchical, two-way interactive structure which offers the services to citizens all around the clock with convenience and reliability (West 2002). Despite the difference in definitions provided for e-Government, there is a coherence among most of the definitions that e-Government goes far beyond the mere use of just technology in the government (Grant and Chau 2006).

### **2.1.1 Benefits of e-Government: Government and Citizens Perspective**

e-Government provides numerous advantages; at one end of the spectrum, it offers the government several opportunities, and at the other end, it provides benefits to other stakeholders such as citizens, businesses, and enterprises (Akman et al. 2005; Bretschneider et al. 2003; Gilbert et al. 2004; Gil-García and Pardo 2005; Ndou 2004; Twizeyimana and Andersson 2019). Because of these associated benefits, governments all around the world are shifting from the traditional *modus operandi* to the e-Government models (Heeks and Bailur 2007). In the case of the government, Bretschneider et al. (2003) classified two key benefits when using e-Government; administrative and political. The former advantage is associated with reduced cost of service provision resulting in operational efficiency, and the latter is linked with enhanced interaction with the voters/citizens. In addition to this, governments are able to ensure round the clock services with high accuracy and quick response time. Also, governments can create an integrated, consistent service for the citizens which increases the uptake of public services along with faster adaptation to meet citizens expectations (Akman et al. 2005). The advantages are not only limited to these but also include; transparency and increased accountability of the government (Ndou 2004; Sandoval-Almazan and Gil-Garcia 2012). Also, transparency of the government is enhanced by e-Government initiatives that offer citizens with information in a timely manner. Furthermore, interactivity offered by technology improves government accountability by addressing the needs of citizens (Carter and Bélanger 2005; Wong and Welch 2004).

Numerous advantages are associated with government’s use of technology for the provision of services to the stakeholders (Akman et al. 2005; Ndou 2004; Twizeyimana and Andersson 2019). Concerning the citizens, there are several underlying benefits linked with the adoption of e-Government services (Gilbert et al. 2004; Magoutas and

Mentzas 2010; Sandoval-Almazan and Gil-Garcia 2012). For instance, e-Government offers citizens convenience (Carter and Bélanger 2005), higher control, cost reduction (Ndou 2004), personalization and time effectiveness (Gilbert et al. 2004). Furthermore, research has identified increased citizens' participation and empowerment as one of the major advantages of e-Government implementation (Gauld et al. 2009; Ndou 2004). Additionally, it is also critical to note that this increased participation of citizens facilitates the trust-building process (Gilbert et al. 2004; Grimsley and Meehan 2007; Park 2008; Reffat 2003). As trust is the core concept of this research, it is discussed later in a detailed manner.

### **2.1.2 Challenges of e-Government**

There is no doubt that e-Government has several benefits, but they are not without challenges and limitations (Andersen 2006; Ndou 2004; Reffat 2003). According to Ndou (2004), e-Government brings governmental challenges such as ICT development, several legislative issues, resistance of change to the new systems, strategic challenges and collaborative issues. Jaeger and Thompson (2003) identified that governments still have a long way to go with e-Government initiatives. They mentioned several challenges which might hinder the performance as well as the implementation process. For instance, citizens' perception of the values associated with e-Government, citizens' ability to use technology for e-Government adoption, access of citizens' for useful information are some of the challenges which governments need to address (Jaeger and Thompson 2003). Moreover, at governmental level, a specific coordination mechanism between regions and organizations and the development of e-Government performance level indicators is necessary. In addition to this, low level of trust in government, the digital divide between the skills of demographically divided individuals, lack of government management and leadership abilities, unavailability of funds and information security and hacking related issues are quite significant challenges for e-Government implementation (Zheng 2013). Recently, Dhaoui (2019) mentioned data related, political and societal challenges associated with e-Government. Data related challenges include privacy and security issues and government needs to create an overall system to curb these challenges. Political hurdles mainly include legal frameworks, citizens' willingness and awareness. And lastly, societal challenges include government to offer personalized services to citizens, improve transparency and to engage the citizens effectively.

Moreover, Reffat (2003) mentioned privacy issues, trust-related issues and transparency issues as the main challenges which government receives from the end of the citizens when they move from traditional government models to e-Government based models. Nevertheless, there are some demand-side and several supply-side challenges of e-Government which are interrelated with each other. For successful implementation of e-Government, it is essential that government balances both the sides of the spectrum (Dhaoui 2019; Ndou 2004; Zheng 2013).

### **2.1.3 Web 2.0 and Government 2.0**

Although Tim O'Reilly coined the term Web 2.0 in 2005, three years later, De Kool and Van Wamelen (2008) identified that not only the private sector but also the public sector is indirectly shifting from Web 1.0 to Web 2.0 based technologies. Web 2.0 is defined as:

“A collection of social media through which individuals are active participants in creating, organizing, editing, combining, sharing, commenting, and rating Web content as well as forming a social network through interacting and linking to each other. The Web created using these social media is called Web 2.0 or Social Web. The Web 2.0 technologies include blogs, wikis, social networking hubs, (e.g., facebook, myspace), Web-based communication modes (e.g., chatting, chat groups), photo-sharing (e.g., flickr), video casting and sharing (e.g., youtube), audiosharing (e.g. Podcasts), mashups, widgets, virtual worlds, microblogs (e.g., twitter), social annotation and bookmarking of Web sites, and many more” (Chun et al. 2010, p.2).

Laid on the foundation of Web 2.0, Government 2.0 is referred to as “a government that uses interactive communication technologies to transform connections between government and citizens into increasingly open, social and user-centred relations” (Meijer et al. 2012; p. 60). The key benefits associated with Web 2.0 for the public sector include improved transparency and citizens' participation. Since the Web 2.0 technologies favour emergence of citizens created content, it allows sharing and dissemination of information related to political and social issues (Bonsón et al. 2012). As identified by Molinari and Ferro (2009), Web 2.0 provides several opportunities for the government to create value for the citizens. For instance, it increases the role of citizens from passive actors to more active ones allowing co-creation. Moreover, Web 2.0

acts as a bridge between the public and government for reaching out to each other in a cost-effective manner. Also, Web 2.0 is a social computing tool which allows to uptake small piece of information into a significant representative level issue in merely a few hours (Shirky 2008). The table 2 below represents various Web 2.0 tools which are used by the government. A general definition, along with examples from the context of Germany, is also presented.

**Table 2 Web 2.0 tools use in Germany**

<b>Web 2.0 Tools</b>	<b>Explanation</b>	<b>Reference</b>	<b>Example</b>
Blog	Blog is the web-based application which is interactive in nature and allows newer entries over the older entries. Blogs are a significant way of expressing opinions on certain topics. The content generation is based on written text, videos, graphics, images, and audios.	(Bonsón et al. 2012; Chun et al. 2010)	Invest in Bavaria, blog for the business promoting agency for state of Bavaria. ( <a href="https://www.invest-in-bavaria.com/en/blog.html">https://www.invest-in-bavaria.com/en/blog.html</a> )
Wiki	Wiki is a collaborative web-based technology which allows everyone to amend, update, add or post any information on wiki-based websites. The power to edit and update information in case of wiki lies in the hand of the users who can create information and knowledge.	(Chun et al. 2010; Trkman and Trkman 2009)	A free participation platform which allows citizens and organisations to interact for liquid democracy discussions ( <a href="https://adhocracy.de/">https://adhocracy.de/</a> )
Social Networking Websites	Social Networking websites are defined as the models, tools or services which allow people to share their opinions, develop relationships, articulate and communicate via a virtual platform.	Bonsón et al. 2012; Boyd and Ellison 2008; Chun et al. 2010)	Facebook page of the state government of NRW ( <a href="https://www.facebook.com/NRW/">https://www.facebook.com/NRW/</a> )

Multi-media Sharing	As the name suggests, multimedia sharing is based on platforms or tools which allow sharing of rich contents such as photos, documents such as regulations and videos. Citizens have the opportunity to share content from their end too.	Bonsón et al. 2012; Chun et al. 2010)	The official YouTube channel for State Government of NRW. ( <a href="https://www.youtube.com/channel/UCeYDqk0bvLsDwcdn2bI0XiW/about">https://www.youtube.com/channel/UCeYDqk0bvLsDwcdn2bI0XiW/about</a> )
Microblogging	Microblogging is associated with the creation of typically short blogs with words limitation. The aim of microblogging is convenience and accessibility of information through electronic devices.	Bonsón et al. 2012; Chun et al. 2010; Wang et al. 2018)	Twitter handle of the Federal Ministry of Finance. ( <a href="https://twitter.com/BMF_Bund">https://twitter.com/BMF_Bund</a> )

#### 2.1.4 Social Media and Government

One major part of Web 2.0, interactive communication technologies is social media, which has been studied widely by researchers across various disciplines (Hong 2013; Kavanaugh et al. 2012; Kim and Park 2012; Linders 2012). One interesting fact about these studies is that most scholars have put a focus on studying ICTs in the public sector with core focus on government rather than the actual government social media users (Gintova 2019). Despite this gap, many of the scholars agree that social media plays a critical role in two-way communication between citizens and government (Bonsón et al. 2019; Born et al. 2019; Hong 2013). It is mainly because social media offers immediate connectivity and direct communication for sharing of information, ideas and views, which results in the relationship to be more interactive and dialogic based. The additional benefits associated with social media in government is the fast access and wide information distribution that can result in citizens' participative behaviour along with trust in their government (Born et al. 2019). According to Linders (2012), social media platforms offer government the opportunity to increase democratic participation, co-production and sourcing solutions for critical problems. Besides, it also enhances transparency for government, public service delivery mechanism and knowledge creation (Bonsón et al. 2019).

The famous social media channels used by governments all over the world include microblogging sites (such as Twitter), social networking sites (such as Facebook), and multi-media based sharing (such as YouTube) (Cameron and Shin 2014). A related study in the context of Germany identified that Facebook is the highly used social media medium by the governmental authorities followed by Twitter (Hofmann 2014). Also, higher preference is given to Facebook in contrast to other social media channels by authorities in German government, this was mentioned as “Facebook is THE medium” in the findings of (Hofmann 2014, p. 6). Another study specific to Germany identified that 48% of governmental authorities at least use one social media (either Facebook or Twitter) to connect with the citizens (Born et al. 2019). Furthermore, the study also found that public interactions with the social media platforms of government is significantly low, and the government needs to include more pictures and videos to engage citizens (Born et al. 2019). This limitation was also mentioned by the study of Hofmann et al. (2013) which established that government Facebook pages in Germany are not widely diverse in terms of content such as pictures and videos to make the posts more attractive. In addition to this, many specific properties offered by social media is still not exploited by the government at multiple level. The reason for an undermining of social media is mainly because instead of social media skills, governments still use traditional communication skills to inform the public (Hoffmann et al. 2013).

Moreover, a study for the state of North-Rhine Westphalia (NRW) identified that social media channels of Facebook, Twitter and YouTube are the most common across the state with Facebook platform being used the most by governmental authorities (Born et al. 2019). Nevertheless, there are many benefits associated with social media use in government and scholars have identified that governments, as well as citizens, are still in the early stages to identify full potential it offers to them (Zavattaro and Sementelli 2014; Zavattaro et al. 2015). As previous studies have ignored the role of citizens or government social media users, this research takes an audience-oriented approach to consider how the use of social media by the government is perceived by the user end (Gintova 2019).

## **2.2 Defining Risk and Crisis**

A significant amount of literature in the past few decades has focused mainly on risk and crisis (Cheng 2018), which mainly revolves around the domain of public relations (Houston et al. 2015). Before moving forward, it is critical to identify how the literature

differentiates between the two terms; risk and crisis. There are numerous definitions available, for instance, Coombs (2015) defines crisis as “an unpredictable event that threatens important expectancies of stakeholders and ... can seriously impact an organization’s performance and generate negative outcomes” (p. 3). Fearn-Banks (2016) define crisis in terms of a major event that can have negative consequences for organizations, industries, people, public, good and services. On the other hand, according to Ferrante (2010), risk is defined as “the probability of undesired effects (or health outcomes) arising from exposure to a hazard” (p. 38). Similarly, Manuele (2003) defines risk as “the potential for realization of unwanted, negative consequences of an event” (p. 59).

The key differences between the two lies in their fundamental definitions and is critical to understand. Risk is the possibility or chance of occurrence of an event which might hinder the performance, impact the objectives or result in positive or negative outcomes (Drennan et al. 2015). In contrast, the crisis goes beyond the normal course of action, cannot be controlled beforehand and impacts different individuals, organizations, and societies relatively (Drennan et al. 2015). Also, risks inheritably have the property to be predicted before their occurrence as compared to crisis which is an unpredictable event resulting in undesirable consequences for multiple stakeholders (Coombs 2015; Fearn-Banks 2016; Manuele 2003). Since risk and crisis are related but also significantly different in terms of their theoretical foundations, for the scope of this study, the focus is placed on crisis instead of risk. Moreover, the next section also elaborates the distinction between risk and crisis communication to further clarify why the current context is taken as crisis instead of risk.

### **2.3 Risk Communication and Crisis Communication**

As mentioned earlier, there is a substantial difference between how risk and crisis are defined in the literature. Similarly, differences in definition exist for risk communication and crisis communication. The former is defined as “an ongoing program of informing and educating various publics (usually external publics) about issues that can affect, negatively or positively, an organization’s success. The program builds solid relationships between an organization and its key publics, the publics on which an organization’s survival depends” (Fearn-Banks 2016, p.38). Moreover, according to Coomb (2015), risk communication holds the place of a dialogue between the



organization and the stakeholders regarding what risks are expected from the organizational end, how the risks will be borne and how to mitigate them.

On the contrary, crisis communication “is the dialog between the organization and its public(s) prior to, during, and after the negative occurrence” (Fearn-Banks 2016, p.3). Furthermore, Fearn-Banks (2016) mentioned that crisis communication plays a vital role in communicating strategies and tactics to overcome the adverse situation created by the crisis. Though risk and crisis communication seem very similar, the academic literature differentiates them in several ways. According to Ferrante (2010) “risk communication is an ongoing process that helps to define a problem and solicit involvement and action before an emergency occurs. Crisis communication encompasses those messages delivered to stakeholders during an emergency event that threatens them” (p. 38). Also, Reynolds and Seeger (2005) identified that the origin of the two significantly differs from each other. For instance, crisis communication is rooted in public relations with the focus on managing public perceptions in case of unforeseen events. Moreover, crisis communication draws more heavily on communication in times of natural disasters and public emergencies. In comparison, risk communication relies on the identification of risks to the public and communicating how to develop less risky behaviours. For example, public campaigns regarding healthy lifestyles, eating habits environmental hazards involve risk communication.

In conclusion, crisis communication forces the communication manager, public relation’s staff and government to inform the general public in a non-routine manner (Reynolds and Seeger 2005). It is mainly because public managers focus on using all the available channels to disseminate information and inform the public of whatever developments are taken or foreseen (Fearn-Banks 2016; Reynolds and Seeger 2005; Walaski 2011). Research scholars have focused on how organizations have managed these crises effectively by using various tools and channels (Austin et al. 2012). As the case context of this study is explained later, at this stage it is evident to note that the government of NRW is currently communicating with the public for the COVID-19 crisis via several channels including the social media. The next section sheds light on how social media is transforming crisis communication scenario for the government as well as citizens facing the crisis.

### 2.3.1 Crisis Communication and Social Media

In today's world, social media allows sharing opinions and ideas in an instant (Fearn-Banks 2016). Laid on the foundation of Web 2.0 applications Coombs (2015), Facebook and Twitter are the most popular social media tools used in crisis communication that are considered credible and "are ushering in a new era of crisis communication between the organizations and its public(s)" (Cheng 2018, p. 58). Coombs (2015) consider social media as an evolutionary stimulus responsible for increasing link between crisis communication and the online world. According to Jaeger et al. (2007), social media is considered as an emerging and evolving communication technology that has the potential to enhance crisis communication due to its inherited property of increased information capacity, improved interactivity and dependability. As per the literature, the significance of social media for organizations is two-fold; firstly, it offers organizations the opportunity to interact with wider set of audience. Secondly, the user-generated ideas and contents serve as the educational ground in case of crisis (Bennett and Iyengar 2008; Cheng 2018; Coombs 2015). Furthermore, several advantages are associated with the use of social media in crisis management. For instance, according to Ferrante (2010), using social media as the message delivery mechanism in case of a crisis is beneficial because it includes regular use by most of the people, provides easy access, availability and higher receiver's control. Moreover, organizations needs to pay a special attention to social media use for crisis communication as Fearn-Banks (2016) is of the view that using social media for crisis communication "can build trust or they can destroy trust depending upon how they are used" (p. 77).

Social media not only pave ways for private and non-governmental organizations but, it also offers government several opportunities (Coombs 2015; Golbeck et al. 2010; Graham et al. 2015). As stated by Jin et al. (2014), social media is transforming the communication channels which public relation practitioners are using to reach out to stakeholders. According to Golbeck et al. (2010), social media allows governments to offer citizens critical information, better governmental services and a feedback channel to connect with government. This openness offered by social media removes many traditional communication barriers resulting in several opportunities for the government (Graham et al. 2015). In a crisis situation, the communication goal is to provide correct information to the target audience, and social media provides government the opportunity to fulfil this goal (Graham et al. 2015). From an audience-oriented perspective, Jin et al.

(2014) evaluated that the public tends to use social media more in crisis for information reception as compared to traditional media. In addition, the public tends to give higher credibility to social media based information and news in contrast to the traditional media news. There is a consensus within literature that social media is changing dynamics for crisis communication by speeding up the process to communicate in critical situation (Fraustino and Liu 2017). Not merely this, Wright et al. (2013) found that “those who practice public relations believe social and other emerging media continue to improve in terms of accuracy, credibility, honesty, trust and truth telling” (p. 14). In addition to the benefits associated, there are particular challenges for the government as well regarding social media use in crisis communication. As traditional gatekeepers and editors are non-existent on social media as soon as the information is shared, it is considered published and can be re-distributed quickly, the government needs to place a greater emphasis on accuracy and ethical aspect of crisis communication as well (Hung- Baesecke and Bowen 2017).

Moreover, despite social media being considered as a catalyst for change in crisis communication, the research specifically on audience related perspective is still in its embryonic stages (Jin et al. 2014; Liu et al. 2011). Also, Gintova (2019) mentioned that previous studies have widely ignored government social media user perspective. This provides the opportunity to contribute to the perspective via this study. Summarized literature on audience-oriented perspective in crisis communication is presented below, followed by the theories focusing on stakeholders.

### **2.3.2 Crisis Communication and Audience Oriented Perspective**

The initial research of crisis communication mainly focused on sender perspective, leaving audience perspective unheard (Lee 2004). Significant progress is seen in research in recent years with researchers focusing on the perspective of receiver or the public (Coombs and Holladay 2014; Jin and Cameron 2007). The reason why an audience-oriented perspective is receiving attention is that “audience may receive the same information about the crisis but, through their interpretative lens, reach different conclusions and hence different responses” (Ndlela 2018; p. 143). It is necessary to consider the audience-oriented perspective because the quality of the message, relevancy to the target audience and communication channel determines the success of crisis communication (Ndlela 2018). The next section highlights some of the audience-oriented

research theories, but before moving forward, it is necessary to distinguish who are the audience in the context of this research, although a short clarification was made in the introduction chapter. Many types of research alternatively use; stakeholders, publics, citizens and audience terminology for one another (Fearn-Banks 2016; Jin et al. 2007). The study alternatively uses publics, people, stakeholders, citizens and audience in this research without any distinction. The five terms have the same meaning throughout the literature section and is defined for this research as “1) they are most affected by the crisis; 2) they have shared common interests, and destiny, in seeing the crisis resolved; and 3) they have long-term interests, and influences, on the organization’s reputation and operation” (Jin et al. 2007; p. 86). In case of the specific context of this research stakeholder, public, people, citizens and audience are the crisis message receivers through social media of the government. This includes, but is not limited to, the citizens including businesses, the general public, private sector employees, government sector employees, students, freelancers and entrepreneurs.

### **2.3.2.1 Audience Oriented Crisis Communication Theories**

The below sections discuss a brief overview of audience-oriented theories including Networked Crisis Communication (NCC) Model, Integrated Crisis Mapping (ICM) Model, Social- Mediated Crisis Communication (SMCC) Model and The Trust Determination Model for crisis communication via social media.

#### **Networked Crisis Communication (NCC) Model:**

Utz et al. (2013) presented the NCC model that challenges the traditional crisis communication theories by establishing that the medium used to communicate about crisis impacts crisis communication substantially. It also states that the effectiveness of the message when delivered through social media might elicit difference in response in comparison to the same message delivered by traditional media. The research established that crisis type does not have any significant impact on organization reputation, but the medium does have a positive relationship with organizational reputation. Crisis communication via Facebook and Twitter results in higher organization reputation and lower secondary crisis as compared to the traditional media of newspapers. Moreover, the study also established that social media choice would impact crisis communication effectiveness, so the audience more positively approaches mediums such as Facebook.

However, the study also found traditional media to be more credible than social media leaving many avenues for future researchers to explore the domain (Utz et al. 2013).

### **Integrated Crisis Mapping (ICM) Model**

The ICM model provides an emotion-driven perspective to the public response to various crisis like; economic, natural, regulation, rumours, security issues and technological issues. These issues are mapped against two dimensions; the level of organizational engagement and public's coping strategy (Jin et al. 2007). The y-axis of the model determines organization's engagement with crises from being low to high, and the x-axis determines the emotion-based public coping strategy of crisis from conative to cognitive (Jin et al. 2012). The model deals with four quadrants, one being specific to the natural crisis where the primary public elicits two emotional responses; fright and sadness. The former emotional response is elicited due to the uncertainty the crisis brings with itself, and the latter is shown due to the tangible and intangible loss faced by public. The organization's level of engagement is high in natural crisis, and they mainly deal with a cognitive coping strategy allowing the public to think and interpret the meaning in terms of their benefit (Jin et al. 2007). A recent study by Smith et al. (2018) used ICM model as the basis to study emotional response to crisis on social media and established what emotions based response public elicited on social media after a crisis. Taking examples of security-related crisis their study determined that on social media, people tend to elicit a positive emotional response such as hope, relief and sympathy. This signifies that crisis does not always result in negative response from the public but also shows some hopeful consequences that help the public with coping behaviour (Smith et al. 2018).

### **Social- Mediated Crisis Communication (SMCC) Model**

The SMCC model defines how different type of publics can create and consume information related to a crisis that impacts the organizational dynamics (Liu et al. 2012). The three types of publics who consume and create information during and after the crisis are defined as: "(1) influential social media creators, who create crisis information for others to consume; (2) social media followers who consume the influential social media creators' crisis information; and (3) social media in actives, who may consume influential social media creators' crisis information indirectly through word-of-mouth communication with social media followers and/or traditional media who follow influential social media creators and/or social media followers" (Austin et al. 2012; p.

192). The model also addresses the direct and indirect distribution of information via the medium of social media. The direction information takes place from the influential social media creators to the media followers, but it will be distributed indirectly or traditionally to an inactive social media user (Mak and Song 2019). In addition to this, the model postulates five factors; crisis origin, crisis type, infrastructure, message strategy and message form as the organizational consideration factors in engaging with the three type of publics (Austin et al. 2012; Liu et al. 2012). According to Fraustino and Liu (2017), since the model is entirely new, it has not been widely applied to many organizational contexts and yet needs exploration. In addition, Mak and Song (2019) mentioned that influential social media creators could be the organizations and the organizational representative themselves. The literature on how this model applies to governmental context is still scarce and needs future attention.

### **The Trust Determination Model**

The trust determination model is constructed on the foundation that trust and credibility of the government in crisis communication is dependent on certain perceptions of the citizens (Peters et al. 1997). According to Ferrante (2010), “trust comes first in all messages, regardless of purpose or content. Without it, success will be limited” (p. 40). A quantitative study conducted by Peters et al. (1997) examined the relationship between the perception of knowledge and expertise, perception of commitment, perception of openness and honesty, perception of care and concern and perception of information receipt against the factors of trust and credibility of the government. The model is derived based on the regression equation run for government-based model and establishes that perception of the commitment of the government towards crisis is the most critical factor in determining the trust and credibility of the government. The second most important factor is the perception of knowledge and expertise, followed by the perception of concern and the least significant but positively related factor in crisis communication is level of information that determines trust level (Peters et al. 1997). The overall model can be written as:

$$\text{Trust and Credibility} = \alpha + \beta(\text{Commitment}) + \beta(\text{Knowledge and Expertise}) + \beta(\text{Concern and Openness}) + \beta(\text{Information Level}) + \varepsilon$$

Since, the model is based on a quantitative study it determines that a significant change of 40% in trust and credibility of government when communicating for crisis is

caused by commitment, knowledge and expertise, concern and openness and information level shown by the government. Also, Covello et al. (2001) mentioned, “perceptions of trust are decreased by...disagreements among experts; lack of coordination among...management organizations; insensitivity by risk management authorities to the need for effective listening, dialogue, and public participation; an unwillingness to acknowledge risks; an unwillingness to disclose or share information in a timely manner; and irresponsibility or negligence in fulfilling risk management responsibilities” (p. 386). Regarding the application of trust determination model in social media-based crisis management research, there is some gap, but perceptions of the public are considered an important factor to determine crisis communication effectiveness (Hung- Baesecke and Bowen 2017). The next sections discuss literature related to trust and how the factor is used in the domain of crisis communication and is linked with social media of government.

## **2.4 Defining Trust**

Trust as a general term is defined as “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party” (Mayer et al. 1995, p. 712). The concept of trust has been defined differently across various disciplines. One of the most cited definitions of trust mentions it as “trust is a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another” (Rousseau et al. 1998; p. 395). Since the mentioned definition is abstracted from an article that viewed trust in a cross-disciplinary context, it extracts from the work of Mayer et al. (1995) adding factors such as willingness to be vulnerable and agreeing to take potential risks to the definition of trust. There are many researchers who defined trust with multi-dimensional lens (Cvetkovich and Lofstedt 2013; Johnson 1999; Mayer et al. 1995; Renn and Levine 1991). As the dimensions mentioned by these researchers vary, the table 3 represents a summary of these factors based on examining trust dimension with respect to various disciplines. Later in the next sub-section, a discussion is presented on how trust is representative in the discipline related to government and social media.

**Table 3 Trust Dimensions Across Disciplines**

<b>Researcher</b>	<b>Mentioned Factors/Dimensions</b>
Mayer et al. (1995)	Ability; Benevolence; Integrity
Peters et al. (1997)	Knowledge and expertise; Openness and honesty; Concern and care
Johnson (1999)	Competence; Care; Consensual values
Renn and Levine (1991)	Competence; Objectivity; Fairness; Consistency; and Faith
Cvetkovich and Lofstedt (2013)	Affective Component; Competence Component
Nakayachi and Ozaki (2014)	Competency; Integrity; Fairness; and Objectivity
Ki and Hon (2007)	Commitment and Reliability

#### **2.4.1 e-Government and Citizens Trust**

Several scholars tried to understand the concept of trust, particularly concerning government (Bouckaert and Van De Walle 2005; Getha-Taylor 2012; Thomas 1998). According to Bélanger and Carter (2008), trust in government refers to the perception of citizens that the government has the ability and integrity to provide them services. Wang and Van Wart (2014) define public trust in government as the degree to which the public perceives that the government is performing its duties fully and in the interest of the public. Job (2005) laid his definitional foundation on the work of Mayer et al. (1995) by stating that trust in government is citizens' confidence and their perception of government agencies ability and integrity to provide them services. Here, discussing the dimensions of ability, benevolence and honesty are quite significant to understand because they have been used in government researches quite a lot with modifications based on the interest of researchers (Porumbescu 2016). Ability, the first dimension, refers to citizens' perception that their government possesses the right abilities and competence to perform functions (Mayer et al. 1995; Porumbescu 2016). The citizens' perception of benevolence relates to their view that government acts in the favour and best interest of the citizens. The actions taken by the government are sincere efforts and commitment towards citizens



(Porumbescu 2016). The dimension of honesty reflects the perception of citizens that the government is being truthful and representing real facts and figures to them (Porumbescu 2016).

There are several other factors, which are linked with trust in the government, such as represented in table 3. Along with the identification of these factors, it is important to note that some of the previous researchers have identified trust dimensions. For instance, Thomas (1998) identified, three major types of trust dimensions; fiduciary trust, mutual trust and social trust. The fiduciary trust holds in case of principal-agent relationship where there is an asymmetrical relationship between citizens and government. Mutual trust, on the other hand, is symmetric in nature with more personal contact and lastly, social trust is the trust that is embedded within institutions. As trust in the government is considered an essential factor in the stability of the political system (Park et al. 2015), one way to enhance citizens' trust in government is by increasing citizens faith in the government (Welch et al. 2005). Thus, the kind of trust in the government this study talks about is evaluation of "whether or not political authorities and institutions are performing in accordance with normative expectations held by the public. Citizens' expectations of how government should operate include, among other criteria, that it be fair, equitable, honest, efficient and responsive to society's needs. In brief, an expression of trust in government...is a summary judgement that the system is responsive and will do what is right even in the absence of constant scrutiny" (Miller and Listhaug 1990; p. 358). Table 4 represents the summary and comparison of determinants used by several highly cited researches that link e-Government with trust in government.

**Table 4 Summary of e-Government and Trust Research**

<b>Researcher</b>	<b>Determinants of Trust</b>	<b>Key Findings</b>
Morgeson et al. (2011)	Internet Use Demographic Factors Confidence Expectations	"e-government adoption may lead to improved citizen confidence in the future performance of the particular agencies with which they interact...e-government adoption does not correlate to greater trust in the federal government overall" (p.18)

Tolbert and Mossberger (2006)	Perception of Transparency Perception of Accessibility Perception of Responsiveness	“e-government can increase process-based trust by improving interactions with citizens and perceptions of responsiveness” (p. 354)
Welch et al. (2005)	e-Government usage extent Internet Usage Transparency Communication Problem Response	“Those individuals who are more satisfied with e-government and government Web sites also trust the government more and those individuals who trust government more are also more likely to be satisfied with e-government” (p. 387)
Vitro (2005)	Transparency Efforts Quality Value of Money Responsiveness to needs of public	“Using citizen satisfaction with federal, provincial, and municipal service quality as measures, the report found that government services had a positive impact and adequately met citizens’ needs. that e-services do enhance citizen trust by providing a more satisfying user experience” (p. 65)
West (2004)	Demographic Variables e-Government Usage	“E-government users were no more likely than nonusers to be trusting or confident about government or to believe the government is effective in solving problems. Rather, the most significant predictor of these dimensions was party identification, with strong Democrats most likely to trust government, have confidence in government, and believe that government is effective” (p.23)

#### 2.4.2 Social Media and Trust in Government

Social media has transformed the way with which citizens and government interact today (Hong 2013). Many scholars emphasized the role of social media because it offers improved channels for communication that can potentially reduce

communication gaps between citizens and government (Morgeson et al. 2011; Park et al. 2015; Tolbert and Mossberger 2006), which enhances the trust of citizens in the government (Picazo-Vela et al. 2012; Porumbescu 2016). Being part of the Web 2.0 technologies social media offers an increasingly important role in establishing two-way communication between government and citizens (Lovari and Parisi 2015). According to Porumbescu (2016), “it is not uncommon for public agencies today to spread information via platforms such as YouTube channels, Twitter feeds, and service-portals” (p. 291). The underlying reason why governments all over the world are focusing on social media platforms is that it fosters increased satisfaction and trust of citizens in their government (Bannister and Connolly 2011). Kim et al. (2015) mentioned in their research that the trust of citizens towards their government can increase with the ability of the government to understand and utilize social media effectively. Regarding, how trust is developed in an online environment, Corritore et al. (2003) mentioned that two-way communication between government and citizens and citizens’ perception of information credibility in their exchange leads to the development of their trust in government. Additionally, the information provided by the government to citizens via social media needs to have several characteristics in order to build citizens’ trust in government. Gelders (2005) identified these characteristics as timeliness of information, availability of full information and trustworthiness. Furthermore, Kim et al. (2015) mentioned information access, timely availability of information access and characteristics of information as a key determinant of the development of citizens trust in the government.

According to Song and Lee (2016) “fiduciary trust and institutional trust are the most relevant to the context of citizen-government interactions through social media” (p. 436). In addition to this, a study by Porumbescu (2016) established that social media use of government is positively associated with citizens trust in their government. There is also a piece of evidence from the study of Picazo-Vela et al. (2012) that enhanced trust is the major benefit linked with governmental social media. The study of Kim et al. (2015) specifically focused on Twitter and established that social media is a reliable medium to enhance citizens’ trust in government agencies. Moreover, they mentioned “transparency/openness, which is providing information that people want to know, those for engagement/participation, and those for communication/relationship could increase confidence in the government agency” (p. 346). Also, they mentioned that when the government needs to address an issue which requires a greater level of openness, the high

engagement level of citizens and a bi-directional relationship between citizens and government, it should use social media channels. Song and Lee (2016) in their study on social media use in the government stated:

“Social media in government serve as an effective means of disseminating government information, providing citizens with an opportunity to access the most up-to-date government information in a timely manner. Citizens...gain a sense of more connectedness with government agencies and officials...increase their estimates of the probability that the government is trustworthy...it is likely that citizens’ use of social media in government promotes process-based trust in government, intensifying the perceptions of transparency in government that lead to institutional-based trust in government” (p. 444).

Despite studies available on social media and trust in government, most of the studies relied on a quantitative approach to identify how social media leads to the development of citizens trust in government (Kim et al. 2015; Picazo-Vela et al. 2012; Porumbescu 2016; Song and Lee 2016). There is significant gap regarding the availability of exploratory qualitative studies (Bachmann 2015) which provides an opportunity to study this dimension via a qualitative approach in order to fill the gaps found in the literature (Bachmann 2015).

## **2.5 Limitations of the Literature Review**

For the identification of relevant literature, the study relied on hermeneutic approach (Boell and Cecez-Kecmanovic 2014). Though it offers several benefits such as exploring newer research topics and is considered an appropriate approach for information systems studies (Hofmann et al. 2019; Lindgren et al. 2019), certain limitations cannot be ignored. Firstly, since the literature review was conducted in English only, it retrieved a few relevant Germany specific results. Moreover, the extracted literature did not particularly match the literature criteria; therefore, not a wide range of literature with respect to Germany could be part of the study. However, it was ensured to include relevant, highly cited literature to formulate the study background. The second limitation is associated with the fact that recently the terminology e-Government 3.0 has started to circulate in the academic literature. Though the term is gaining popularity, it was outside the scope of study since it focuses on usage of technological tools such artificial intelligence (AI) and Internet of Things (IoTs) (Charalabidis et al. 2019). Since

the research questions were specifically addressing social media tool that lies in the domain of Web 2.0; an effort was made to include relevant literature. Moreover, the recent study by Gintova (2019) stated that government social media user perspective is still neglected by academic studies which provides the opportunity to explore this associated question with Web 2.0 before providing answers to the third generation of e-Government (Web 3.0).

## **2.6 Chapter Summary**

By taking a systemic hermeneutic approach (Boell and Cecez-Kecmanovic 2014), the study relied on three research cycles each for related literature review on e-Government, Web 2.0, social media, crisis communication, audience-oriented perspective and trust, social media and trust-related literature. A systematic review of the literature helped in the identification of appropriate academic research, along with the gaps that are found in the literature. For instance, the review helped in identifying how the government social media user perspective has been ignored by previous studies (Gintova 2019) and how, many of the studies on social media associate trust in government only quantitatively (Porumbescu 2016; Song and Lee 2016). The next section presents an elaborative discussion on the case selected for this research.

### **3 Overview of the case**

The section provides an overview of the case along with the reasons for choosing the state of NRW to conduct the study. Starting from the general discussion on COVID-19 crisis which originated from China in December 2019, the spread to Germany that was reported in early March 2020; the section moves to the specific case of coronavirus situation in NRW. Followed by this is the justification provided for the selection of NRW as the study case. The reasons are three-fold; one, the state of NRW, was selected due to the presence of one of the highest numbers of COVID-19 cases in Germany. Secondly, citizens in the state of NRW have higher internet usage with up to 70% of them utilizing it to interact with the government. Lastly, the state government of NRW has a strong presence on Facebook as well as Twitter, making it a strong case to explore. More details are presented in the later section.

#### **3.1 General Information on COVID-19**

World Health Organization (WHO) published its first report on 20 January 2020, stated that a novel pneumonia-like disease had been reported in the city of Wuhan, Hubei province of China. The cases of the disease started to originate from 31 December 2019, but it was not until 12 of January 2020 when WHO started to receive some detailed information on the disease. Soon after, on 13 January 2020, countries like Thailand, Japan and Korea started to report that they are exporting the virus cases from China. WHO updated on the situation by reporting that there were 282 cases of the novel coronavirus, which mainly originated in China (World Health Organization 2020a). As of the latest report published by WHO on 22 July 2020, approximately 14.7 Million coronavirus cases have been reported around the world, with 612,054 deaths globally. Additionally, Germany has the 6<sup>th</sup> highest number of cases in Europe with a total of 0.2 Million cases reported till 22 July 2020 (World Health Organization 2020b).

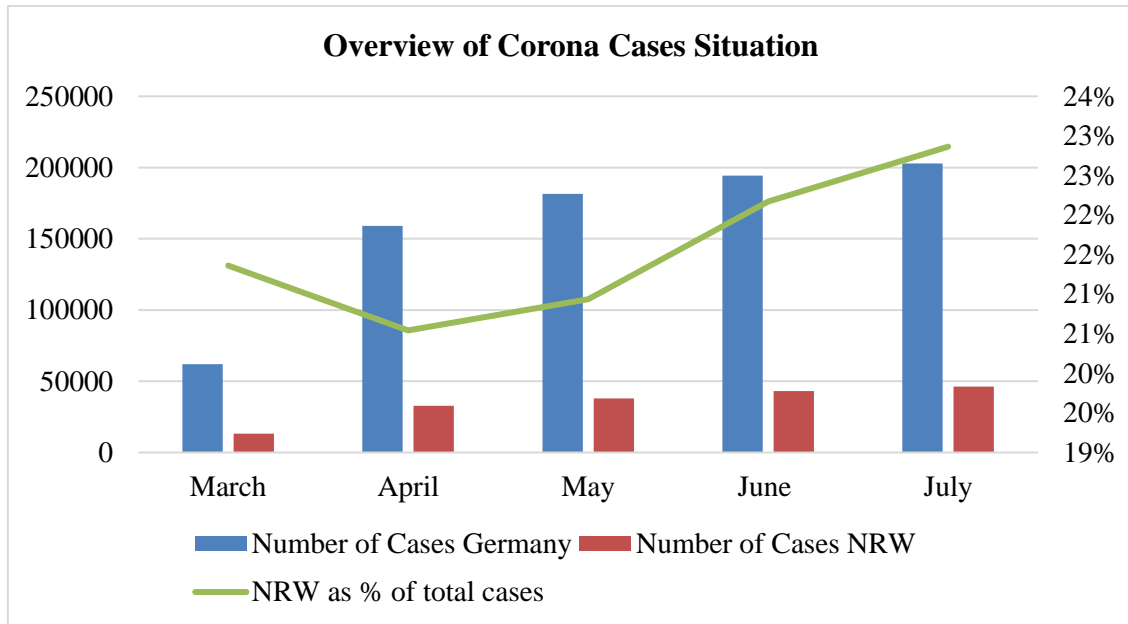
#### **3.2 Information on North-Rhine Westphalia**

With respect to the issue in Germany, Robert Koch Institute (RKI) firstly disclosed on 4 March 2020 that there were 262 reported cases of COVID-19, with the first case reported on 27 January 2020, where the virus overall impacted 15 federal states. It is evident to note that the highest number of cases, 115, were reported for the state of NRW, which means that 44% of the total reported cases were from the state. The report

also mentioned that 59% males and 41% of females were affected by the virus (Robert Koch Institute 2020a). The recent figures published by Robert Koch Institute depict that NRW still has the second highest number of coronavirus cases in Germany, with a total of 46,367 cases reported with the highest daily incidence per 100,000 population with a figure of 6.1 (considered quite high). The report also published that 48% of reported cases impacted male population, and 52% of females were affected. Also, it is essential to note that the most affected age group by the virus is between 20-49 years.

### **3.3 Justification for selecting NRW as Study Case**

World Health Organization (WHO) declared a world health emergency on 30<sup>th</sup> January 2020 due to the COVID-19 outbreak (WHO Emergency Committee 2020). The crisis situation did not remain limited to the original place of the virus but spread across the world also significantly impacting Germany by spreading across the country (Robert Koch Institute 2020b). The section elaborates the critical reasons for choosing the particular case of the state of NRW to study social media and trust linkage in the times of crisis. Germany has a decentralised form of governance which means that the decision making authority lies at the grass-root level instead of just the centre or federal government (Gessler and Ashmawy 2013). There are total of 16 federal states (Länder) in Germany where power lies with the states regarding various political affairs. This signifies that even in the case of crisis such as the COVID-19 all the federal states had the will and power to develop their own strategies to cope up with the situation. One critical role is to communicate effectively with the public in crisis, and social media plays a significant role in it (Cheng 2018; Ndlela 2018). North-Rhine Westphalia, a federal state of Germany is the largest state by population which has been severely impacted by the spread of the virus (Robert Koch Institute 2020b). Figure 3 represents the monthly rise in COVID-19 cases in the state with respect to the overall cases in Germany. It is useful to note that WHO published data for reported cases in Germany for the months of January and February as well but since RKI started publishing reports from March 2020 only, data from March to July 2020 is considered for analysis purpose. Moreover, only the latest available figure for each of the month was taken into account.



**Figure 3 COVID-19 cases Growth in NRW**

It is illustrated in the chart above that COVID-19 cases grew both in the country (from 61,913 to 202,799) along with the state of NRW (from 13,225 to 46,367) over the period of four months from March to July. It is also critical to mention that cases in NRW grew from 21% of the total cases in Germany to 23% of total cases in July. Furthermore, the compound annual growth rate (CAGR) of COVID-19 infection cases in Germany grew at 34.53% over the period of four months as compared to NRW where it grew at 36.84% over the same time period. This provides one reason to pick NRW as the most relevant case for this study.

The second reason for picking NRW is that (Eurostat 2019) regional yearbook published by European Union (2019) states that 80-89% of the individuals between 16-74 years in the state of NRW use the internet on a daily basis. In addition, 60-75% of the individuals in the same age bracket use the internet to interact with public authorities. Thirdly, the state government of NRW has a strong presence on social media platforms including Facebook, Twitter, YouTube and Instagram where the former two social media platforms of the state government are followed the most by the citizens (Born et al. 2019). These reasons provide the foundation to study social media platforms of the state government of NRW in times of crisis and how the trust in government is associated with it.



## **4 Research Methodology**

Kothari (2004) defines research methodology as “a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically” (p. 8). The chapter explains the underpinning systematic approach and methods deployed for this research based on Saunders et al. (2009) research onion, Handbook of Research Methods on Trust by Lyon et al. (2015), Social Media and Crisis Communication by Fraustino and Liu (2017) and the case study approach established by (Yin 2017). It outlines the details and the rationale for selection of research paradigm/philosophy, research approach, strategy, research choice, the chosen time horizon for the study. Moreover, the chapter also represents sampling strategy, data analysis methodology and ethical considerations for the research.

### **4.1 Research Paradigm/Philosophy**

Research paradigm/philosophy is considered critical as it signifies the starting point for conducting any research. According to Saunders et al. (2009), the “term relates to the development of knowledge and the nature of that knowledge...this is precisely what you are doing when embarking on research – developing knowledge in a particular field” (p. 107). The research can rely on any of these philosophies; positivism, realism, interpretivism and pragmatism (Neuman 2014; Saunders et al. 2009). The key philosophical assumption for this study is based on the position that reality is constructed by the social actors and how various individuals, organizations, societies interact with each other to create social meaning (Neuman 2014). For the said foundation the research philosophy for this study is based on interpretivism epistemological approach which is defined as the “social perspective of obtaining the valid knowledge” (Gorman and Macintosh 2015, p. 58). Because of the involvement of social actors and the presence of social phenomena which is critical to this study interpretivist paradigm was chosen.

### **4.2 Research Approach**

The research approach of study is derived based on the selected research philosophy (Saunders et al. 2009). There are two available research approach options; deductive and inductive approach (Bryman 2012; Gorman and Macintosh 2015; Neuman 2014; Saunders et al. 2009). The latter approach is deployed for this study which is defined as “with an inductive stance, a theory is the outcome of the research. In other

words, the process of induction involves drawing generalizable inferences out of observations” (Bryman 2012, p. 26). There are several reasons why an inductive approach was selected; firstly, it allows the researcher to study qualitative data in contrast to quantitative data (Bryman 2012; Gorman and Macintosh 2015). Secondly, the approach provides the researcher with the opportunity to identify empirical observations, patterns and themes (Saunders et al. 2009) that leads to the development of concrete ideas, concepts and theories (Neuman 2014). Lastly, many researchers established the use of inductive approach to study social media and crisis communication (Cheng 2018; Fraustino and Liu 2017; Hung- Baesecke and Bowen 2017) and the trust concept (Bachmann 2015; Le Gall and Ann Langley 2015; Tillmar 2015).

### **4.3 Research Strategy**

Saunders et al. (2009) mentioned research questions as the deriving factor for choosing a particular research strategy. Researchers have the choice to select from various research strategies such as experiment, survey, case study, action research, ethnography and archival research (Neuman 2014; Saunders et al. 2009). Based on the exploratory nature of the research questions of this study a case study method was selected which is defined as “the in-depth examination of a single instance of some social phenomenon” (Babbie 2013; p. 338). Additionally, another reason for choosing case study method is that it offers the opportunity to explore the research questions of research in the best possible way as identified by Saunders et al. (2007) “the case study strategy also has considerable ability to generate answers to the question ‘why?’ as well as the ‘what?’ and ‘how?... for this reason, the case study strategy is most often used in explanatory and exploratory research” (p. 139). Also, the case study helps in interpreting complex events and issues in a narrative manner (Neuman 2014) and are significantly used in trust related research for instance (Breeman 2015) and crisis communication related issues (Fraustino and Liu 2017). Yin (2017) has developed a concrete approach to conduct a case study approach, and his guidelines were deployed to collect data for answering the research questions. As per the classification of Yin (2017), a single case study design was implemented as he suggests using such type of case design for unusual or uncommon cases. Additionally, a single holistic case study concept was deployed to study the citizen-government relationship, and for ensuring quality, interview protocols were used (refer to Appendix C for interview guide).

#### **4.4 Research Choices**

Regarding the research choices, Saunders et al. (2009) identified that researchers can use quantitative, qualitative or both the approaches. Saunders et al. (2007) qualitative choice as “qualitative is used predominantly as a synonym for any data collection technique (such as an interview) or data analysis procedure (such as categorising data) that generates or use non-numerical data” (p. 145). As the data collection was based on a semi-structured interview with citizens who follow the Government of NRW on social media either Facebook or Twitter or both mediums the study relied on the qualitative approach (Bryman 2012). Walliman (2011) defines semi-structured interviews as “one that contains structured and unstructured sections with standardized and open type questions” (p. 99). Furthermore, a mono-method qualitative approach was deployed which means that the study solely relied on the collection of qualitative data from interviews with citizens and no other qualitative data collection method such as focus group was used (Saunders et al. 2009).

#### **4.5 Time Horizons**

Time horizons, identified as the fifth layer of research onion, is defined by Saunders et al. (2009) as the time to conduct the study. The time horizon for research is either cross-sectional or longitudinal study (Babbie 2013; Bryman 2012). It is critical to consider time dimension in conducting any study as the design of the research and its execution are critically dependent on the available time (Babbie 2013). As the research was time-bound a cross-sectional study design was used for this research which is defined as “gathers data at one-time point and creates a kind of “snapshot” of social life” (Neuman, 2014, p. 44). Moreover, it is justifiable to use cross-sectional design when conducting academic studies (Saunders et al. 2009) that are exploratory in nature (Babbie 2013).

#### **4.6 Techniques and Procedures**

The last layer of research onion of Saunders et al. (2009) focuses on the actual data collection process of the research. Bhattacharjee (2012) mentioned that techniques of the empirical research include “the data collection process, the instrument development process, and the sampling process” (p. 35). Data collection is highly impacted by the actual research questions which the study is trying to address (Bryman 2012).

Complementary with the research questions of the study primary data collection technique was employed to collect primary data which is known as “data that has been observed, experienced or recorded close to the event are the nearest one can get to the truth” (Walliman 2011; p.69). The next sub-section explains data collection in detail.

#### **4.6.1 Primary Data Collection**

Primary data which is the first-hand information collected particularly for a research was deployed where data was collected from the citizens living in Dusseldorf, Aachen, Münster and Köln. Interviews are an important way to collect data for the case study as mentioned by Yin (2017) “interviews can especially help by suggesting explanations (i.e., the “hows” and “whys”) of key events, as well as the insights reflecting participants’ relativist perspectives” (p. 161). Total of thirteen semi-structured key informant interviews were conducted with the citizens, out of which two were dropped for further processing. The first interview was a test case to check and modify the research instrument because of which it did not make to the final study part. Moreover, another interviewee described things that fell totally out of the scope of study due to which the interview was dropped too. So, in total, eleven interviews were finalized for further processing. Hagaman and Wutich (2017), in their research, found that approximately twelve interviews are required to identify themes from the data. However, they also mentioned in their study that the number of interviews can be more or less based on the scope of the study, available time to conduct the study and the heterogeneity and homogeneity of the population (Bryman 2012) which justifies using eleven interviews for identification of themes.

##### **4.6.1.1 Sampling Methodology**

The sampling methodology for selecting candidates for the interview was based on non-probability purposive or judgemental sampling which is defined as “purposive or judgemental sampling enables you to use your judgment to select cases that will best enable you to answer your research question(s)” (Saunders et al. 2009, p. 237). Moreover, Patton (2002) mentioned that qualitative study designs take advantage of the purposive sampling method, which results in rich and robust data generation. For the said purpose, an advertisement was published to call for participation in the thesis via AStA (Allgemeiner Studierendenausschuss der Universität Münster) in their weekly newsletter.

Moreover, social media was used to connect to various student international offices to identify relevant people for the research. Data was not only collected from students, but some employed individuals were also part of the study to identify diverse aspects.

#### **4.6.1.2 The interview Setting**

It is also essential to mention that all the interviews were conducted via a digital mechanism; Skype was the tool used for interviews due to the restrictions and barriers faced as a result of COVID-19 crisis. Also, the interviews were recorded using Audacity software, but permission was taken from the participant before recording it. The average interview duration was 36.5 minutes with the shortest interview of 23 minutes and the longest one 46 minutes.

#### **4.6.2 Instrument Development**

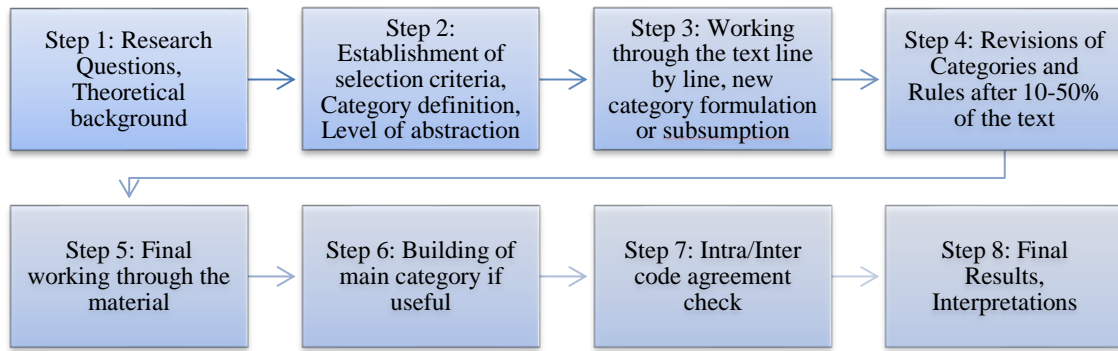
As the nature of the study is exploratory and inductive, this asks for the development of a semi-structured instrument that can explore the research questions qualitatively (Bryman 2012; Neuman 2014). An interview guide (attached as Appendix C) was developed after initial testing via an interview to study the research question and provide answers (Yin 2017). For the development of the interview guide, a ladder technique recommended by Caputi et al. (2011) was used. The interview started with generic questions known as ice-breakers for the interviewee to open up to the setting. Followed up the ice-breakers were broader questions related to social media, and gradually specific questions were asked related to the perception of government social media in crisis and citizens' trust in the government.

Since the interviews were semi-structured, no specific order or pattern of questions followed each other during the interview process. As mentioned by Bryman (2012), semi-structured interviews offer the researcher to cover the research topics, but questions do not follow certain pattern and depend on the actual interview, which allows more flexibility. All the eleven included interviews were conducted by following the same interview guide, but every interview was mainly guided by the answers and preference of the interviewee.

### **4.6.3 Data Analysis Technique and Software**

Before discussing the actual data analysis techniques, it is crucial to understand how the audio-based data collected via interview recordings were converted into a textual format for analysis. The data of the interviews was transcribed using clean read or smooth verbatim transcription technique, and no aid of any software was taken to understand context of each interview better. Clean read or smooth verbatim transcription system allows the researcher to produce a coherent text in its original wording which only leaves the unnecessary words from the text (Mayring 2014). The data collected from interviews was analyzed based on the content analysis technique of Mayring (2014). Content analysis is defined as a systematic approach for summarizing the significant amount of words and text into some meaningful categories by following specific rules (Bengtsson 2016). There are two significant forms of content analysis; quantitative and qualitative (Elo et al. 2014). The research took the qualitative content analysis approach as it has its roots in the field of social science (Bengtsson 2016). The qualitative content analysis defined as “a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns” (Hsieh and Shannon 2005, p. 1278).

Moreover, qualitative content analysis pays close attention to the topics and themes which emerge from the data, which results in unique descriptions (Bengtsson 2016; Hsieh and Shannon 2005). As per the classification by Mayring (2014), qualitative content analysis can either be done inductively or deductively. The former is conducted by categories generation from within the data, while the latter includes pre-existing category formations. Since inductive categories follow exploratory research questions (Bengtsson 2016; Mayring 2014), this research used inductive qualitative content analysis. Figure 4 represents a step by step guide given by Mayring (2014) to develop inductive categories out of the data. It is also necessary to note that these steps are not linear and modify with the changes in the data (Mayring 2014). For more information, how these steps were applied and used for this research, please refer to Appendix B.



Source: c.f. (Mayring 2014), p. 80

#### Figure 4 Inductive Content Analysis Approach

Nvivo, a software program used for qualitative research, was used to analyze data based on the inductive content analysis technique of Mayring (2014). Nvivo does offer to import transcription files into the software which can be used for further analysis. Coding was done using Nvivo 12 Pro which offered to create, modify and develop themes and sub-themes from the available data. A summary of the code table can be found in Appendix A. Moreover, Nvivo also offers some visualizations like project maps and word frequency which are represented in the analysis part of the study.

#### 4.7 Ethical Considerations

Ethics are the most important part of any research design (Sekaran 2003) which are characterized as “ethics relates to questions about how we formulate and clarify our research topic, design our research and gain access, collect data, process and store our data, analyse data and write up our research findings in a moral and responsible way” (Saunders et al. 2007, p. 178). Additionally, this research touched on the topic of social media, crisis communication and trust that requires significant consideration to ethical concerns (Fraustino and Liu 2017; Bachmann 2015). All the ethical issues were considered when developing the research design and during the data collection. Participants consent was taken to record the interviews, and they were explicitly asked for permission to use the data for analysis purpose. Moreover, the anonymity of the participants was maintained, and none of their names are used for the data analysis part. Furthermore, it was ensured in the data analysis part that data is analyzed without personal disposition of researcher and data objectivity is maintained (Bryman 2012; Saunders et al. 2007).

#### 4.8 Chapter Summary

The research methodology approach not only relied on a single source but took suggestions from multiple sources regarding how research on social media, crisis communication and trust should be conducted. For this reason, the research onion of Saunders et al. (2009) was used to understand and explain six steps that actively involved input from Lyon et al. (2015) book on trust research, and Fraustino and Liu's (2017) book on social media and crisis communication research. Besides, as the study focused on a specific case, the suggestive case study method of Yin (2017) was also actively studied to be part of the research process.

The below table 5 summarizes the methodological section of the study, providing a glance on the methods deployed for this study.

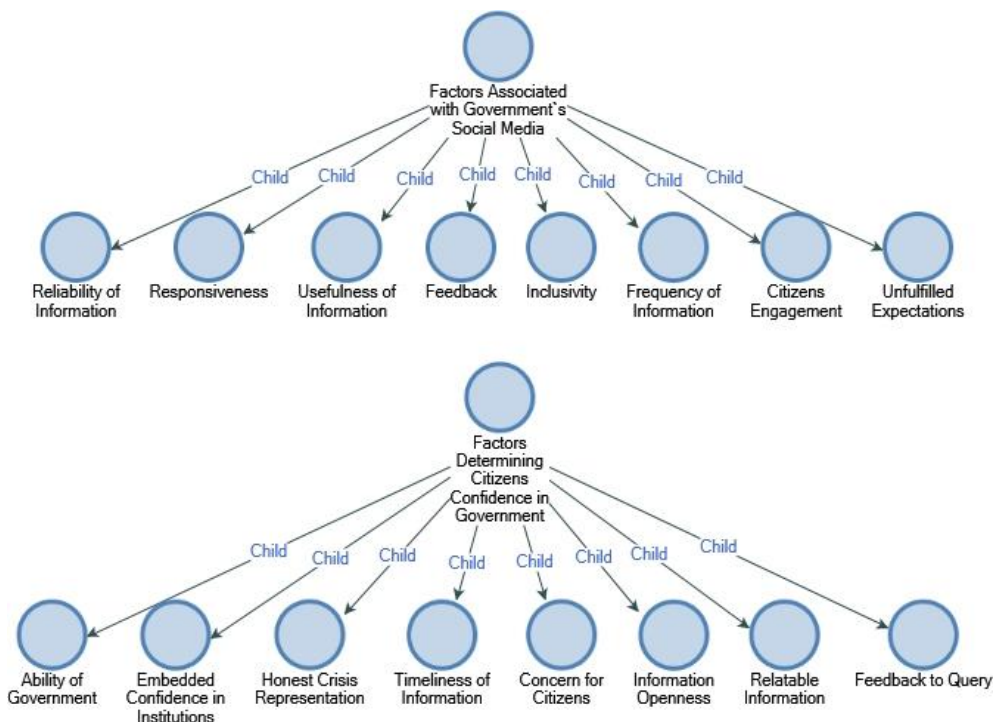
**Table 5 Summary of Research Methodology**

<b>Summary of Methodological Approach</b>	
Research Philosophy/Paradigm	Interpretivism
Research Approach	Inductive
Research Strategy	Case Study
Research Choice	Qualitative
Time Horizon	Cross-Sectional
Techniques and Procedures	<p><i>Data Collection:</i> Primary Data Collection via Semi-structured interviews conducted via Skype</p> <p><i>Sampling:</i> Non-probability, Purposive sampling</p> <p><i>Instrument:</i> Semi-structured Interview Guide</p> <p><i>Data Analysis Technique:</i> Inductive Content Analysis</p> <p><i>Software:</i> Nvivo 12 Pro</p>



## 5 Findings and Analysis

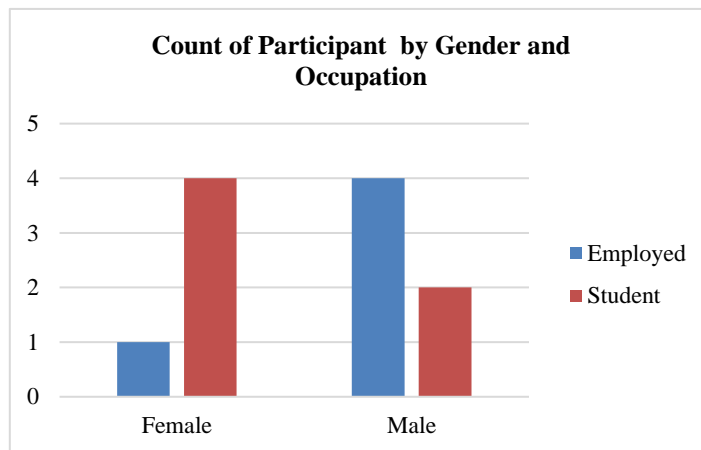
The chapter presents the key findings and results extracted from the data collected for this study. It starts with an overview of demographic characteristics of the respondents of this study, including age, gender and occupation. The study also presents the social media preference Facebook vs Twitter of the citizens. After this, a word cloud is presented, which depicts the frequently occurring words in the data allowing to see most widely used words by all the eleven respondents. Then it covers the major themes that emerged from the data to answer the research questions of this study. Using Nvivo 12 Pro for analyzing data, the themes were inductively coded, which resulted in discovering some interesting aspects. The key research question of the study “*How the use of social media by the government is associated with citizens’ trust in the government in times of crisis?*” was explored by this study. For answering the main research question, the study relied on two sub-research questions. Figure 5 below represents a diagrammatic representation of coded themes that emerged from the data. The first hierarchical representation presents an overview of themes for the first sub-question “*How do citizens perceive social media use by their government?*” while the second representation represents themes for second sub-question “*How is the perception of government’s social media use associated with citizens’ trust in their government?*” The details regarding the themes are discussed in detail in the chapter.



**Figure 5 Representation of Themes Extracted**

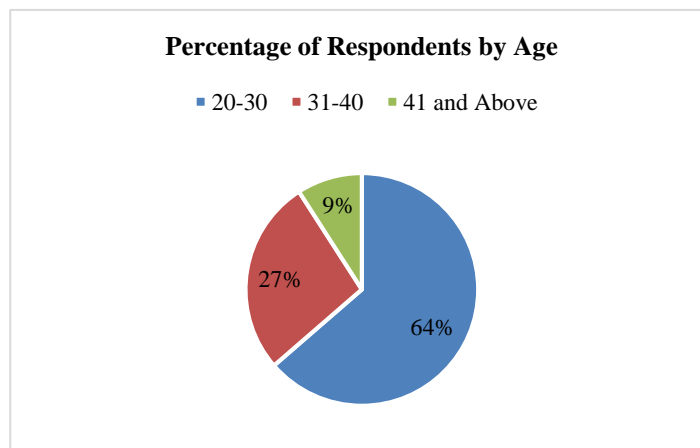
## 5.1 Demographic Profile of Respondents

*Higher ratio of Male participants in the study as compared to Female participants:* Figure 6 represents the total number of participants by their gender and status. Out of total participants of the study, 45% of the respondents were female and 55% were male. Four out of five female respondents were students and only one was employed full time, in contrast to this, four out of six male respondents were employed full time and only two were studying.



**Figure 6 Study Respondents by Gender and Occupation**

*Seven out of eleven participants belonged to the age bracket of 20-30 years:* The pie chart below represented as figure 7 represents that most of the participants who gave interviews belonged to the age bracket of 20-30 years, followed by participants who belonged to the age bracket of 31-40 years and lastly only one of the respondent of the study was above 40 years of age.



**Figure 7 Study Respondents by Age**

*Government of NRW is followed more on Facebook:* Not all the respondents showed symmetry in following social media of the state government. Nine out of eleven (82%) reported using Facebook to connect with the government of NRW. Only four (36% out of total) respondents reported that they follow Twitter handle of state government and two out of eleven participants said that they follow government on both Facebook and Twitter platforms. A comparison is represented by the figure 8 below.

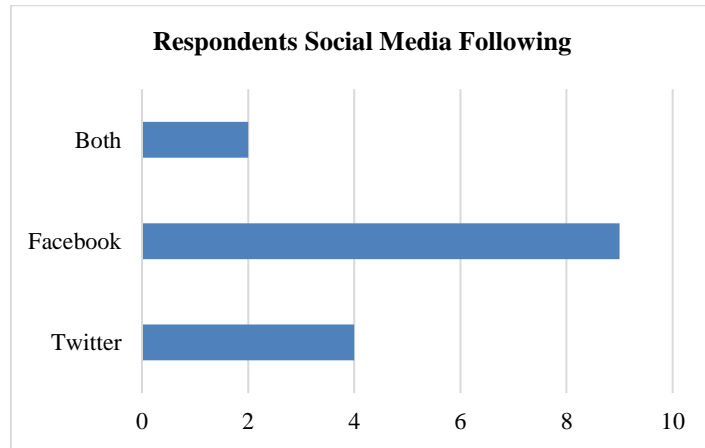


Figure 8 Study Respondents by Social Media Following

5.2 Word Cloud: Frequent Words used by Cases

Using the word frequency query function in Nvivo, the below represented figure 9, mentions highest occurring words in all the eleven cases. It is evident to note that information and government occurred 259 and 218 times respectively. While word such as confidence and trust together occurred 66 times in all eleven cases. The other presented words also occurred frequently and overall are represented in the word cloud.



Figure 9 Word Cloud: Highest Frequency

### 5.3 Factors Associated with Governmental Social Media

This part of the results section answers the first sub-research question of the study which is *“How do citizens perceive social media use by their government?”* The key themes identified under this section includes, usefulness of information, reliability of information, responsiveness, feedback, inclusivity, frequency of information, unfulfilled expectations and citizens’ engagement (refer to Appendix A for the code book).

It is critical to mention at this point that instead of marking perceptions as positive, negative, mixed or neutral, the analysis part of the study took a more in-depth approach to identify how various aspects are perceived by the citizens. For instance, not all the participants positively perceived factor of timeliness of feedback, some shared their views with positive examples while others did show their concerns with justifiable replies. So, following this approach helped more in understanding at a deeper level.

#### 5.3.1 Usefulness of Information

The sub-theme discusses how information shared related to COVID-19 on the state government’s platform of Facebook and Twitter are viewed by the citizens. Citizens differ in their opinion regarding the usefulness of information; though most of them find the information to be relatable and useful, some participant think there is even information available that they do not find useful. Some participants generally gave their opinion while others were very specific. For instance, according to one participant

*“In my opinion it is a useful source to gather information from the responsible authorities directly”* (A, 24, Student, Facebook User). Another respondent put it in these words:

*“The generic posts are relatable for me. Take example of transportation, trains and the outdoor exercise rules are very much relevant to me. It is beneficial to stay updated in times of corona”* (M, 22, Student, Facebook User). Similar views were shared by another participant who mentioned that:

*“Useful information is frequently shared by government on Facebook page... Do we need to wear masks in public and why do we need to wear? Where do we need to wear it? Who is exempted? This all I think was well-timed communicated on Facebook to help us fight with this pandemic”* (H, 21, Female, Facebook User). Other citizens shared why they think the information is relatable for them. One said:

*“I can relate to the news shared on social media by the government...I forgot to mention that fear associated with corona can only be addressed through relatable informative posts and government through its social media did that very well as initially everyone was very scared, but it got better with time”* (S, 31, Male, Employed, Follows Facebook and Twitter). Another shared the similar view that:

*“You can go and see on the page any information that you want; Education there it is! Economy you find that too and so is the general information...the information I receive on corona is very helpful for me”* (E, Male, 53, Employed, Facebook User).

Despite many participants mentioning the information is useful for them, one participant feels that since the government provides information for citizens belonging to different strata, the information is selectively useful. She mentioned as:

*“I being a student do not have a lot at stake like other citizens. Businesses have financial challenges; employees are worried about their salaries and parents are worried about kitas and their children. You know I do see posts referring to such citizens, but I usually skip through them”* (M, 22, Student, Facebook User).

### **5.3.2 Reliability of Information**

The sub-theme captures how much citizens can depend on the information that they receive from Facebook and Twitter of the government. This sub-theme is the most dominant factor among all the others mentioned as in all the interviews participants mentioned about reliability irrespective of their demographic characteristics or social media preference (Facebook or Twitter). Some of the followers of the Facebook page mentioned how reliability and convicence both are offered by the page. One female respondent mentioned:

*“I am pleased with the fact I am able to get all the required information on a single page. It is not like I join one and verify it from some other page which is very stressful. The page provides with all necessary information accessible easily. I follow them because I want reliable information about corona and the changing rules”* (H, 21, Female, Student, Facebook User). Another concisely expressed the same by saying:

*“The page is a blessing for me, I am saying this because reliable information related to my concerns is available”* (O, 39, Female, Employed, Facebook).

Since the pandemic of COVID-19 is a crisis situation and social media is widely associated with fake news the participants mentioned the reasons how the information provided by government on its platforms is reliable. As mentioned by one participant:

*“It is the government, that is what makes the Facebook page reliable. There can be many fake pages too that can operate in the name of the government, but the blue tick shows it is the real page. And any other page can share incorrect information but when Minister of Health gives a briefing broadcast live on the page shows it is the real person talking a person whose information can be trusted. I feel more confident when I know about something without ambiguity and know it is valid... crisis brings so much uncertainty for the general public and social media can be full of fake news but government has the responsibility to act to ensure that their social media can be trusted, they are providing enough and correct information to us to remove our doubts”* (Participant E, Male, 53, Facebook User).

Another participant shared how when she started following state government’s page, she had some reservations and how she validated that the information shared was correct. She shared as:

*“My main worry, is it a reliable source. Governments usually do not participate via such medium but what I look for through these pages is reliable information. The information is official government information. Initial I was sceptical about the reliability but being in lockdown it is very useful to get to know what you have to do in terms of corona guidelines. From now onwards you need to wear a mask when in a bus or when you have to shop around. And you know the information is correct when you buy a mask and go out wearing it and see everyone around you is doing the same. It is the validation of correct information. Well, you know when the I rely on the information that is coming from the ministers, they are being responsible, and their information dissemination is on point”* (J, Female, 33, Facebook User). One of the participants mentioned his view as:

*“I look for the information and I know it is true when it is found on government’s social media. I mean the information is reliable also consistently available on daily basis. More like a reminder and refresher on corona”* (L, 23, Male, Student, Twitter User).

Many other participants also shared how the presence of ministers, authorities and information from known institutions on governmental social media makes it reliable. For instance, one participant mentioned:

*“I cannot emphasize more on the reliability because I see the responsible people. I saw the minister for School and Education talking about the measure taken to ensure till when schools will remain close and how to ensure proper safety of opening the schools. I can trust what they are saying as I see them speaking, I see people asking questions and getting reply for their questions”* (A, 24, Student, Facebook User). Another respondent expressed his views regarding reliability by associating it with the responsibility of the government. According to him:

*“There is no doubt about the reliability of the information available on these medium. The responsible authority behind these accounts have the specific responsibility to collect and disseminate information. It is their job to ensure that they provide reliable information to the followers...people visit and follow these because they are the official accounts run by responsible authorities who provide “the true” information”* (C, 27, Male, Employed, Follows Facebook and Twitter). Apart from mentioning just the ministries one participant also mentioned the role of RKI in making information reliable. She mentioned:

*“Facebook is one reliable way of collecting information which is true and is coming from the government with various official links such as RKI, the website of NRW government etc...the official page started publishing information, we knew it was true and now we are in trouble...there is crisis now”* (M, 24, Female, Student, Facebook User).

One participant also mentioned how critical it is for government to provide correct and reliable information to citizens in order to avoid any kind of chaos. He said it in following terms:

*“It is the government an elected one with a responsibility and if they provide incorrect information it can result in chaos and fear among people...if I can filter the information that I need it means that they are covering my concerns, and this makes them reliable”* (T, 25, Male, Employed, Twitter User).

One of the respondents expressed his views that major reason people follow official information sources even on social media is to collect accurate information. In his words:

*“The information as you know from official sources is reliable the reason why people access it. Then there is this reliability that I can rely on and trust the information that is provided, and every information is correct to take some measures and action. This provide me the assurance that published information is true representation of ongoing situation in the country and for my safety I can trust it. My fear started to diminish, and my confidence started to rise because I was aware if I follow what is said by the government I can rely on it to cater with this undesirable situation”* (S, 31, Male, Employed, Facebook and Twitter User).

### **5.3.3 Responsiveness**

The theme encapsulates citizens opinion on how well timed the information regarding COVID-19 was shared with the public via social media of the state government. Respondents shared that not only the government shared everything well in time, they also managed to exceed some of their expectations. For instance, one respondent mentioned:

*“There is an unsung promise that government needs to fulfil, and they are doing so by informing people on time about the corona scenario in the state. Government started sharing and updating information, so quick and compiled information was available even before my expected time-frame. It was like, I do not have to ask or wait for the information it was already available to me”* (E, 53, Male, Employed, Facebook User). Another respondent mentioned about how proactive was government in sharing COVID-19 related information with the citizens, she said:

*“They did respond in a timely manner and to even say they were proactive in providing the required information. I also think that there were expectations from the public and the government has done exceptionally well in terms of the “expectations management”* (J, 33, Female, Student, Facebook User).

Other respondents mentioned that sharing crisis information with them via social media helped in understanding crisis better which resulted in reduced uncertainty for them. One of them expressed it in following terms:

*“This gave me confidence because timely information was provided... information availability on time results in reducing the risk for everyone by reducing uncertainty”* (T,



25, Male, Employed, Twitter User). Another respondent was of the same view and shared it in following terms:

*“Our government is able to deliver the information on time. The reason why social media is followed is because it provides very time effective information. You can receive it in an easy and quick manner. All the updates are available in real-time for us. I will like to say that government provided very timely, need specific response to reduce the extent of crisis”* (C, 27, Male, Employed, Facebook User).

In similar manner one of the respondents shared that she feels a well-timed information on COVID-19 via Facebook helped in reducing fear associated with the crisis. She said:

*“Government of NRW was efficient with disclosing the cases very early, this not only helped in knowing about corona early but also reduce fear and threat. The government is able to manage everything in time”* (O, 39, Female, Employed, Facebook User)

Several other respondents also agreed that the information was provided well in time and that is the reason they are following social media of the government. One of the respondents had a slight disagreement on timeliness of information but she also agrees on the fact that given current circumstances of the crisis, information from governmental end was well on time. She expressed it as:

*“For most of the time I think that the information provided by the Facebook page was very timely, as fast as they could be. But we need also to understand that it is a complex topic and from my point of view they provided information timely. I really like the way government handled the situation and provides information well on time”* (N, 25, Female, Student, Facebook User).

#### **5.3.4 Feedback**

The theme focused on identifying how the feedback from governmental end on social media is viewed by the citizens. Interview participants shared their opinion regarding the social media platform on which they receive more quick response to their queries, how social media team at governmental end addresses questions of citizens and how their concerns are addressed. One respondent who was satisfied with government’s response to all the queries mentioned:

*“From as much I have seen...there were not so much questions but when there were questions, they were responded very well. Social media is a way for government to manage the information regarding crisis, the best way they are doing is by responding the queries in form of comments. I must say the government is doing a decent job in addressing public concerns”* (N, 25, Female, Student, Facebook User). Another respondent briefly said:

*“Government is also vigilant enough to reply to many of the questions asked by the citizens”* (S, 31, Male, Employed, Twitter and Facebook User).

Participant from another interview expressed how crisis communication through social media provides citizens the opportunity to interact with government. She mentioned:

*“I can even ask questions on the page; the social media team of government is very active in responding. They even respond several times if I ask many questions... They are not just informing us through Facebook on crisis, as well as getting feedback. It is two-way communication now, I can comment or ask for clarification, also raise my concerns”* (O, 39, Female, Employed, Facebook User).

One of the respondents raised the concern related to feedback left by citizens in form of emojis. Moreover, she also mentioned that not all queries raised on social media platform are addressed, instead only relevant questions are answered. She somewhat showed a dissatisfaction with respect to feedback and expressed this as:

*“There are many emojis reactions like the angry ones...not sure how government can respond to it. This may show dissatisfaction or people just press that emoji. But there are likes too and other emojis, no way to know for sure what it translates into. There are also so many questions people ask, some turn into debate and most are answered by the operator of the page. Response from the government end depends I guess on the quality of query and when is it asked, right after a post is posted or very late.* (H, 21, Female, Student, Facebook User).

There were some responses related to timeliness of the feedback. Respondents mentioned how important it is for them that government address their query well in time during a crisis. A respondent who follows government only on Twitter mentioned:

*“Specially in the corona days I expect that the government quickly addresses my concerns, reply me with a relevant link or share/correct information that I have... representatives that I choose are there to take care of my issues even in pandemic”*. He further expressed his views that how one platform is more active in providing feedback to citizens by saying:

*“As far as Twitter and Facebook are concerned, I personally feel the government seems to provide more timely feedback on Facebook than Twitter. This can be mainly because people prefer Facebook to communicate with government during corona crisis”* (L, 23, Male, Student, Twitter User).

One of the participants who only follows state government on Facebook, raised a valid concern regarding the importance of getting a citizen’s query addressed and if the query is not properly addressed, it can result in communication of wrong information. He raised the concern by giving following example:

*“I listen to a press conference by the prime minister and do not understand why he mentioned that buses will have reduced operation in the state. I immediately put my question below the video. If it is answered it means I have clarity of the situation otherwise I will rely on the replies of other fellows which can be incorrect too. In case, I perceive the information from a wrong angle and act upon it wrongly only realizing it later my reaction would be oh! but it was mentioned on the Facebook page like this. The information was wrongly communicated by the government. So yes, a timely reply on the queries posted is very essential”* (A, 22, Male, Student, Facebook User).

### **5.3.5 Inclusivity**

Interview participants expressed their views on whether or not they think government is addressing all the relevant stakeholders in their communication on social media. Participants talked about how government is taking everyone together irrespective of their ethnic background, demographics and includes citizens from all strata. Some participants just generically gave their opinion while others gave some specific examples how they think government is not excluding anyone. For instance, one participant said:

*“The government took all the stakeholders together...solutions that are provided not only include certain sector but are inclusive for all. The government is trying to cover everyone, the elderly, the one with special needs and I think they are trying to cover every*

*demographic*” (J, 33, Female, Student, Facebook User). Similarly, another respondent mentioned:

*“They are doing the best for public to inform them for containing of virus. It is not just informing how to protect oneself from it but on how the new system will work for everyone; freelancers like me, tourism industry, bars, hospitals. They are talking about all”* (O, 39, Female, Employed, Facebook User).

Few of the participants also mentioned that government publishes important information in several languages making information more inclusive. One mentioned:

*“To make information more effective the very important posts are also published in languages such as Turkish and English, this ensures that everyone is getting the right message on time”* (S, 31, Male, Employed, Twitter and Facebook User). Another participant also mentioned:

*“The government was well aware of people residing from multi-cultural backgrounds in NRW corona related information was also shared in multiple languages like Turkish and Persian”* (C, 27, Male, Employed, Facebook User). Similarly, one of the participants liked the fact government is key information in other major languages too. She said:

*“I also really like the availability of information is Turkish and English too. This helps a lot of my friends who are not from Germany to stay connected and informed”* (N, 25, Female, Student, Facebook User).

Another respondent, who follows both Facebook and Twitter of government, expressed his opinion on how he thinks government is addressing citizens belonging from different strata. He explained it in following terms:

*“Citizens are the general public but if you divide them by strata or sector there are so many of them. I am a private sector employee but at the same time a citizen. My organisation is run by an entrepreneur who is also a citizen. We are impacted by the crisis in different ways but at the end are part of the system. My preference of gaining information may or may not be same as the head of my organisation apart from the general information that we all need as a citizen. So, I look for information that come from sources of Ministry of Economy to see how it impacts my firm and me. In this way they are catering my needs as the citizen... I guess there is information available for*

*everyone, you can relate to many posts and press conferences” (S, 31, M, Employed, Twitter and Facebook User).*

There were some other participants who gave examples of how government took care of them as citizens and provided them with right information on social media. For instance, one respondent who is a freelancer gave an example of how government took care of her specific concerns. She mentioned:

*“The generic posts is for everyone but I am a freelancer whose work got a hit by corona. I was expecting and waiting for government to do something about it since the earnings were hit badly. Recently, 2 days ago government announced approved of financial aid for month of March and April for people like me” (O, 39, Female, Employed, Facebook User).*

### **5.3.6 Frequency of Information**

The sub-theme captures citizens’ opinion regarding the number of times information related to COVID-19 is shared by government of NRW on its social media platforms. Participants talked about the views they hold whether the information frequency is balanced, too much or too low. Some of the respondents shared that they hold positive views while others shared their concerns with respect to the number of times COVID-19 related information is shared. Starting from the positive opinions, one participant said:

*“For me it offers regular on time corona updates that I can check daily” (H, 21, Female, Student, Facebook User).* Another mentioned:

*“With corona, there are continuous several posts even in a day informing and alarming people. I see information updating very frequently with the reasons and context what is the scenario, how to tackle it and why this or that needs to be done” (S, 31, Male, Employed, Twitter and Facebook User).* One other participant shared similar views:

*“They are very active, every day there is another press conference or new post” (A, 22, Male, Student, Facebook User).*

But there were several other participants who were not very positive about how frequently coronavirus related information was shared on government’s social media.

One male respondent, who follows Facebook as well as Twitter of government of NRW expressed his views in following terms:

*“In my opinion the problem initially was the information overload on these platforms. Everyone was uncertain about so many things around them and with the information overload it made people more confuse. I am not saying that the providing information is inaccurate or bad but I personally felt it was uncontrolled in terms of the frequency and quantity”* (C, 27, Male, Employed, Facebook User). Another male respondent who follows Twitter handle of state government showed his concern:

*“With the current scenario I also want to stay updated with concrete information. The available information sometimes is too much that I am unable to follow properly. There is constantly new information available, sometimes several times a day which is difficult to follow”* (T, 25, Male, Employed, Twitter User).

One participant also had this notion that government might be using some paid post options to increase their reach. She mentioned:

*“Corona has caused them to post more. Not just the written posts but also the videos but I also think to push the information government is using the paid post option...almost daily updates are posted and shared with the public. My new feed these days is full with such news”* (M, 24, Female, Student, Facebook User).

### **5.3.7 Unfulfilled Expectations**

Despite the participants understanding that sharing COVID-19 related information by government on social media channels is the need of time, there were some respondents who showed dissatisfaction with the amount of content shared by government. Majorly the demographic statistics represent that these participants were already following social media of government before the COVID-19 crisis, so they share a different opinion as compared to participants who started following government social media to get COVID-19 related information specifically. One of the participants who has been following state government on both Facebook and Twitter for past 3 years expressed it as:

*“I have seen a great shift in the focus of the government over the past few months. End of February and early March the platforms started to put a lot of information regarding*

corona. But in my opinion the problem initially was the information overload on these platforms. Everyone was uncertain about so many things around them and with the information overload it made people more confuse” (C, 27, Male, Employed, Facebook User). Another respondent who has been following the Twitter handle of the government for more than a year had the same view. He mentioned:

*“But with the recent crisis I think the information mostly shared is related to corona, which is bit disappointing for me, but I guess is the need of time...I filter out information then which concerns me. You can say that I only follow information that I prefer. If the information from Finance Ministry do not concern me why would I follow it?”* (T, 25, Male, Employed, Twitter User). One of the female participants who follows Facebook page of state government mentioned:

*“My new feed these days is full with such news as I feel they are pushed by the government”* (M, 24, Female, Student, Facebook User)

### **5.3.8 Citizens Engagement**

Irrespective of social media preference of following state government on Facebook or Twitter, several participants agreed that government social media during crisis provided an opportunity for involving citizens in curbing the crisis. Some participants applauded government efforts for engaging citizens while others mentioned governmental social media as a channel for bridging government and citizens in this crisis communication. As mentioned by one participant:

*“I...strongly think that sharing all the information openly on the Facebook page shows that government wants the people to be involved during the whole process. I understand that corona is a crisis not only for the government but for the people too as it has impacted our lives drastically and the acceptance of this by the government shows they do understand the impact on our lives”* (A, 22, Male, Student, Facebook User).

Some of the respondents admired government’s strategy to use social media for engagement of citizens. One such follower of both social media accounts of government mentioned:

*“When corona started in NRW, the government I guess felt the need and it seems like they also developed some social media strategy to engage people. I now feel that they did the*

*right thing by flowing information on Facebook and Twitter as they knew many people would be following them on social media”* (S, 31, Male, Employed, Twitter and Facebook User). Similarly, another Facebook page follower considers it in following terms:

*“The use of Facebook by government is a well devised strategy and why I think like this is because it offers two-way communication where I can leave feedback, give reactions, interact with other citizens too”* (J, 33, Female, Student, Facebook User).

A male respondent who follows government on both Facebook and Twitter views social media platforms to link government and citizens directly in communication of crisis. He explained this in following terms:

*“As per my observation and experience these platforms like Facebook and Twitter offer connectivity to the public more like a bridge between government and the public for information update”* (C, 27, Male, Employed, Uses Facebook and Twitter).

Lastly, another participant who is also the oldest respondent among all in this study shared views regarding how government is engaging participants to overcome crisis situation. As per him:

*“There is always performance expectancy from the government. Personally, I believe the information shared on Facebook is critical to overcome the crisis. We along with the government need to participate to solve the issue as they say prevention is better than cure. So, I will like to say that government provided very timely, need specific response to reduce the extent of crisis. Ample amount of information is available for all of us to take action and reduce the risk of infections”* (M, 24, Female, Student, Facebook User).

#### **5.4 Factors determining Citizens Confidence in Government**

This section of the chapter discusses second sub-research question of the study *“How is the perception of government’s social media use associated with citizens’ trust in their government?”* The key themes identified under this section include; honest crisis representation, concern for citizens, information openness, feedback, embedded confidence in institutions, timeliness of information, reliable information and ability of government (refer to Appendix A for the code book).



### 5.4.1 Honest Crisis Representation

The theme represents citizens view on credibility of government in terms of representing actual crisis situation and how an honest representation on social media of government results in trust of citizens. The citizens have discussed various aspects, to some an honest crisis representation on social media is necessary for tackling COVID-19 crisis effectively. One respondent mentioned:

*“Governments here wants to stay credible and to do that they ensure openness. And crisis can never be managed by governments alone, the role of citizens and public is more critical. It is more like a collaboration between the two to make things right. To make it works governments need to be honest about the situation and the state government was open to share everything from increase in cases, availability of health care facilities, impact to businesses etc...I can't emphasize more that they represent everything with honesty”* (C, 27, Male, Employed, Facebook User).

Another male respondent, who follows only Twitter handle of government, is of the view that government possess all the necessary resources to deal with COVID-19 crisis and an honest representation of crisis makes government more transparent which results in trust in the government. He explained his stance as following:

*“If the government has the ability to deal with the crisis like corona, they do not hide anything and are more transparent in order to gain trust from the people. In case there are some resource constraints there you can expect them to hide information from people, but I do not think it is the case for the government of NRW. They have resources both financial and manpower which can help them in dealing with the corona crisis and they represent everything with honestly whether it is the rise in number of cases or closing of businesses or educational activities”* (T, 25, Male, Employed, Twitter User).

Similarly, another respondent agrees to the fact that if the COVID-19 crisis situation is not represented in its true picture on governmental social media, there would be a lack of trust in government. She expressed this as:

*“We follow the official sources to obtain information as we think it is the true representation of crisis that we are facing. If the information is not what we expect and does not depict truth than how can we trust the integrity of government?”* (M, 24, Female, Student, Facebook User).

As earlier mentioned by participant J that if true representation of COVID-19 crisis situation is not portrayed for the state, it can result in a greater crisis. This fear was also expressed by other participants. According to one of them:

*“An honest attempt is being made by government to quote real things...government does not have the choice to hide things from public. If they do that then for sure it can create trouble not just for them for all of us too. Honesty is the only thing that can save government from unnecessary criticisms and even a more crisis”* (E, 53, Male, Employed, Facebook User).

There were some participants who mentioned the institution of RKI, and that any information on COVID-19 sourced from it is trustable for them. One mentioned:

*“What is social media is representing is sourced and verified information from government end. They are responsible for only representing correct information, as information regarding number of crisis is sourced from RKI there is no doubt about its authenticity”* (S, 31, Male, Employed, Twitter and Facebook User). Similarly, H said: *“It is hard to verify it personally if the corona cases are increasing or decreasing but what the Facebook page represents is a direct quotation of RKI which is not only famous in the country but in the world. I believe the government is trying to solve the crisis arisen for which letting people aware with real situation is important, government cannot solve this alone but with people”* (H, 21, Female, Student, Facebook User).

#### **5.4.2 Concern for Citizens**

The theme captures how citizens view that government is showing concern and care for them through its social media accounts is linked to their trust in government. Some of the citizens gave example regarding how the government is considerate of their condition and that is the reason they trust the government. Some participants mentioned it more generally while other gave concrete examples from their experiences. According to one respondent:

*“I have a firm confidence that the actions taken up till now show commitment of the government towards the public”* (M, 24, Female, Student, Facebook User). Another respondent also mentioned:

*“I want to say that confidence for me is the trust that government is doing the best for my interest”* (J, 33, Female, Student, Facebook User). A female respondent who follows government’s Facebook page expressed her views regarding government considering her situation mentioned:

*“I can have confidence in them as it proves government is considerate of my situation. Information that specially was for freelancers like me show thoughtfulness of government towards a small segment”* (O, 39, Female, Employed, Facebook User). The most senior respondent of the study expressed how government is taking care of his concern in following terms:

*“Any information circulated on official page somehow addresses my concerns by busting myths and revealing on what is true about corona”* (E, 53, Male, Employed, Facebook User).

Though, the above recorded responses do address how citizens related their concerns as factor for having confidence in government, some of the respondents specifically mentioned how their trust in government increases when government addresses their concern through its social media platforms. As per one of the respondents:

*“I would say confidence is derived from the trust and the belief that whatever measure the government is taking is for the betterment of me... It is more if I consider that if they have some restrictions in place, they are doing it for me. If they ask to follow certain protocols, they know how important they are for me”* (C, 27, Male, Employed, Facebook User).

Another female respondent who was concerned about day care centres not operating due to coronavirus crisis explains how her trust in government is impacted when problem specific to her is addressed via the Facebook page. She mentioned:

*“The issue has been raised by so many parents that it gets difficult to keep kids at home, ministry has responded to it in various posts. They plan to open them not full time, but part time and I trust their decision...my confidence increases in the government too when I see them considering problems of people like me and telling us what to do and what can the government do about it”* (O, 39, Female, Employed, Facebook User). Similarly, a male student who follows government only on their Twitter handle, emphasized it in following manner:

*“It is like if I think my government addresses all my concern as a general citizen and as a specific student citizen on its official Twitter account, it makes me trust them or it makes government more credible that oh! it does care for my issues. This will result in satisfaction as a citizen”* (L, 23, Male, Student, Twitter User).

### **5.4.3 Information Openness**

The theme identified how citizens think if government is more open to sharing information related to COVID-19, presents real facts and true picture of crisis in the state is associated with their trust in government. For instance, L who follows Twitter handle of government said:

*“If government does not represent the real facts and figures, how am I supposed to trust them? I follow their information religiously as I know they are representing true facts and figures. I can only rely on them if they are open towards me in sharing information that one way or another impacts me”* (L, 23, Male, Student, Twitter User). In a similar manner, one of the female respondents said:

*“The reason of following page is because it represents the actual picture of crisis in NRW. Why? because if real picture is not presented there will be more crisis and people will not trust government”* (O, 39, Female, Employed, Facebook User). Another respondent talking about the crisis situation representation on government’s Facebook page said:

*“If the facts told are not true, no one will have trust in the government”* (M, 24, Female, Student, Facebook User). When asked about whether or not respondent A thinks accurate information is associated with citizens confidence in government, he replied:

*“Absolutely, why not? In the time of crisis like these what do people actually look for? They want to know the real facts and if government is open about the situation there is confidence”* (A, 22, Male, Student, Facebook User).

### **5.4.4 Feedback to Query**

As social media is considered a two-way communication channel for citizens and government to interact with each other, this theme explored how the ability to give and receive feedback or reply from the government is connected to trust in government. According to one of the respondents, trust can decrease if there is lack of feedback in

crisis communication that takes place via social media platforms. As explained by one of the respondents:

*“If it is just one-way communication where government says: this is for your good do it, or we are enforcing this regulation it impacts you for good. Would I be feeling good about it? No! I will have many doubts if or not it is beneficial for me? But if government receives feedback from public this helps them in developing solutions that have more acceptance. So, my confidence in government can diminish if there is so feedback. On Facebook I give my feedback in comments section which are many times answered so I can depend more on government”* (O, 39, Female, Employed, Facebook User).

Another male respondent who follows state government only on Twitter also mentioned his confidence in government increases if he receives feedback for his question. He said:

*“My confidence increases in the government...I get a reply to my query and if or not the required information is available with ease”* (T, 25, Male, Employed, Twitter User).

One other respondent also briefly mentioned in his interview that a reply to a query of the citizen is linked with confidence in government. He said:

*“An on-time feedback tailored to concern of the citizen makes him/her have confidence in the government”* (L, 23, Male, Student, Twitter User).

Lastly, a male respondent following state government on Facebook and Twitter as well shared his view regarding feedback and trust in following manner:

*“I have this view that if I receive feedback quickly for the questions asked on social media, I will trust the government more and if my comment is ignored and not respondent I will start to question do I trust the government in this scenario?”* (S, 31, Male, Employed, Twitter and Facebook User).

#### **5.4.5 Embedded Confidence in Institutions**

One very interesting concept found by this study is based on the fact that the citizens have firm confidence in the institutions and the representatives of these institutions. For instance, they tend to trust the information because they see a minister talking about it. Moreover, citizens have this notion that the handling of social media

accounts by responsible authorities increases their trust in government. As one respondent said:

*“I can rely on ministries without any hesitation. I know they are responsible people; they are presenting corona crisis very carefully as they want public to trust their decisions. If they take presentation of information casually it will cause distress among public and they will not trust the government in return. But a responsible act from government directly means more trust in the government”* (L, 23, Male, Student, Twitter User).

One male respondent gave an example of Health Ministry and mentioned:

*“Obviously, my trust in the government increases when I see a government representative directly addressing the health-related issues caused by corona. If the same is even conveyed by another person who is not a government representative I will not trust them for sure, maybe I will doubt the government too”* (E, 53, Male, Employed, Facebook User).

There were some respondents who focused more on why they trust the source of information in their interview. They all talked about how the role of “institutions” is critical in determining their confidence in government. For instance, one respondent explained the association in detail. She mentioned:

*“Well, the reason why I trust some news or information is because which institution is posting it. If it is the government and if something is coming from an organisation an entity like that there is immediate confidence and trust. I would trust a source like that...it is like getting information from recognized institutions and my trust is dependent on it. Because government has to protect their reputation, they provide the information to the people on which they can rely without hesitation. And people trust information because they trust the government. If they do not trust the government they will not even trust the information government is passing to them. I trust the governmental institution is the reason I can believe all the information I receive from them”* (J, 33, Female, Student, Facebook User). A male respondent, following government of both social media platforms expressed his views as:

*“People visit and follow these because they are the official accounts run by responsible authorities who provide “the true” information...there was a fake letter circulated and delivered to people in the name of Education Ministry and the social media accounts*

*addressed these concerns by declaring them fake and how important it is to follow only the official accounts so that you receive the correct information. So, yes there is some relationship between accuracy of information and people trusting the government. You can only trust information coming from the source and these platforms are accurate information source”* (C, 27, Male, Employed, Facebook User). Another respondent also gave context of Ministry of Education and mentioned:

*“My trust increases when I know information on corona is coming from source”*. (A, 22, Male, Student, Facebook User). N, a female respondent thinks that government has created an engraved reputation in minds of the public which makes her trust the government. As she said:

*“The development and democracy of the country makes it reliable that whatever way the government is operating whether it is the social media or any other method the shared information is trustworthy. A perception by the government is created in the mind of the people that we can rely on them and the decisions that they take”* (N, 25, Female, Student, Facebook User). O, gave her opinion as:

*“When ministers confirm or address an issue it automatically means it is true. For me I trust government and the ministries when they speak, they are credible in my eyes since my concerned is recently addressed”* (O, 39, Female, Employed, Facebook User).

#### **5.4.6 Timeliness of Information**

One significant aspect extracted from interviews included how critical it is for citizens to receive COVID-19 related information on time. Many of the respondents shared the views regarding how the timeliness factor is associated with their trust in government. One Twitter handle follower mentioned:

*“If government does not provide timely information to the people it can related in chaos which is what no one wants. My confidence increases in the government if I can find the information I am looking for”* (T, 25, Male, Employed, Twitter User). Another respondent said:

*“Our government is able to deliver the information on time. Corona is a crisis situation which we or the government never expected to happen. I have a firm confidence that the*

*actions taken up till now show commitment of the government towards the public” (M, 24, Female, Student, Facebook User). A Twitter as well as Facebook follower mentioned:*

*“The initial information and updated information all is provided very well on time. This is one main reason why I only trust...and believe that government” (S, 31, Male, Employed, Twitter and Facebook User).*

Another participant shared her view that time effective information sharing by government provides her easiness and builds her confidence in government. She said:

*“Any information that helps me with dealing on current situation builds my confidence in government. When the government updates corona information on time it build my confidence in government as it saves my energy and relives me from stressful situation” (H, 21, Female, Student, Facebook User).*

There were several other participants who expressed that timely availability of coronavirus related information builds up their confidence in the state government. One of the Twitter follower of government handle mentioned this as:

*“My confidence in government then somehow is linked with the factor how early...I can derive the information from the Twitter handle, if I am able to I can trust them” (L, 23, Male, Student, Twitter User). He further mentioned:*

*“I am a follower because I want information on time on corona. If there is a delay this might not make me really happy, reason? It is crisis where information provided on time is so important or we loose the race! And yes, If I see government putting effort in delivering information on time and it does reliver I know I can count on them” (L, 23, Male, Student, Twitter User). Another female respondent gave her opinion in following manner:*

*“The government is able to manage everything in time. I can rely on the government because of the timely availability of information. It saved me unnecessary stress and tension. Minister of Economy’s press conferences were much needed and timely delivered that firmed my confidence in government” (O, 39, Female, Employed, Facebook User).*



#### 5.4.7 Relatable Information

Many participants in their interviews mentioned how relevant and related information to them is linked with their trust in the government. For instance, a Twitter follower said:

*“My confidence increases in the government if I can find the information I am looking for”* (T, 25, Male, Employed, Twitter User). Another participant shared similar views:

*“I can relate to the news shared on social media by the government is one reason I have confidence in them”*. (S, 31, Male, Employed, Twitter and Facebook User).

N, a student mentioned how useful information shared by government on its social media makes it reliable to her:

*“The way government provides me with the information makes them more reliable to me...to believe them, trust them. The way they give me useful information makes me to rely on them because they provide me with facts and solution how to act”* (N, 25, Female, Student, Facebook User).

While, some other participants shared their views in detailed manner by giving examples. One of them, a student said:

*“Taking my example, I do think if I know the information government is providing me is helping me in keeping myself and others safe it does increase my confidence in government. But my trust is also depending on the information that is specifically for me as a student or as youngster who suffers from particular illness. I mean it somehow makes government more trustworthy when you think they focus on you individually as well and do not leave anyone behind in a pandemic like this”* (L, 23, Male, Student, Twitter User). Also, O who is also a mother expressed her opinion in following way:

*“I have a son who goes to kindergarten, but the current situation forces me to keep him stay home. The issue has been raised by so many parents that it gets difficult to keep kids at home, ministry has responded to it in various posts. They plan to open them not full time, but part time and I trust their decision. It is inconvenient for me but safety is preferred first, so I know if they are posting it on Facebook the information is correct. My confidence increases in the government too when I see them considering problems of*

*people like me and telling us what to do and what can the government do about it” (O, 39, Female, Employed, Facebook User).*

#### **5.4.8 Ability of Government**

The theme explored how citizens think the ability and competence of state government of NRW in managing the crisis is associated with their trust in the government. Not all the citizens gave a positive response, and some had reservations too which is also discussed under this theme. Starting with the positive associations, one respondent said:

*“Facebook page kept me informed and showed me how the capabilities and resources are utilized and why are they used in a particular way. There is an instant trust when I know government is able to handle the situation” (A, 22, Male, Student, Facebook User).*

Another respondent also mentioned how he had some reservations when the initial COVID-19 cases started to report but once he knew government was able to handle the situation, he had a trust in their ability. He mentioned:

*“Initially, when the cases started to rose, I was concerned too how the health system will be impacted but there was also information available regarding available beds in hospitals and the testing capability. With provision of this information frequently I was less concerned, I got the idea government can manage the crisis. I can trust their ability to manage the crisis” (T, 25, Male, Employed, Twitter User).*

A female student also mentioned how talked about how government’s competence and ability built her confidence in the government. She said:

*“The state government of NRW updated us on relevant facts, key cases, applied measures regularly which makes me not only trust their ability but also the competence to take care of the citizens even in cases of the unforeseeable events... all the...information builds more confidence in government that yes they are doing their best” (J, 33, Female, Student, Facebook User).* One other respondent had similar views, which are as follow:

*“The social media was very aggressively used by state government to communicate about corona crisis at the start. This made me confident to...trust their ability on corona crisis management as it serves the purpose of reaching out to audience” (N, 25, Female, Student, Facebook User).*

As mentioned earlier, not all the respondents had some positive associations of state government's social media crisis communication ability with their trust in government. One respondent had reservations regarding the ability of government to reach out to the right audience with relevant message. He said:

*“There is an ample amount of information that the government is receiving and also constant information which results in information overload. These are the developments which I guess are common in crisis situations. I am not saying I doubt the ability of the government in managing the crisis but using social media for addressing the concerns of public is very tricky. See, you are constantly adding more information, but you need to see whether it is reaching the audience well or not. Government is more trustworthy when crisis information is delivered to the right audience with right intensity”* (C, 27, Male, Employed, Uses Facebook and Twitter).

Another respondent from an interview initially gave a very positive response but later also mentioned his confidence may increase if government can engage citizens more regarding management of COVID-19 crisis. He mentioned:

*“The government was able to quickly initiate sharing of information as soon as corona started...the cases rise and decline the situation gets better and then worse and decisions are made to facilitate the ones impacted. The Facebook page of government is full of information from start of corona till now, they have amended some information which changed overtime, but everything is available. You can go and see on the page any information that you want... this does show competency of NRW government to deal with crisis, I do have confidence in them that they can manage the crisis, it might not be too high at the moment but if they are able to engage us more it will be better”* (E, 53, Male, Employed, Facebook User).

## **5.5 Summary of Chapter**

The chapter answered the research questions of the study *“How the use of social media by the government is associated with citizens' trust in the government in times of crisis?”* by first addressing the sub-research question *“How do citizens perceive social media use by their government?”*, followed by the second sub-research question *“How is the perception of government's social media use associated with citizens' trust in their government?”*

By conducting semi-structured interviews analyzed via Nvivo qualitative data assistance software the research questions were answered through themes extraction with help of inductive content analysis. A summary of the of the themes is represented in table 6 below.

**Table 6 Summary of Key Research Findings**

Major Category	Theme	Key Findings
Factors Associated with Government's Social Media	Citizens Engagement	<ul style="list-style-type: none"> <li>• Openly available information shows government wants public to be actively involved</li> <li>• Government has a well devised strategy to engage people in whole process</li> <li>• Social media is offering two-way communication and offering connectivity to engage citizens and government</li> </ul>
	Feedback	<ul style="list-style-type: none"> <li>• Government responding to public queries raised on social media platforms</li> <li>• Vigilant response from government to address questions of public asked on social media</li> <li>• Social media provides two-way communication with government, results in active response from governmental end</li> <li>• More timely feedback is provided on Facebook than Twitter</li> <li>• Timely response to queries is essential</li> </ul>
	Frequency of Information	<ul style="list-style-type: none"> <li>• For some participants, regular updates are positively received</li> <li>• Frequent information available several times a day</li> <li>• Active posts and press conferences by the government</li> <li>• Some negative notions held by citizens, information overload resulting in inability to follow</li> <li>• Information seemed pushed on the social media</li> </ul>
	Inclusivity	<ul style="list-style-type: none"> <li>• Government is considerate of all stakeholders when sharing information on social media</li> <li>• Information is included for all strata and all sectors</li> </ul>

		<ul style="list-style-type: none"> <li>• Updates from government end are available in several languages</li> </ul>
	Reliability of Information	<ul style="list-style-type: none"> <li>• Most dominant theme</li> <li>• Citizens follow government's social media because of its reliability</li> <li>• Social media can be full of fake news, government presence make it reliable</li> <li>• People also see validation of information shared by government makes it more reliable</li> <li>• Information shared by government on Facebook and Twitter is considered true</li> <li>• Presence of ministries on social media makes it more reliable</li> <li>• Official sources and institutions together make citizens rely on social media</li> <li>• Reliability is necessary to avoid chaos in times of crisis</li> </ul>
	Responsiveness	<ul style="list-style-type: none"> <li>• Exceeds some of citizens expectation to provide information on time</li> <li>• Government is proactive in publishing COVID-19 related information</li> <li>• Timely information from government reduces uncertainty for citizens</li> <li>• Time effectiveness in delivering COVID-19 associated information on both social media platforms of government</li> </ul>
	Unfulfilled Expectations	<ul style="list-style-type: none"> <li>• Some citizens are dissatisfied with the content</li> <li>• Information overload and dissatisfaction</li> <li>• Non-availability of preferred information</li> <li>• Information is pushed, news feed of social media is full of COVID-19 information</li> </ul>
	Usefulness of Information	<ul style="list-style-type: none"> <li>• Social Media of government is a source of useful information</li> <li>• Generic posts offer relevancy</li> <li>• Reliable information on social media of government reduces fear</li> </ul>

		<ul style="list-style-type: none"> <li>• Information is available for multiple sectors</li> <li>• Some participants do think information on social media is selectively useful</li> </ul>
Factors Determining Citizens Confidence in Government	Ability of Government	<ul style="list-style-type: none"> <li>• There is immediate trust if government is able to handle crisis situation</li> <li>• Citizens mentioned that government has the ability and competency to deal with crisis which results in their confidence in government</li> <li>• Government is more trustworthy when crisis information is delivered to the right audience with right intensity</li> </ul>
	Concern for Citizens	<ul style="list-style-type: none"> <li>• Government is committed towards citizens</li> <li>• Citizens trust that the government is doing best for them</li> <li>• Citizens have confidence that government is considerate of their situation</li> <li>• Confidence in government increases when citizens feel government considers their problems</li> <li>• Government addressing the concerns of citizens means more trust in the government</li> </ul>
	Embedded Confidence in Institutions	<ul style="list-style-type: none"> <li>• Citizens have strong confidence in information coming from government representatives and institutions</li> <li>• Citizens have higher trust if information on COVID-19 is coming from the source (institutions, ministries)</li> <li>• Direct involvement of ministers means more credibility, people relate their trust to minister informing them on COVID-19 situation</li> <li>• Citizens trust information because they trust the government</li> </ul>
	Feedback to Query	<ul style="list-style-type: none"> <li>• Confidence in government diminishes if there is no feedback/reply from their end on social media</li> <li>• Confidence of citizens increase when they get a reply for their query</li> <li>• On time feedback means confidence in government</li> </ul>

		<ul style="list-style-type: none"> <li>• Quick feedback results in more confidence in government and no feedback results in questioning the trust in government</li> </ul>
	Honest Crisis Representation	<ul style="list-style-type: none"> <li>• Openness of government is necessary to stay credible</li> <li>• Government does not hide anything which makes them more transparent that leads to trust in them</li> <li>• If information provided on social media is not true, government loses its integrity</li> <li>• Honest crisis representation saves government from further crisis</li> <li>• Government needs to be honest as they cannot solve the problem alone</li> </ul>
	Relatable Information	<ul style="list-style-type: none"> <li>• Relevant information is one reason citizens have confidence in government</li> <li>• Useful information for citizens makes them rely on government</li> <li>• Useful information also increases their confidence in government</li> <li>• Government providing solution to the problems in their informational posts increases citizens' confidence in them</li> </ul>
	Timeliness of Information	<ul style="list-style-type: none"> <li>• Citizens confidence increases if information is readily available</li> <li>• Timely availability of information is one main reason to trust government</li> <li>• A timely update related to COVID-19 builds confidence in government</li> </ul>
	Information Openness	<ul style="list-style-type: none"> <li>• If facts represented by government social media are not true, there can be no trust in government</li> <li>• Government being more open regarding COVID-19 situation relates to increased citizens' confidence</li> <li>• Citizens can only rely on government if facts presented are true</li> </ul>

## 6 Discussion

The previous section of findings and analysis elaborated on the results of this study to provide an answer to the research question “*How the use of social media by the government is associated with citizens’ trust in the government in times of crisis?*”. By conducting semi-structured interviews with the citizens in NRW, the study focused on user perspective of government’s social media that has been ignored by previous researches (Gintova 2019). Additionally, a qualitative approach helped in understanding and providing answers at a deeper level that quantitative studies were not able to establish in the past (Bachmann 2015). One of the answers this study presented is based on the sub-research question: “*How do citizens perceive social media use by their government?*” and an elaborated discussion on it is followed below.

One of the core focus of this research was to identify how do citizens of NRW perceive Facebook and Twitter usage of the government in the COVID-19 crisis. The study identified several factors that the citizens link with governmental social media. One significant factor is the perception of usefulness and relatable information that the citizens receive from both Facebook and Twitter handle of the government regarding COVID-19 in the state. This finding is interesting because previous research suggests that one of the main challenges that e-Government faces is regarding the provision of useful information to the public by using new technology (Jaeger and Thompson 2003). Nevertheless, it is also argued in the crisis communication literature that social media offers government the opportunity to inform a broad set of audience (Cheng 2018; Coombs 2015) and increase the information capacity (Jaeger et al. 2007) which leads to the distribution of critical information to the public (Golbeck et al. 2010). As mentioned earlier that citizens perspective on the subject matter is scarce in the literature, but the results of this study establish that social media is an essential tool (Coombs 2015) which can effectively target the right audience with the right information (Graham et al. 2015) in crisis communication (Fearn-Banks 2016). Another critical factor found in the study was that social media of government is perceived to be reliable, all the information that is shared regarding COVID-19 crisis by the government of NRW is perceived as reliable, true and authentic by the citizens. In literature, it has been argued that perception of reliability of government is linked with positive outcomes. For instance, Kim et al. (2015) mentioned Twitter improves the reliability perception off the government. Similarly, a recent study by (Lovari 2020) also focusing on COVID-19 mentioned that how the Ministry of Health in



Italy interfered through their Facebook social media to spread reliable news related to the crisis. The case discussed above signifies that social media channels of government can be a significant source in spreading reliable information to the public when there is some crisis. Also, Jin et al. (2014) mentioned that social media of government is considered more reliable than traditional media when crisis information is shared with the public.

Another finding of this study suggests that the government of NRW was able to deliver information on COVID-19 to citizens well on time and in a responsive manner. Information provision is a critical task for the government and can result in negative consequences, if not done as per the expectations of citizens when communicating for crisis (Covello et al. 2001). Since the participants of the study mentioned government was able to update them on COVID-19 crisis promptly it can lead to the development of positive consequences for the government, for instance, Kim et al. (2015) mentions it as one of the critical factors to increase citizens trust in the government. Similarly, responsiveness and timeliness of information by the government in times of crisis (Gelders 2005) hold positive values for citizens as well the government (Tolbert and Mossberger 2006). The study also found that citizens perceive feedback factor as an important part of the crisis communication between them and the government on social media. There were many sub-factors discussed by the citizens, but one main finding is that government of NRW was able to address the queries of the public by replying them through the comment section in an effective manner. The past researches concerning governmental end suggest that social media is a better feedback channel for the government to interact with citizens (Golbeck et al. 2010) because it offers the opportunity to quickly respond to the concerns of public (Bretschneider et al. 2003). Also, the findings suggest that citizens feel the government respond quickly on Facebook rather than Twitter. It is justifiable, as mentioned by Hofmann (2014) that Facebook is the highest used social media medium in Germany, followed by Twitter. Moreover, looking at the participants' demographics, it is also evident that citizens prefer to follow government on Facebook, which has more followers as compared to Twitter.

One other aspect associated with Feedback which cannot be ignored is the responses citizens left for government in the form of emojis and participant from one of the interviews was not sure how the government could respond to it. This is an exciting finding, as Ndlela (2018) mentioned that citizens tend to elicit a different response on social media crisis communication in contrast to traditional media channels. Moreover,

the Integrated Crisis Mapping model also mentions that citizens tend to represent emotional response such as fright and sadness in crisis communication (Jin et al. 2012) and a response is given from citizens end in the form of emojis might need some active feedback from governmental end. Furthermore, the study found that citizens had a positive notion regarding government, including citizens from all strata in its communication on social media regarding COVID-19. Additionally, citizens mentioned factors such as the inclusion of citizens from all ethnicities and demography in the government communication. One reason for this could be the higher ways of interactivity which social media provides to connect with the citizens (Born et al. 2019). Another major factor is the inherited property of social media to interact with a large audience (Jaeger et al. 2007) along with targeting the right audience (Graham et al. 2015) allowing the government to include a broader set of audience in their crisis communication.

The aspect of information frequency was also found in this study; some of the participants hold positive views regarding it while others had negative notion regarding regular and frequent updates from government concerning COVID-19 communication. One of the reasons why there are many posts posted by government is that social media is considered to be actively used by citizens providing government with the opportunity to use it as a mechanism for sharing and updating information in crisis (Ferrante 2010). Another reason might be since that government wants to target a larger audience through social media (Graham et al. 2015) it is frequently posting updates in the form of infographics and videos. This was also concluded in the study of Hofmann (2014) that multimedia features; photos and videos, improve government communication success via social media. While the negative notion that citizens had on information frequency can be explained by SMCC model which says that information is created by information creators (Liu et al. 2012) and government of NRW is the information creator in crisis communication. Once the information is created, it is in the hands of the receiver to control the information, which actually is one of the associated benefit of information dissemination via social media (Ferrante 2010). Another reason why people felt that the information was overloaded or pushed could be the “push strategy” of government (Mergel 2010); however, it cannot be validated without having a perspective from the governmental end.

Although, most of the factors were perceived positively by citizens, some had both negative and positive notions, as mentioned earlier, some citizens mentioned

dissatisfaction with the shared content. One reason which literature also suggests is that government Facebook pages in Germany lack in terms of their content diversity (Hofmann et al. 2013). Furthermore, many social media properties are not exploited well by the government, yet instead, a traditional pattern of communication is followed even in social media management for informing the public (Hofmann et al. 2013). Lastly, government social media users mentioned how crisis communication via social media involves them in the whole process through citizens engagement. Citizens had this positive view which is mainly because it offers them and the government to have a two-way communication channel (Corritore et al. 2003; Lovari and Parisi 2015). Moreover, Hong (2013) mentioned social media offers immediate connectivity along with a direct connection for government to share information with citizens. Similarly, Molinari and Ferro (2009) mentioned when social media is used as a medium to connect with citizens they become an active user of the information leading to higher citizen engagement level (Gauld et al. 2009; Kim et al. 2015).

The upcoming section discusses the results of the second sub-research question of the study “*How is the perception of government’s social media use associated with citizens’ trust in their government?*”. One identified factor in the study was the honest representation of crisis, and most of the respondents shared their views regarding the honesty of government in representing COVID-19 situation in NRW. It was found that if an actual crisis picture is not described fairly, citizens can doubt the integrity of government. Similarly, some respondent shared their view that government representing the real crisis scenario via social media means they are more transparent, which can gain trust from the public. This finding is similar to the results of (Tolbert and Mossberger 2006; Welch et al. 2005; Vitro 2005) that perception of transparency can lead to trust in government. Moreover, the social media-specific study of Song and Lee (2016) also established that the perception of transparency leads to institutional trust in the government. The ability of government as an antecedent to trust is not new and is widely discussed in previous literature (Cvetkovich and Lofsted 2013; Johnson et al. 1999; Nakayachi and Ozaki 2014; Peters et al. 1997; Pormumbescu 2016). This study also found the ability of government to handle crisis represented via their social media has a positive association with citizens trust in the government. But the association is not always positive, to some respondents government needs to pay special attention to the information delivery, if they are able to deliver crisis information to the right audience, it

makes them more trustworthy. This is critical for the government to understand because in crisis communication the goal at governmental end is to provide information to the right audience (Graham et al. 2015) and a gap in this when using social media for crisis communication means a missed opportunity for the government to manage a crisis (Cheng 2018).

Another interesting finding was that citizens have confidence in the government regarding the actions taken to be best in their interest. Moreover, some citizens believe that government is considerate of their problems and addressing their issues in crisis through social media improves their trust in government. This is because the trust determination model mentions that citizens perception of care and concern is positively associated with trust and credibility of government (Peters et al. 1997). Though the result is similar to the trust determination model, it is critical to note that the model has only been used in academic studies for regular crisis communication, without the involvement of social media. This finding paves a way to explore the model more in social media crisis communication studies. The research also found that an open approach to crisis communication is necessary as citizens tend to trust the government if they openly represent crisis scenario through its social media. For instance, citizens mentioning about government not being open indicated that people cannot trust the government or lack of openness leads to lack of trust in government. Also, the openness of government in crisis communication means citizens have confidence in the government. The positive association can mainly be because social media is a critical tool in crisis communication. Graham et al. (2015), mentioned that social media removes the traditional communication barriers for government by offering openness in crisis communication. Furthermore, Kim et al. (2015) suggest that openness offered by social media such as Twitter increases citizens' confidence in their government agency.

The research also established that relatable information is quite critical in determining citizens' trust in their government when they communicate about crisis through social media. Relevancy and relatedness of information shared via Facebook and Twitter account of the NRW government have a positive association with citizens trust. This holds true as previous literature suggests the success of crisis communication message depends on its relevancy with the target audience (Ndlela 2018) where the medium used to disseminate the message plays a substantial role (Coombs 2015). The study also evaluated that citizens' ability to give as well as receive feedback from

government social media is associated with their trust in the government. When the government is able to respond to the questions of citizens, it increases their trust in government. In contrast, feedback that is not provided on time impacts citizens trust in government negatively. As Golbeck et al. (2010) identified social media provides government with a way to develop feedback channel with the citizens which plays a critical role in enhancing two-way communication between citizens and government (Bonsón et al. 2019; Born et al. 2019). In crisis communication, the role of feedback is even more critical because a timely response to the queries of citizens is key determinant of their trust in government (Covello et al. 2001; Kim et al. 2015; Song and Lee 2016). In the Italian context, where the Ministry of Health's official Facebook page became active to spread information on COVID-19, (Lovari 2020) found that when queries go unanswered, they can undermine citizens trust in the government. Thus, the role of feedback cannot be ignored by government when communicating crisis through social media. Timeliness is not only an important factor in feedback but overall in the crisis communication. It was determined in the study as well that well-timed information provision regarding COVID-19 on social media platforms is positively perceived by citizens. The timely availability of information addressing citizens concerns along with an update on policies arising as a result of COVID-19, increase citizens confidence in the state government. Some previous studies suggest that trust in the government increases when timely information is available to citizens via social media of government (Gelders et al. 2005; Kim et al. 2015). In contrary, if crisis information is not disseminated in a time-effective manner, it results in a decrease in the perception of trust by the citizens (Covello et al. 2001). This signifies that it is critical for the government to disseminate crisis associated information via their social media by keeping timeliness as a crucial crisis communication factor.

One very distinctive finding of this study was that citizens' confidence is derived from the institutions. Citizens tend to trust information related to COVID-19 on social media because the information is coming from official sources and institutions. Citizens rely more on information that is shared by ministries, government representatives and reliable institutions. Also, direct posts from institutions mean that there is an immediate trust and the trust increases when information shared on government social media is sourced from ministries. This finding holds true as Song and Lee (2016) mentioned institutional trust to be significantly associated factor in the context of government and

citizens interaction via social media. Moreover, Park et al. (2015) also established that institution-based trust has a significant positive relationship with citizens trust in the government agency interacting through social media. Although, there is an evidence of association of institutional trust in the context of social media, the crisis communication social media study still lacks in determining a concrete finding on it. Thus, this research provides some evidence in the former context by finding that the embedded confidence in institutions is a significant factor for determining citizens' trust in the government.

To summarize, the study provides some useful insights which do not only explore and fill some gaps in the academia but also provide valuable suggestions for the government. These implications for the government of NRW, along with the suggestions for the academic studies are presented in the next section of the study.

## **7 Research Implications**

The research implications of this study are two-fold; firstly, it offers some practical offerings for the government of NRW in terms of their social media usage for crisis communication. Secondly, the study provides insights that are relevant to academia and have some theoretical implications. The section below sheds light on the practical implication this research offers to the government of NRW, followed by a latter part on the theoretical implications of the study.

### **7.1 Practical Implications**

From an implementation perspective, the government of NRW has successfully used social media as a medium to reach out to the citizens. Nevertheless, the study offers some more in-depth insights on how certain factors are critical when the crisis information is communicated via social media. For instance, citizens tend to think that government is more responsive on Facebook as compared to Twitter handle which is an area government might need to improve to develop a better perception of all their social media platforms. Moreover, not all citizens leave a response for the government in the form of comments or queries. Many citizens leave a response in the form of emojis, as the ICM model also suggests people tend to show emotional response when they receive crisis information, it would be useful for the governments to pay close attention to such reactions. For example, an angry emoji response can be due to several reasons; citizens might not have understood the information correctly, the information is not serving its purpose, or the citizens require another response from governmental end. Furthermore, information overload was mentioned as one of the concerns in this research. It is suggested that government should use the maximum potential offered by the social media such as using multimedia features; videos and photos (Hofmann 2014) along with content diversity in its future communication via social media.

The government of NRW can also explore using other social media features such as Questions/Answers session, relevant links, event announcements and advertisements to reach the right audience. It is also recommended that the government of NRW should devise a strategy to push posts for relevant information recipient. For instance, students are lost in an information clutter when they receive information targeting another set of groups, and it is suggested that the news feed feature for that could be used. Another

suggestion is to use hashtag smartly, which can ensure that information dissemination is effective. Though understandably, the crisis is an unforeseeable event, this study can be a useful input for the government of NRW for future communication with the citizens. The study was conducted only during the crisis phase, but Coombs (2015) suggests that it is essential to communicate with the citizens in the after the crisis stage too. The input from this study can be a useful link for communicating with citizens after this stage of the crisis is over. It is also critical to mention that governments cannot work alone in crisis and active participation of citizens is necessary in the communication process (Ndlela 2018).

Additionally, developing trust is considered an essential factor for the success of crisis communication message (Ferrante 2010), for this reason, the study identified factors which are necessary and should be part of the crisis communication strategy of the government. The aspects which should be given significant importance when devising a social media crisis communication strategy include; an accurate representation of the crisis situation, keeping in mind that available information is addressing the needs of individual citizens, open two-way communication with citizens, addressing the queries of citizens in a timely manner, and providing relevant crisis information following time effectiveness. These mentioned factors are no way collectively exhaustive, and future researches can amend or update them.

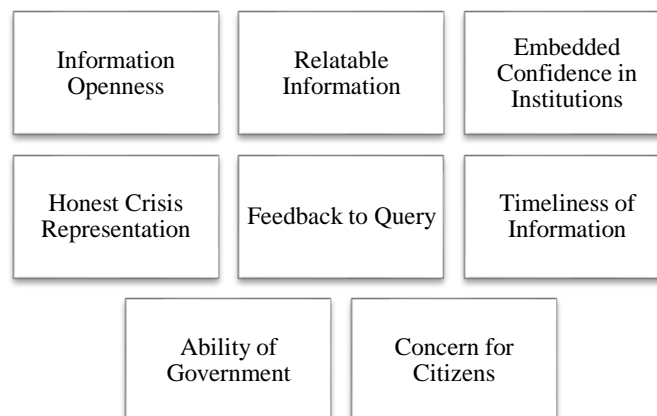
## **7.2 Theocratical Implications**

With regards to theoretical implications, the research offers several avenues. The foremost important are the research gaps that were found in the literature, and the research tried to address them. Firstly, the study provided insights to the citizen-based perspective with regards to the social media usage in the government, which is scarcely available in the literature (Gintova 2019). Moreover, most of the studies in past which link government social media use with trust in government lack a qualitative approach (Bachmann 2015), for instance (Kim et al. 2015; Picazo-Vela et al. 2012; Porumbescu 2016; Song and Lee 2016). This leaves a research gap, and this study tried to be an initial research which followed a qualitative research approach in addressing how the use of social media by the government is associated with citizens' trust in the government in times of crisis. The study relied on an inductive approach instead of a deductive approach and existing theories to explore the factors that are associated with citizens trust in



government in case of crisis communication via social media. This addresses the suggestions provided by previous researchers that an inductive approach should be used to study social media and crisis communication (Cheng 2018; Fraustino and Liu 2017) and the trust concept (Bachmann 2015; Le Gall and Ann Langley 2015; Tillmar 2015) altogether. Secondly, the study can be considered as one of the initial attempts to study the concept of social media, crisis communication (Hung- Baesecke and Bowen 2017) and trust together (Tillmar 2015). Though, inductive (Mayring 2014) and qualitative in nature (Saunders et al. 2009) the study identified several factors that link up three earlier mentioned aspects with each other. Presented in figure 10 are the critical factors that emerged from this research. These can serve as the basis for future qualitative as well as quantitative studies in the same domain. For instance, it is expected that future academic studies can explore each of the factors on its own and try to operationalize it.

Moreover, though these factors are critical in building citizens trust in the government, the directional relationship still cannot be concretely established due to the nature of this study. This research being an explorative study, expects that the results can serve as the initial basis for other academic inquiries to explore the research questions further beyond the scope of qualitative research only. From a theoretical point of view, the results of this study can serve as the starting point for other quantitative investigations to identify the directional relationship of the factors mentioned in figure 10 with citizens' trust in government in times of crisis. It would be interesting to note whether these factors, when used in a quantitative study setting yield some concrete association or not.



**Figure 10 Factors Associated with Trust in Government**

## **8 Conclusion**

Below represented are the challenges and limitation that were faced while conducting this study. These challenges were not only limited to methodological limitation but also the cultural and language barriers faced during this study. Moreover, suggestions for future studies are also presented regarding how to overcome these limitations. Lastly, a final section closes the study with a summary of the research.

### **8.1 Limitations and Future Direction**

Like every academic research, this study also has particular limitations which are necessary to mention so that the future researches can improve on these limitations. The first limitation of the study is that it relied on cross-sectional study design (Bryman 2012). Though the design was chosen because of the time available to conduct the research and explorative nature of the study (Babbie 2013), it still only captures the results at one point in time. There is a possibility that if the same research questions are explored at a different point in time (Saunders et al. 2009) and at different crisis stage as suggested by Coombs (2015); before, during and after the crisis, it might represent a slightly different picture. Moreover, since participants of the study did not have to recall the event and relied on the recent happening (Bhattacharjee 2012) their perceptions may differ if explored after the crisis is over (Coombs 2015). The second limitation of this research is it relied only on eleven interviews with the citizens following government social media; Facebook, Twitter or both. Though Hagaman and Wutich (2017) mentioned the requirement of twelve interviews to identify particular themes, they also mentioned the number dependability of factors such as time, sample heterogeneity and study scope. One barrier that leads to the collection of data from only eleven participants was the language challenge. The research was in English, requiring the respondents to be fluent in the language that leads to a smaller interview sample.

It is also essential to mention that the study used purposive sampling to collect data. Although, this sampling is well suited for a study like this (Patton 2002; Yin 2017) it is still recommended to use a probability sampling methodology in future researches. Moreover, the sample composed of participants from the city of Dusseldorf, Aachen, Münster and Köln, which still is not a representation of the whole population thus requiring to consider it an important factor for future research. Furthermore, 64% of the study sample was between the age bracket of 20-30 years, although the reason for the

selection of younger participants was their social media usage and the English language requirement for interview. Eurostat (2019) states that 80-89% of the individuals between 16-74 years in NRW use the internet and it would be interesting to find out how the older population perceive social media usage of government; future studies should consider this aspect too. Moreover, future studies can conduct comparative research between the Facebook and Twitter users of government social media as Facebook is preferred more by the citizens, and a comparison can be academically substantial.

Lastly, since the context of this study was specific to the state of NRW, Germany, the interpretations of results should be conducted carefully. For instance, the generalizability of the study results may not move across all the contexts but similar contexts. It would be an opportunity for future researches to use the same approach in various context and research setting to see if the results differ significantly. A cross-country comparison would also be a useful strategy to conduct a similar study.

## **8.2 Final Remarks**

The study intended to identify how the use of social media by the government of NRW is associated with citizens trust in times of COVID-19. The research explored citizens perception of government social media usage in crisis, along with how these perceptions are associated with trust in the government of NRW. A systemic literature review methodology, known as the hermeneutic approach (Boell and Cecez-Kecmanovic 2014), was used to identify literature gaps. By deploying a hermeneutic literature approach a critical method in IS discipline (Hofmann et al. 2019), the research addressed the previous research gaps. The study also combined social media and crisis communication (Cheng 2018; Fraustino and Liu 2017) and the trust concept (Bachmann 2015; Le Gall and Ann Langley 2015) in one study that is scarcely available in previous academic literature.

By considering a user perspective which is not extensively explored in literature (Gintova 2019) data was collected from citizens of NRW who actively follow government on Facebook, Twitter or both the platforms. It was qualitatively identified how citizens perception of government social media is associated with their trust in the government. As the qualitative approach is not commonly practised in the previous studies (Porumbescu 2016; Song and Lee 2016), making it one of the key contributions of this

study to the literature. Another interesting aspect of the study is that it has both substantial academic as well as practical contributions. At one end of the spectrum it offers government with the opportunity to consider factors of honest crisis representation, concern and care for citizens, feedback for queries, information openness, timeliness of information, and relatedness of information to citizens as an essential part of their crisis communication strategy. On the other hand, the factors identified in this study can be considered as an initial effort for future academic researches to explore. Future investigations can either deploy the same research in various context or use the factors as the foundation to establish a concrete quantitative relationship with trust in the government.

## 9 References

- Akman, I., Yazici, A., Mishra, A., and Arifoglu, A. 2005. "E-Government: A Global View and an Empirical Evaluation of Some Attributes of Citizens," *Government Information Quarterly* (22:2), Elsevier Ltd, pp. 239–257. (<https://doi.org/10.1016/j.giq.2004.12.001>).
- Andersen, K. V. 2006. "E-Government : Five Key Challenges for Management," *Challenges* (4:1), pp. 1–8.
- Austin, L., Fisher Liu, B., and Jin, Y. 2012. "How Audiences Seek Out Crisis Information: Exploring the Social-Mediated Crisis Communication Model," *Journal of Applied Communication Research* (40:2), pp. 188–207. (<https://doi.org/10.1080/00909882.2012.654498>).
- Babbie, E. 2013. *The Practice of Social Research*, (13th ed.), Wadsworth, Cengage Learning. (<https://doi.org/10.1017/CBO9781107415324.004>).
- Bachmann, R. 2015. *Utilising Repertory Grids in Maero Level Eomparative Studies In Handbook of Research Methods on Trust*, (Second.), Brimingham: Edward Elgar Publishing. (<https://doi.org/10.4337/9781781001059>).
- Bannister, F., and Connolly, R. 2011. "Trust and Transformational Government: A Proposed Framework for Research," *Government Information Quarterly* (28:2), Elsevier Inc., pp. 137–147. (<https://doi.org/10.1016/j.giq.2010.06.010>).
- Bélanger, F., and Carter, L. 2005. "Trust and Risk in E-Government Adoption," *Association for Information Systems - 11th Americas Conference on Information Systems, AMCIS 2005: A Conference on a Human Scale* (2), pp. 735–744. (<https://doi.org/10.1016/j.jsis.2007.12.002>).
- Bélanger, F., and Carter, L. 2008. "Trust and Risk in E-Government Adoption," *Journal of Strategic Information Systems* (17), pp. 165–176. (<https://doi.org/10.1016/j.jsis.2007.12.002>).
- Bengtsson, M. 2016. "How to Plan and Perform a Qualitative Study Using Content Analysis," *NursingPlus Open* (2), Elsevier Ltd, pp. 8–14. (<https://doi.org/10.1016/j.npls.2016.01.001>).
- Bennett, W. L., and Iyengar, S. 2008. "A New Era of Minimal Effects? The Changing Foundations of Political Communication," *Journal of Communication* (58:4), pp. 707–731. (<https://doi.org/10.1111/j.1460-2466.2008.00410.x>).
- Bhattacharjee, A. 2012. *Scholar Commons Social Science Research: Principles, Methods, and Practices*, Global Text Project. ([http://scholarcommons.usf.edu/oa\\_textbookshttp://scholarcommons.usf.edu/oa\\_textbooks/3](http://scholarcommons.usf.edu/oa_textbookshttp://scholarcommons.usf.edu/oa_textbooks/3)).
- Boell, S. K., and Cecez-Kecmanovic, D. 2014. "A Hermeneutic Approach for Conducting Literature Reviews and Literature Searches," *Communications of the Association for Information Systems* (34), pp. 257–286.

(<https://doi.org/10.17705/1CAIS.03412>).

- Bonsón, E., Perea, D., and Bednárová, M. 2019. “Twitter as a Tool for Citizen Engagement: An Empirical Study of the Andalusian Municipalities,” *Government Information Quarterly* (36:3), Elsevier Ltd, pp. 480–489. (<https://doi.org/10.1016/j.giq.2019.03.001>).
- Bonsón, E., Torres, L., Royo, S., and Flores, F. 2012. “Local E-Government 2.0: Social Media and Corporate Transparency in Municipalities,” *Government Information Quarterly* (29:2), pp. 123–132. (<https://doi.org/10.1016/j.giq.2011.10.001>).
- Born, C., Meschede, C., Siebenlist, T., and Mainka, A. 2019. “Pushing Open Government Through Social Media,” *Proceedings of the 52nd Hawaii International Conference on System Sciences* (January). (<https://doi.org/10.24251/hicss.2019.406>).
- Bouckaert, G., and Van De Walle, S. 2005. “Trust, Quality Measurement Models, And Value Chain Monitoring,” *Public Performance & Management Review* (28:4), pp. 460–464.
- Boyd, D. M., and Ellison, N. B. 2008. “Social Network Sites: Definition, History, and Scholarship,” *Journal of Computer-Mediated Communication* (13), pp. 210–230. (<https://doi.org/10.1111/j.1083-6101.2007.00393.x>).
- Breeman, G. ed., 2015. Hermeneutic methods in trust research. In: *HandBook of Research Methods on Trust*, 2nd ed. Brimingham: Edward Elgar Publishing.
- Bretschneider, S., Gant, J., and Ahn, M. 2003. “A General Model of E-Government Service Adoption: Empirical Exploration,” *Public Management Research*, pp. 1–24.
- Bryman, A. 2012. *Social Research Methods*, (4th ed.), Oxford: Oxford University Press.
- Cameron, W., and Shin, R. 2014. *THINK Public Relations Wilcox Cameron Reber Shin Second Edition*, Pearson Education.
- Caputi, P., Viney, L. L., Walker, B. M., and Crittenden, N. 2011. “Personal Construct Methodology,” *Personal Construct Methodology*. (<https://doi.org/10.1002/9781119953616>).
- Carter, L., and Bélanger, F. 2005. “The Utilization of E-Government Services: Citizen Trust, Innovation and Acceptance Factors,” *Information Systems Journal* (15:1), John Wiley & Sons, Ltd, pp. 5–25. (<https://doi.org/10.1111/j.1365-2575.2005.00183.x>).
- Charalabidis, Y., Loukis, E., Alexopoulos, C., and Lachana, Z. 2019. *The Three Generations of Electronic Government: From Service Provision to Open Data and to Policy Analytics In 18th IFIP WG 8.5 International Conference, EGOV 2019 San Benedetto Del Tronto, Italy, September 2–4, 2019 Proceedings*, Springer . (<https://uni-muenster.sciebo.de/s/kQQzqJ8DgQmiWLRJ>).
- Cheng, Y. 2018. “How Social Media Is Changing Crisis Communication Strategies:

- Evidence from the Updated Literature,” *Journal of Contingencies and Crisis Management* (26:1), Blackwell Publishing Ltd, pp. 58–68. (<https://doi.org/10.1111/1468-5973.12130>).
- Chun, S. A., Shulman, S., Sandoval, R., and Hovy, E. 2010. “Government 2.0: Making Connections between Citizens, Data and Government,” *Information Polity* (15:1–2), IOS Press, pp. 1–9. (<https://doi.org/10.3233/IP-2010-0205>).
- Coombs, W. T. 2015. *Ongoing Crisis Communication: Planning, Managing, and Responding*, (4th ed.), Thousand Oaks, CA: Sage Publications.
- Coombs, W. T., and Holladay, S. J. 2014. “How Publics React to Crisis Communication Efforts: Comparing Crisis Response Reactions across Sub-Arenas,” *Journal of Communication Management* (18:1), pp. 40–57. (<https://doi.org/10.1108/JCOM-03-2013-0015>).
- Corritore, C. L., Kracher, B., and Wiedenbeck, S. 2003. “On-Line Trust: Concepts, Evolving Themes, a Model,” *International Journal of Human Computer Studies* (58:6), pp. 737–758. ([https://doi.org/10.1016/S1071-5819\(03\)00041-7](https://doi.org/10.1016/S1071-5819(03)00041-7)).
- Covello, V. T., Peters, R. G., Wojtecki, J. G., and Hyde, R. C. 2001. “Risk Communication, the West Nile Virus Epidemic, and Bioterrorism: Responding to the Communication Challenges Posed by the Intentional or Unintentional Release of a Pathogen in an Urban Setting,” *Journal of Urban Health* (78:2), pp. 382–391. (<https://doi.org/10.1093/jurban/78.2.382>).
- Cvetkovich, G., and Lofstedt, R. E. 2013. *Risk, Society And Policy Series Edited by Ragnar E Lofstedt Social Trust and the Management of Risk*, Abingdon: Routledge.
- Dhaoui, I. 2019. “Electronic Governance: An Overview of Opportunities and Challenges.”
- Drennan, L., McConnell, A., and Stark, A. 2015. *Risk and Crisis Management in the Public Sector*, (2nd ed.), London: Routledge. ([https://books.google.de/books?hl=en&lr=&id=YGW2BQAAQBAJ&oi=fnd&pg=PP1&dq=difference+between+risk+and+crisis&ots=ew9Lva3QC5&sig=D6kwiSzZRxw2eYyf9bo7zIrBmWA&redir\\_esc=y#v=onepage&q=difference+between+risk+and+crisis&f=false](https://books.google.de/books?hl=en&lr=&id=YGW2BQAAQBAJ&oi=fnd&pg=PP1&dq=difference+between+risk+and+crisis&ots=ew9Lva3QC5&sig=D6kwiSzZRxw2eYyf9bo7zIrBmWA&redir_esc=y#v=onepage&q=difference+between+risk+and+crisis&f=false)).
- Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., and Kyngäs, H. 2014. “Qualitative Content Analysis,” *SAGE Open* (Vol. 4). (<https://doi.org/10.1177/2158244014522633>).
- European Commission. 2003. *The Role of EGovernment for Europe’s Future*. (<http://medcontent.metapress.com/index/A65RM03P4874243N.pdf>).
- Eurostat. 2019. *Eurostat Regional Yearbook. 2019 Edition*. (<https://doi.org/10.27585/1522>).
- Fearn-Banks, K. 2016. *Crisis Communications: A Casebook Approach*, (Fifth.), New York: Routledge.

([https://books.google.de/books?hl=en&lr=&id=aOPLDAAAQBAJ&oi=fnd&pg=PI&dq=Fearn-Banks,+K.+\(2007\).+Crisis+communications:+A+casebook+approach+\(3rd+ed.\).+Mahwah,+NJ:+Lawrence+Erlbaum+Associates+In&ots=Ede3VZjcLO&sig=3oC8PXfKdgSEFKB7n-uFL0s\\_nK8#v=onepage&q=cr](https://books.google.de/books?hl=en&lr=&id=aOPLDAAAQBAJ&oi=fnd&pg=PI&dq=Fearn-Banks,+K.+(2007).+Crisis+communications:+A+casebook+approach+(3rd+ed.).+Mahwah,+NJ:+Lawrence+Erlbaum+Associates+In&ots=Ede3VZjcLO&sig=3oC8PXfKdgSEFKB7n-uFL0s_nK8#v=onepage&q=cr)).

- Ferrante, P. 2010. "Risk & Crisis Essential Skills for Today ' s," *Professional Safety* (June), pp. 38–46. ([www.asse.org](http://www.asse.org)).
- Fraustino, J. D., and Liu, B. F. 2017. *Toward More Audience Oriented Approaches to Crisis Communication and Social Media Research In Social Media and Crisis Communication*. (<https://doi.org/10.4324/9781315749068>).
- Gauld, R., Gray, A., and McComb, S. 2009. "How Responsive Is E-Government? Evidence from Australia and New Zealand," *Government Information Quarterly* (26:1), pp. 69–74. (<https://doi.org/10.1016/j.giq.2008.02.002>).
- Gelders, D. 2005. "Public Information Provision about Policy Intentions: The Dutch and Belgian Experience," *Government Information Quarterly* (22:1), pp. 75–95. (<https://doi.org/10.1016/j.giq.2004.10.006>).
- Gessler, M., and Ashmawy, I. K. 2013. "The Effect of Political Decentralization on School Leadership in German Vocational Schools," *Educational Management Administration and Leadership* (44:2), pp. 184–204. (<https://doi.org/10.1177/1741143214549967>).
- Getha-Taylor, H. 2012. "Cross-Sector Understanding and Trust," *Public Performance and Management Review* (36:2), pp. 216–229. (<https://doi.org/10.2753/PMR1530-9576360203>).
- Gil-García, J. R., and Pardo, T. A. 2005. "E-Government Success Factors: Mapping Practical Tools to Theoretical Foundations," *Government Information Quarterly* (22:2), pp. 187–216. (<https://doi.org/10.1016/j.giq.2005.02.001>).
- Gilbert, D., Balestrini, P., and Littleboy, D. 2004. "Barriers and Benefits in the Adoption of E-Government," *International Journal of Public Sector Management* (17:4), pp. 286–301. (<https://doi.org/10.1108/09513550410539794>).
- Gintova, M. 2019. "Understanding Government Social Media Users: An Analysis of Interactions on Immigration, Refugees and Citizenship Canada Twitter and Facebook," *Government Information Quarterly* (36:4), Elsevier Ltd. (<https://doi.org/10.1016/j.giq.2019.06.005>).
- Golbeck, J., Grimes, J. M., and Rogers, A. 2010. "Twitter Use by the U.S. Congress," *Journal of the American Society for Information Science and Technology* (61:8), John Wiley & Sons, Ltd, pp. 1612–1621. (<https://doi.org/10.1002/asi.21344>).
- Gorman, K. O., and Macintosh, R. 2015. *Research Methods for Business & Management - 2nd Edition*, (2nd ed.), Oxford: Goodfellow Publishers Ltd.
- Graham, M. W., Avery, E. J., and Park, S. 2015. "The Role of Social Media in Local Government Crisis Communications," *Public Relations Review* (41:3), Elsevier



- Ltd, pp. 386–394. (<https://doi.org/10.1016/j.pubrev.2015.02.001>).
- Grant, G., and Chau, D. 2006. “Developing a Generic Framework for E-Government,” in *Advanced Topics in Global Information Management* (Vol. 5), pp. 72–101. (<https://doi.org/10.4018/978-1-59140-923-6.ch004>).
- Grimsley, M., and Meehan, A. 2007. “E-Government Information Systems: Evaluation-Led Design for Public Value and Client Trust,” *European Journal of Information Systems* (16:2), pp. 134–148. (<https://doi.org/10.1057/palgrave.ejis.3000674>).
- Hagaman, A. K., and Wutich, A. 2017. “How Many Interviews Are Enough to Identify Metathemes in Multisited and Cross-Cultural Research? Another Perspective on Guest, Bunce, and Johnson’s (2006) Landmark Study,” *Field Methods* (29:1), pp. 23–41. (<https://doi.org/10.1177/1525822X16640447>).
- Heeks, R., and Bailur, S. 2007. “Analyzing E-Government Research: Perspectives, Philosophies, Theories, Methods, and Practice,” *Government Information Quarterly* (24:2), pp. 243–265. (<https://doi.org/10.1016/j.giq.2006.06.005>).
- Hofmann, S. 2014. “‘Just Because We Can’ - Governments’ Rationale for Using Social Media,” in *ECIS 2014 Proceedings - 22nd European Conference on Information Systems*. (<http://aisel.aisnet.org/ecis2014http://aisel.aisnet.org/ecis2014/proceedings/track23/11>).
- Hofmann, S., Beverungen, D., Räckers, M., and Becker, J. 2013. “What Makes Local Governments’ Online Communications Successful? Insights from a Multi-Method Analysis of Facebook,” *Government Information Quarterly* (30:4), pp. 387–396. (<https://doi.org/10.1016/j.giq.2013.05.013>).
- Hofmann, S., Sæbø, Ø., Braccini, A. M., and Za, S. 2019. “The Public Sector’s Roles in the Sharing Economy and the Implications for Public Values,” *Government Information Quarterly* (36:4). (<https://doi.org/10.1016/j.giq.2019.101399>).
- Hong, H. 2013. “Government Websites and Social Media’s Influence on Government-Public Relationships,” *Public Relations Review* (39:4), pp. 346–356. (<https://doi.org/10.1016/j.pubrev.2013.07.007>).
- Houston, J. B., Hawthorne, J., Perreault, M. F., Park, E. H., Goldstein Hode, M., Halliwell, M. R., Turner McGowen, S. E., Davis, R., Vaid, S., Mcelderry, J. A., and Griffith, S. A. 2015. “Social Media and Disasters: A Functional Framework for Social Media Use in Disaster Planning, Response, and Research,” *Disasters* (39:1), pp. 1–22. (<https://doi.org/10.1111/disa.12092>).
- Hsieh, H. F., and Shannon, S. E. 2005. “Three Approaches to Qualitative Content Analysis,” *Qualitative Health Research* (15:9), pp. 1277–1288. (<https://doi.org/10.1177/1049732305276687>).
- Hung- Baesecke, C.-J. F., and Bowen, S. A. 2017. *Ethical Engagement At a Time of Crisis in Social Era In Social Media and Crisis Communication*. (<https://doi.org/10.4324/9781315749068>).

- Jaeger, P. T., Shneiderman, B., Fleischmann, K. R., Preece, J., Qu, Y., and Wu, P. F. 2007. "Community Response Grids: E-Government, Social Networks, and Effective Emergency Management," *Telecommunications Policy* (31), pp. 592–604.  
(<https://reader.elsevier.com/reader/sd/pii/S0308596107000699?token=3A0FD7DBEAFB437F9E331CDE0D0785B98A159102C3E662222AF031962C60DC9DF5AFB72F9D51E03EB408D83E70D4688F>).
- Jaeger, P. T., and Thompson, K. M. 2003. "E-Government around the World: Lessons, Challenges, and Future Directions," *Government Information Quarterly* (20:4), pp. 389–394. (<https://doi.org/10.1016/j.giq.2003.08.001>).
- Jin, Y., and Cameron, G. T. 2007. "The Effects of Threat Type and Duration on Public Relations Practitioner's Cognitive, Affective, and Conative Responses in Crisis Situations," *Journal of Public Relations Research* (19:3), pp. 255–281.  
(<https://doi.org/10.1080/10627260701331762>).
- Jin, Y., Liu, B. F., and Austin, L. L. 2014. "Examining the Role of Social Media in Effective Crisis Management: The Effects of Crisis Origin, Information Form, and Source on Publics' Crisis Responses," *Communication Research* (41:1), pp. 74–94.  
(<https://doi.org/10.1177/0093650211423918>).
- Jin, Y., Pang, A., and Cameron, G. 2007. "Integrated Crisis Mapping : Toward a Publics-Based, Emotion Driven Conceptualization in Crisis Communication," *Sphera Publica* (7), pp. 81–96.
- Jin, Y., Pang, A., and Cameron, G. T. 2012. "Toward a Publics-Driven, Emotion-Based Conceptualization in Crisis Communication: Unearthing Dominant Emotions in Multi-Staged Testing of the Integrated Crisis Mapping (ICM) Model," *Journal of Public Relations Research* (24:3), pp. 266–298.  
(<https://doi.org/10.1080/1062726X.2012.676747>).
- Job, J. 2005. "How Is Trust in Government Created? It Begins at Home, but Ends in the Parliament," *Australian Review of Public Affairs* (6:1), pp. 1–23.
- Johnson, B. B. 1999. "Exploring Dimensionality in the Origins of Hazard-Related Trust," *Journal of Risk Research* (2:4), pp. 325–354.  
(<https://doi.org/10.1080/136698799376763>).
- Kavanaugh, A. L., Fox, E. A., Sheetz, S. D., Yang, S., Li, L. T., Shoemaker, D. J., Natsev, A., and Xie, L. 2012. "Social Media Use by Government: From the Routine to the Critical," *Government Information Quarterly* (29:4), pp. 480–491.  
(<https://doi.org/10.1016/j.giq.2012.06.002>).
- Ki, E. J., and Hon, L. C. 2007. "Reliability and Validity of Organization-Public Relationship Measurement and Linkages among Relationship Indicators in a Membership Organization," *Journalism and Mass Communication Quarterly* (84:3), pp. 419–438. (<https://doi.org/10.1177/107769900708400302>).
- Kim, M., and Park, H. W. 2012. "Measuring Twitter-Based Political Participation and Deliberation in the South Korean Context by Using Social Network and Triple Helix Indicators," *Scientometrics* (90:1), pp. 121–140.

- (<https://doi.org/10.1007/s11192-011-0508-5>).
- Kim, S. K., Park, M. J., and Rho, J. J. 2015. "Effect of the Government's Use of Social Media on the Reliability of the Government: Focus on Twitter," *Public Management Review* (17:3), pp. 328–355. (<https://doi.org/10.1080/14719037.2013.822530>).
- De Kool, D., and Van Wamelen, J. 2008. "Web 2.0: A New Basis for E-Government?," *2008 3rd International Conference on Information and Communication Technologies: From Theory to Applications, ICTTA*, IEEE, pp. 1–7. (<https://doi.org/10.1109/ICTTA.2008.4529946>).
- Kothari, R. 2004. *Research Methodology: Methods and Techniques*, (Second.), New Delhi: New Age International Limited.
- Lee, B. K. 2004. "Audience-Oriented Approach to Crisis Communication: A Study of Hong Kong Consumers' Evaluation of an Organizational Crisis," *Communication Research* (31:5), pp. 600–618. (<https://doi.org/10.1177/0093650204267936>).
- Le Gall, V. and Langley, A. ed., 2015. An abductive approach to investigating trust development in strategic alliances. In: *HandBook of Research Methods on Trust*, 2nd ed. Brimingham: Edward Elgar Publishing.
- Linders, D. 2012. "From E-Government to We-Government: Defining a Typology for Citizen Coproduction in the Age of Social Media," *Government Information Quarterly* (29:4), pp. 446–454. (<https://doi.org/10.1016/j.giq.2012.06.003>).
- Lindgren, I., Madsen, C. Ø., Hofmann, S., and Melin, U. 2019. "Close Encounters of the Digital Kind: A Research Agenda for the Digitalization of Public Services," *Government Information Quarterly* (36:3), Elsevier Ltd, pp. 427–436. (<https://doi.org/10.1016/j.giq.2019.03.002>).
- Liu, B. F., Austin, L., and Jin, Y. 2011. "How Publics Respond to Crisis Communication Strategies: The Interplay of Information Form and Source," *Public Relations Review* (37:4), pp. 345–353. (<https://doi.org/10.1016/j.pubrev.2011.08.004>).
- Liu, B. F., Jin, Y., Briones, R., and Kuch, B. 2012. "Managing Turbulence in the Blogosphere: Evaluating the Blog-Mediated Crisis Communication Model with the American Red Cross," *Journal of Public Relations Research* (24:4), pp. 353–370. (<https://doi.org/10.1080/1062726X.2012.689901>).
- Lovari, A. 2020. "Spreading (Dis)Trust: Covid-19 Misinformation and Government Intervention in Italy," *Media and Communication* (8:2), Cogitatio, p. 458. (<https://doi.org/10.17645/mac.v8i2.3219>).
- Lovari, A., and Parisi, L. 2015. "Listening to Digital Publics. Investigating Citizens' Voices and Engagement within Italian Municipalities' Facebook Pages," *Public Relations Review* (41:2), Elsevier Ltd, pp. 205–213. (<https://doi.org/10.1016/j.pubrev.2014.11.013>).
- Lyon, F., Möllering, G., and Saunders, N.K., M. 2015. *HandBook of Research Methods*

*on Trust*, (2nd ed.), Brimingham: Edward Elgar Publishing.

- Magoutas, B., and Mentzas, G. 2010. "SALT: A Semantic Adaptive Framework for Monitoring Citizen Satisfaction from e-Government Services," *Expert Systems with Applications* (37:6), pp. 4292–4300. (<https://doi.org/10.1016/j.eswa.2009.11.071>).
- Mak, A. K. Y., and Song, A. O. 2019. "Revisiting Social-Mediated Crisis Communication Model: The Lancôme Regenerative Crisis after the Hong Kong Umbrella Movement," *Public Relations Review* (45:4). (<https://doi.org/10.1016/j.pubrev.2019.101812>).
- Manuele, F. A. 2003. *On the Practice of Safety*, (Third.), New Jersey: Wiley InterScience. ([www.copyright.com](http://www.copyright.com)).
- Mayer, R. C., Davis, J. H., and David Schoorman, F. 1995. "An Integrative Model of Organizational Trust," *The Academy of Management Review* (20:3), pp. 709–734.
- Mayring, P. 2014. *Qualitative Content Analysis Theoretical Foundation, Basic Procedures and Software Solution*. ([www.beltz.de](http://www.beltz.de)).
- Meijer, A. J., Koops, B.-J., Pieterse, W., Overman, S., and Ten Tije, S. 2012. "Government 2.0: Key Challenges to Its Realization," *Electronic Journal of E-Government* (10), p. 59.
- Mergel, I. 2010. "New Media, Social Media And Web 2.0 Gov 2.0 Revisited: Social Media Strategies in the Public Sector," *American Society For Public Administration*, pp. 7–10.
- Miller, A. H., and Listhaug, O. 1990. "Political Parties and Confidence in Government: A Comparison of Norway, Sweden and the United States," *British Journal of Political Science* (20), p. 3. (<https://doi.org/10.1017/S0007123400005883>).
- Molinari, F., and Ferro, E. 2009. "Framing Web 2.0 in the Process of Public Sector Innovation: Going down the Participation Ladder," *European Journal of EPractice* (9:1), pp. 20–34. ([www.epracticejournal.eu](http://www.epracticejournal.eu)).
- Morgeson, F. V., Vanamburg, D., and Mithas, S. 2011. "Misplaced Trust? Exploring the Structure of the e-Government-Citizen Trust Relationship," *Journal of Public Administration Research and Theory* (21:2), pp. 257–283. (<https://doi.org/10.1093/jopart/muq006>).
- Nakayachi, K., and Ozaki, T. 2014. "A Method to Improve Trust in Disaster Risk Managers: Voluntary Action to Share a Common Fate," *International Journal of Disaster Risk Reduction* (10), Elsevier Ltd, pp. 59–66. (<https://doi.org/10.1016/j.ijdrr.2014.07.003>).
- Ndlela, M. N. 2018. "Crisis Communication: A Stakeholder Approach," *Crisis Communication: A Stakeholder Approach*. (<https://doi.org/10.1007/978-3-319-97256-5>).
- Ndou, V. D. 2004. "E - Government for Developing Countries: Opportunities and

- Challenges,” *The Electronic Journal of Information Systems in Developing Countries* (18:1), Wiley-Blackwell, pp. 1–24. (<https://doi.org/10.1002/j.1681-4835.2004.tb00117.x>).
- Neuman, W. L. 2014. *Social Research Methods: Qualitative and Quantitative Approaches*, (7th ed.), Essex: Pearson Education. (<https://doi.org/10.2307/3211488>).
- O’Donnell, O., Boyle, R., and Timonen, V. 2003. “Transformational Aspects of E-Government in Ireland: Issues to Be Addressed,” *Electronic Journal of E-Government* (1:1), pp. 23–32.
- O’Reilly, T. 2005. “What Is Web 2.0 - O’Reilly Media.” (<https://www.oreilly.com/pub/a/web2/archive/what-is-web-20.html>, accessed November 13, 2019).
- Park, M. J., Choi, H., Kim, S. K., and Rho, J. J. 2015. “Trust in Government’s Social Media Service and Citizen’s Patronage Behavior,” *Telematics and Informatics* (32:4), pp. 629–641. (<https://doi.org/10.1016/j.tele.2015.02.006>).
- Park, R. 2008. “Measuring Factors That Influence the Success of E-Government,” in *HICSS 2008-Proceedings of the 41st Annual Hawaii International Conference on System Sciences*, pp. 1–10.
- Patton, M. Q. 2002. “Two Decades of Developments in Qualitative Inquiry: A Personal, Experiential Perspective,” *Qualitative Social Work* (1:3), pp. 261–283. (<https://doi.org/10.1177/1473325002001003636>).
- Peters, R. G., Covello, V. T., and McCallum, D. B. 1997. “The Determinants of Trust and Credibility in Environmental Risk Communication: An Empirical Study,” *Risk Analysis* (17:1), pp. 43–54. (<https://doi.org/10.1111/j.1539-6924.1997.tb00842.x>).
- Picazo-Vela, S., Gutiérrez-Martínez, I., and Luna-Reyes, L. F. 2012. “Understanding Risks, Benefits, and Strategic Alternatives of Social Media Applications in the Public Sector,” *Government Information Quarterly* (29:4), pp. 504–511. (<https://doi.org/10.1016/j.giq.2012.07.002>).
- Porumbescu, G. A. 2016. *Linking Public Sector Social Media and E-Government Website Use to Trust in Government*. (<https://doi.org/10.1016/j.giq.2016.04.006>).
- Reffat, R. 2003. “Developing a Successful E-Government,” ... *on E-Government: Opportunities and Challenge*. ..., pp. 1–13. ([http://faculty.kfupm.edu.sa/ARCH/rabee/publications\\_files/03Reffat\\_eGov.pdf](http://faculty.kfupm.edu.sa/ARCH/rabee/publications_files/03Reffat_eGov.pdf)).
- Renn, O., and Levine, D. 1991. “Credibility and Trust in Risk Communication,” *Communicating Risks to the Public*, pp. 175–217. ([https://doi.org/10.1007/978-94-009-1952-5\\_10](https://doi.org/10.1007/978-94-009-1952-5_10)).
- Reynolds, B., and Seeger, M. W. 2005. “Crisis and Emergency Risk Communication as an Integrative Model,” *Journal of Health Communication* (10:1), pp. 43–55. (<https://doi.org/10.1080/10810730590904571>).

- Robert Koch Institute. 2020a. "Daily Situation Report," , March 4. ([https://www.rki.de/DE/Content/InfAZ/N/Neuartiges\\_Coronavirus/Fallzahlen.html](https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Fallzahlen.html)).
- Robert Koch Institute. 2020b. "Epidemiological Situation in Germany." (<https://corona.rki.de.>).
- Rousseau, D. M., Sitkin, S. B., Burt, R. S., and Camerer, C. 1998. "Not so Different after All: A Cross-Discipline View of Trust," *Academy of Management Review* (23:3), pp. 393–404. (<https://doi.org/10.5465/AMR.1998.926617>).
- Ruano de la Fuente, J. M. 2014. "E-Government Strategies in Spanish Local Governments," *Local Government Studies* (40:4), pp. 600–620. (<https://doi.org/10.1080/03003930.2013.787414>).
- Sandoval-Almazan, R., and Gil-Garcia, J. R. 2012. "Are Government Internet Portals Evolving towards More Interaction, Participation, and Collaboration? Revisiting the Rhetoric of e-Government among Municipalities," *Government Information Quarterly* (29:SUPPL. 1). (<https://doi.org/10.1016/j.giq.2011.09.004>).
- Saunders, M., Lewis, P., and Thornhill, A. 2007. *Mark Saunders Adrian Thornhill*, (Fourth.), Prentice Hall.
- Saunders, M., Lewis, P., and Thornhill, A. 2009. *Research Methods for Business Students*, (5th ed.), Essex: Pearson Education. (<https://doi.org/10.1080/09523367.2012.743996>).
- Sekaran, U. 2003. "Research Methods For Business A Skill-Building Approach Fourth Edition." (<http://www.wiley.com/college>).
- Shirky, C. 2008. *Here Comes Everybody*, Penguin Books. (<https://doi.org/10.1109/MSPEC.2008.4607925>).
- Smith, B. G., Smith, S. B., and Knighton, D. 2018. "Social Media Dialogues in a Crisis: A Mixed-Methods Approach to Identifying Publics on Social Media," *Public Relations Review* (44:4), Elsevier Ltd, pp. 562–573. (<https://doi.org/10.1016/j.pubrev.2018.07.005>).
- Song, C., and Lee, J. 2016. "Citizens Use of Social Media in Government, Perceived Transparency, and Trust in Government," *Public Performance and Management Review* (39:2), Routledge, pp. 430–453. (<https://doi.org/10.1080/15309576.2015.1108798>).
- Teo, T. S. H., Srivastava, S. C., and Jiang, L. 2008. "Trust and Electronic Government Success: An Empirical Study," *Journal of Management Information Systems* (25:3), pp. 99–132. (<https://doi.org/10.2753/MIS0742-1222250303>).
- Tillmar, M. ed., 2015. Cross-cultural comparative case studies: a means of uncovering dimensions of Trust. In: *HandBook of Research Methods on Trust*, 2nd ed. Brimingham: Edward Elgar Publishing.
- Thomas, C. W. 1998. "Maintaining and Restoring Public Trust in Government Agencies

- and Their Employees,” *Administration and Society* (30:2), pp. 166–192. (<https://doi.org/10.1177/0095399798302003>).
- Tohidi, H. 2011. “E-Government and Its Different Dimensions: Iran,” in *Procedia Computer Science* (Vol. 3), pp. 1101–1105. (<https://doi.org/10.1016/j.procs.2010.12.179>).
- Tolbert, C., and Mossberger, K. 2006. “The effects of E-Government on Trust and Confidence in Government,” *Public Administration Review* (66:3), pp. 354–369. (<https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1540-6210.2006.00594.x>).
- Trkman, M., and Trkman, P. 2009. “A Wiki as Intranet: A Critical Analysis Using the Delone and McLean Model,” *Online Information Review* (33:6), pp. 1087–1102. (<https://doi.org/10.1108/14684520911011025>).
- Twizeyimana, J. D., and Andersson, A. 2019. “The Public Value of E-Government – A Literature Review,” *Government Information Quarterly* (36:2), Elsevier Ltd, pp. 167–178. (<https://doi.org/10.1016/j.giq.2019.01.001>).
- Utz, S., Schultz, F., and Glocka, S. 2013. “Crisis Communication Online: How Medium, Crisis Type and Emotions Affected Public Reactions in the Fukushima Daiichi Nuclear Disaster,” *Public Relations Review* (39:1), Elsevier Inc., pp. 40–46. (<https://doi.org/10.1016/j.pubrev.2012.09.010>).
- Vitro, R. 2005. “The Knowledge Economy In Development: Perspective Effective Partnerships,” Washington. (<https://myweb.rollins.edu/tlairson/pek/knowledgeeconomy.pdf#page=70>).
- Walaski, P. 2011. *Risk and Crisis Communications : Methods and Messages*, Hoboken, New Jersey : John Wiley & Sons Inc.
- Walliman, N. 2011. *Research Methods*, Abingdon: Routledge.
- Wang, X., Wang, C., Ding, Z., Zhu, M., and Huang, J. 2018. “Predicting the Popularity of Topics Based on User Sentiment in Microblogging Websites,” *Journal of Intelligent Information Systems* (51:1), pp. 97–114. (<https://doi.org/10.1007/s10844-017-0486-z>).
- Wang, X., and Van Wart, M. 2014. “When Public Participation in Administration Leads to Trust: An Empirical Assessment of Managers’ Perceptions,” *Public Administration Review* (74:6), pp. 816–816. (<https://doi.org/10.1111/puar.12295>).
- Welch, E. W., Hinnant, C. C., and Moon, M. J. 2005. “Linking Citizen Satisfaction with E-Government and Trust in Government,” *Journal of Public Administration Research and Theory* (15:3), pp. 371–391. (<https://doi.org/10.1093/jopart/mui021>).
- West, D. M. 2004. “E-Government and the Transformation of Service Delivery and Citizen Attitudes,” *Public Administration Review* (64:1), John Wiley & Sons, Ltd, pp. 15–27. (<https://doi.org/10.1111/j.1540-6210.2004.00343.x>).
- WHO Emergency Committee. 2020. “Statement on the Second Meeting of the International Health Regulations (2005) Emergency Committee Regarding the

Outbreak of Novel Coronavirus (COVID-19),” *Geneva: WHO* ([https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-\(COVID-19\)](https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(COVID-19))).  
 ([https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-\(2019-ncov\)](https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov))).

Wong, W., and Welch, E. 2004. “Does E-Government Promote Accountability? A Comparative Analysis of Website Openness and Government Accountability,” *Governance* (17:2), pp. 275–297. (<https://doi.org/10.1111/j.1468-0491.2004.00246.x>).

World Health Organization. 2020a. “Novel Coronavirus (2019-NCoV) SITUATION REPORT - 1,” , January 21. ([https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200121-sitrep-1-2019-ncov.pdf?sfvrsn=20a99c10\\_4](https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200121-sitrep-1-2019-ncov.pdf?sfvrsn=20a99c10_4)).

World Health Organization. 2020b. “Coronavirus Disease (COVID-19) Situation Report,” , July 22.

Wright, D., Hinson, M., and Apr, F. 2013. “An Updated Examination of Social and Emerging Media Use in Public Relations Practice: A Longitudinal Analysis Between 2006 and 2013,” *Public Relations Journal* (Vol. 7), Wright & Hinson-Public.  
 ([http://www.prsa.org/intelligence/prjournal/documents/2013\\_wrightinson\\_2013.pdf](http://www.prsa.org/intelligence/prjournal/documents/2013_wrightinson_2013.pdf)).

Yin, R. K. 2017. *Case Study Research and Applications: Design and Methods, Sixth Edition*, (6th ed.), California: SAGE Publications, Inc.

Zavattaro, S. M., French, P. E., and Mohanty, S. D. 2015. “A Sentiment Analysis of U.S. Local Government Tweets: The Connection between Tone and Citizen Involvement,” *Government Information Quarterly* (32:3), Elsevier Ltd, pp. 333–341. (<https://doi.org/10.1016/j.giq.2015.03.003>).

Zavattaro, S. M., and Sementelli, A. J. 2014. “A Critical Examination of Social Media Adoption in Government: Introducing Omnipresence,” *Government Information Quarterly* (31:2), Elsevier Ltd, pp. 257–264.  
 (<https://doi.org/10.1016/j.giq.2013.10.007>).

Zheng, L. 2013. “Social Media in Chinese Government: Drivers, Challenges and Capabilities,” *Government Information Quarterly* (30:4), pp. 369–376.  
 (<https://doi.org/10.1016/j.giq.2013.05.017>).



## Appendix

### A Code book based on Nvivo Nodes

Social Media and Trust: Crisis Communication

Nodes

Name	Description	Files	References
Factors Associated with Government's Social Media	Determines overall factors that are linked with citizens perception of Government's Facebook page and Twitter handle in times of crisis. Provides an overview of all the critical factors discussed by citizens	11	109
Citizens Engagement	The way citizens view how they are part of the overall crisis communication and management	6	6
Feedback	Getting a reply on social media and addressing query by governmental end, citizens have some views on it	10	15
Frequency of Information	Opinion regarding how frequent coronavirus related information is shared on social media; not everyone thinks it is useful	7	13
Inclusivity	How government is addressing citizens from various ethnic backgrounds?	7	14
Reliability of Information	Dependability on the information provided on social media of government with respect to COVID-19	11	22
Responsiveness	How timely information on COVID-19 crisis was provided?	9	17
Unfulfilled Expectations	What is lacking in crisis communication?	4	6
Usefulness of Information	How relevant is the information for citizens delivered via social media?	7	16

Name	Description	Files	References
Factors Determining Citizens Confidence in Government	How do citizens link certain factors with their trust in government?	11	95
Ability of Government	Government Competence and Citizens trust linked to it. How do citizens view it?	10	20
Concern for Citizens	Is the government considerate of citizens? How it is associated with trust	7	11
Embedded Confidence in Institutions	Institutions and Representatives from them are viewed very differently.	9	12
Feedback to Query	Addressing of questions on social media and trust of citizens in government	8	8
Honest Crisis Representation	How is presenting real crisis picture associated with citizens trust?	10	12
Information Openness	Information on COVID-19 crisis is openly available to citizens? How do they link it with trust in government?	6	10
Relatable Information	Information relevant to people has some association with trust	9	10
Timeliness of Information	How well-timed information on COVID-19 via social media channels impacted citizens trust?	10	12

## **B Inductive Category Development Steps**

### **Step 1: Research Question, Theoretical Background**

For this step please refer to the research questions presented in introduction chapter of this thesis. Moreover, the research questions are explorative in nature which is the main reason a qualitative inductive analysis is opted for this study.

### **Step 2: Establishment of selection criteria, Category definition, Level of abstraction**

Because of an explorative scope of the analysis no prior categories are formed and total categorisation is based on the available data after transcription of interviews.

*Context Unit:* The whole interview and interviewer protocol (interview guide)

*Recording Unit:* All eleven interviews (A to K)

*Category Definition:* Determination of overall factors that are linked with citizens perception of Government's Facebook page and Twitter handle in times of crisis. These can be positive as well as negative associations. Moreover, how do citizens link certain factors with their trust in government? Look for what factors increase or decrease or impact their trust in government.

*Level of Abstraction:* Concrete factors for the individual that formulate their perception of governmental social media, Identification of connections and linkages for trust in government, specific evaluations and no general definition of situation. Consideration given to each individual interview.

### **Step 3: Working through the text line by line, new category formulation or subsumption**

For this step, each interview was used as a separate file in Nvivo where each line was read few times to identify relevant lines for coding. Initially, many of the new categories were formed because coding was solely done based on the available data. Several new categories were formed and for some categories parent and child nodes were created (for reference see figure 5).

### **Step 4: Revisions of Categories and Rules after 10-50% of the text**

The initial categories were spread across multiple domains but many of them were revised after some interviews were coded. For instance, general opinion on government social was shared by some participants but since it did not fit the scope of the research, coding related to that was left out. Moreover, some themes were also remained to better understand the context it is offering.

#### **Step 5: Final working through the material**

The step involved reading once again through the material to ensure no relevant text is left un-coded and nodes coded are the correct representation of the material.

#### **Step 6: Building of main category if useful**

After all the nodes were developed and codes were formulated, they were mainly divided into two broad categories to fit in for answering the research questions. These can be seen in the table 6 or the results part of this thesis.

#### **Step 7: Intra/Inter code agreement check**

The step involves getting the code checked from another coder. Since, it is an academic research based on the original work for submission to the academic committee the codes were self-checked again by comparing the results with the original transcribed files.

#### **Step 8: Final Results, Interpretations**

The step involved actual detail representation and interpretation of results based on inductive categories development. The results are represented in detailed manner in chapter 5 of this thesis.

## C Interview Guide

**Westfälische Wilhelms-Universität  
Münster**

**Institute for Information  
Systems  
Erasmus Mundus PIONEER**

Interview # \_\_\_\_\_

Date \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

### Interview Protocol

#### *Script*

Thank You for your participation in my research project. I am Maham Fatima, an Erasmus Mundus Joint master's degree student, currently conducting my thesis at Westfälische Wilhelms-Universität Münster. I am working on identifying **how the social media usage by government is linked with citizens' trust in time of COVID-19 crisis**. As the citizens need information, updates, want to share their perspective social media (Facebook and Twitter) provides them the opportunity to do so in case of crisis. If you follow **Twitter or Facebook** account of **land.nrw (State Government of NRW)** and want to participate in my research I would like to have a **Skype** based interview. The expected duration of the interview is around 40-50 minutes. I would like to ask for your permission to record the interview which is for my data analysis purpose only and your anonymity will be kept during the whole process. Your permission for using the data from interview is highly important and I understand the significance of keeping the data safe, for this purpose the recording will be only done via mobile phone and the data will be used only for academic purpose. Please let me know in case you need more information regarding data usage or scope of the interview.

For any suggestions, comments or questions please feel free to contact me on:

[f\\_maha01@uni-muenster.de](mailto:f_maha01@uni-muenster.de)

#### **Icebreakers**

1. What is your general view about social media?
2. Which social networking website is better in your opinion and why? Can you share your opinion on Facebook and Twitter?

### Warm-Up Questions

1. What is your opinion about the social media account (Facebook Page and Twitter handle of land.nrw) of the state government of NRW?
2. What are your expectations from the social media accounts of land.nrw?

### Key Research Questions

1. Do you think the social media accounts of the state government of NRW are reliable source of information?
2. In your opinion, does the social media accounts of the state government of NRW focus on citizens satisfaction?
3. What are your general perceptions about the social media usage by the state government of NRW?
4. How do you perceive the way social media of the state government is operating in this crisis?
5. Do you think you can have confidence in the social media of the state government? Why? Why not?
6. Do you have confidence in ability or competence of state government in using social media regarding the management of COVID-19 crisis in NRW?
7. Can you please share your opinion on feedback, how it impacts your confidence in government?
8. What is your opinion on if state government using social media in the best interest of the citizens regarding the management of COVID-19 crisis?
9. Do you think that government's social media is the honest representation of the crisis scenario?
10. Can you share your opinion on whether or not the accurate information has something to do with citizens confidence in the government?
11. How do you perceive the state government social media response in the time of crisis?
12. Do you think the relevant and useful information related to the crisis help in building the confidence in the government?
13. Do you think if you receive any information that concerns you, it can increase

your confidence in government?

14. Can you share your opinion on the timeliness of information provision related to COVID-19 on governmental social media?

**Exit Question**

Is there any significant aspect that you would like to discuss with respect to the state government's social media?

**Thank You for your time. I appreciate your participation in my research project. In case, you would like the results to be shared with you please do let me know.**

## **D Transcripts**

**Transcript: A**

**Interview Date: 20<sup>th</sup> April 2020**

**Interview Duration: 46 Minutes**

**Transcript Code: A**

**Gender: Male**

**Age: 24**

**Occupation: Student**

**Social Media Following: Only Facebook**

Q: What is your opinion about the social media account (Facebook Page and Twitter handle of land.nrw) of the state government of NRW?

A: I have to be honest about it, I never followed the twitter account of the state government mainly because it is boring. I have liked a lot of pages from my Facebook profile and land.nrw is one of them, I did not like it specifically to obtain information or get connected. One day I had it in my suggestions and I just pressed the like button.

Q: But if you have been following the page for some time you might have some opinion regarding the page?

A: I never followed it regularly or paid much attention to what was published on the page until recently when I check what is happening regarding the corona measures. My father works as a teacher in one of the schools and I try to read and listen to the press conferences on the Facebook page to see the developments. In my opinion it is a useful source to gather information from the responsible authorities directly.

Q: Can you please share an example why you think Facebook page of land.nrw is a useful source?

A: I am not sure if this would be a relevant example to share but in case I do not listen to the live conference or miss out some part I can listen it again later and can also share it with my family. It offers me the convenience to listen to the most important information whenever I have the time.



Q: Good to hear that it is offering you something. Do you think the Facebook page of the state government of NRW is reliable source of information?

A: Yes and I can not emphasize more on the reliability because I see the responsible people. I saw the minister for School and Education talking about the measure taken to ensure till when schools will remain close and how to ensure proper safety of opening the schools. I can trust what they are saying as I see them speaking, I see people asking questions and getting reply for their questions. My trust increases when I know information on corona is coming from source.

Q: So, you do think that the Facebook page is reliable source of information. And I would like to ask what are your expectations about the Facebook page of land.nrw?

A: That is a tricky question and answering it depends on person to person. For me there are many expectations. Let's say I am watching a press conference of one of the ministers and I do not understand something, my first reaction would be to ask them via comments but what if I do not get any response even later? Maybe I misinterpret the information in case I do not get any response or reply from them and pass on the wrong information to others too. So, I feel getting proper answers and reply is essential and everyone of us expect that. Also, there are people who fear and panic when they hear certain news and it is necessary to clear their concerns so that they remain informed and calm in this pandemic situation. At end, I also want to say that these are not very good times and we as citizens expect the government to answer our concerns.

Q: Since you have talked about how you feel it is the responsibility of the government to address the citizens queries by replying to their comments etc. In your opinion, does the social media accounts of the state government of NRW focus on citizens satisfaction?

A: How would you define citizens satisfaction?

Q: Okay, I guess try to understand it in terms of how the government is addressing the citizens queries or providing them information or clarifying the situations to them?

A: As I said earlier there is a high chance that I might not understand something and ask for clarification via comment section. I personally see land.nrw replying to so many of the comments right after the conferences or immediately after posting some information. The response to the queries is sometimes very quick and some of the queries just remain there with other people offering the suggestions under the comments. Sharing my personal experience, I did add a comment to one of the posts and got an immediate reply from the team but there were many other comments which were not answered mainly because they were asking for redundant information.

Q: Now after all this discussion I would like to ask you that what are your general perceptions about the Facebook page of the state government of NRW?

A: I was not a fan of the page and never followed it on daily basis before the corona outbreak so I can share my view only after the regular following. All the information regarding the rules and regulations, changes and measures are available at one place. I find it very useful that I can not only watch the press conferences or read the available content but also see what are the views of people as they share their concerns in comments it helps to know what others are going through and what are their opinions. I also strongly think that sharing all the information openly on the Facebook page shows that government wants the people to be involved during the whole process. I understand that corona is a crisis not only for the government but for the people too as it has impacted our lives drastically and the acceptance of this by the government shows they do understand the impact on our lives.

Q: In the current crisis scenario of the corona crisis, what is your opinion regarding how the state government deals with the citizens on their official Facebook page?

A: I think the government is trying to do their best for the interest of the citizens. It is trying to address concerns of citizens from all sectors for example, businesses, day cares, parents, schools etc. But what I feel is that it seems impossible for the management of the page to respond to all the comments in the comments sections. Though, I strongly think that the most crucial comments are responded well in time.

Q: What are your views regarding the way social media of the state government is operating in this crisis?

A: They are very active, every day there is another press conference or new post which starts a new debate between the citizens. It is somehow positive because it allows the government to check how people respond to the new rules and changing situations. On the other hand, there is another aspect too as the situation changes over time the measures also change which might portray that there is some inconsistency that causes confusion among citizens.

Q: Do you think you can have confidence in the social media of the state government? Why or why not?

A: I mentioned this before too that I can rely on what is being said on the Facebook page because these are the elected people speaking from a channel which we all use now. I see the prime minister speaking on daily basis addressing all the concerns of the people. I immediately have higher confidence when I see an elected representative talking about corona issue. If there is

someone unknown to me and provides the same information, I may not at all trust the information. It is because of the leader talking that I can rely more on the given information. We have to stay united in this time of crisis and listen to the people who are actually know their job.

Q: This brings me to the question; do you have confidence in the competence or ability of the state government in using social media regarding the management of corona crisis in NRW?

A: The current crisis is something we all never expected, and we were never ready for this. The government has to be prepared for the worst too and the regular communication of developments through the Facebook page kept me informed and showed me how the capabilities and resources are utilized and why are they used in a particular way. There is an instant trust when I know government is able to handle the situation. Let me tell you that the government took all the stakeholders together, they discuss and not only inform us but also listen to the feedback.

Q: Do you think that the state government of NRW is using social media in the best interest of the citizens regarding the management of corona crisis?

A: I think so hmmm I assume that is why they hold office and position so that they can act in the favour of people.

Q: But do you have any opinion regarding how they are doing it in best interest of the citizens?

A: Well, I think they are doing it by providing citizens with enough information. You can say that if information is available to the citizens and it is accurate the government is doing their job.

Q: And do you think sharing the accurate information has something to do with citizens confidence in the government?

A: Absolutely, why not? In the time of crisis like these what do people actually look for? They want to know the real facts and if government is open about the situation there is confidence.

Q: So, do you think that government's social media account is the honest representation of the crisis situation?

A: I would like to emphasize that when relevant statistical figures are available, they are shared on Facebook and are continuously updated. The state government has the great sense of responsibility towards the citizens. Do you see them providing links to information that are available in multiple languages? The reason for that is because they have a promise to fulfil to the multi-lingual people living here. The information for all has to be consistent and government is maintaining it well for all.

Q: How do you perceive the state government social media response in the time of crisis?

A: Overall, I would like to say that the government is doing a fine job. There are interactive sessions and conferences which shows the seriousness of the government towards the uncertain situation. The posts on Facebook also generate many reactions and comments and the government officials try to address them to build people's confidence in what measures are being taken.

Q: Do you think the relevant and useful information related to the crisis help in building the confidence in the government?

A: I guess I talked about this earlier too. I need information that I can relate to and if it is relatable it means it is useful for me allowing me to take certain actions and help me define what and how I need to plan my future days.

Q: Okay! So let's assume this scenario, you have some very relatable query linked with one of the press conferences and you post a question. Do you think a feedback from the government's social media is linked to your confidence in the government?

A: I will try to give an example in this case. I listen to a press conference by the prime minister and do not understand why he mentioned that buses will have reduced operation in the state. I immediately put my question below the video. If it is answered it means I have clarity of the situation otherwise I will rely on the replies of other fellows which can be incorrect too. In case, I perceive the information from a wrong angle and act upon it wrongly only realizing it later my reaction would be oh! but it was mentioned on the Facebook page like this. The information was wrongly communicated by the government. So yes, a timely reply on the queries posted is very essential.

Q: Alright, I think it offers me some insight. Lastly, is there any significant aspect that you would like to discuss with respect to the state government's social media?

A: I guess I have talked about many things. Just that I never felt the need of following the government's Facebook page before the corona crisis. Now I need to stay updated and for that I need timely information which is easier to gather from the page.

**Transcript: B**

**Interview Date: 1<sup>st</sup> May 2020**

**Interview Duration: 43 Minutes**

**Transcript Code: J**

**Gender: Female**

**Age: 33**

**Occupation: Student Plus part time worker at a Restaurant**

**Social Media Following: Facebook**

Q: Which social media accounts (Facebook Page and Twitter handle of land.nrw) of the government are you currently following?

J: Well, there is one which I am using that is on Facebook...my friend sent me the link to it and they post information on corona related information and very relevant corona related information is posted.

Q: Were you following any of the social media account before the corona crisis?

J: During the corona crisis, we still are in the crisis.

Q: What is your general opinion about the social media?

J: Basically, after moving to Münster for my studies, I totally stopped using social media due to academic commitments. I used to use social media a lot specially Facebook and Instagram when I was back in my hometown. But I never used Twitter.

Q: Why not Twitter?

J: Ah! I just did not bother. I was doing my bachelors and there was no time for other platforms which I felt the need to follow.

Q: As you said that you started following the state government page after the crisis, what is your general opinion about the page?

J: On social media I was not sure what was the fake news or real news. Can I really rely on the information? Which is being disseminated by this page but then someone said no no the information is reliable and reflection of what is happening.

Q: What was the way of ensuring that the information you are getting is correct?

J: I have discussed with others of my fellows; I make sure I am following the right Facebook page and I am watching the right people there.

Q: What are your expectations from the Facebook page of the state government?

J: So, your question is what do I look for?

Q: Yes!

J: My main worry, is it a reliable source. Governments usually do not participate via such medium but what I look for through these pages is reliable information. The information is official government information. Initial I was sceptical about the reliability but being in lockdown it is very useful to get to know what you have to do in terms of corona guidelines. From now onwards you need to wear a mask when in a bus or when you have to shop around. And you know the information is correct when you buy a mask and go out wearing it and see everyone around you is doing the same. It is the validation of correct information.

Q: Do you think in any way the social media platforms are focusing on citizens satisfaction?

J: Yeah! I would say to certain extent. The government want to cover everyone. I see that on these platforms if a citizen expresses dissatisfaction there is a certain response from the government. Like for instance, the people from restaurants and hotels were complaining about the closure of the industry and were pushing for re-opening and asking for a protest which they could not even do and were complaining about it that how their business is suffering. Also, they said that how their bail out fund is not available yet and other industries already have received it. The government replied to them even through social media and they were going to have a meeting soon to discuss this issue. I have not followed up yet on that but this show that to a great extent they are engaging the citizens and try to address their issues.

Q: Following on up on the example you gave, do you think the government is focusing on the fair treatment of the public, the businesses, those working in schools?

J: I would say from my experience that they are all encompassing not only certain sectors or group of citizens. For example, in case of students they know that a lot of students have lost their jobs or if their source of funding was their parents they are also affected from corona. So, a financial aid is being set up for them. I found one of the links on the Facebook page and I clicked on it to fill in my details and I got the financial aid. So, the solutions that are provided not only include certain sector but are inclusive for all. The government is trying to cover everyone, the elderly, the one with special needs and I think they are trying to cover every demographic. I think they

are there to cover everyone and even if they miss out something I think the platform is there so people can share their views and if they do so then they can be addressed.

Q: What are your views regarding the way social media of the state government is operating in this crisis?

J: Yeah! I feel to a certain degree the government has tried to address people's fears through social media. For instance, they provide the stats how many people are currently affected, the curve is flattening, we have build have capacity to tackle with the corona crisis, capacity and usage of health care system. The social media generally create fear, for example you see what is happening in UK or Italy, people cannot get the health care help there. But at the same time the government here in Germany telling and providing us the statistics regarding facilities which shows that even if I fall sick there will be a bed for me and that helps in reducing the fear in people.

Q: I would like to know that when you say that the platforms like governments Facebook page is reliable do you think you can have confidence in the social media of the state government? Why or why not?

J: Well, the reason why I trust some news or information is because which institution is posting it. If it is the government and if something is coming from an organisation an entity like that there is immediate confidence and trust. I would trust a source like that. In contrast, take example of an individual or organisation I am not aware of why would I trust them? It is like getting information from recognized institutions and my trust is dependent on it. Because government has to protect their reputation, they provide the information to the people on which they can rely which hesitation. And people trust information because they trust the government. If they do not trust the government they will not even trust the information government is passing to them. I trust the governmental institution is the reason I can believe all the information I receive from them.

Q: So, if I try to summarize it, do you have confidence in the competence or ability of the state government in using social media regarding the management of corona crisis in NRW?

J: Yeah! Government covers everyone. They are trying their best to address the issues of all. You see the with every new day there are new issues and challenges for the government. The way government is managing it is by brining all the ministers online on Facebook who share the recent developments with the changing circumstances shows they are capable to tackle the situation.

Q: Do you think that the state government of NRW is using social media in the best interest of the citizens regarding the management of corona crisis?

J: For sure yes! For example, they tell you what is happening in the state. How the schools should operate? Why some services should be open and why some need to be closed? Compensations

for businesses etc. The quick response to all these queries of the people and businesses determine how much the government cares and it was evident.

Q: Do you think that government's social media account is the honest representation of the crisis situation?

J: Well, for this you must look at the reality in terms of the fact that when the crisis started it was overwhelming for everyone including the government. The initial figures and situation presented was later different because with every passing hour the situation was different and due to which you could see the prime minister giving a briefing every other day. As the pandemic impacted various sectors; all the relevant ministers were taken on board and were responsible to tackle with their specific domain conditions. So, I would be of the opinion that digital way was a great method to reach out to the public.

Q: What do you think about the timeliness of the information that was provided by the government through Facebook?

J: Well, you know when the I rely on the information that is coming from the ministers, they are being responsible, and their information dissemination is on point. They did respond in a timely manner and to even say they were proactive in providing the required information. I also think that there were expectations from the public and the government has done exceptionally well in terms of the "expectations management".

Q: How do you perceive the state government social media response in the time of crisis?

J: Pretty well! In my opinion, the government is doing more than fine. The use of Facebook by government is a well devised strategy and why I think like this is because it offers two-way communication where I can leave feedback, give reactions, interact with other citizens too. Also, I think the quality of information is available which is vetted and accurate regarding what is happening of corona.

Q: Do you think the relevant and useful information related to the crisis help in building the confidence in the government?

J: Oh! well. I want to say that confidence for me is the trust that government is doing the best for my interest. And yes, the state government of NRW updated us on relevant facts, key cases, applied measures regularly which makes me not only trust their ability but also the competence to take care of the citizens even in cases of the unforeseeable events. The more useful information I get it is of more interest to me and all the relevancy of information builds more confidence in government that yes they are doing their best.



**Transcript: C**

**Interview Date: 12<sup>th</sup> May 2020**

**Interview Duration: 45 Minutes**

**Transcript Code: C**

**Gender: Male**

**Age: 27**

**Occupation: Employed**

**Social Media Following: Facebook, Twitter**

Q: What is your opinion about the social media account (Facebook Page and Twitter handle of land.nrw) of the state government of NRW?

C: I want to share my interesting experience, being a student at the department of political science I always wanted to stay connected to various developments and since I used social media a lot I have been following politicians, ministers and also the official governmental accounts. I think for past 3 years I have followed both the Twitter and Facebook accounts of the state government of NRW. Let's talk about the good, better and best first. Twitter is a more professional way of handling information as you need to be precise to deliver the information. The Twitter account of NRW government was active but not proactive in information dissemination before corona. The information was mainly focused on the cultural and political activities of the state. Later on, by start of March the focus total shifted to corona related information. I personally prefer Twitter more, so I think it is a better way to deliver information to general public, but I also know that a lot of people do not prefer this media over the others like Facebook and Instagram.

Q: Why do you think that usually people prefer Facebook for gathering information regarding the government activities?

C: Social media is widely used by younger population more for the entertainment purpose. Information purpose is more like a secondary advantage associated with the social media. Then, you see Facebook has features which are more attractive; like reactions, videos, comments. It is more interactive and informal and that is why Facebook is preferred.

Q: Since, you have been following the Twitter and Facebook account for sometime. Do you think these mediums used by the state government of NRW are reliable source of information?

C: There is no doubt about the reliability of the information available on these medium. The responsible authority behind these accounts have the specific responsibility to collect and disseminate information. It is their job to ensure that they provide reliable information to the followers.

Q: Okay, you find Facebook and Twitter accounts of the state government as a reliable information source. Then what are your expectations from these accounts of land.nrw?

C: They are doing a nice job from the start as I have been following them since quite some time. For example, regular updates were available on twitter regarding what cultural events are happening also what is happening in the nearby countries; Netherlands etc. So, I expect the accounts to interactive, convey consistent messages on all platforms and most importantly address the concerns raised by citizens on these platforms.

Q: So, do you feel that the social media accounts of the state government of NRW focuses on citizens satisfaction?

C: I can say that for myself only but there are other citizens too in form of businesses, teachers, students etc. Since, the information is more generic sometimes and more specific the other times citizen satisfaction is quite variable. I may read something regarding football tournament, and it interests me so I will be happy with the shared information. But if there is information related to museums which do not interest me and there is a lot of it with higher frequency, I might not be happy. So, I think there must be a balance between all kind of information catering to the various needs of different stakeholders.

Q: I would like to ask you that what are your general perceptions about the Facebook page and the Twitter account of the state government of NRW?

C: As per my observation and experience these platforms like Facebook and Twitter offer connectivity to the public more like a bridge between government and the public for information update. There is also a coherence between the information that is shared on both the platforms. A difference would mean the accounts lack reliability and I do not think that the government wants that.

Q: In the current crisis scenario of the corona crisis, what is your opinion regarding how the state government deals with the citizens on their official Facebook page and Twitter account?

C: I have seen a great shift in the focus of the government over the past few months. End of February and early March the platforms started to put a lot of information regarding corona. But in my opinion the problem initially was the information overload on these platforms. Everyone was uncertain about so many things around them and with the information overload it made people more confuse. I am not saying that the providing information is inaccurate or bad but I personally felt it was uncontrolled in terms of the frequency and quantity

Q: What are your views regarding the way social media of the state government is operating in this crisis?

C: My opinion is not very straight forward. I am in favour of few things, but I feel the channel of Facebook could have been utilized in a better way. As I said there was information overload with a lot of press conferences and constant posts and links. A better way to see whether people are absorbing all the information was to conduct polls which was missing. But at the same time there was a lot of new information that was necessary to share and the governmental efforts were in the right direction.

Q: Do you think you can have confidence in the social media of the state government during the current crisis? Can you also elaborate on the reasons?

C: I would say why not! Not only me everyone has seen how actively all the ministers participated in addressing the concerns of citizens and the public. The government was putting good efforts to provide wholesome information to all those who were impacted by the crisis. Let me give you an example, as the government was well aware of people residing from multi-cultural backgrounds in NRW corona related information was also shared in multiple languages like Turkish and Persian. I would say confidence is derived from the trust and the belief that whatever measure the government is taking is for the betterment of me.

Q: Do you have confidence in the competence or ability of the state government in using social media regarding the management of corona crisis in NRW?

C: My answer to this question might not be very linear. The first reason for that is using the platform for various stakeholders differently. As I think Twitter could be used for information dissemination to the businesses as it is considered a more formal platform. For Facebook rather than conducting press conferences without a proper schedule a more organized approach would be better. But at the same time, I understand that that it a pandemic with evolving conditions and informing people was necessary too.

Q: But don't you think that scheduling the press conferences in crisis is not that easy?

C: Absolutely! I agree with you on this. There is an ample amount of information that the government is receiving and also constant information which results in information overload. These are the developments which I guess are common in crisis situations. I am not saying I doubt the ability of the government in managing the crisis but using social media for addressing the concerns of public is very tricky. See, you are constantly adding more information, but you need to see whether it is reaching the audience well or not. Government is more trustworthy when crisis information is delivered to the right audience with right intensity.

Q: So, this brings me to the question that do you think that the state government of NRW is using social media in the best interest of the citizens regarding the management of corona crisis?

C: In continuation to my previous answer, I would like to say that they are doing a decent job in informing people with the regular updating of content. My only concern is management of the content which can be improved. One way of doing so is to get feedback from the citizens like simple polls, analyzing the emojis etc. Other than that I am of the view that they are doing their best to inform people and spread information to reduce uncertainty and bust the myths.

Q: Since, you have some strong views. I want to ask if you think sharing the accurate information has something to do with citizens confidence in the government?

C: I think that is what people are looking for. As I told you I have followed the Twitter and Facebook accounts for long and feel only recently after corona the engagement to be high on these platforms. People visit and follow these because they are the official accounts run by responsible authorities who provide “the true” information. I want to give you an example, there’re was a fake letter circulated and delivered to people in the name of Education Ministry and the social media accounts addressed these concerns by declaring them fake and how important it is to follow only the official accounts so that you receive the correct information. So, yes there is some relationship between accuracy of information and people trusting the government. You can only trust information coming from the source and these platforms are accurate information source.

Q: So, do you think that government’s social media account is the honest representation of the corona crisis situation?

C: For sure! Governments here want to stay credible and to do that they ensure openness. And crisis can never be managed by governments alone, the role of citizens and public is more critical. It is more like a collaboration between the two to make things right. To make it works governments need to be honest about the situation and the state government was open to share everything from increase in cases, availability of health care facilities, impact to businesses etc. I

might disagree with the feedback strategy and social media management strategy of the government, but I can't emphasize more that they represent everything with honesty.

Q: You have given me some very interesting responses and I want to know how do you perceive the state government social media response in the time of crisis?

C: Let me give you three words; relevant, useful and well-timed.

Q: So, as you mentioned these three words, do you think information that is relevant, useful and well-timed related to the crisis help in building the confidence in the government?

C: Confidence is equal to the trust and trust as per me is what the government is doing is doing for my betterment. It is more if I consider that if they have some restrictions in place, they are doing it for me. If they ask to follow certain protocols, they know how important they are for me. But the answer will also depend on whether you ask it from a businessperson. How would they respond to it?

Q: Thank You for your time. I guess I got some useful insights from you. Is there any significant aspect that you would like to discuss with respect to the state government's social media?

C: Yes! I have said it so many times and I am not sure if whether or not there exists a social media strategy or social media crisis management team but this event has shown the governments how necessary it is to have a proper team who can manage crisis via social media too. So, my suggestion would be to have a proper team if there is not one currently available and to include the feedback which is very necessary for effective management of these platforms.

**Transcript: D**

**Interview Date: 13<sup>th</sup> May 2020**

**Interview Duration: 31 Minutes**

**Transcript Code: T**

**Gender: Male**

**Age: 25**

**Occupation: Employed**

**Social Media Following: Twitter**

Q: Which social media accounts (Facebook Page and Twitter handle of land.nrw) of the government are you currently following?

T: I am a Twitter person in fact I do not even use Facebook. So, I follow the Twitter account of land.nrw.

Q: Were you following any of the social media account before the corona crisis?

T: Yes! Let me try to remember I think I started following the account in March last year and it was because of some trending gaming news shared and since then I am following the it.

Q: What is your general opinion about the social media and as you use Twitter particularly about it?

T: Social media is a great way to stay connect with the news and happenings around the world. I like Twitter because it is more professional and offers you to see what is trending around the world.

Q: As you said that you started were already following the state government Twitter handle before the corona crisis, what is your general opinion about it?

T: I find the state government to be very active in terms of posting content on their Twitter. Also, they have been quite inclusive in terms of content variety; you find information related to games, exhibitions, science and political development. But with the recent crisis I think the information mostly shared is related to corona, which is bit disappointing for me, but I guess is the need of time.

Q: As you seem to be bit disappointed by the focused information on corona, I would like to know what are your expectations from the Twitter handle of the state government?

T: My disappointment is because of my initial motive of following the handle. I wanted interesting information from several domains like gaming and exhibitions but as of now I do not see any of those. There is an information clutter regarding corona all over the Twitter. Not to blame them though I strongly feel it is their responsibility to provide people with the current and new information on corona but sometimes it gets too much.

Q: But don't you think corona is a crisis and crisis communication is necessary for the government?

T: Well you are right in saying this. I was just explaining my perspective in normal conditions how I like it to be. But yes, with the current scenario I also want to stay updated with concrete information. The available information sometimes is too much that I am unable to follow properly.

Q: Since, from your opinion I think you are bit unsatisfied with the way Twitter is being handled in corona crisis. Do you think in any way the Twitter platform is focusing on citizens satisfaction?

T: Which citizens you are talking about? If it is me, I guess my early replies do tell you that I am not too happy but there are people who are really happy. I want to tell you about my friend who thinks a lot of information available on corona on Twitter means government is concerned about safety of people.

Q: Let me try to rephrase the question for you. Because of the pandemic the government needs to focus on distribution of corona related information to the public and for the said reason it is using social media platforms. Do you think the way they are sharing the updates regarding corona with public focuses on citizens satisfaction?

T: I now get what you were trying to address earlier. Yes, it is a unique condition for not just the government but us too. And as I mentioned that there is so much information available one reason could be because people need to be constantly reminded that it is an unusual situation, it a different virus and we need to take care of it. One more thing...I think people like me were not financially impacted by this situation but there are people whose financial position has gone bad and they need answers. Also, sportsman need answers, crafters need answers. Well! I think news from all sphere is shared but the difference is that the central point of it is corona. I was not thinking from this angle but now I am getting there.

Q: You have shared some views on Twitter handle of the government. Can you share more of your views regarding the way Twitter of the state government is operating in this crisis?

T: There is constantly new information available, sometimes several times a day which is difficult to follow. I filter out information then which concerns me. You can say that I only follow information that I prefer. If the information from Finance Ministry do not concern me why would I follow it?

Q: Okay but you do follow it for information related to corona, I would like to know your opinion on the reliability of the information that you follow on Twitter handle of state government?

T: Reliability is there for sure. It is the government an elected one with a responsibility and if they provide incorrect information it can result in chaos and fear among people. Whether or not government is trustworthy is not a question here since they are trying with their capability. If I can filter the information that I need it means that they are covering my concerns, and this makes them reliable.

Q: Do you think you can have confidence in the Twitter handle of the state government? Why? or Why not?

T: If confidence is in terms of my trust in the government that they provide correct information then I firmly have it. As I said if government does not provide correct and timely information to the people it can related in chaos which is what no one wants. My confidence increases in the government if I can find the information I am looking for or I get a reply to my query and if or not the required information is available with ease.

Q: Summarizing it, do you have confidence in the competence or ability of the state government in using Twitter regarding the management of corona crisis in NRW?

T: The government was able to break the news on corona from the start since the first few cases were reported. With time they updated and reported the new information. Initially, when the cases started to rose, I was concerned too how the health system will be impacted but there was also information available regarding available beds in hospitals and the testing capability. With provision of this information frequently I was less concerned, I got the idea government can manage the crisis. I can trust their ability to manage the crisis. This gave me confidence because timely information was provided.

Q: I would also like to know what is your opinion regarding if you think that the state government of NRW is using social media in the best interest of the citizens regarding the management of corona crisis?

T: Surely, I said before too they just did not share the information once or twice instead a continuous and regular information was being shared. Sometimes it did look like too much of information, but I could always only read and listen to information that I needed. Maybe, I think



this way but sharing more and more information was for different audience who also need to be informed so maybe it was strategy that works well.

Q: Now, I want to know your opinion if you think that government's social media account is the honest representation of the crisis situation?

T: If the government has the ability to deal with the crisis like corona, they do not hide anything and are more transparent in order to gain trust from the people. In case there are some resource constraints there you can expect them to hide information from people, but I do not think it is the case for the government of NRW. They have resources both financial and manpower which can help them in dealing with the corona crisis and they represent everything with honesty whether it is the rise in number of cases or closing of businesses or educational activities.

Q: What do you think about the timeliness of the information that was provided by the government through Twitter?

T: I mentioned this before that if the information is not available timely it results in chaos which is never desired. Information availability on time results in reducing the risk for everyone by reducing uncertainty, like if I would not be going to job whether I will still be paid or not.

Q: What is your overall perception of the state government social media (Twitter) response in the time of crisis?

T: You might feel that I repeat these things again and again, but I would again say that an ample amount of information is made available by the government catering to different strata. I felt it is too much for me, so I filter the needed information. Oh! But yes, the information available is timely relevant and useful for different people.

Q: Do you think the relevant and useful information related to the crisis help in building the confidence in the government?

T: True that! See I give you an example, I am a student who lost his job because of corona and need to pay my bills. The government informs me that they have taken action to provide me some scholarship to make living. This information is useful and relevant for me and I my confidence in government is firm. But I follow information all the time and there is no useful and relevant information for me my confidence in government will decrease.

Q: Thank you for your time. Is there any aspect which you would like to discuss?

T: Again, just that there is too much information available which makes it bit difficult to follow everything and this might be a problem for other people too. May be you should talk to other people too and see if they saw this as a problem as well or not.

**Transcript: E**

**Interview Date: 14<sup>th</sup> May 2020**

**Interview Duration: 23 Minutes**

**Transcript Code: M**

**Gender: Female**

**Age: 22**

**Occupation: Student**

**Social Media Following: Facebook**

Q: Which of the social media accounts (Facebook Page and Twitter handle of land.nrw) of the government are you currently following?

M: Facebook and Instagram only. I do not use Twitter though I started it some time ago but found it bit boring.

Q: Were you following any of the social media account before the corona crisis?

M: I was following the page of government on Facebook, but they joined Instagram recently and I got a notification on my Facebook, so I started following them just right before this ongoing situation.

Q: Since, my study focuses on Facebook and Twitter only, I would like to know your general opinion about Facebook?

M: It is a great way to stay connected with friends, news and updates from all over the world. I had my semester exchange in Spain, so I stay connected with my friends and college from there too.

Q: You were following the government's social media page well before crisis so what is your general opinion about it?

M: My following was more like scanning through the news to see what the government is doing in terms of promotion of some festivals and events. I have joined few of them with my friends after getting information from their Facebook page.

Q: Being a follower of the government's Facebook page I would like to know what are your expectations from the particular social media account?

M: I am not sure but sometimes I think the government posts are paid to reach the audience. I may be wrong, but this can also be true. I did not subscribe to receive all notifications from them and used to get some posts but now I see my wall full of posts from the government. I only expect to receive information that is useful for me.

Q: Do you think it can be because of corona, there is a high chance that there are more posts as compared to the normal situation?

M: Corona has caused them to post more. Not just the written posts but also the videos but I also think to push the information government is using the paid post option but again this is what I personally think. I do not have a source to confirm it from.

Q: Because of how you feel towards the information sharing on Facebook by government regarding corona? Do you think in any way the land.nrw page is focusing on citizens satisfaction?

M: Let me think about it...the government wants to engage citizens may be that is why there are so many posts. I being a student do not have a lot at stake like other citizens. Businesses have financial challenges; employees are worried about their salaries and parents are worried about kitas and their children. You know I do see posts referring to such citizens, but I usually skip through them. Somehow is there are these posts referring to those audience it is beneficial for them.

Q: But don't you think other than these concerns there are safety concerns which are related to all. What about information related to such concerns?

M: The generic posts are relatable for me. Take example of transportation, trains and the outdoor exercise rules are very much relevant to me. It is beneficial to stay updated in times of corona. We friends mostly share relevant information with each other.

Q: Can you share your views regarding the way Facebook page of the state government is operating in this crisis?

M: When corona started to spread in the country no one was believing till we started to get real information from the government sources. Facebook is one reliable way of collecting information which is true and is coming from the government with various official links such as RKI, the website of NRW government etc. Almost daily updates are posted and shared with the public. My new feed these days is full with such news as I feel they are pushed by the government.

Q: In your opinion, you can have confidence in the Facebook page of the state government? Why? or Why not?

M: We all are scared by fake news; social media seems to full of it. Starting of corona crisis, me and my circle of friends did not believe anything that we found in news or on Facebook. And the older people might never trust news on social media, they are so used to traditional media. Coming back to the point when the official page started publishing information, we knew it was true and now we are in trouble...there is crisis now.

Q: Summarizing it, do you have confidence in the competence or ability of the state government in using Facebook regarding the management of corona crisis in NRW?

M: Our government is able to deliver the information on time. Corona is a crisis situation which we or the government never expected to happen. I have a firm confidence that the actions taken up till now show commitment of the government towards the public. Facebook is a medium that I know is widely used younger generation and you know they are the ones who were not serious about corona. My friends that it cannot impact young people, but the reality is young people can hurt the old people and informing youngsters is a big task. Facebook is a good strategy to communicate and inform such people.

Q: What is your opinion regarding that the state government of NRW is using social media in the best interest of the citizens regarding the management of corona crisis?

M: In crisis like these the intention of the government can only be to aware people how to manage the situation. It is not the time to build image or save image that Oh! we are doing something super to win the government. The social media which is usually believed to be used for self-promotions and portrayal of positive image only is now used as a medium to deliver information to people who are in need. The effective reach out of the message is important to contain the risk of spread which favours all of us.

Q: I want to know your opinion if you think that government's social media account is the honest representation of the crisis situation?

M: I just said that there is a general perception that social media is there to depict only the best positive side. But for corona this is not for damage control or image building instead for betterment of us. If the facts told are not true, no one will have trust in the government. We follow the official sources to obtain information as we think it is the true representation of crisis that we are facing. If the information is not what we expect and does not depict truth than how can we trust the integrity of government?

Q: And do you think that the information provision on corona by the government on Facebook is conducted in a timely manner?

M: The reason why social media is followed is because it provides very time effective information. You can receive it in an easy and quick manner. All the updates are available in real-time for us. There are multiple ways in which the real-time information is shared; continuous updated posts, infographics as well as the press conferences from the ministries.

Q: What is your overall perception of the state government social media (Facebook) response in the time of crisis?

M: There is always performance expectancy from the government. Personally, I believe the information shared on Facebook is critical to overcome the crisis. We along with the government need to participate to solve the issue as they say prevention is better than cure. So, I will like to say that government provided very timely, need specific response to reduce the extent of crisis. Ample amount of information is available for all of us to take action and reduce the risk of infections.

Q: If you find the information need specific, do you think the relevant and useful information related to the crisis help in building the confidence in the government?

M: Government needs to maintain its integrity and that is only possible as I think is when government inform the public about things that are necessary and relatable. I follow the official social media because I know it provides me with the useful information which is necessary for my well-being and others in this situation.

Q: Thank you for your time. Is there any aspect and suggestion that you would like to discuss?

M: I think, Facebook is a great way to reach out the younger audience as they frequently use it. Governments can encourage these audiences to spread the news by sharing it from official page which can increase the outreach and authentic information is shared.

**Transcript: F**

**Interview Date: 14<sup>th</sup> May 2020**

**Interview Duration: 46 Minutes**

**Transcript Code: E**

**Gender: Male**

**Age: 53**

**Occupation: Employed**

**Social Media Following: Only Facebook**

Q: What is your general perception about social media?

E: Good way to waste your precious time...That was on a lighter note, it is on the go way of collecting news. The bad thing about that such information can be that it might be fake causing you more trouble than benefit. You must verify and not believe everything on social media. It is very deceptive.

Q: Do you think all the available sources on social media such as Twitter and Facebook are not reliable?

E: I don't use Twitter but I have a Facebook application installed in my smart phone and I open it frequently. There are some funs news that I follow like for entertainment which are not serious to take action but there are news which are very serious and I need to know if they are true or not. I must verify them before believing or sharing it with anyone.

Q: I will talk about it more later but I want to know firstly, what is your opinion about the social media account (Facebook Page) of the state government of NRW?

E: Oh! I not only follow them, you know I am in the age group where your favourite thing is to look and watch news and discuss with a group of friends be it a football match or an exhibition happening. I follow many state and local government pages to see what interesting is happening in what cities and states. I like it very much, a one stop shop for correct information.

Q: Nice to know that you acknowledge social media of state government, I want to ask what are your expectations from the Facebook page of the state government?

E: I look for news, correct news which I can share with my friends. These days it is just corona news or most of corona news. Let me tell you I like it very much too. Why! because we friends have a new topic to talk about, though it is different without beers and meeting each other but we forward each other the messages and communicate what we will do after corona is over. I am being updated with all the news from the page of government and I want it to continue, it kinds of make me feel safe in terms of what they are asking me to do and how I am doing it. I want them to keep on posting new information regularly even when corona is over. It is exciting to read new news like every day.

Q: Now coming to the current scenarios, what are your views regarding the way social media of the state government is operating in this crisis?

E: I have very positive opinion of how the state government is operating and informing us about the corona challenges. The information provided by them is wholesome and complete. I follow news not just to receive it but to analyse too whether or not it is enough for us. Communicating in crisis is very tricky and social media can either be a deal maker or deal breaker for government. You may ask why? so let me tell you...crisis brings so much uncertainty for the general public and social media can be full of fake news but government has the responsibility to act to ensure that their social media can be trusted, they are providing enough and correct information to us to remove our doubts.

Q: As you have talked about correct information, do you think government's Facebook page is reliable, and you can have confidence in the social media of the state government? Why or why not?

E: It is the government, that is what makes the Facebook page reliable. There can be many fake pages too that can operate in the name of the government, but the blue tick shows it is the real page. And any other page can share incorrect information but when Minister of Health gives a briefing broadcast live on the page shows it is the real person talking a person whose information can be trusted. Obviously, my trust in the government increases when I see a government representative directly addressing the health related issues caused by corona. If the same is even conveyed by another person who is not a government representative I will not them for sure, maybe I will doubt the government too.

Q: This bring me to the question that do you have confidence in the competence or ability of the state government in using Facebook regarding the management of corona crisis in NRW?

E: The government was able to quickly initiate sharing of information as soon as corona started. An honest attempt is being made by government to quote real things, the cases rise and decline the situation gets better and then worse and decisions are made to facilitate the ones impacted. The Facebook page of government is full of information from start of corona till now, they have amended some information which changed overtime but everything is available. You can go and see on the page any information that you want; Education there it is! Economy you find that too and so is the general information. This does show competency of NRW government to deal with crisis, I do have confidence in them that they can manage the crisis, it might not be too high at the moment but if they are able to engage us more it will be better.

Q: And do you think that the state government of NRW is using Facebook in the best interest of the citizens regarding the management of corona crisis?

E: NRW government is using Facebook to aware people of the situation and the extend of threat from corona which is for the best for public. I being a citizen understand that if I have to avoid social contact as said by government is best for me and my friend's health. Any information circulated on official page somehow addresses my concerns by busting myths and revealing on what is true about corona.

Q: So, do you think in any way the Facebook page of state government is focusing on citizens satisfaction in times of crisis?

E: I as a citizen is happy, collecting information is my hobby. The state government page informs me on time regarding various events. And in times of corona that we are facing the information is crucial for showing that government is committed towards citizens. There is an unsung promise that government needs to fulfil, and they are doing so by informing people on time about the corona scenario in the state. People complain about government not focusing one factor or another but I feel they focus on each problem as they arise. Minister of Economy talks about the economic impact of crisis, Ministry of Culture talks about why we can and why we cannot have certain events and Prime Minister Armin Laschet also talks about the overall situation. My thinking is that response from government on many of these concerns directly from authoritative figure means government is trying to fulfil their commitments.

Q: And do you think that government's Facebook account is the honest representation of the crisis situation?

E: The situation presented to us is not very favourable...government does not have the choice to hide things from public. If they do that then for sure it can create trouble not just for them for all of us too. Honesty is the only thing that can save government from unnecessary criticisms and



even a more crisis. The current crisis is because of the natural cause but if not shown correctly may be results in health care crisis and why would they want that?

Q: What do you think about the timeliness of the information that was provided by the government through Facebook regarding corona?

E: Government started sharing and updating information, so quick and compiled information was available even before my expected time-frame. It was like, I do not have to ask or wait for the information it was already available to me.

Q: And how do you perceive the state government Facebook response in the time of crisis?

K: Very positive, accurate and as per time. I fully trust and stay aware with the information shared on Facebook. This helps me take decisions and understand the situation much better. What they say...yes! It is a great source for informed decision making.

Q: Do you think the relevant and useful information related to the crisis help in building the confidence in the government?

K: I trust the government, the information I receive on corona is very helpful for me. I feel more confident when I know about something without ambiguity and know it is valid.

Q: Do you have any suggestions or comments that you want to share?

K: I am happy and confident with the amount of information shared on corona. I want the government to continue sharing more information on other topics too which for benefit of all. They can be environmental or other health related concerns.

**Transcript: G**

**Interview Date: 15<sup>th</sup> May 2020**

**Interview Duration: 34 Minutes**

**Transcript Code: S**

**Gender: Male**

**Age: 31**

**Occupation: Employed**

**Social Media Following: Facebook and Twitter**

Q: What is your general opinion on social media?

S: Like the name suggests, social media is a nice way to socialize and connect to people, news and information around the world with just using your smart phone and internet. It provides accessibility with ease for everyone.

Q: What is your opinion about the social media platform of Twitter and Facebook?

S: Twitter is professional and restrictive as it is a microblogging website. Facebook offers more options; it is a lot more casual and non-restrictive.

Q: The state government of NRW has presence on Twitter and Facebook, which of these social media accounts are you currently following?

S: Following both of these accounts that are very contrasting to each other. Not in terms of contrasting information but the content representation differs a lot for Twitter handle as compared to Facebook. Most people prefer and use Facebook and if I am not wrong more people use Facebook to connect to state government. Facebook offers more flexibility and it interests the users to acquire information.

Q: Since, when are you following these accounts. Were you following any of the social media account before the corona crisis?

S: Yeah! The corona in NRW started around spring of this year and I started following the page in 2017 with a Gamescom news. That time the account was not as active as you see it today. There were very few news in a month. Maybe people were not really interested or social media was not

considered a great medium to reach public. With corona, there are continuous several posts even in a day informing and alarming people.

Q: You were following the government's social media well before crisis so what is your general opinion about it?

S: Initially, before the crisis it was not very active like I said there were very few posts in a month. Maybe the government never felt it was necessary to use these social tools to connect with people. When corona started in NRW, the government I guess felt the need and it seems like they also developed some social media strategy to engage people. I now feel that they did the right thing by flowing information on Facebook and Twitter as they knew many people would be following them on social media.

Q: And you follow them on Twitter as well as on Facebook, what are your expectations from these social media accounts?

S: In normal situation I expect the government to be more active too as they are now in crisis of corona. By now they have also seen that people not only follow them on social media but they ask their questions too. So, in future I expect them to engage people more on various topics, it does not only have to be crisis. For now, I feel Facebook account is doing a good job, they seem more creative with information posted, the engagement is far better there than Twitter.

Q: Do you think in any way the land.nrw Facebook page and landnrw Twitter handle is focusing on citizens satisfaction in the times of crisis?

S: Citizens are the general public but if you divide them by strata or sector there are so many of them. I am a private sector employee but at the same time a citizen. My organisation is run by an entrepreneur who is also a citizen. We are impacted by the crisis in different ways but at the end are part of the system. My preference of gaining information may or may not be same as the head of my organisation apart from the general information that we all need as a citizen. So, I look for information that come from sources of Ministry of Economy to see how it impacts my firm and me. In this way they are catering my needs as the citizen. As far as Twitter and Facebook are concerned, I personally feel the government seems to provide more timely feedback on Facebook than Twitter. This can be mainly because people prefer Facebook to communicate with government during corona crisis.

Q: Can you share your views regarding the way Facebook page and Twitter handle of the state government is operating in this crisis?

S: The government without any doubt is focusing on spread of information to people which is necessary to overcome this crisis. The information as you know from official sources is reliable

the reason why people access it. I think there is a balance of news and information that are shared via posts such as infographics and the press conferences. Usually these infographics are summary of what is said in a conference so it offers useful and concise information to the people. The two: Facebook and Twitter as I think target different audience. Twitter is for people who want to explore the information from various sources of government and Facebook is for people who want authentic information but that is easy to comprehend.

Q: In your opinion, you can have confidence in the social media of the state government? Why? or Why not?

S: Well, I can relate to the news shared on social media by the government is one reason I have confidence in them. Then there is this reliability that I can rely on and trust the information that is provided, and every information is correct to take some measures and action. This provide me the assurance that published information is true representation of ongoing situation in the country and for my safety I can trust it.

Q: I would like to ask that; do you have confidence in the competence or ability of the state government in using social media regarding the management of corona crisis in NRW?

S: Government showed competence in delivering corona information in timely and creative manner. What made the information receiving easier is the creative posts and infographics that deliver on point information. I forgot to mention that fear associated with corona can only be addressed through relatable informative posts and government through its social media did that very well as initially everyone was very scared, but it got better with time. My fear started to diminish, and my confidence started to rise because I was aware if I follow what is said by the government I can rely on it to cater with this undesirable situation. To make information more effective the very important posts are also published in languages such as Turkish and English, this ensures that everyone is getting the right message on time.

Q: And do you think that state government of NRW is using social media in the best interest of the citizens regarding the management of corona crisis?

S: I guess there is information available for everyone, you can relate to many posts and press conferences. One thing is like sometimes I have to sort out the information but generally there is no issue of availability of information. Government is also vigilant enough to reply to many of the questions asked by the citizens. I have this view that if I receive feedback quickly for the questions asked on social media, I will trust the government more and if my comment is ignored and not respondent I will start to question do I trust the government in this scenario? I see information updating very frequently with the reasons and context what is the scenario, how to tackle it and why this or that needs to be done.

Q: Do you think that government's social media account is the honest representation of the crisis situation?

S: What is social media is representing is sourced and verified information from government end. They are responsible for only representing correct information, as information regarding number of crisis is sourced from RKI there is no doubt about its authenticity. If government does not source its information correctly, it is no more trust-worthy for me. Other information related to economy, labour related issues and general challenges are sourcing from ministries which makes it authentic.

Q: And do you think that the information provision on corona by the government on social media is conducted in a timely manner?

S: The initial information and updated information all is provided very well on time. This is one main reason why I only trust it and believe that government is putting so much effort to protect public.

Q: What is your overall perception of the state government social media response in the time of crisis?

S: I perceive it very positively as the government is using social media with right direction. Many people like me use social media because of ease of access to information and news. In corona crisis I felt that a proper strategy is used by the government to inform people which is great way to see government innovating with their message delivery channels.

Q: Thank you for giving an interviews. Is there any aspect and suggestion that you would like to discuss?

S: Just that the corona crisis communication strategy through social media is something I want to appreciate but I want the government to keep up with the same pace and engagement once the situation gets back to normal. May be not with the same intensity but government can engage people with similar way of displaying content. This should not stop and be kept as a permanent way of communication.

**Transcript: H**

**Interview Date: 17<sup>th</sup> May 2020**

**Interview Duration: 30 Minutes**

**Transcript Code: H**

**Gender: Female**

**Age: 21**

**Occupation: Student Plus Part Time Employed**

**Social Media Following: Facebook**

Q: What is your general perception about social media?

H: Provides connectivity to the users and connect people geographically distant. It keeps me updated on new happenings and events, what different celebrities are doing. Not to forget I also stay connected to my friends and family located globally.

Q: What is your opinion about the various social media platforms like Twitter and Facebook?

H: I am not a user of Twitter so cannot comment on it but I have occasionally seen tweets and the layout which does not fascinate me, it is sort of boring. Facebook is very interactive, gives option to react, comment and share interesting posts with friends and family.

Q: So, you only follow land.nrw on Facebook, what is your opinion about the state government Facebook page? Were you following it already before the corona crisis?

H: No, I only started following the page after the corona news broke in the city. My friend recommended me to join the page and the city page as well. I joined it to get recent corona information and correct information which is necessary to deal with this pandemic. I find the page to offer regular updates on which I can depend on.

Q: How do you perceive the state government Facebook response in the time of crisis?

H: For me it offers regular on time corona updates that I can check daily. I am pleased with the fact I am able to get all the required information on a single page. It is not like I join one and verify it from some other page which is very stressful. The page provides with all necessary information accessible easily.

Q: Since you started following the Facebook page after the pandemic started, can you share your expectation from government account regarding communication of crisis situation?

H: Well, I just want to be informed about the changes in rules and regulations on time. I don't expect that government can do some magic, but whatever situation is brought up to them with corona, I expect them to disclose it to the public on time.

Q: You talked about timeliness of the information, can you share more view on if you think a timely information is provided by government Facebook account regarding corona?

H: Useful information is frequently shared by government on Facebook page. Timely information and on time updates are also provided regarding how should we as citizens operate now. Do we need to wear masks in public and why do we need to wear? Where do we need to wear it? Who is exempted? This all I think was well-timed communicated on Facebook to help us fight with this pandemic.

Q: In your opinion do you have confidence in the ability of the state government in using Facebook regarding the management of corona crisis in NRW?

H: I can comment on it with my thought that on Facebook some posts or links were shared which were unclear. There were numerous questions on the posts with people saying it is unclear to them, so a follow up post was posted quickly. I was surprised to see how quickly the team at government's end understood the issue and gave a solution. It is good that they are learning and solving the issues as they appear, very necessary to spread only clear real information.

Q: Do you think that government's Facebook account is the honest representation of the crisis situation?

H: It is hard to verify it personally if the corona cases are increasing or decreasing but what the Facebook page represents is a direct quotation of RKI which is not only famous in the country but in the world. I believe the government is trying to solve the crisis arisen for which letting people aware with real situation is important, government cannot solve this alone but with people.

Q: Now, I would like to ask whether you think that the state government of NRW is using Facebook in the best interest of the citizens regarding the management of corona crisis?

H: The government is using Facebook as an information tool to reach us. It offers connectivity and a form of two-way communication, like I can comment and express my views on the posts. It I think can help them to do better in an easier way. It is like awareness related to crisis but also receiving the on-spot reaction from citizens which I really like and favour.

Q: As you said you can comment of the posts and immediately react to something, do you think a response to these queries shows government is focusing on citizens satisfaction?

H: There are many emojis reactions like the angry ones...not sure how government can respond to it. This may show dissatisfaction or people just press that emoji. But there are likes too and other emojis, no way to know for sure what it translates into. There are also so many questions people ask, some turn into debate and most are answered by the operator of the page. Response from the government end depends I guess on the quality of query and when is it asked, right after a post is posted or very late. So, I cannot answer the question very directly but yes, the answer because they do not want people to be informed.

Q: Do you think sharing relevant and useful corona information on Facebook page of the government is linked with your confidence in the government?

H: I follow them because I want reliable information about corona and the changing rules. Any information that helps me with dealing on current situation builds my confidence in government. For me I look for posts that are relatable to me and I save them in my phone as I know it save me energy and unnecessary stress. When the government updates corona information on time it build my confidence in government as it saves my energy and relives me from stressful situation.

Q: Thank You for your time. Anything that you would like to add or suggest?

H: Nothing much but I said something like what does it mean when people leave some emojis or some like, government may want to see why people usually do that?



**Transcript: I**

**Interview Date: 17<sup>th</sup> May 2020**

**Interview Duration: 38 Minutes**

**Transcript Code: L**

**Gender: Male**

**Age: 23**

**Occupation: Student Plus part time employed**

**Social Media Following: Twitter**

Q: What is your general opinion about social media?

L: Social media is a very powerful and useful tool if used correctly. It is very easy to misuse social media, can cause miscommunication and spreading of fake content which is very harmful. But if used correctly, social media is a powerful tool to create awareness and deliver message.

Q: Any particular social media that you think is more powerful?

L: Twitter! Which I personally think is more trustable than any other social media account. If you want to stay away from fake news the best way is to follow official Twitter handles.

Q: You seem to be a fan of Twitter, which other social media platforms do you follow?

L: I am only a Twitter user, I do not prefer to overburden myself with unnecessary information and many other platforms do that for you.

Q: You are only following state government on their Twitter account?

L: Yes!

Q: Were you following the Twitter account before the corona crisis?

L: Yes! My main interest is in following updates and happenings and Twitter is the best way to keep oneself updated without the unnecessary noise created by other kind of platforms.

Q: As you said that you started following the state government page before the crisis, what is your general opinion about the handle?

L: I love it, it is great source of information related to events and state happenings. It is also well connected with other state accounts which allows me to navigate between them. It actually connected with many other official accounts and people too with whom I share a similar taste.

Q: And can you share your opinion on how it is operating in corona crisis?

L: More effective and communicative I would say mainly because the most important information is pinned for any easy access to information. There is also visualization of necessary information like posters and images with summarized points that deliver information as it is supposed to be. I am already a Twitter fan...it being used by government to spread information on corona is a clever and useful method.

Q: So, do you have any expectations from Twitter handle of government? If yes, can you elaborate on it?

L: My main aim is to get information that is true and not fake. What makes government credible is their openness in sharing information with general public. Specially in crisis, everyone expects the government to share as much and real details as they can only then it is possible that people believe in what the government says. So, I expect the government to stay open as share information true to its source.

Q: Do you think in any way the Twitter handle of government is focusing on citizens satisfaction?

L: This seems a difficult one to answer...Maybe for information sharing yes and I do not know. I guess citizen satisfaction is that government shares all the information on Twitter as it is received and is not trying to conceal the facts. Other thing could be that they focus on citizens from various backgrounds; those who work, are students or those who have shops. If all of their concerns are taken into account I guess it can be said government cares and show concern. Only when I feel or some other person feel this way he/she can have belief of government doing a good job. I hope this makes some sense to you.

Q: This actually got me bit confused, to clarify do you think your confidence in government determines if you are satisfied as a citizen?

L: Exactly! It is like if I think my government addresses all my concern as a general citizen and as a specific student citizen on its official Twitter account, it makes me trust them or it makes government more credible that oh! it does care for my issues. This will result in satisfaction as a citizen.

Q: When you mention addressing all your concerns as a citizen and as a student citizen do you mean a feedback in turn for your question or you assume that they should have this care already?

L: Both! My expectation is that government already understand that they have a responsibility towards me as a citizen. Specially in the corona days I expect that the government quickly addresses my concerns, reply me with a relevant link or share/correct information that I have. An on-time feedback tailored to concern of the citizen makes him/her have confidence in the government that oh! representatives that I choose are there to take care of my issues even in pandemic.

Q: You earlier mentioned that you look for information that is true, do you think this is somehow related to your confidence in the government?

L: I look for the information and I know it is true when it is found on government's social media. I mean the information is reliable also consistently available on daily basis. More like a reminder and refresher on corona. I can trust on the reliability of the information present on the Twitter handle of government because ministries are directly involved in it. I can rely on ministries without any hesitation. I know they are responsible people, they are presenting corona crisis very carefully as they want public to trust their decisions. If they take presentation of information casually it will cause distress among public and they will not trust the government in return. But a responsible act from government directly means more trust in the government.

Q: Do you have confidence in the ability of the state government in using Twitter regarding the management of corona crisis in NRW?

L: I personally have this opinion, mostly people in Germany are not a fan of Twitter. It is mainly actively used by only people who are into gathering new news and staying connected with information. Government in NRW is not only using Twitter but other social media channels too. I am in a position to only comment on Twitter and government is using it to their advantage by spreading information. It is also able to use it for advantage of its citizens by providing visual information in multiple languages, useful links etc. This somehow help me see how well capable government is to reach out citizens. My confidence in government then somehow is linked with the factor how early and easily I can derive the information from the Twitter handle, if I am able to I can trust them.

Q: Do you think that government's Twitter handle is the honest representation of the crisis situation?

L: If government does not represent the real facts and figures, how am I supposed to trust them? I follow their information religiously as I know they are representing true facts and figures. I can only rely on them if they are open towards me in sharing information that one way or another

impacts me. Secondly, I follow them as my main source of information because I know it is the true representation of corona happenings in state.

Q: What do you think about the timeliness of the information that was provided by the government through Twitter? Is it related to your confidence in the government?

L: Well, again I am a follower because I want information on time on corona. If there is a delay this might not make me really happy, reason? It is crisis where information provided on time is so important or we loose the race! And yes, If I see government putting effort in delivering information on time and it does reliver I know I can count on them.

Q: Lastly, do you think the relevant and useful information related to the crisis help in building the confidence in the government?

L: Taking my example, I do think if I know the information government is providing me is helping me in keeping myself and others safe it does increase my confidence in government. But my trust is also depending on the information that is specifically for me as a student or as youngster who suffers from particular illness. I mean it somehow makes government more trustworthy when you think they focus on you individually as well and do not left anyone behind in a pandemic like this.

Q: Lastly, is there any significant aspect that you would like to discuss with respect to the state government's social media?

L: I have said out loud most of my thoughts, government is doing quite fine. I just want them to promote Twitter more for information medium channel as it is more reliable than other social media.

**Transcript: J**

**Interview Date: 21<sup>st</sup> May 2020**

**Interview Duration: 35 Minutes**

**Transcript Code: O**

**Gender: Female**

**Age: 39**

**Occupation: Employed**

**Social Media Following: Facebook**

Q: What is your opinion about social media?

O: Nice way to spare some time to stay connected with acquaintances from all around the world. See some photos, some news and updates where people are and what they are doing. Also, offers some casual conversations with my friends that now are spread across Europe.

Q: Are you following social media accounts (Facebook Page and Twitter handle of land.nrw) of the government?

O: I occasionally use Twitter but do not follow the mentioned handle. I only follow land.nrw on Facebook.

Q: Were you following any of the social media account before the corona crisis?

O: No, I was not following them on Facebook before the start of crisis...I only start to follow the Facebook page in March as I wanted to receive information on corona measure. There are other ways too to get that information but Facebook seemed more easy and concise to me so I follow it around thrice a day for updates.

Q: Since, you just started following government's social media page around 2 months ago what is your general opinion about it?

O: I very much like it, it has all the information that I need. I do get notifications for new posts and announcements for press conferences. Government publishes information very quickly, for example there is a press conference and at the end of it a summarized post is available in form of

image. If I do not have enough time or miss out some information the posts ensure I get the necessary one.

Q: As you are a new follower of the government's Facebook page I would like to know what are your expectations from it?

O: It is already fulfilling my expectations. I can tell you what I expected when first I joined it. I expected the page to daily publish update which it is doing. I also want them to convey the real scenario and not to keep public in dark as we can fight together. Not only this I expected that the information available is of use to me and it is relevant and useful for me.

Q: As you mentioned the page meets your expectation, do you think in any way the land.nrw page is focusing on citizens satisfaction?

O: Being a follower of page, I am satisfied. The generic posts is for everyone but I am a freelancer whose work got a hit by corona. I was expecting and waiting for government to do something about it since the earnings were hit badly. Recently, 2 days ago government announced approved of financial aid for month of March and April for people like me. This news is a breeze for me, I even have higher confidence that government is not going to leave anyone, it is able to take everyone together on board in this economic crisis that corona brought with itself.

Q: You just talked about confidence; I want to know your opinion if you can have confidence in the Facebook page of the state government?

O: All information was shared by officials, I have a son who goes to kindergarten, but the current situation forces me to keep him stay home. The issue has been raised by so many parents that it gets difficult to keep kids at home, ministry has responded to it in various posts. They plan to open them not full time, but part time and I trust their decision. It is inconvenient for me but safety is preferred first, so I know if they are posting it on Facebook the information is correct. My confidence increases in the government too when I see them considering problems of people like me and telling us what to do and what can the government do about it.

Q: Can you share your perceptions regarding the way Facebook page of the state government is operating in this crisis?

O: The page is a blessing for me, I am saying this because reliable information related to my concerns is available. I can even ask questions on the page; the social media team of government is very active in responding. They even respond several times if I ask many questions. I can depend on government more now as I know it has the capability to deal with crisis like corona that has an impact on me.

Q: You talked about the capability of government; do you have confidence in ability of state government in using Facebook regarding the management of corona crisis in NRW?

O: I had this view that our government has financial and structural ability to deal with crisis. But the crisis also showed our government has the ability to use digital communication tools to reach out to public. They are not just informing us through Facebook on crisis, as well as getting feedback. It is two-way communication now, I can comment or ask for clarification, also raise my concerns. This one to one communication with government on Facebook increases my believe in government.

Q: Can you please elaborate more on feedback, how it impacts your confidence in government?

O: If it is just one-way communication where government says: this is for your good do it, or we are enforcing this regulation it impacts you for good. Would I be feeling good about it? No! I will have many doubts if or not it is beneficial for me? But if government receives feedback from public this helps them in developing solutions that have more acceptance. So, my confidence in government can diminish if there is so feedback. On Facebook I give my feedback in comments section which are many times answered so I can depend more on government.

Q: What is your opinion on if state government using Facebook in the best interest of the citizens regarding the management of corona crisis?

O: They are doing the best for public to inform them for containing of virus. It is not just informing how to protect oneself from it but on how the new system will work for everyone; freelancers like me, tourism industry, bars, hospitals. They are talking about all! Above all considering comments and response of public on Facebook definitely shows how serious government is in considering everyone's input.

Q: Do you think that government's Facebook page is the honest representation of the crisis scenario?

O: The reason of following page is because it represents the actual picture of crisis in NRW. Why? because if real picture is not presented there will be more crisis and people will not trust government. Because of this reason ministers conduct press conferences whose detail is shared in advance on page so people know what they will talk about. When ministers confirm or address an issue it automatically means it is true. For me I trust government and the ministries when they speak, they are credible in my eyes since my concerned is recently addressed.

Q: So, you think if you receive any information that concerns you, it can increase your confidence in government?

O: Exactly! I can have confidence in them as it proves government is considerate of my situation. Information that specially was for freelancers like me show thoughtfulness of government towards a small segment. But they are not doing this just for us but for all others too like the small vendors who sell in weekly markets or small service shop owners all received some aid or information what can be done for them.

Q: And do you think that the information provision on corona by the government on Facebook is conducted in a timely manner?

O: Government of NRW was efficient with disclosing the cases very early, this not only helped in knowing about corona early but also reduce fear and threat. The government is able to manage everything in time. I can rely on the government because of the timely availability of information. It saved me unnecessary stress and tension. Minister of Economy's press conferences were much needed and timely delivered that firmed my confidence in government.

Q: Thank you for giving your input. Is there any aspect or suggestion that you would like to discuss?

O: I am just satisfied that government replies to questions of people and later address it too through Facebook posts and press conferences. After corona ends I hope the page remains useful for me as it is now.



**Transcript: K**

**Interview Date: 25<sup>th</sup> May 2020**

**Interview Duration: 31 Minutes**

**Transcript Code: N**

**Gender: Female**

**Age: 25**

**Occupation: Student**

**Social Media Following: Facebook**

Q: What is your general perception about social media?

N: Social media it depends on the account that I am accessing the information from. There are some accounts which are reliable for example the state account or just social media account with so many followers, so they make sure that the new they share is accurate. But there is this issue of fake news since the beginning of social media. It is very difficult to overcome fake news. The information is whether it is accurate depends on the engagement rate on social media. Like comments, likes and I also tend to cross check the information available on social media.

Q: What is your opinion about the various social media platforms?

N: I do not have so much experience with Twitter. Twitter tends to be bit more professional and reliable. If we see leaders that is politicians, they mostly use Twitter or Instagram. But between Instagram and Facebook I think Facebook is more reliable.

Q: What is your opinion about the state government Facebook page? Were you following it already before the corona crisis?

N: Well, I started following the state government page when I moved to NRW to study at University of Münster but I was like never checking it. Very rarely, but in times of corona I almost check it everyday not almost but everyday! I check for the updates on infections and I really like that they provide information like detailed information. So yes, I go through the account like everyday in times of corona.

Q: What is your opinion on the reliability of information that you receive from the page?

N: Actually, I never had the feeling that there the available information on the official account of the government may not be reliable. It is the whole feel in my country that the information that I

am receiving is reliable and the authorities are responsible to share only authentic information. The development and democracy of the country makes it reliable that whatever way the government is operating whether it is the social media or any other method the shared information is trustworthy. A perception by the government is created in the mind of the people that we can rely on them and the decisions that they take.

Q: What are your expectations from the social media (Facebook) account of the government regarding communication of crisis situation?

N: To be honest, I sometimes feel that the some of the information shared is not very direct and indirectly relates to you. For example, as a citizen there is a lot of information for me to consume but may be as a part time employee or as one working with student job there is very less information.

Q: What are your views regarding the way Facebook of the state government is operating in this crisis?

N: Initially, I feel it was very aggressive like every other news, post was on corona virus more like creating the pandemic fear. All over it was like quarantine and staying inside but there was this social media engagement with the virus. Then, there was a decline in such posts and the future prospects and how to operate now started to be seen telling how now how to deal and live with the pandemic.

Q: In your opinion do you have confidence in the competence or ability of the state government in using social media regarding the management of corona crisis in NRW?

N: The social media was very aggressively used by state government to communicate about corona crisis at the start. This made me confident to receive information from government and trust their ability on corona crisis management as it serves the purpose of reaching out to audience. Very creative posts with images and clear signs were and are posted frequently to update. These images are super useful, easy to understand and share with others. For me I remember things more if they are represented by images.

Q: What is your opinion on the timeliness of the information provided on the Facebook account of the government regarding communication of crisis situation?

N: For most of the time I think that the information provided by the Facebook page was very timely, as fast as they could be. But we need also to understand that it is a complex topic and from my point of view they provided information timely.

Q: Do you think that the state government of NRW is using social media in the best interest of the citizens regarding the management of corona crisis?

N: From as much I have seen, I have seen people commenting and mostly actually what I have seen is that there were not so much questions but when there were questions, they were responded very well. Social media is a way for government to manage the information regarding crisis, the best way they are doing is by responding the queries in form of comments. I must say the government is doing a decent job in addressing public concerns.

Q: As you said you saw government answering to the citizens questions on Facebook, do you think somehow the page is focusing on citizens satisfaction?

N: Actually, I don't know..if someone has an urgent immediate questions they have other medias too to ask that. Social media is not the only channel they can access to get in touch with the government. But I have seen comments, many comments that people are unhappy with the situation but not the government. Government is doing okay in responding to the citizens on social media.

Q: Do you feel the way government is operating its Facebook page, it provides you with a timely information during crisis?

N: I really like the way government handled the situation and provides information well on time. There is not so much text and the relevant information is available in picture forms like from which date to the other what is banned and what is opened. I also really like the availability of information is Turkish and English too. This helps a lot of my friends who are not from Germany to stay connected and informed. I also liked it that there was no panic in the posts created which shows that good content is shared by the government.

Q: Do you think sharing relevant and useful corona information on Facebook page of the government is linked with your confidence in the government?

N: The way government provides me with the information makes them more reliable to me..to believe them, trust them. The way they give me useful information makes me to rely on them because they provide me with facts and solution how to act. So, according to my understanding the way government is handling situation makes them more reliable.

Q: Do have any suggestions or anything that you would add to the current answers?

N: I have experienced that behaviour of people vary with corona information. I go to German shops and see people following rules and then there are these Turkish shops where rules are not followed. I am not sure if those people are not aware or there is a lack of communication. Maybe

someone can study how the behaviour differs and why it differs among the people if same amount of information is communicated.

**Declaration of Authorship**

I hereby declare that, to the best of my knowledge and belief, this Master Thesis titled “Exploring the Impact of Government’s Social Media on the Citizens’ Trust in the Government in times of Crisis: A case evidence from North-Rhine Westphalia” is my own work. I confirm that each significant contribution to and quotation in this thesis that originates from the work or works of others is indicated by proper use of citation and references.

Münster, 10 August 2020

Maham Fatima

**Consent Form**

for the use of plagiarism detection software to check my thesis

**Name:** Fatima

**Given Name:** Maham

**Student number:** 0728464

**Course of Study:** Public Sector Innovation and eGovernance

**Address:** Schlossplatz 2, 48149 Münster

**Title of the thesis:** “Exploring the Impact of Government’s Social Media on the Citizens’ Trust in the Government in times of Crisis: A case evidence from North-Rhine Westphalia”.

**What is plagiarism?** Plagiarism is defined as submitting someone else’s work or ideas as your own without a complete indication of the source. It is hereby irrelevant whether the work of others is copied word by word without acknowledgment of the source, text structures (e.g. line of argumentation or outline) are borrowed or texts are translated from a foreign language.

**Use of plagiarism detection software.** The examination office uses plagiarism software to check each submitted bachelor and master thesis for plagiarism. For that purpose the thesis is electronically forwarded to a software service provider where the software checks for potential matches between the submitted work and work from other sources. For future comparisons with other theses, your thesis will be permanently stored in a database. Only the School of Business and Economics of the University of Münster is allowed to access your stored thesis. The student agrees that his or her thesis may be stored and reproduced only for the purpose of plagiarism assessment. The first examiner of the thesis will be advised on the outcome of the plagiarism assessment.

**Sanctions.** Each case of plagiarism constitutes an attempt to deceive in terms of the examination regulations and will lead to the thesis being graded as “failed”. This will be communicated to the examination office where your case will be documented. In the event of a serious case of deception the examinee can be generally excluded from any further examination. This can lead to the exmatriculation of the student. Even after completion of the examination procedure and graduation from university, plagiarism can result in a withdrawal of the awarded academic degree.

I confirm that I have read and understood the information in this document. I agree to the outlined procedure for plagiarism assessment and potential sanctioning.

PLACE, DATE

Münster, 10/8/2020

Maham Fatima