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MASTER'S THESIS

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Preface

This Thesis marks the closure of a two year full time International Ms. Science in Risk Analysis and Governance. This is my second master's degree at the University of Stavanger, where the first one completed in 2009 was a Ms. Science in Change Management.

I am humble and grateful to have been gifted the opportunity to be taught and challenged, by some of the world`s most foremost capacities within the field of Risk Science. I am particularly grateful for Professor Frederic Bouder`s excellent supervision through the development of this Thesis. His competence and amazing ability to chisel my thoughts and ideas into a workable plan, paved the way for my successful completion. My wife`s support and as always, tirelessly work to keep our family running smoothly, was invaluable and an absolute prerequisite for success. Also, a special thanks to my father for the extensive proof reading and good discussions before submission. I am grateful to the more than 800 respondents on the survey I collected data from – not to mention the interviewees who kindly lent me their time, thoughts and opinions to increase my insight accordingly.

My primary motivation for doing a second Master`s degree is based on a genuine interest in Risk Science. The strong link between this degree and my professional work life over the past 20 years, made it incredibly rewarding in terms of increasing my knowledge and gaining deeper insights, relevant to my profession. From working at a high security psychiatric ward to becoming an HSE Manager in the Oil&Gas industry, despite the two being very different in nature, risk management has been a key component through my career to this point.

Doing a full time study in my spare time was a good challenge. I worked through one of many exams sitting next to my son at the hospital – another one out in the forest during a week`s exercise in the Norwegian Home guard, to name a few examples. This calls for the ability to adjust studies around your life, not the other way around. Life is going to happen anyway. Having a clear, yet dynamic and flexible plan, staying true to my values and keeping rigid prioritizations was important. Family first, work second, studies third and just after that, everything else. Go with the flow, accept the situation, adapt to it, improvise and overcome any hurdles. If we manage that mindset, we manage a lot!

More than anything, this has been a truly interesting path to walk. And while I look forward to opening new chapters, I don`t look forward to closing this one. I may very well return again to academic studies later on. In fact, I trust I will. "The map is not the territory" (Bateson, 1979). To elaborate on that from the originator: "A map is not the territory it represents, yet if accurate, it has a similar structure to the territory, which accounts for its usefulness" (Korzybski,1933). In other words, our models of reality may not be reality itself. They may lack accuracy and depth; hence we should continuously challenge what we believe and be open to observe things differently. Even if what we find may require us to change our strong held beliefs, we must remain humble and accept that if - and when it happens. I believe this is the only way to expand our map and improve its usefulness. Staying curious and exploring in nature, are valuable traits we should always continue to foster.

> "Cherish those who seek the truth yet beware of those who find it."
>
> -Voltaire

Executive Summary

This Master Thesis have examined the relationship between risk communication and trust in Norwegian Authorities through the Covid-19 Pandemic. The thesis started with a hypothesis that risk communication will influence trust – and that trust is a key component that contributes to compliance. More specifically, the research address:

How risk communication from Norwegian Authorities influences trust in a maturing phase of the Pandemic. Sub-question: How is the Pandemic likely to influence the level of trust in the Norwegian Authorities? And may this influence compliance?

To examine this, an exploratory mixed-methods design was adopted, in two sequential phases. In short, collecting quantitative data and then qualitative data to help explain or elaborate on the quantitative results. A total of 809 responses were collected in the initial quantitative survey, in which a data analysis was done through SPSS. The analysis displayed that there is a correlation between perception of risk communication and trust, supporting the initial hypothesis. The analysis further found that age is a contributing factor in the level of trust related. Higher age was aligned with higher levels of trust. The survey also found that the trust level in Norwegian Authorities are generally high – and questioned if some lower scores were related to disagreement to measures rather than trust itself. The second sequence of data were gathered through 12 in depth interviews, to elaborate on the initial findings. The interviews confirmed that the trust level is generally high and that the lower scores are primarily related to disagreement towards the Authorities` chosen strategy / decisions. In other words, it was not in general about distrust. Rather a form of critical trust, where trust can be high even if people have different opinions on what would be the best solutions to the situation. This is often a healthy sign of a functioning democracy and even if people have different opinions, it doesn`t necessarily influence compliance. The data collected also illustrated that the perception of risk and concern amongst laypeople is not always aligned with expert evaluations, such as concerns related to mental health – which both the survey and interviews rated a higher concern than what expert reports have found to be the case. One major challenge moving forward, will be to handle the growing disagreement towards intrusive measures established to prevent spread. Even if the trust has remained high together with strong compliance, there are clear signs of a steady decline in agreement towards the decisions related. This may influence the trust level negatively unless the Authorities manage to counter it effectively. There are examples from other countries displaying that when trust levels drop significantly, compliance deteriorates too. The main dilemma moving forward will most likely be related to perceptions of fairness in measures and the socio economic considerations vs health and safety. This is also where the expert groups have differed lately. Such as the Holden commission`s (socio-economic expert group) proposed vaccination strategy somewhat different than the Health Authorities recommendations. And this leads to the major challenge of risk communication at this stage. The nature of the Pandemic is that most decisions that aim to serve a certain aspect is likely to influence other aspects negatively. The balance of health vs socio economics may be the most visible example. The Norwegian Authorities should expect a continuing growing disagreement from various stakeholders for as long as intrusive measures are required. This should be monitored closely to be able to justify the decisions with support from the relevant experts, to maintain the trust and compliance high.

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1 Introduction

"In the next … Pandemic, be it now or in the future, be the virus mild or virulent, the single most important weapon against the disease will be a vaccine. The second most important will be communication." (Barry, 2009). Since the emerging of the Pandemic in late 2019 through 2020, a situation which continues to evolve at the time of writing this Thesis, risk communication has been crucial at all levels of societies across the world. People always seek to understand what is going on – and unless the Authorities manage the risk communication well, more people will seek information elsewhere. To reduce uncertainty, people seek out information to understand their options and strengthen or weaken their beliefs. Holding on to existing beliefs are very common, even if challenged with good arguments. Changing our beliefs during a crisis may be difficult. Hence, acting quickly upon an emerging situation that may turn into a crisis is crucial, and the speed of a response can influence how well the reduction of harm is. Because on the contrary, in the absence of information we tend to start speculating and fill in the blanks (CERC, 2019). Effective and early communication is a key in achieving long term trust in risk management, when risks are perceived complex, uncertain or ambiguous (IRGC, 2017). The Pandemic is a global crisis and clearly a complex risk. And the emerging of the Pandemic didn`t happen overnight. It is at the time of writing, a fair consensus that it was originating from animals before spreading to human beings. And that the first cases were identified in Wuhan, China. In its beginning, it was not clear how dangerous this threat really was. And even after being proclaimed a real threat by China and shortly after by WHO, the ambiguity and lack of attention slowed down the global response effectively (Boin, 2020). Different from a fast burning crisis like 9/11, that merely «explodes» and then disappears into the history books reasonably fast after being brought under control, a Pandemic has a long incubation time with no clear start – nor ending (Boin, 2001). In crisis research, it is common to recognize two theoretical ideal types: the "fast burning" and "slow burning" crises (`t Hart & Boin, 2001). Illustrated in the model below:

CRISIS TYPOLOGY BASED ON TEMPORAL DIMENSIONS

CLOSURE

FAST   SLOW

ONSET

FAST   Fast-burning   Long-shadow

SLOW   Cathartic   Slow-burning (or creeping crisis

Based on t`hart and Boin (2001)
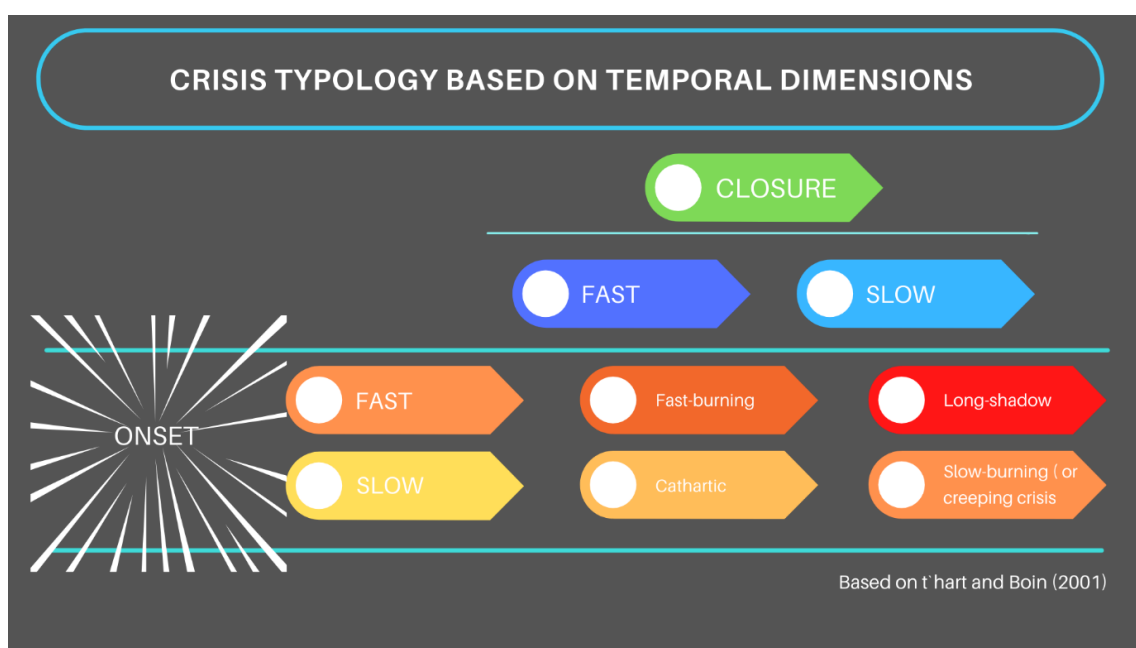
The Pandemic then, is a slow burning – or creeping crisis. The nature of these type of crises means they are often allowed to develop with little interference because the stakeholders doesn`t anticipate the threat as something to worry about. And despite its nature suggesting there`s a significant time slot to act upon it, it does not make a difference if the Authorities doesn`t understand that time is of essence (Boin, 2020). What sets a creeping crisis apart from other undesirable events, is that both the attention and the threat potential develop over time. ”Creeping” referring to the slow pace of development, where a key characteristic is the absence of attention. Both the beginning and end may be difficult to clearly define. A definition of a creeping crisis is:

"A creeping crisis is a threat to widely shared societal values or life-sustaining systems that evolves over time and space, is foreshadowed by precursor events, subject to varying degrees of political and/or societal attention, and impartially or insuffiently addressed by Authorities."
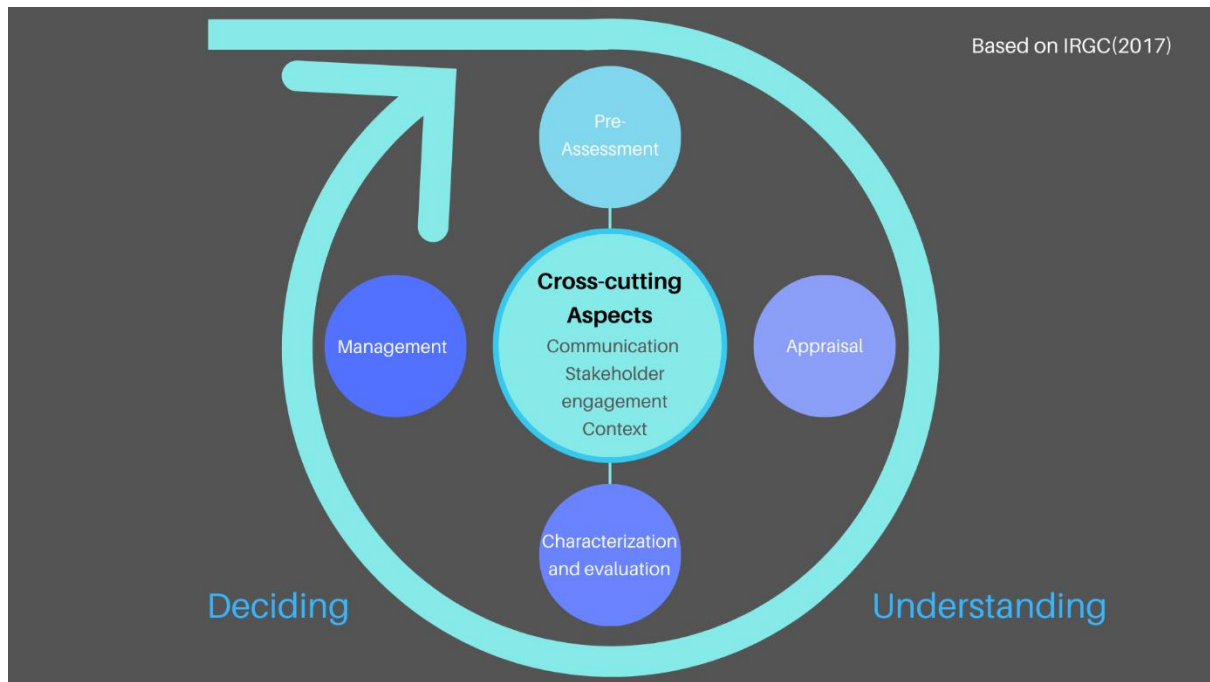
<div align="right">-Boin, 2020.</div>

In addition to being a slow-burning crisis, the Pandemic can also be called a wicked problem. Wicked problems are problems with unconventional properties, making ordinary problem-solving methods and techniques less effective and often a conventional approach can even make the problem worse.

"A problem becomes wicked because of the incomplete knowledge of effects and interdependencies, because it involves actors operating in different sectors and at different levels, because all possible actions have uncertain effects, and because they are intertwined with other problems in complex and, to a large extent, unmanageable systems."

<div align="right">-Schiefloe, 2020</div>

Wicked problems are difficult to limit. Even if the triggering factor is known, the consequences are somewhat unmanageable, creating ripple effects in all layers of society. Because its new and different in nature from previously known situations, no defined or proven solutions exist. There`s also a Catch22 element to it, where many choices have severe negative side-effects. Saving lives vs economic negative, possibly irreversible effects (Schiefloe, 2020). In managing this, the Authorities risk governance is concerned with identification, assessment, management and communication of risks in a wide context. According to IRGC (International Risk Governance Council) good principles include transparency, effectiveness and efficiency, accountability, strategic focus, sustainability, equity and fairness, respect for rules and regulations – and a requirement that choices are politically and legally feasible as well as ethical and accepted by the wider public (IRGC, 2017). This is utmost challenging in a crisis of this dimension, being a wicked problem where choices making positive impact on side, are likely to cause adverse effects to other elements. And therefore, a key component in risk governance is risk communication. This is highlighted in various risk governance frameworks to various extent. In the IRGC risk governance framework as an example, risk communication is embedded as a cross-cutting aspect throughout all the steps of the proposed framework (IRGC, 2017).

Risk communication according to IRGC, is the process of exchanging or sharing risk-related data, information and knowledge between and among different groups such as scientists, regulators, industry, consumers or the general public. IRGC claims that it is of the utmost importance for effective risk governance. They argue that risk communication

- enables risk assessors and risk managers to develop a common understanding of their tasks and responsibilities (internal communication).

- empowers stakeholders and society to understand the risk and the rationale for risk management (external communication).

- allows stakeholders to make informed contributions to risk governance, recognizes their role in the risk governance process and gives them a voice by creating a deliberate two-way process.

Effective and early communication is the key to creating long term trust in risk management, when risks are perceived complex, uncertain or ambiguous. And this leads us straight into the main objective of this Thesis. Namely how risk communication may influence trust in Authorities through a crisis of this dimension. The research question and sub-question are defined as follows.

How risk communication from Norwegian Authorities influences trust in a maturing phase of the Pandemic.

1. *Sub-question: How is the Pandemic likely to influence the level of trust in the Norwegian Authorities? And may this influence compliance?*

1.1 Limitations

The thesis will focus on Norway and citizens of Norway in relation to Risk communication from Norwegian Authorities, through the Pandemic to the current stage more than one year after. The aim is to understand how risk communication influence trust and if this may influence motivation to compliance in a maturing phase of the Pandemic. The hypothesis is that risk communication influences trust and that the level of trust influences how people respond to institutional advice.

2. Literature Review

The following chapters will describe relevant areas of theory, that will be applicable in the analysis of data later on, measuring people`s level of  trust in relation to risk communication by Norwegian Authorities, through the ongoing Pandemic. I will briefly touch upon risk communication, before elaborating on trust. My primary theoretical foundation for the thesis is based on Ragnar Lofstedt` s book: " Risk Management in Post-Trust Societies (2005) on risk management and trust. In addition to that, I will emphasize different dimensions of trust through more relevant research and explain the different types of trust, such as distrust vs critical trust (Poortinga et al, 2003). Regulatory inaction may influence the level of trust negatively, while the opposing exaggeration could do the same. Lofstedt argues that the reason for distrust varies and that the only way to choose a good strategy is to test for trust, to truly understand what response is feasible (2005).

2.1 Risk Communication

As defined by Aven & Renn (2019), risk refers to uncertainty about and severity of the events and consequences (or outcomes) of an activity with respect to something that humans value. According to Renn (Renn, 2008) risk communication fits well into classic definitions of communication as a purposeful exchange of information between actors in society, based on shared meanings. It requires purpose to stand out from background noise in the communication channels (Renn, 2008). Effective communication is a key factor in managing any risk. Risk communication can be defined as

". . . an interactive process of exchange of information and opinion among individuals, groups and institutions. It involves multiple messages about the nature of risk and other messages, not strictly about risk, that express concerns, opinions or reactions to risk messages or to legal and institutional arrangements for risk management."

(US National Research Council, 1989, p21).

Risk communication can also be seen as the exchange of information among interested parties about the nature, magnitude, significance, or control of a risk (Covello, 1995). Risk communication has evolved and in the current phase of development, a two-way communication process is stressed, where members of the public and risk managers share a joint responsibility of engaging in a social learning process. The objective is to build trust amongst the different stakeholders, whereas

the ultimate goal of the risk communication itself is to help stakeholders understand the rationale of risk assessments and corresponding decisions. Good risk communication supports stakeholders in making informed choices in relation to the things they value and are concerned about while creating mutual trust (Renn,2008). As illustrated in the IRGC framework (2017), risk communication is required throughout the entire process of handling the risk, from framing the situation to evaluating the impact. Communication respectively, must ensure that those who are impacted understand what happens, how they are involved and as required – what responsibilities they must take on.

Covello highlight three fundamental principles underlying risk communication. First is that perceptions are realities – meaning that what we believe to be real, is real even to us even when untrue. Secondly, the primary goal of risk communication is to gain trust and credibility. Thirdly, good risk communication is an acquired skill requiring a great deal of knowledge, preparation and practice (Covello, 1995). What we believe to be true, is very often highly linked to emotions. Much recent work on emotions and attitudes suggests a three-step process, where initial cognitive processing giving rise to emotions, which in turn guide the further, more elaborate, cognitive processing (Sjøberg, 2007). Kahneman (2011) describe this as systems being run in our minds in which he calls "system 1 and system 2." The first system can be considered fast thinking. It is thinking done almost automatically or instinctively. The second system is slow thinking. It involves thinking that is more complex and more mentally draining. It takes concentration and agency of the person to process the thoughts. Most of the time we rely on system one, but when that fails us, system two is implemented with more rational thought and conscious decision making. System two is better suited to problem-solving and intense analysis. System one is predisposed to jumping to conclusions with limited evidence (Kahneman, 2011). Critical thinking is crucial – and involves having the ability to combine factual and values information and, where appropriate, to structure a situation as a decision problem and recognize that an opportunity exists to choose among alternative actions. And even if this may not assure desired outcomes, it is more likely that bad outcomes will not arise needlessly as the result of failure to examine evidence (Gotch, 1991). Managing to communicate risk in such a way that it promotes people`s ability to involve system 2 thinking should therefore be aimed for. At least if the situation is under a minimum of time control and there`s no immediate need for "fight or flight" responses. The "fight-or-flight" response evolved as a survival mechanism, enabling us and other mammals to respond quickly to life-threatening situations (Harvard, 2018).

It is important to acknowledge that risk communication in many cases is a relationship of unequal parties. In other words, there will be an asymmetry present in terms of communicative initiative, informational privilege and risk influence (Hayenhjelm, 2006). Other challenges in risk communication, especially those with extremely high attention across society, like the Covid-19 – is that people tend to overrespond to risks that are highly available because of news coverage or immediacy as they are "available" in people's minds. And so, people may misallocate their protective behavior. I.e. living extremely unhealthy, while at the same time using a lot of resources on avoiding the virus (Baron, 2004). In a situation of high uncertainty – ambiguity is also a challenge to reduce. The massive amounts of information from various sources, competing against each other – in a highly uncertain environment, may be extremely confusing for people to handle. Who – and what information do you

trust? Ambiguity may be hard to measure yet should still be kept in mind in the risk communication – as it may affect our choices over risk outcomes (Riddel, 2009).

Making a premise, that risk communication implies an intentional transfer of information, it`s necessary to clarify what type of intentions and goals are associated (Renn, 2008). And for further clarification in this case, risk communication will be related to the Authorities handling of the ongoing Pandemic accordingly. With respect to that, it may be useful to highlight three spesific goals of risk communication that suits the purpose (Bouder et al, 2016):

- Sharing information

- Changing beliefs by conveying factual knowledge; and

- Changing behavior

These three distinct goals outlined by Brewer (2011) was originally made in relation to exploring tools of benefit-risk communication towards medicine. And as the viruses causing the Pandemic are very much accepted as a high health risk – and with broad consensus amongst experts and Governments considering vaccination as the only sustainable solution, these goals should serve just as well in a risk communication backdrop seen in a context related to the Pandemic. The Norwegian Health Directorate released a report in January 2021 (HDIR, 2021), suggesting with some uncertainty that a minimum of 75% of the population must be vaccinated before a constant transmission rate below 1 (allowing society to open fully again) can be achieved.   Until that stage is reached, trust amongst citizens regarding the risk communication related is important to remain motivated to comply with the recommendations.

2.2 Trust

Progression in scientific methods has to a great extent replaced the personal experience of risk by information about risk. Our individual control has been increasingly replaced by institutional risk management. As a result, people rely very much on trustworthiness of those they receive information from about the risks. The Pandemic as the red line through this thesis, is a good example of something so complex – that it requires institutional risk management. Hence, trust in relevant institutions, in this case the Authorities, is a key in peoples risk response. Viewing the Authorities as a control institution, a high level of trust may be able to compensate for even a low risk perception. Trust has proved to be one of the most important factors in conducting effective risk communication. And people's perceptions of risk may differ from those of the risk experts depending upon whether they trust the risk management institutions (Lofstedt, 1996). Distrust may lead people to ignore the risk communication partly or completely.

Lofstedt (2005) argues that there is no such thing as a formula for risk communication on the notion that the same risk communication strategy, may have different outcomes depending on the context in which it is applied.

Contrary to popular beliefs, he also argues that risk communication based on dialogue and stakeholder involvement, may not always be a preferred strategy. He warns to generalize and advocates a case by case approach, where testing for trust will

determine what strategy to use. In testing, one should seek to understand why there is distrust - and then factors as fairness, competence and efficiency will be brought to light (Lofstedt, 2005)

A decline in public trust can be related to several factors, such as higher levels of education and greater availability of information, which may promote a more skeptical public. There`s also been a rise in citizen activism in parallel to complex and uncertain risks with an increasing number of messengers. The climate risk regulators operate in, is not straight forward and outlines distinct challenges to cope with:

- Trust is much easier to lose than gain,

- In times of distrust, the public will turn to other sources of information – and often find this information more trustworthy,

- Access to information is endless and the public is not so much dependent on risk regulators for information anymore. The result being a more knowledgeable and more skeptical public (Lofstedt, 2005).

Lofstedt (2005) outlines the following premises in offering solutions to avoiding or mitigating public mistrust:

- Regulation is essential.

- In order to be effective and influential, regulatory bodies must have public trust.

- There is evidence that public trust in regulatory bodies is vulnerable, uneven and may be declining overall.

- It is necessary to re-examine tools of risk management to support public trust in regulation.

According to Lofstedt, there are three dimensions of trust. These are fairness, competence and efficiency (Lofstedt, 2005).. To understand how they influence risk management, they will be described in more detail further down. As a baseline, it can be said that in most cases, the public judges' regulators based on the past, evaluating the outcomes from their previous decisions. If they based on this judgement, perceive the regulator as competent, fair and efficient, the public is highly likely to trust the regulator in the future.

2.3 Trust definition

'Trust' means acceptance of decisions by the constituents without questioning the rationale behind them."

-Lofstedt 2005

Fairness can be defined by a view of the process or outcome as being impartial. Did i.e. the regulators take everyone`s interest into account?

Or did the public perceive it as such? Impartiality and fairness in decisions will have an impact on public trust (Lofstedt, 2005).

Competence according to Lofstedt, is viewed as the most important component of trust. On the contrary, if one is not considered competent, this will compromise trust effectively. Hence, in cases where decision makers lack the skills and knowledge needed to gain trust in this component, additional expertise should be brought into the process to compensate (Lofstedt, 2005).

The third component of trust, efficiency, is based on how money is utilized in regulatory processes. This is of importance when there`s economic stress, in terms of government expenditure having significant impact on public welfare and state of well-being. These trust factors are further linked to Lofstedt's three risk management tools related; deliberation, technocracy/expert and efficiency/rational (Lofstedt, 2005).

2.4 Context of the decision-making process

Lofstedt outlines various contexts to illustrate the importance of adjusting to the actual status of the public`s level of trust and corresponding situation. Through a number of statements, he argues what decision makers need to account for to ensure an effective decision-making process (Lofstedt, 2005).

In a high public trust, high/low uncertainty risk situation, deliberative risk management strategies are not required

Lofstedt claim that deliberation is best in low-trust environments, where decision makers are viewed as unfair or partial. In situations where the public trust is high, deliberation is not useful he claims, and argues that it may even lessen public trust too (Lofstedt, 2005).

In a low public trust situation, a risk management strategy (strategies)
will need to be implemented, but the strategy selected depends on the
reasons for the distrust in the first place

This statement refers to the three dimensions of trust described previously, laying premises for what risk management strategy should be prioritized dependent on the reason for distrust. If it`s related to the public`s view on the regulator as incompetent, then bringing in expertise (technocracy) is required. If the distrust is based on viewing the regulator as unfair and partial, then deliberation is important. If the view is inefficiency, then economic mechanisms are deemed necessary (Lofstedt, 2005).

In summary, to cope with this, the regulator should test the level of trust – and uncover any distrust and its underlying reasons. And based on the findings, act upon it effectively (Lofstedt, 2005).

2.5 Behavior of the risk managers

Lofstedt continues to discuss the behavior of risk managers and how it may influence the trust level accordingly (Lofstedt, 2005).

In high distrust situations, charismatic individuals are extremely helpful in negotiating successful deliberative outcomes

The power of bringing charismatic individuals to the table is often underestimated according to Lofstedt. He argues that in many cases, these types of individuals can be a tipping point of making or breaking the outcome (Lofstedt, 2005).

In any regulatory/risk management process the political actors, be they local or national, have to support the final outcome

Discrepancy amongst the political actors, may worsen the outcome more than if one had done nothing. Provided that political actors publicly support the outcome of the process; they may help mend divisions amongst various actors and help unify the community. On the contrary, the divisions may increase, leading to greater public distrust overall (Lofstedt, 2005).

It is not enough to assume the regulator has public trust; the regulator also has to test and see whether there is public trust

Testing for trust is as previously stated, very important in choosing a successful risk management strategy. To do this, trust should be tested in surveys and other means on a frequent basis – to assess the public`s level of trust and to discover what areas may have room for improvement (Lofstedt, 2005).

Proactive regulation is more likely to gain public trust

Proactive regulation implies that regulators are one step ahead – taking action before a crisis strikes at full force. Regulators who manage this, enable trust to grow accordingly. Those who retrospectively wait until they have to fight down a crisis that was allowed to manifest, are prone to experience an increase in public distrust (Lofstedt, 2005).

2.6 Perception of the actors involved

Perception can influence trust effectively. If we perceive something in a certain way, we will view the messenger, i.e. the regulator, in light of our perception. Hence, if our perception differs from the regulator, then trust in the regulator is likely to drop. The other way around, if our perception is aligned with the regulator, trust grows or remains consistent (Lofstedt, 2005).

Interest groups will in many cases try to create public distrust of regulators which in turn can lead to failures of the risk management process

Lofstedt warns that involvement of interest groups is risky in nature, as they are likely to promote their agenda through influencing the public`s views accordingly. The most effective way for an interest group to do this, is to create distrust in the regulator accordingly, hence Lofstedt argues that lesser involvement of interest groups will in most cases be preferred, as it is likely to lead to more successful outcomes of the proposed strategies. In situations of national or international interest, in which the regulators are considered unfair, they will still be needed even if distrust may increase as a result. Reason being that it would simply be too resource demanding to involve the public. This is in any case a high-risk strategy that may tilt the trust level either way. Despite the risk, it will still be required, based on the assumption that if they are not involved – they will do so anyway and public distrust is even more likely to be the outcome (Lofstedt, 2005).

2.7 Trust building strategies

A number of strategies which may contribute to sustaining and increasing trust – or recovering from distrust, are listed by Lofstedt (2005) as follows:

(a) political regulatory process, including litigation;
(b) public deliberation;
(c) the technocratic /scientific perspective;
(d) risk management on strict economic grounds.'

Strategy (a) in general embraces the latter three, in which they come forward as a result of a political regulatory process.

THE FOUR IDEAL TYPES OF RISK MANAGEMENT
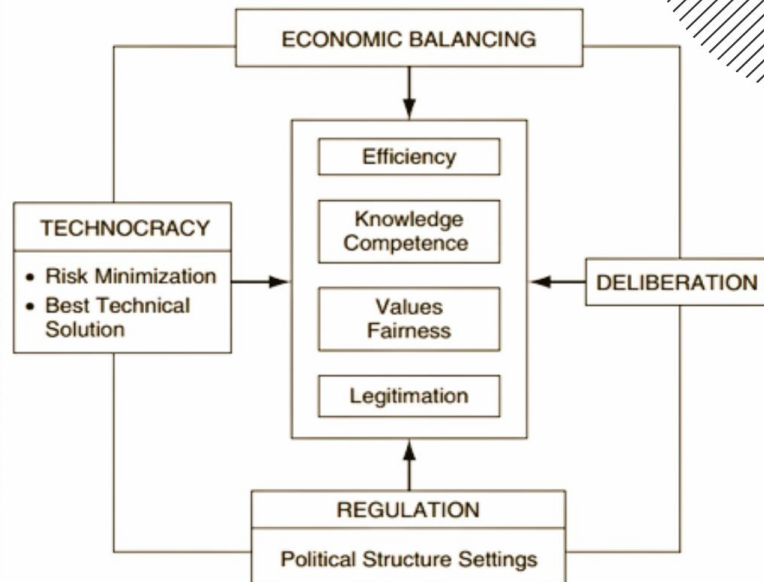
(Based on Lofstedt 2005, adapted from Ortwin Renn)

Deliberation in this context refers to the exchanging of ideas between interest groups and/or the general public and policymakers. It concerns involvement of the interested parties and have four primary purposes (Lofstedt, 2005).

Normative democracy is about looking at deliberation from an ethical standpoint. It is considered a good democratic value, independently of its impact – that be good or for worse. As a result, this may amplify the experienced legitimacy of policymakers (Lofstedt, 2005).

Equity and fairness are another level in which deliberation serves a purpose. Deliberation suggest that the citizens have an actual opportunity to influence their representatives. This allows for a balancing in the distribution of wealth as considered through this approach. It has also been shown to assist the regulators in taking social values into account. It is however a challenge that public mistrust seems to increase as they become more aware of how ineffective they perceive bureaucracy to really be. Deliberation is often criticized by experts as they don`t see any reason for involving the public, whom they evaluate as being incompetent and subjectively self-interested, rather than contributing positively (Lofstedt, 2005).

Technocracy and rational risk are all about expert involvement in policy-making processes. Those leaning towards this strategy argue that risk management should be left to the experts, in advising the regulators accordingly. They are skeptical in terms of stakeholder involvement as they don`t think it adds to benefit the process, in which the public (in their view) have no competency in assessing. They see this as inefficient in terms of both time and money. In its pure form, it can be a direct opposite to the deliberative strategy. Lofstedt argues that there are several advantages of the technocratic approach. Firstly, it gives credibility to the regulation being supported by
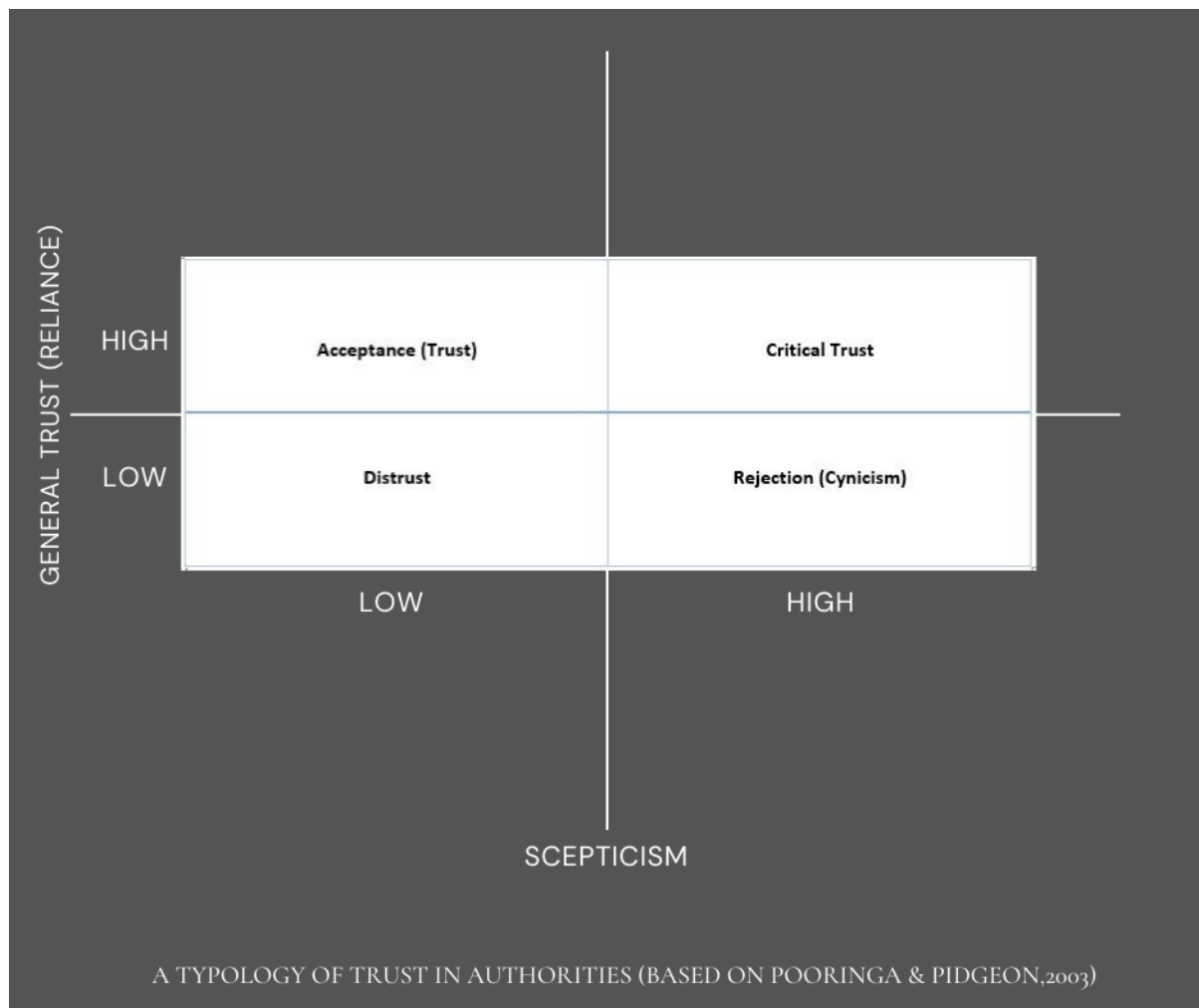
a strong foundation in science and economics, hence science plays a key role in setting protective regulations. Further, it removes the need to moral claims. It is also effective in blocking regulations where cost is higher than expected value and by that, reducing cost of compliance – and finally it can reduce the regulatory confusion which by nature is hard to detect (Lofstedt, 2005).

The final strategy outlined by Lofstedt, is risk management on strict economic grounds. This rational risk policy assumes that resources are scarce, hence it should be used in the best possible way. It is different from the technocratic approach on certain conditions, such as the argument that risk should be individualized. In other words, the individual is to decide if the risk is acceptable or not. This approach is criticized as well, opponents claiming its elitist and unfair. It can also be discussed if the approach is effective where risk cannot be quantified (Lofstedt, 2005).

2.8 Dimensionality of trust in risk regulation

Trust is a prerequisite for effective risk communication (Kasperson et al, 1992) and it has been recognized that institutional trust plays a key role in risk perception and responses to risk communication. Institutional trust can be multi-faceted and relate to a number of different factors that independently contribute to trust or distrust (Poortinga and Pidgeon, 2003). When testing for trust it may therefore be fruitful to distinguish different factors accordingly, to understand how they play out. Very well illustrated by the following quote: " "We trust you" may mean that we believe you can give us right answers and reliable information. It may mean that we believe that you are honest and will tell us all that you know. Or it may mean that we trust your judgement, and rely on you for decisions which are wise, impartial, ethical and in the public interest. We may trust you in one of these ways, without trusting you in the others. In this case, if a pollster asks us whether we trust you, what are we to say? (House of Lords, 2000, paragraph 2.29). This implies that trust and distrust may co-exist depending on what you evaluate. Some researchers suggest that full trust is not necessarily that important. They claim that the public has become more knowledgeable to an extent that they are able to practice "effective" distrust (Barber, 1983). In this context, distrust is not necessarily seen as destructive, rather a natural part of a well-functioning democracy (Barber, 1983). Pidgeon et al (2003) state that trust or distrust exist along a continuum, ranging from the highest acceptance to full rejection. And they claim that between the extremes, a healthy distrust can exist in the form of *critical trust*. Critical trust can be described as being an institutional reliance in combination with healthy skepticism (Poortinga and Pidgeon, 2003).

Trust and critical trust can co-exist and include different levels of skepticism. And based on these components, the following model can be drawn to display a typology of trust in Authorities.

		Acceptance (Trust)		Critical Trust	

GENERAL TRUST (RELIANCE)

HIGH Acceptance (Trust) Critical Trust

LOW Distrust Rejection (Cynicism)

LOW HIGH

SCEPTICISM

A TYPOLOGY OF TRUST IN AUTHORITIES (BASED ON POORINGA & PIDGEON, 2003)

If someone in general attain a high level of trust not questioning anything or displaying skepticism at all, and they are likely to accept decisions and communication from the institution involved, they can be said to have "uncritical emotional acceptance" (Walls et al, 2003). On the other side, a high level of trust can still co-exist where people display high levels of skepticism. This is what is referred to as critical trust. Meaning you may accept the decisions and/or the risk communication related at the same time as questioning the correctness of the information you receive (Pidgeon et al, 2003). Where skepticism is low and trust is low, we find that there`s general distrust – while on the other extreme, where trust is low and skepticism is high, you also question the intention of the Authorities. In the latter, it is likely that people who belong to that category will reject everything the Authorities tell them. Pidgeon et al (2003) concludes that for a well-functioning society it may very well be suitable to have critical yet involved citizens in many cases.

The Pandemic is as initially described, a wicked problem. A transboundary crisis which influence a great number of important aspects in our lives. To clarify how trust plays a role in practice in more depth, it may be useful to highlight some key dimensions of trust that Authorities must address in their risk communication accordingly, to some more detail. While Lofstedt touches on competency, fairness/equality and efficiency, I

would like to elaborate this a little bit further. The dimensions are only briefly described for the purpose of the thesis and to build on the existing levels presented by Lofstedt (2005). Risk perception, trust, and the right balance between health and economic concerns seem to be key factors to successful risk management through a Pandemic (Siegrist et al, 2021).

2.8.1 The physical dimension

The Pandemic has influenced our way of relating to each other greatly. Social distancing, lockdowns, quarantines, travel restrictions, etc. have changed the way we live and limited a lot of the normal social behaviors we are used to. The necessary measures to keep the space we move in safe, have put most of us through some level of mental strain (Economist, 2020). And even if most people are likely to state that they look forward returning to a more normal situation, the return requires trusting that it is safe to do so. What happens when the tide turns; when we are allowed to gather in larger groups, be around each other without keeping a distance, and so on? Will trust in physical safety be strong enough for us to let go of our newly attained "habits" that currently serve to protect us? In any case, the magnitude and unpredictability of the Pandemic is likely to have impacted a great number of individuals sense of safety (Higgins, 2020) and no one knows exactly how this will play out in the future. This is closely linked to the emotional dimension.

2.8.2 The emotional dimension

Do we trust that our societal and emotional needs and values are being safeguarded? The same measures creating physical distance – and possibly trust issues related to physical safety, are also likely to influence our emotional life. Together with every impact we receive directly- or indirectly as a result of the Pandemic, we experience different levels of emotional distress. Emotional distress has also been known to outlast physical impact of disasters and crises (Kisely et al, 2020). The Pandemic occurring against a backdrop of high rates of mental illness and substance use that existed prior to the current crisis, is drawing much concern regarding the development of the situation. As an example, prior to the Pandemic; in any 12-month cycle, between 16-22% of the adult Norwegian population is expected to have a mental disorder. The most common ones related to anxiety, depression and substance use (FHI, 2018). In a recent survey with 26000 respondents, the Norwegian Institute of Health investigated Covid measures impact on mental health in November/December 2020, 11 months+ into the Pandemic. The results found that 1 in 4 were not happy with their lives and that more people experienced mental problems at that stage compared to prior to the Pandemic (FHI,2020). How intrusive measures have influenced this negatively is not evident and it`s too early to conclude on longer term impact.

The preliminary findings suggest that the majority of us have tolerated the situation well, while those who suffered more primarily are people who already suffered various mental issues (Kjøs et al, 2021).

2.8.3 The financial dimension

It seems impossible to investigate trust dimensions in this context, without highlighting the financial dimension more. Efficiency is as elaborated one of the key components of trust according to Lofstedt (2005). And the nature of wicked problems is namely that they rarely come with solutions that only cause positive effects, as stated earlier (Schiefloe, 2020). The choices of governments related to managing the Pandemic have probably colored the way people trust their financial concerns being managed. Economic cost of the actions related, should be reasonably beneficial in terms of actual risk reduction according to Graham and Hartwell (1997). The Pandemic and the measures influencing the Norwegian economy related, have hit differently depending on what sector one chooses to evaluate. The Oil & Gas industry as an example, took less a toll than feared in Norway, due to the Government`s acceptance of a tax postponing agreement[1] (Regjeringen, 2020). In short, the agreement stimulated the companies to continue planned investments and projects at a higher level than what would be the case otherwise – hence the industry managed to keep the activity level continually high. Other industries have suffered far more, such as the travel industry experiencing an activity drop of great significance as an example. There are mixed opinions on how much society should accept to cope with, on the benefit of saving lives. Various strategies between different countries has also shown different results. Sweden, even if not directly comparable, has governed the situation differently with the result of a mortality rate that is approximately ten times higher than Norway at the time of writing. At the same time, the restrictions in society have in general been less intrusive. SVL - value of a statistical life, is a common approach to set a monetary value to avoiding loss of life. The value of a statistical life represents the monetary value a population has decided as a limit for avoiding the loss of an unidentified individual (OECD, 2020). The Pandemic though, is probably too complex in nature and bound to all too much uncertainty for it to be a guiding star for governments making decisions. Uncertainty has become an increasingly difficult part of the selling points in the Authorities' risk communication, emphasizing precautionary principles. Especially in a country like Norway where death tolls are very low, at least in comparison to many other developed countries. It is possible that as people's perception of risk changes – their acceptance of intrusive measures lowers, especially if the negative impact is considered much higher than the experienced benefits. Disagreement towards measures have increased steadily over time (Helsedirektoratet, 2021). A growing concern around the financial impact of the Pandemic is seen and countering initiatives have been established to try and influence the strategies of governments accordingly. The Great Barrington Declaration[2] is one such initiative, where the followers of the approach believe in what they call a "focused protection" strategy. In, short – they find that the cost and damage created by the intrusive measures in societies worldwide have a higher price than what is tolerable. They believe that protecting the most vulnerable parts of the population while allowing the remaining population to live as normal – and eventually achieving herd immunity, is a better solution (The Great Barrington Declaration, 2021). At the time of writing, the declaration is currently signed by almost 800.000 people, 14100 proclaimed researchers and scientists and more than 40.000 proclaimed medical professionals (The Great Barrington Declaration, May

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[1] https://www.regjeringen.no/no/dokumenter/forskrift-om-endringer-i-forskrift-om-utsettelse-av-skatteinnbetalinger-mv.-for-a-avhjelpe-konsekvensene-av-covid-19-utbruddet/id2836337/

[2] https://gbdeclaration.org/

2021). The point of bringing this up, is to display the global lack of consensus on what is the best strategy, especially in terms of the financial impact.

Governments must make tough choices, with the consequences related. Communicating the risk-benefit in a mature phase of the Pandemic may be increasingly challenging. And so, to question: When a high number of people disagree – or even partly disagree with measures being governed, will this influence their level of trust in their government? Or influence what type of trust as elaborated in the previous pages? Trust has been proven to be an important factor contributing to public compliance during a Pandemic and has been reported to influence people's perceived risks of a Pandemic (Condon & Sinha, 2010).

2.9 Summary Trust

Trust is complex in nature. It is important to not assume levels of trust being so or so. It needs to be tested (Lofstedt, 2005). And it`s important to understand the difference of distrust and critical trust (Poortinga and Pidgeon, 2003). While the latter may come forward as distrust, it may in reality be a healthy involvement of citizens who hold a general trust independently. Depending on the situation, regulatory processes should encompass different strategies. In high trust, uncertain risk environments, Lofstedt states that deliberative strategies are not required. In low trust public situations, risk management strategies are necessary – however, before execution – the reason and context of distrust must be revealed. Deliberative strategies can be positive if the distrust comes from viewing regulators as partial or unfair. They are however costly and time-consuming. And they may turn things even worse, so it should be considered a high-risk independently. Bringing in charismatic individuals under such terms may prove to have a positive impact. In all regulatory/risk management processes, political actors should remain official supportive of the final outcome, to maintain or increase public trust. Proactive regulations are more likely to gain public trust. Involving interest groups in these processes, is however likely to increase distrust as previously presented. They may be needed and required when the regulator is not viewed as unfair – or when dealing with challenges and interests on national or international level (Lofstedt, 2005).

The Risk Management Decision Tree (Lofstedt, 2005)
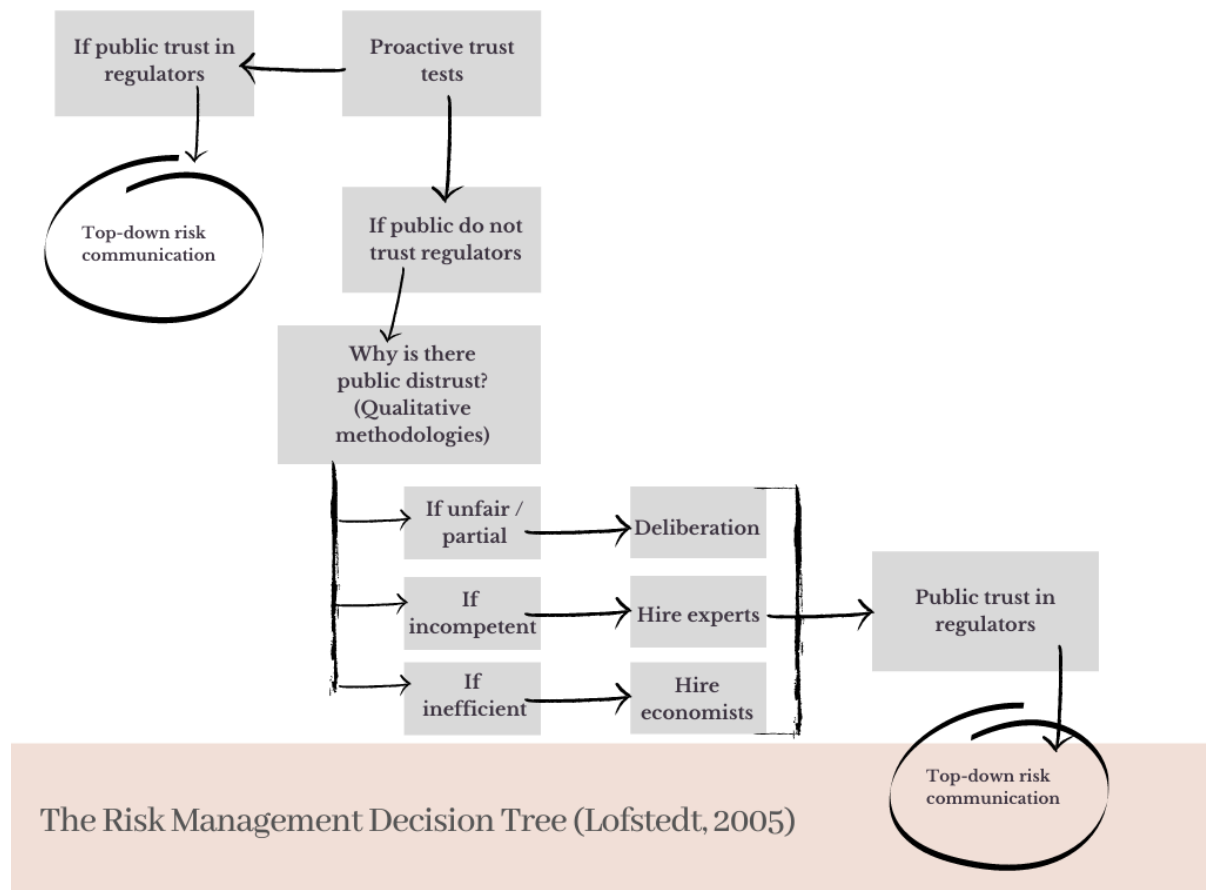
Based on Lofstedt (2005)

The risk management decision tree is a flow diagram describing the various choices available in a risk management process – and their correlation to various strategies depending on the situation. As the tree clearly illustrates, in a high trust environment – things are quite straight forward. Proceed with already established regulatory routines without further a due, as trust testing suggest that the public views the regulator as doing things right. A risk communication plan should always be present – and in general, this would be a top-down form of communication, where the regulator informs the concerned public about the situation (Lofstedt, 2005).

On the other side, if there`s distrust – as stated before, one must understand why. Trust testing should be done to clearly identify the reasons behind the distrust before deciding. In the light of a challenging decision, in a climate of distrust, three routes forward are available. If seen as partial, a deliberative process is required. If viewed as incompetent, a technocratic approach is preferred to gain support through expert advisors, provided the experts themselves are viewed as impartial that is. If the view is inefficiency, then economic/rational strategy is the way forward. This will engage economists to establish how the scarce resources can be used to maximize the benefit related. This will only work, provided that the public see the economist intervention as increasing the efficiency – not wasting even more money.

And just as important, viewing them as impartial. In short: In high public trust environments, deliberation is usually not required. In low public trust environments, the opposite is required through interest groups, the public, experts, or other relevant actor(s) accordingly (Lofstedt, 2005).

3 Aim and Methodology

An exploratory mixed-methods design was adopted, in two sequential phases. «An explanatory mixed methods design (or a two-phase model) consists of first collecting quantitative data and then collecting qualitative data to help explain or elaborate on the quantitative results» (Creswell, 2008). A mixed methods study involves the collection or analysis of both quantitative and/or qualitative data in a single study in which the data are collected concurrently or sequentially, are given a priority, and involve the integration of the data at one or more stages in the process of research (Creswell, 2003). This approach takes use of quantitative data in conjunction with qualitative data to provide a confirmation of the data through better validity and confidence in the findings. Turning the totality into a "completeness" of the understanding of what is being investigated (Halcom & Andrew, 2005). In this thesis, a quantitative data gathering was done first, conducting an online survey. The survey results were then analyzed through SPSS, to set a foundation for further qualitative interviews based on the results. According to Lofstedt (2009) testing for trust is problematic through quantitative surveys like this and suggest that qualitative research methods are likely to be more insightful. A number of 12 qualitative interviews were conducted following the conclusions of the quantitative survey.

EXPLANATORY MIXED METHODS DESIGN

QUANTITATIVE DATA GATHERING AND ANALYSIS

FOLLOW UP

QUALITATIVE DATA GATHERING AND ANALYSIS
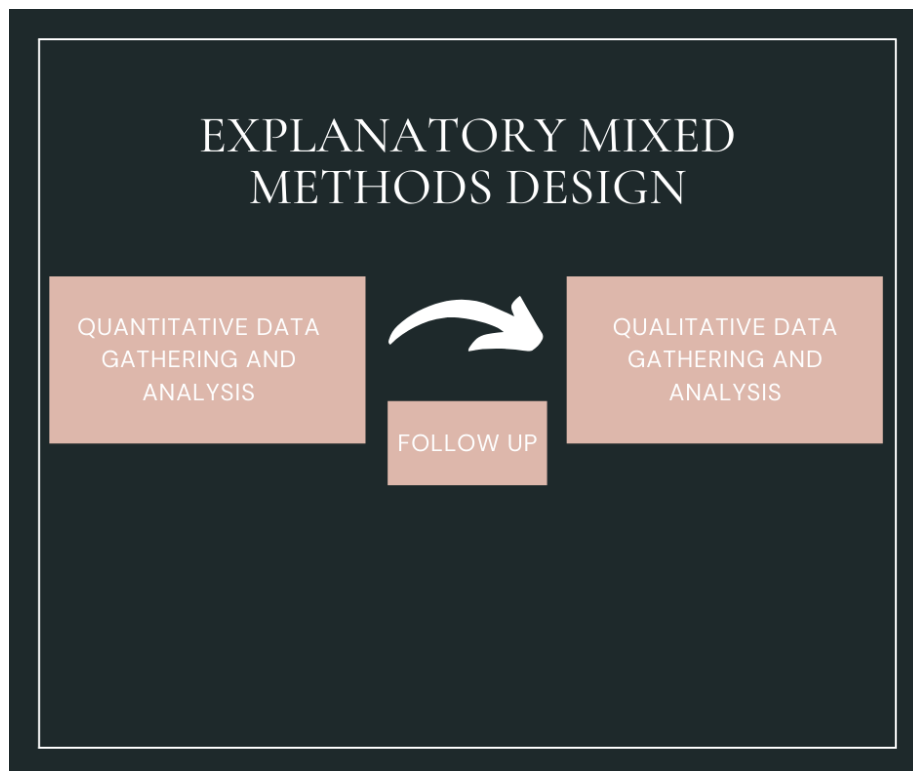
(Based on Creswell, 2008)

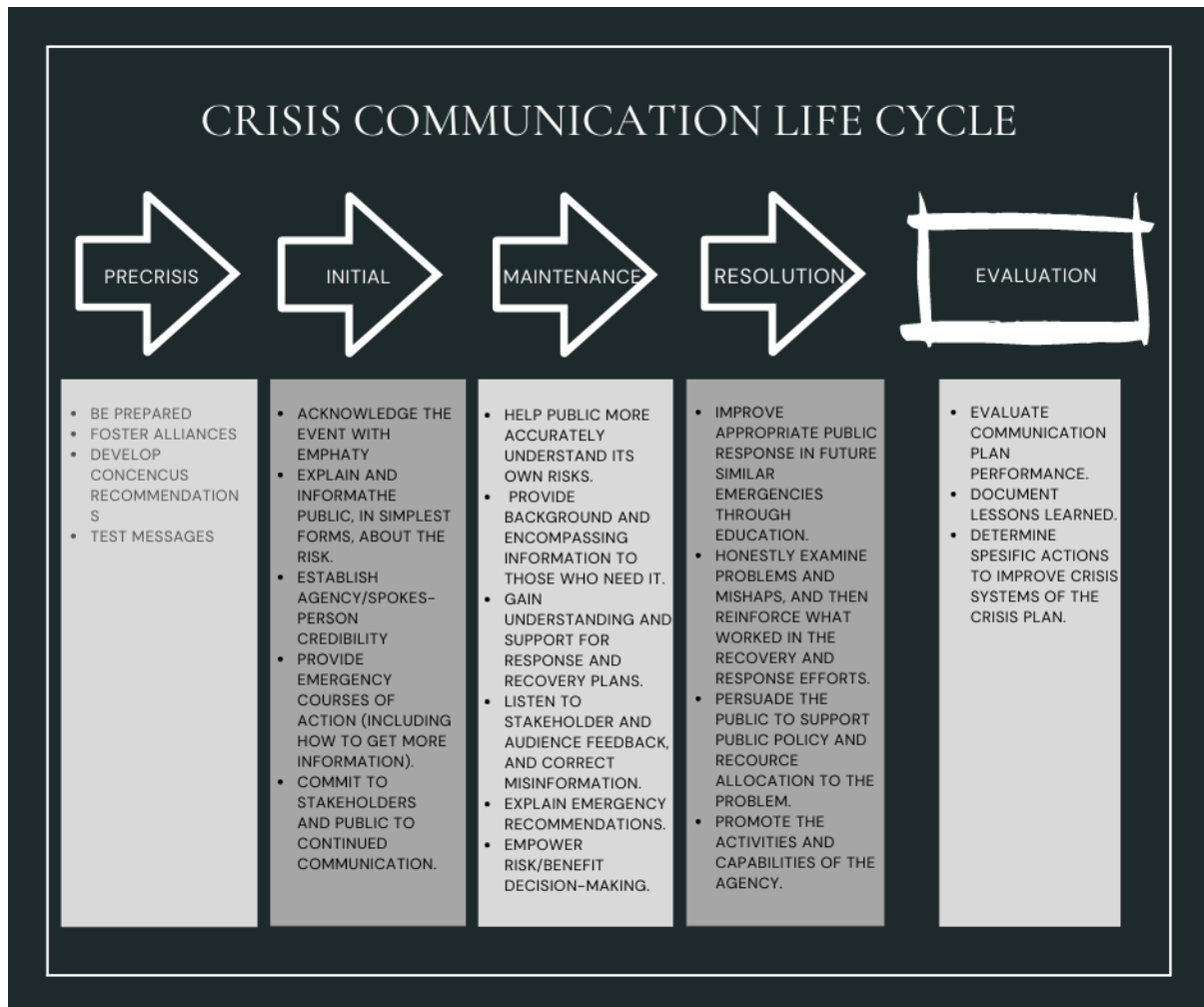## 3.1 Sequence one: Quantitative survey and analysis

An online survey was established with aims of measuring the level of trust amongst Norwegian citizens in relation to the Government's risk communication and handling of the Pandemic. I hypothesized that if people perceived the risk communication to be acceptable or good, there would also be a higher level of trust corresponding. The survey was widely shared across multiple surfaces. Being a master student without a budget, reaching a sufficient number of respondents was challenging and based on sharing at relevant, open pages. Including national newspapers, television broadcasters, and more. List below to illustrate, yet not exhaustive:

- NRK

- VG

- TV2

- Dagbladet

- LinkedIn

- Facebook

- Instagram

- Official County Facebook pages

- Official commune Facebook pages for major cities

- Other local newspapers representing all counties.

I carefully evaluated the context in which it was shared, to reduce the risk of selection bias. Selection bias relates to the process of recruiting participants (Smith & Noble, 2014). I.e. I didn`t share it in contexts that were already clearly biased, for instance comments sections linked to news that were very negative or extremely positive towards Authorities handling of the Pandemic. I aimed for neutral landscapes that had a greater chance of attracting a representative variety of respondents. Bias can be defined by as: 'an inclination or prejudice for or against one person or group, especially in a way considered to be unfair'; 'a concentration on an interest in one particular area or subject'; 'a systematic distortion of statistical results due to a factor not allowed for in their derivation' (Smith & Noble, 2014). In research, understanding bias is important for multiple reasons. Firstly, it is likely to exist in all research and difficult to eliminate completely. Secondly, it can occur at any stage of the research process and thirdly, bias influence the validity. Minimizing bias should be a key consideration undertaking research and it is an ethical duty to outline limitations in the study and account for potential sources of bias (Smith & Noble, 2014). The survey was open for 14 days straight.

The survey was split in two parts. Part one focused on pure demographic variables. The second part targeted risk communication and questions on trust related. The questions related to risk communication were influenced by the theories on risk communication presented earlier in this thesis. And also, CDC (Centers for Disease

Control and Prevention) manuals on CERC (Crisis & Emergency Risk Communication). More specifically their manual on risk communication during a Pandemic Influenza (2007). The key aspects highlighted can be illustrated in the model below:

CRISIS COMMUNICATION LIFE CYCLE

PRECRISIS	INITIAL	MAINTENANCE	RESOLUTION	EVALUATION
• BE PREPARED • FOSTER ALLIANCES • DEVELOP CONCENCUS RECOMMENDATIONS • TEST MESSAGES	• ACKNOWLEDGE THE EVENT WITH EMPHATY • EXPLAIN AND INFORMATHE PUBLIC, IN SIMPLEST FORMS, ABOUT THE RISK. • ESTABLISH AGENCY/SPOKES-PERSON CREDIBILITY • PROVIDE EMERGENCY COURSES OF ACTION (INCLUDING HOW TO GET MORE INFORMATION). • COMMIT TO STAKEHOLDERS AND PUBLIC TO CONTINUED COMMUNICATION.	• HELP PUBLIC MORE ACCURATELY UNDERSTAND ITS OWN RISKS. • PROVIDE BACKGROUND AND ENCOMPASSING INFORMATION TO THOSE WHO NEED IT. • GAIN UNDERSTANDING AND SUPPORT FOR RESPONSE AND RECOVERY PLANS. • LISTEN TO STAKEHOLDER AND AUDIENCE FEEDBACK, AND CORRECT MISINFORMATION. • EXPLAIN EMERGENCY RECOMMENDATIONS. • EMPOWER RISK/BENEFIT DECISION-MAKING.	• IMPROVE APPROPRIATE PUBLIC RESPONSE IN FUTURE SIMILAR EMERGENCIES THROUGH EDUCATION. • HONESTLY EXAMINE PROBLEMS AND MISHAPS, AND THEN REINFORCE WHAT WORKED IN THE RECOVERY AND RESPONSE EFFORTS. • PERSUADE THE PUBLIC TO SUPPORT PUBLIC POLICY AND RECOURCE ALLOCATION TO THE PROBLEM. • PROMOTE THE ACTIVITIES AND CAPABILITIES OF THE AGENCY.	• EVALUATE COMMUNICATION PLAN PERFORMANCE. • DOCUMENT LESSONS LEARNED. • DETERMINE SPESIFIC ACTIONS TO IMPROVE CRISIS SYSTEMS OF THE CRISIS PLAN.

(based on CDC, 2007)

Further to that, the survey focused in more detail on questions to capture trust from different angles, using relevant trust theory from Lofstedt as primary source of creation and elaborating it in including the dimensions of trust related.

3.2 Sequence 2: Qualitative data gathering and analysis

To get a deeper insight into people`s evaluations provided in the survey, it was found fruitful to apply a qualitative data gathering as a sequential follow up. One of the challenges with a quantitative survey apart from not answering the "why`s" in depth, is the rating itself. To rate various statements on a scale, may be problematic both in terms of how the respondents understand the question and rating together – and also the interpretation of the answers in the analysis that follows. Two different people may rate the same question differently, based on how they individually make sense of the score. Hence, a rating on a scale have limited value in itself without further explanation (Jacobsen, 2005.).

3.3 Selection

The selection criteria for the interviews conducted were based on key findings described in the conclusions from the first quantitative data analysis. In terms of accessibility, this also influenced the selection as time and resources made it complicated to attain random interviewees. Therefore, the selection was limited to my social extended reach. While face-to-face meetings would be personally preferred, all but one interview were done through Microsoft Teams, as a direct consequence of the current situation, discouraging physical meetings (official measures governed by the governmental and local Authorities). I didn`t find this limiting in any way, except reducing the ability to read non-verbal cues slightly perhaps, even if video was used. According to Tjora (2010), establishing an environment where the interviewees can feel comfortable is important. In this case that was less optional, yet the digital format seemed to work well in all the cases. I also stretched myself to make sure the time and date were flexible enough to fit the interviewees schedule with ease. Booking interviews went fairly easy. And I deliberately avoided people with whom I have a close personal relationship to. It should still be mentioned that I had an existing relationship with 4 out of 12 interviewees at a daily professional level. Workwise that is. This may have caused bias to the interview at a limited level.

3.4 The interview method

The second data gathering was as stated achieved through 12 in-depth interviews. The reason why in-depth interviews were chosen, is because they are likely to generate rich descriptions of how individuals view and understand the world from their own personal perspective (Tjora, 2010). I chose to apply a semi-structured approach where the interview guide was developed to reflect the content of the quantitative survey, yet with open questions rather than statements and corresponding ratings. Open questions are important in this context as they allow for more nuances and richness in the answers (Tjora, 2010). When the respondents answered with less words or when I was uncertain of what they meant exactly, I asked related follow up questions of open character like "can you elaborate on that?" "That`s interesting, how

does that influence the way you look at this?" I was allowed to record the sessions yet did not find it necessary to transcribe every single word. Even though transcription of verbal data is common, it can be questioned if it is really necessary in mixed-method research (Halcomb & Davidson, 2006).

3.5 The reflexive, iterative approach.

In mixed-method research, where quantitative data are used in conjunction with interview data in a sequential way like in this thesis, the use of a reflexive, iterative process may represent a time effective, constructive, and theoretically sound process alternative to managing verbal data (Halcomb & Davidson, 2006). The chosen approach was loosely based on Halcomb & Davidson (2006) and is described below.

3.5.1 Audiotaping and note taking, content analysis.

Conducting the interview while taking notes, can be somewhat risky as it may influence the flow. Yet, with effective key notes – this was not found to stall any part of the conversations. And then shortly after the interview was done, I re-listened to the interview over again, evaluating the notes and amending them where required. This was time efficient and I found it to improve the preliminary understanding and key takeaways. After doing that exercise, it was time to do an initial analysis before revisiting the interview again, listening to it and refining the notes even further. The final stage, was to do a thematic review, taking spesific examples out from the interviews that demonstrated the meaning of the participants 'perspectives (Halcomb & Davidson, 2006). In summary this saved time and in conjunction with the quantitative data, I concluded that my data was sufficient to use for the purpose of this thesis.

3.6 Data analysis

Qualitative interviews generate a lot of data which may complicate the analysis accordingly (Jacobsen, 2005). Yin recommends that to analyze data effectively, the analysis should be governed by the research questions (Yin, 2009). This strategy was helpful in focusing on the key research aims. After completing a summary of the interviews, I compared the data in a less comprehensive format, to better see similarities and differences. This way of working is referred to as data reduction (Nilssen, 2012) and was useful in getting a firm overview of the raw data.

3.7 Research ethics

All research projects should reflect on the ethical side of the project (Tjora, 2010). For the entire data gathering process, it was made very clear to the respondents that all data would be kept anonymous and that all information they would choose to provide, had to be of volunteer nature. The interviews were made on terms that the interviewee had to confirm verbally that they accepted the recording being made, before the interview started. The only personal information recorded, was gender, nationality, age, work/life situation and county of residence. I avoided asking for data on personal health in the interviews and left this to be completely up to the interviewee, to bring up if they wanted to. No information that can identify any respondents have been referred to in this thesis. The data has been anonymized and derives from such a large population that it would be impossible to identify anyone by name. Recordings from the interviews were deleted after completing the analysis.

3.8 Reliability

To evaluate the quality of one`s research, assessing reliability and validity may be useful (Tjora, 2010). Reliability may also be referred to as data being trustworthy and if the respondents responses are consistent (Heale & Twycross, 2015). Another aspect of this is if I would achieve the same results if I repeated the measurement multiple times (Ringdal, 2009). Reliability, or the level of such, is also concerned with the process and if I may have influenced the results I present (Jacobsen, 2005). This is in no way possible to guarantee either way, and even if I strongly believe that I managed to avoid leading the interviewees in certain directions – or choose biased respondents, it must be considered that the results may have been influenced to some extent from this. Another thing that needs to mentioned is that all interviews were done with Norwegians in Norwegian. Hence, all direct references are my own translations of their spoken words in the language. This may add on to the risk of watering out or changing the meaning of the interviewees statements, yet most likely to insignificant extent if so is the case. I will argue that my English is fluent after using it as my primary everyday work language over the course of more than ten years consistently.
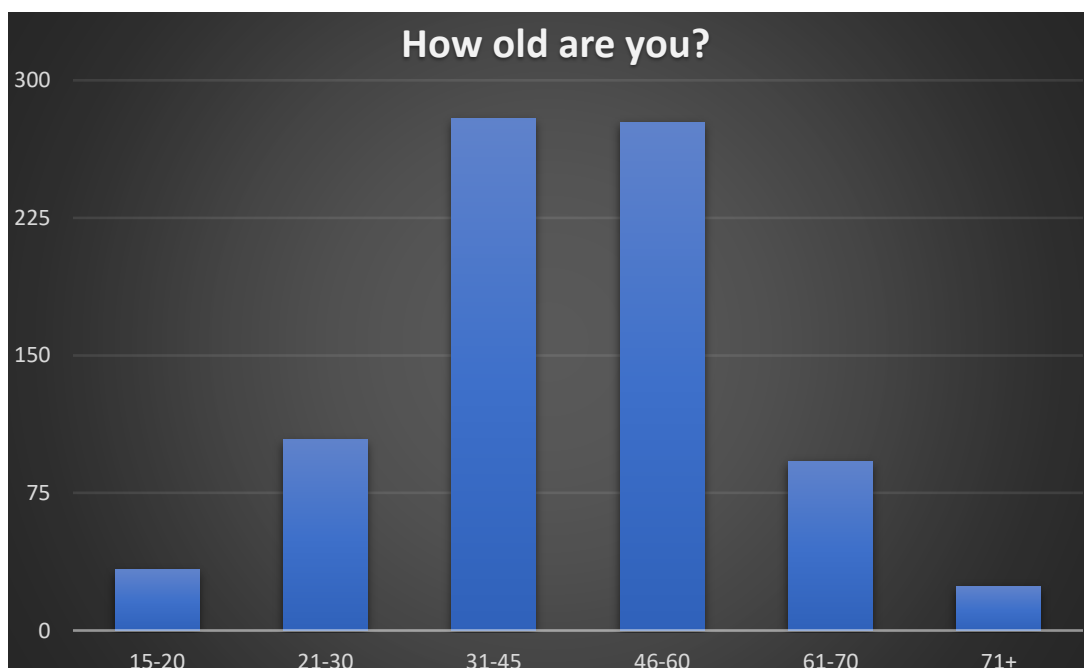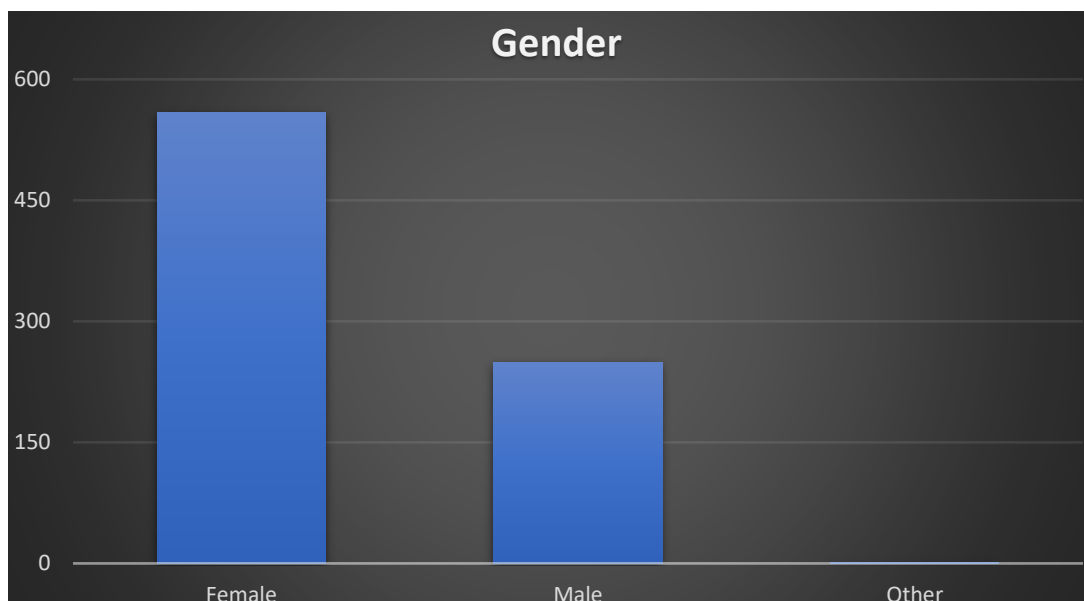
3.9 Validity

Validity is concerned about the choices we make in our approach to gather information. Are they fruitful in shedding light to what I want to understand (Jacobsen, 2005)? Hence validity is largely about the data itself. Do they provide what you need based on what you are looking for? Is the data appropriate (Ringdal, 2009)? In hindsight, I find that the sequential model I applied to gather information was useful and provided better insight than either method would be able to do alone. The data combined provided me with insight to what I was examining, both at higher levels and individual levels that provided good foundations for drawing relevant conclusions and a fair level of validity.
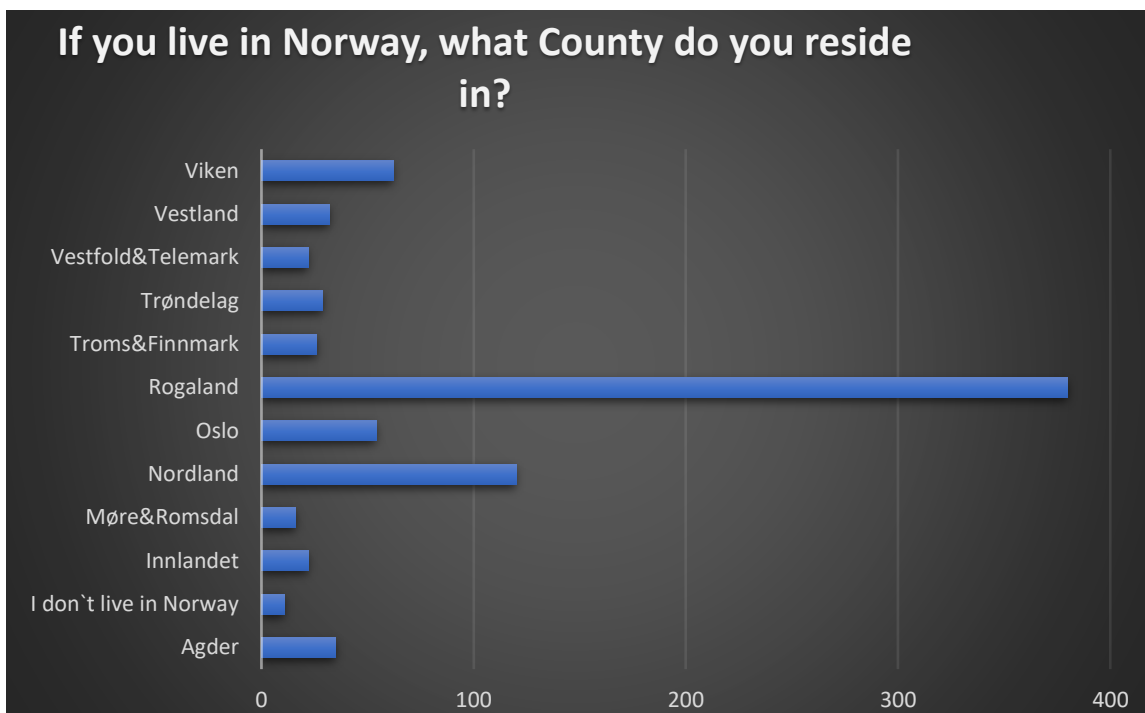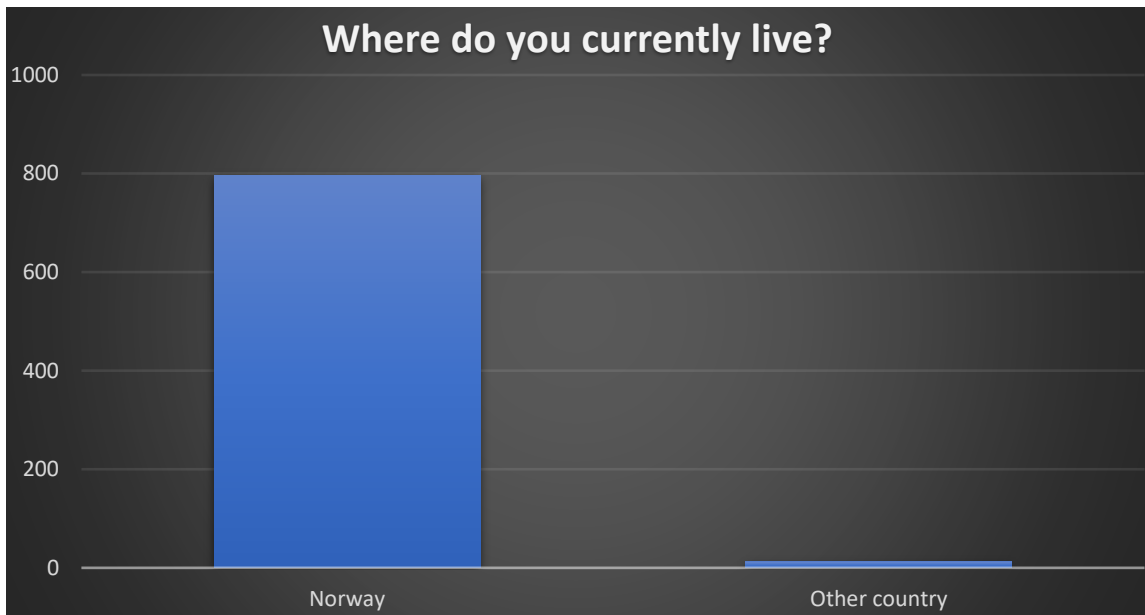
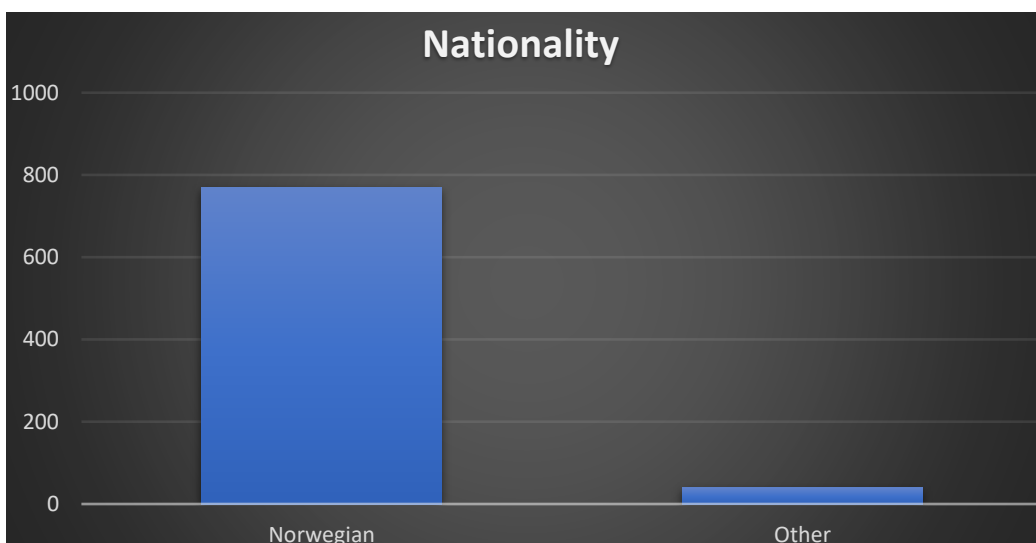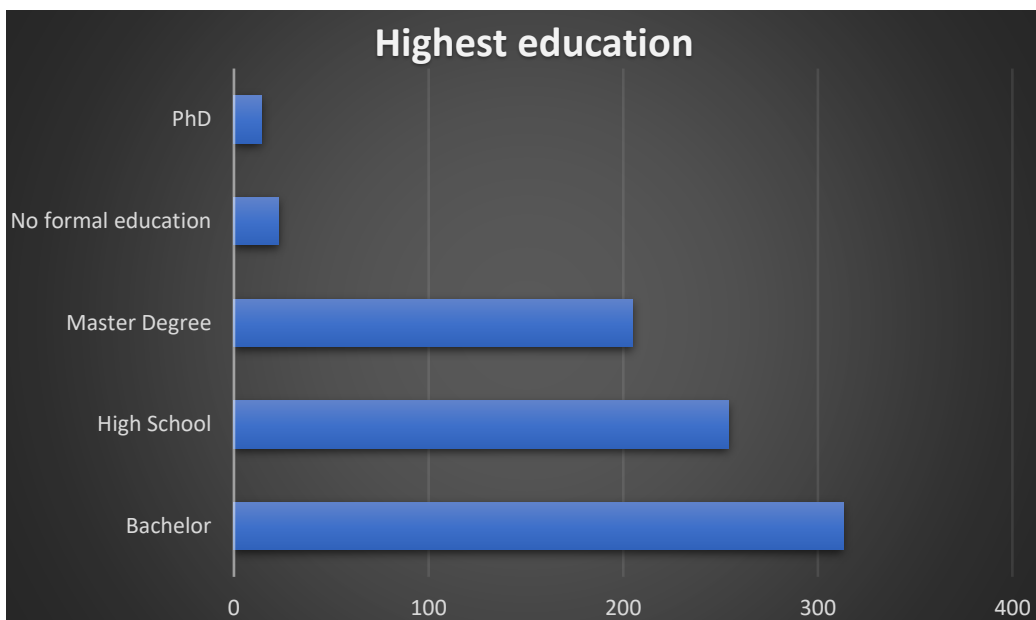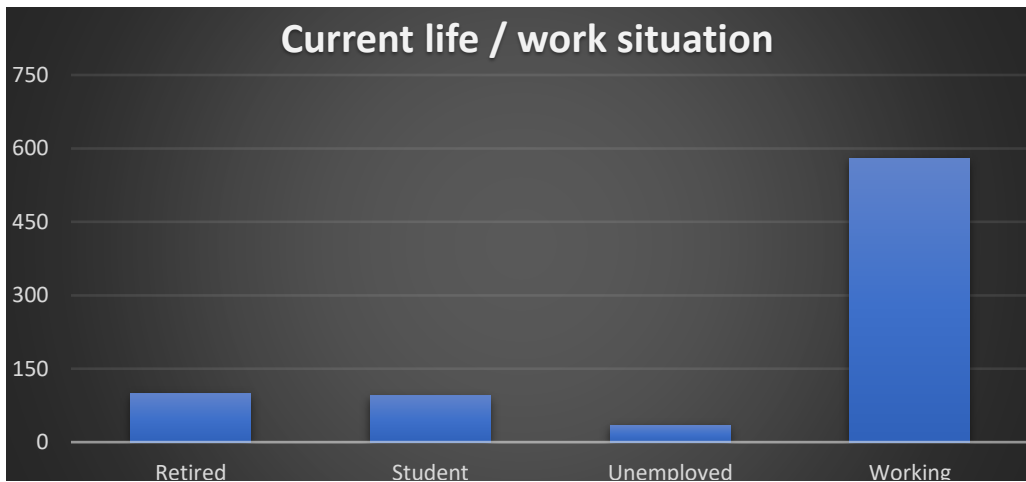## 4. Sequence one: Results of the quantitative survey

Results will be described in sequence, analyzing the quantitative survey first, followed by the qualitative data gathering and analysis. After that I will discuss the findings and finally draw some conclusions.
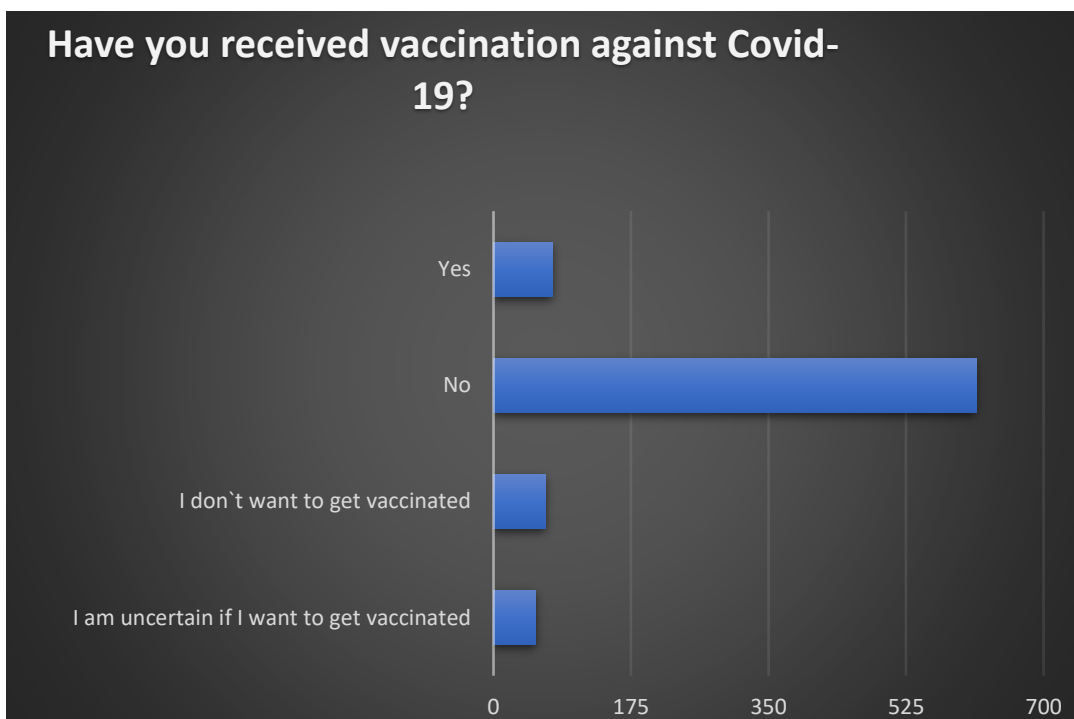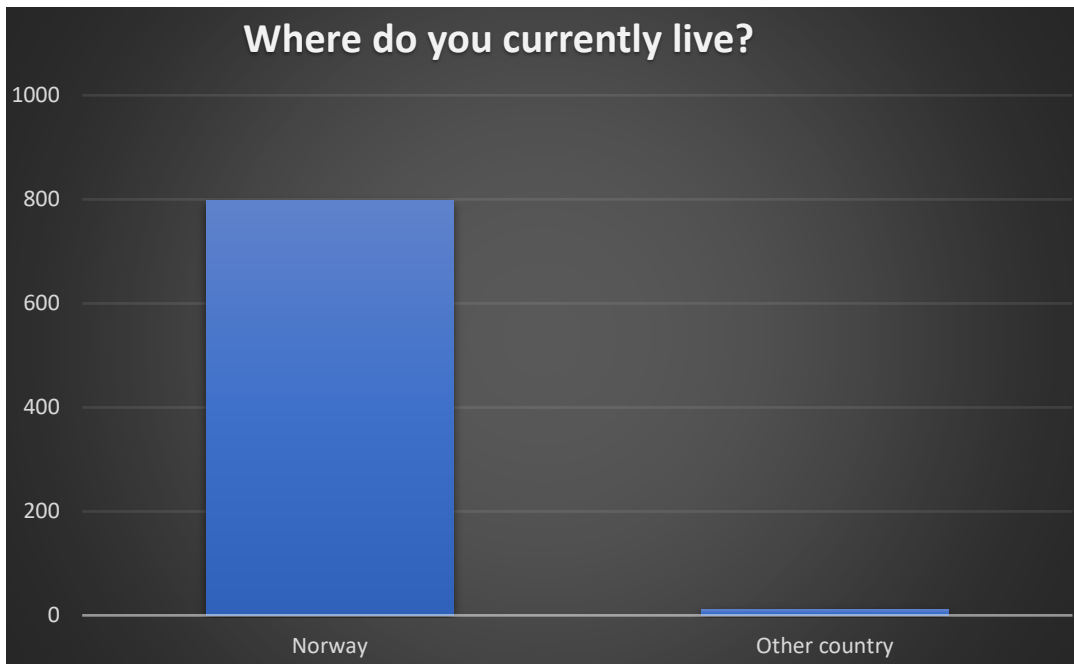
4.1 Raw data

Following the survey, the raw data provided a good overall picture of the measured variables. The first section establishing an overview of demographic variables.

Where do you currently live?

If you live in Norway, what County do you reside in?

25

Current life / work situation

Highest education

Nationality

Where do you currently live?

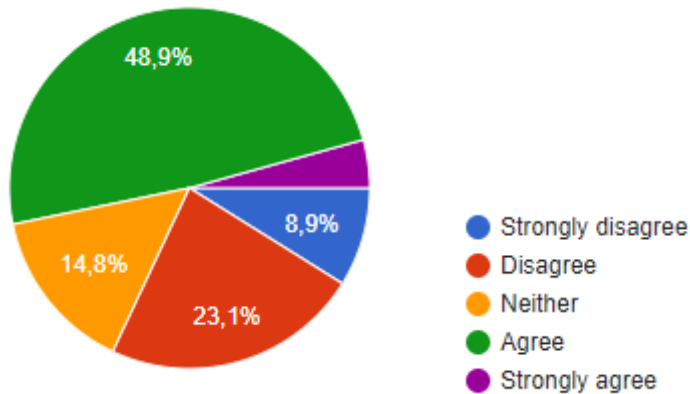**Have you received vaccination against Covid-19?**

Section two examined risk communication and level of trust in the Norwegian Authorities, regarding communication and handling of the Pandemic on relevant dimensions to this date through the Pandemic.
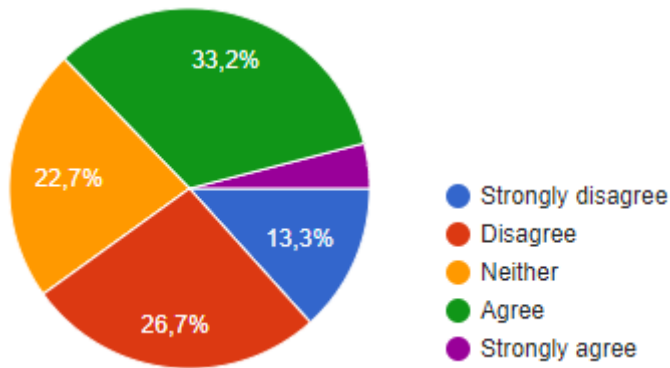
The regular updates from the Authorities on the Covid-19 situation are understandable and actionable.


The Authorities adequately prepare me for the challenges I am likely to face.
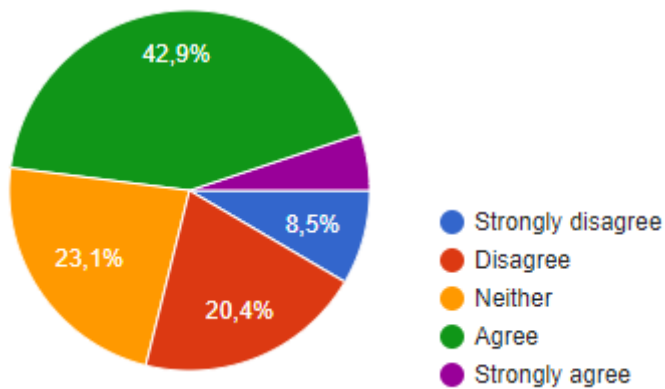
The Authorities have a clear plan on handling the Pandemic.

Strongly disagree 13,3%
Disagree 26,7%
Neither 22,7%
Agree 33,2%
Strongly agree

The Authorities possess the necessary knowledge and expertise on the situation and has been consistent in the delivery of their message.

Strongly disagree 12%
Disagree 24,7%
Neither 20,6%
Agree 37,9%
Strongly agree
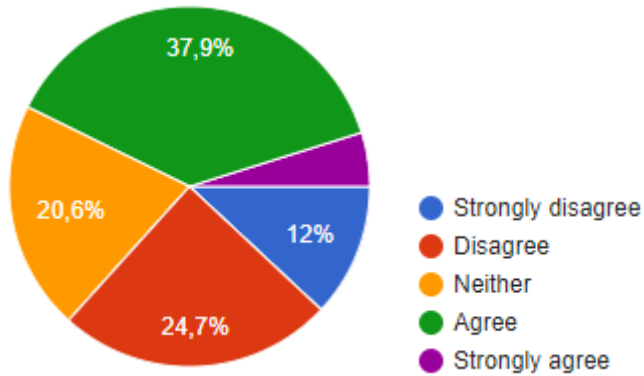
The information released by the Authorities has been accurate and are repeated enough to keep us all safe.

Strongly disagree 9,7%
Disagree 27,7%
Neither 21,9%
Agree 35,6%
Strongly agree
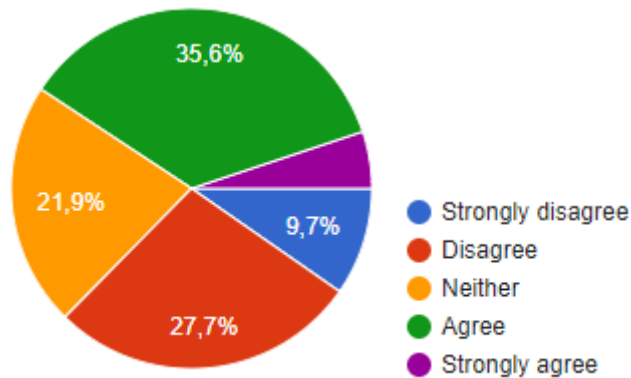
The information released by the Authorities has been timely throughout the Pandemic.

- Strongly disagree
- Disagree
- Neither
- Agree
- Strongly agree

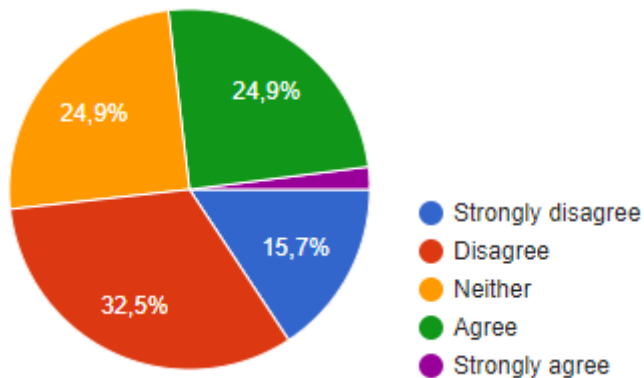24,9% | 24,9% | 15,7% | 32,5%

The Authorities has been able to understand my challenges and address my concerns during this outbreak.

- Strongly disagree
- Disagree
- Neither
- Agree
- Strongly agree

30,4% | 27,8% | 12,4% | 26,1%
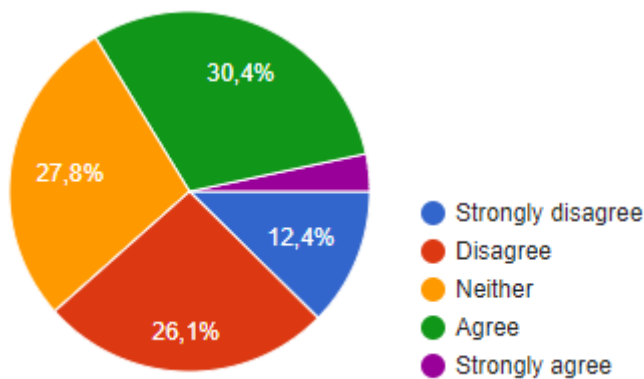
The Authorities has been able to provide explanations of the risks associated with the COVID-19 situation in a simple, concise, and direct manner.

- Strongly disagree
- Disagree
- Neither
- Agree
- Strongly agree

50,4% | 10,1% | 16,3% | 16,4%
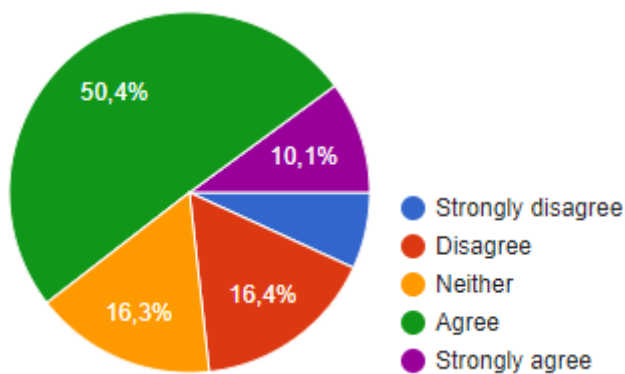
The Authorities has been clear in explaining the necessary actions I need to take to stay safe.

48,7%
11%
7,3%
14%
19,1%

- Strongly disagree
- Disagree
- Neither
- Agree
- Strongly agree
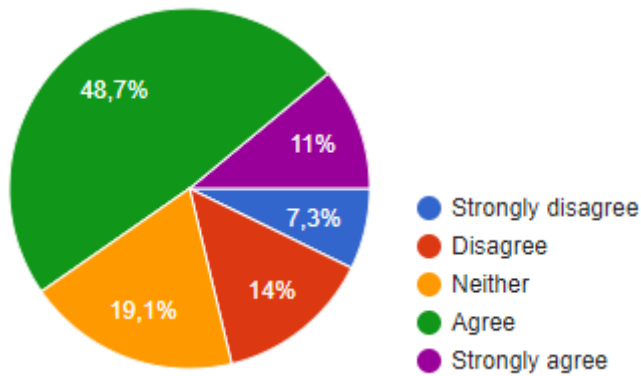
I am clear about what the Authorities are doing in response to the COVID-19 situation.
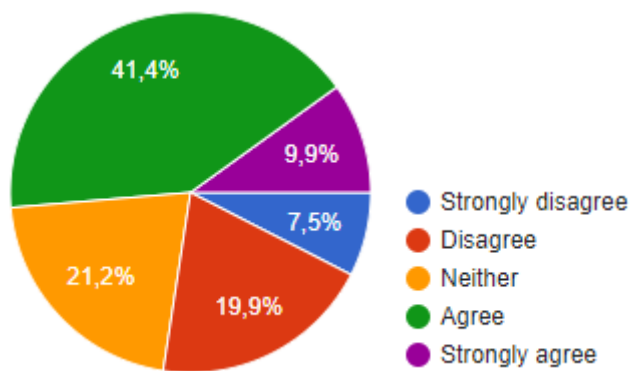
41,4%
9,9%
7,5%
19,9%
21,2%

- Strongly disagree
- Disagree
- Neither
- Agree
- Strongly agree

The updates from the Authorities increase their credibility and my trust in them.

30,2%
27,7%
19,2%
17,3%

- Strongly disagree
- Disagree
- Neither
- Agree
- Strongly agree

31
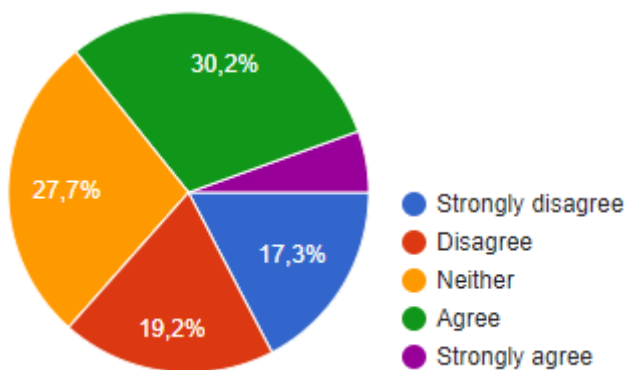
I trust the Authorities ability to make the best choices for my health and safety more now than I did before the Pandemic.

Strongly disagree — 15,1%
Disagree — 21,5%
Neither — 28,6%
Agree — 27,2%
Strongly agree — 7,7%
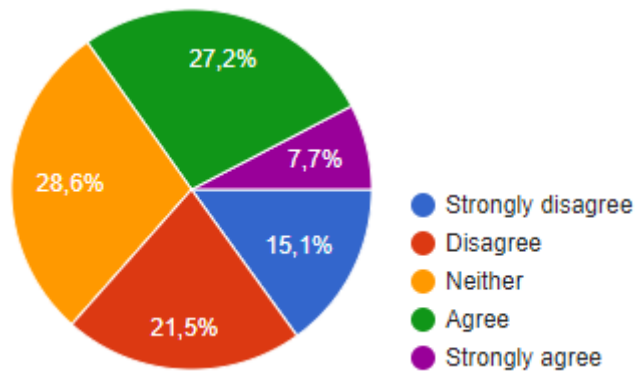
My fear of contracting the virus is very high.

Strongly disagree — 18,1%
Disagree — 36,2%
Neither — 20,3%
Agree — 19%
Strongly agree
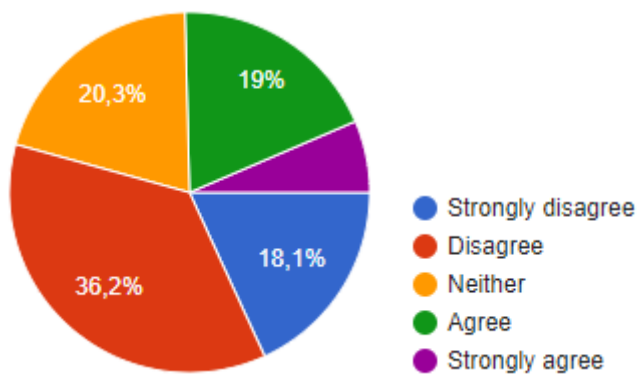
I am very concerned that someone close to me is going to get infected.

Strongly disagree
Disagree — 13,7%
Neither — 12,2%
Agree — 43,4%
Strongly agree — 23,8%
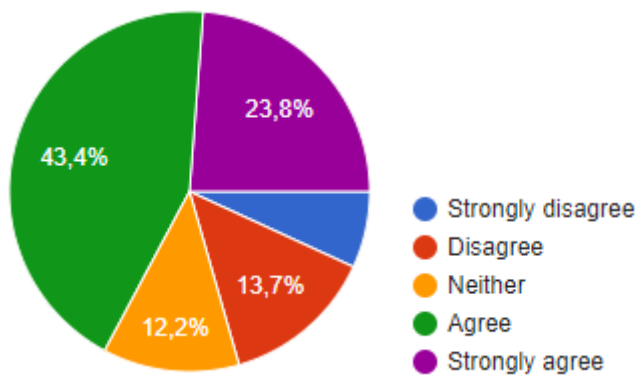
I follow the recommendations and requirements set by the Authorities faithfully.
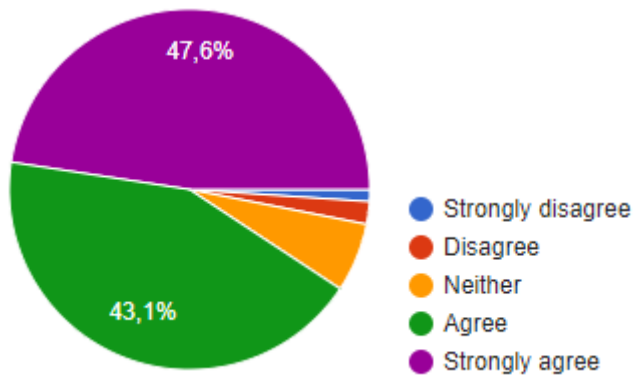
People in general follow the recommendations and requirements set by the Authorities faithfully.
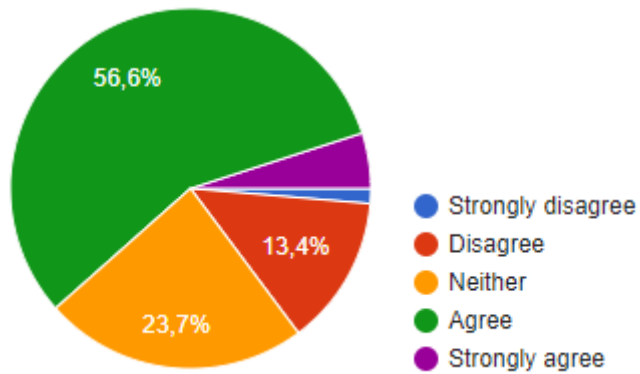
My fear of personal economic consequences due to the situation is very high.
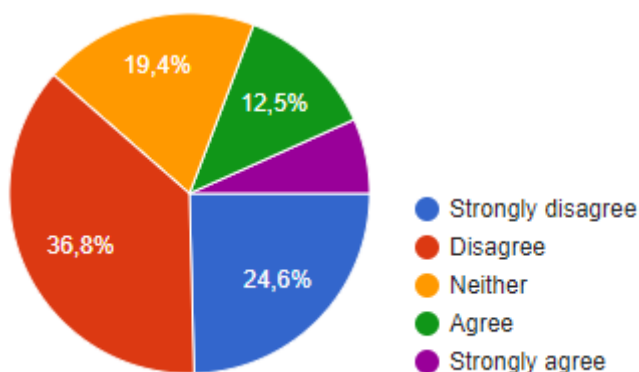
The risks of the coronavirus are not sufficiently weighed against social risks. (i.e. not being able to see family members, friends, shut down of children`s activities, etc.).

Legend:
- Strongly disagree
- Disagree
- Neither
- Agree
- Strongly agree

28,2% — Agree
20% — Strongly agree
27,8% — Neither
19,8% — Disagree

The risks of the coronavirus are not sufficiently weighed against emotional risks. (e.g., damage to people`s mental health caused by the measures against the virus).

Legend:
- Strongly disagree
- Disagree
- Neither
- Agree
- Strongly agree

34,1% — Agree
25% — Strongly agree
22,7% — Neither
15,5% — Disagree

The risks of the coronavirus are not sufficiently weighed against other physical health risks. (i.e. postponed surgeries and other delayed interventions caused by the measures against the virus).

Legend:
- Strongly disagree
- Disagree
- Neither
- Agree
- Strongly agree

34,4% — Agree
17,3% — Strongly agree
26,6% — Neither
19,6% — Disagree
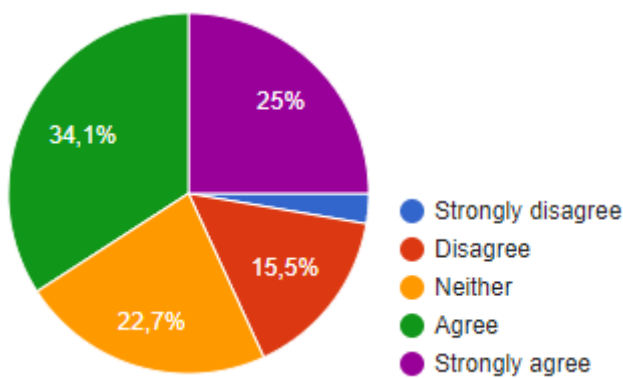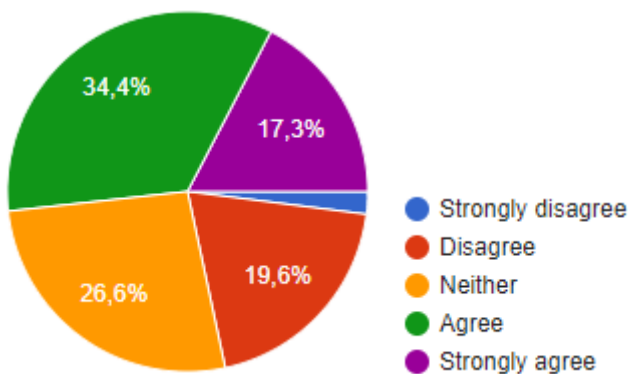
The risks of the coronavirus are not sufficiently weighed against economic risks (e.g., economic damage caused by the measures against the virus)
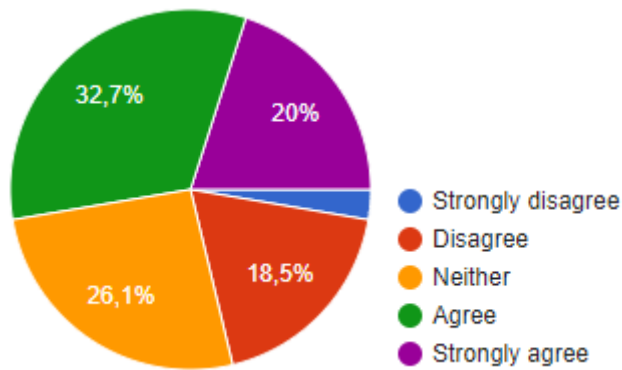
The Authorities intentionally exaggerate the hazards associated with the coronavirus.
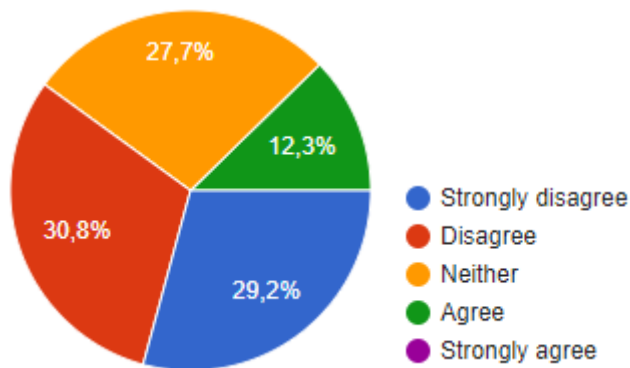
The coronavirus has been intentionally brought to people.
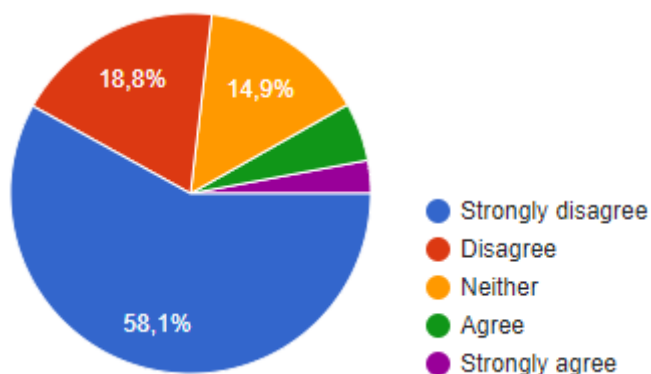
In the future, society will be functioning as well as before the Pandemic.

Strongly disagree
Disagree
Neither
Agree
Strongly agree

35,9% | 12,1% | 26,9% | 21,2%
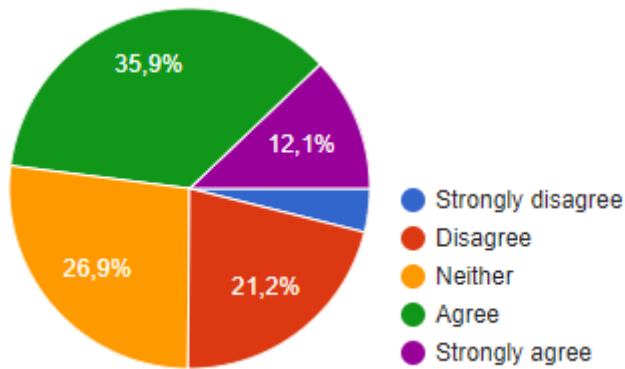
Our society is well equipped to cope with a similar future situation.

Strongly disagree
Disagree
Neither
Agree
Strongly agree

34,5% | 8,2% | 25,1% | 29,2%
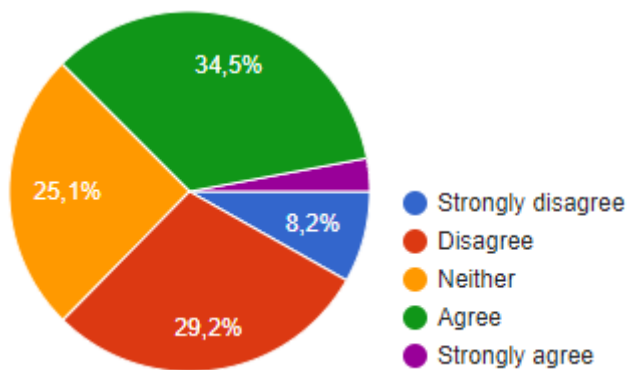
Our society has a bright future.

Strongly disagree
Disagree
Neither
Agree
Strongly agree

45% | 11,3% | 11,7% | 28,4%
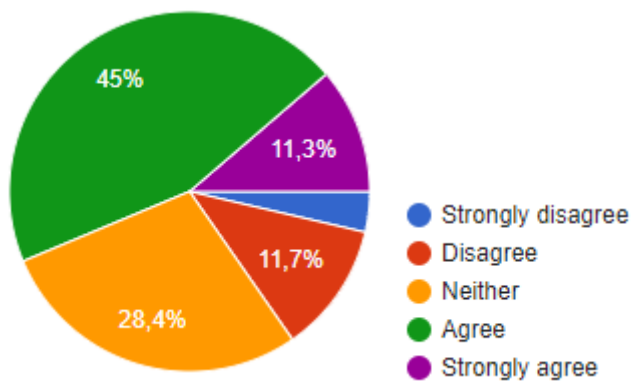
4.2 Analysis of survey results

As initially stated, the raw data provided a fair insight into the population as a whole and gave some interesting general insight. To do an in-depth analysis, SPSS software was used. Data was collected from eight hundred and nine respondents. The respondents represented all counties – yet Rogaland County was by far higher represented than the rest. Other counties standing out was Nordland County. This was due to the fact that Nordland County Authorities picked up on the survey while it was active, finding it interesting enough to share at all their local city web pages. Oslo and Viken County also standing out, most likely due to being areas with considerably higher number of residents compared to other counties.

4.3 Descriptive statistics

Table 1 shows the descriptive statistics of the variables. The descriptive statistics indicated that age has M=3.44 and S.D=1.07, gender has M=1.30 and S.D=.46, nationality has M=1.04 and S.D=.21, country has M=1.01 and S.D=.12, Reside in has M=6.68 and S.D= 2.40, Current life has M=3.35 and S.D=1.09, education has M=1.97 and S.D=.95, Higher risk has M=1.93 and S.D=.53, Tested positive for Covid-19 has M=1.95 and S.D=.19, Vaccination has M=2.11 and S.D=.65, RC has M=3.11 and S.D=.90 and T has M=3.08 and S.D=.66.

It shows that the majority of the respondents were female between 31-45 years, were of Norwegian nationality, lived in Norway and resided in Rogaland County. Most of the participants that indicated that they had higher risk than others if they contract Covid-19, had not tested positive for Covid-19, and had not gotten the vaccination for Covid-19.

Table 1: Descriptive Statistics

Variables	Mean	Std. Deviation
Age	3.44	1.07
Gender	1.30	.46
Nationality	1.04	.21
Country	1.01	.12
Reside in	6.86	2.4
Current life	3.35	1.09
Education	1.97	.95
Higher risk	1.93	.56
Tested positive for Covid-19	1.95	.19
Vaccination	2.11	.65
RC	3.11	.90
T	3.08	.66

N=809; RC= Risk Communication; T= Trust

4.4 Correlations

Table 2 indicates the correlation among variables. The correlation depicts that Age and RC (r=.13, p<.05), Gender and RC (r=-.08, p<.05), and Vaccination and RC (r= -.33, p<.05) were correlated with each other significantly. While Nationality and RC (r=-.03, p>.05), Country and RC (r=-.02, p>.05), Reside in and RC (r=.02, p>.05), Current life and RC (r=.03, p>.05), Education and RC (r=.05, p>.05), Higher risk and RC (r=.03, p>.05) and Test for Covid-19 and RC (r=.00, p>.05) were not correlated significantly.

This suggest that higher age is correlated with more positive rating of the risk communication. The correlation depicts that Age and T (r=.11, p<.05), Gender and T (r=-.08, p<.05), Current life and T (r=-.07, p<.05), and Vaccination and T (r= -.27, p<.05) were correlated with each other significantly. While Nationality and T (r=-.06, p>.05), Country and T (r=-.02, p>.05), Reside in and T (r=-.02, p>.05), Education and T (r=.05, p>.05), Higher risk and T (r=.06, p>.05) and Test for Covid-19 and T (r=.04, p>.05) were not correlated significantly.

This means that increasing age, increases the level of trust. Further, the correlation amongst RC and T were significant and positive (r=.72, p<.05). This implies that increase in the positive rating of the risk communication is accompanied by an increase in the trust of Norwegian Authorities, supporting the preliminary hypothesis.

Table 2: Correlations

Sr.	Variables	1	2	3	4	5	6	7	8	9	10	11	12
1	Age	1											
2	Gender	-0.01	1										
3	Nationality	0.00	0.02	1									
4	Country	0.04	0.00	.208**	1								
5	Reside in	0.03	0.06	-0.06	-.22**	1							
6	Current life	-.132**	.077*	0.03	0.01	-0.01	1						
7	Education	-0.01	0.03	0.04	0.02	-0.05	0.02	1					
8	Higher risk	-.167**	-0.03	0.01	0.01	-.07*	.111*	0.03	1				
9	Test for Covid-19	-0.02	0.00	-.09**	-.23**	0.037	-0.00	0.02	-0.03	1			
10	Vaccination	-.097**	-0.02	0.04	-0.03	-0.00	-.11**	-0.01	.083*	-0.01	1		
11	RC	.138**	-.089*	-0.03	-0.02	0.02	0.03	0.05	-0.03	-0.00	-.33**	1	
12	T	.112**	-.084*	-0.06	-0.02	0.02	.071*	0.05	-0.06	-0.04	-.27**	.725**	1

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

4.5 Confirmatory factor analysis (CFA)

A CFA was done to test how well the measured variables represented the number of constructs or underlying themes (Brown, 2006). A CFA allowed to test the relationship between the observed variables and their underlying constructs (Suhr, 2010) . In order to do the CFA, PCA technique was used with varimax method of rotation. The findings of Barlett's test of sphericity showed that data is appropriate and KMO shows the adequacy of sample size for doing the factor analysis. The rule of thumb is that the value of KMO has ranged between 0 to 1, closer to 1 is describable (Hinton et al., 2004). Table 3 shows the results as RC has (KMO=.96, Barlett's test= 7004.85, P<.05) and T has (KMO=.54, Barlett's test= 82.46, P<.05).

Table 3: KMO and Barlett's test results

Constructs	Items	KMO	Barlett's test	Sig
RC	11	.96	7004.85	.000
T	11	.54	82.46	.000

In general, those components of variables are considered the factors which have eigen value more than 1. Eigen values indicate the amount of variance explained by each component or factor (Suhr,2010). Only one principal was obtained from six constructs by applying the extraction method of PCA: RC (have 11 items and one factor that explained 66.71.5% variance) and T has three factors such as factor 1 has 4 items that described the 39.43% variance, factor 2 has also 4 items that indicated 16.96% variance and factor 3 has 3 items which showed 13.11% variance.

Table 4: Eigen values and explained variance

Constructs	Components	Total	% of Variance	Cumulative % of Variance explained
RC	1	7.33	66.71	66.71
T				
Factor 1	4 (items)	4.33	39.43	39.43
Factor 2	4 (items)	1.86	16.96	56.40
Factor 3	3 (items)	1.44	13.11	69.51

Straub et al. (2004) indicated that all items should have factor loading .40 or more. Thus, T4, T5, T11 and T12 were excluded because they had factor loading value below .40. The table 5 shows the factor loading of items.

Table 5: Component Matrix

Items	Factor loading
RC1	.822
RC2	.863
RC3	.821
RC4	.859
RC5	.855
RC6	.758
RC7	.771
RC8	.760
RC9	.804
RC10	.789
RC11	.872
T1	.860
T2	.897
T3	.853
T6	.782
T7	.705
T8	.829
T9	.848
T10	. 679
T13	.844

T14	.857
T15	.627

Extraction Method: Principal Component Analysis.

Varimax method of rotation

4.6 Reliability test

Cronbach`s Alpha test was conducted to the reliability of constructs. This is the most common test for measuring consistency[3]. Table 6 shows the reliability of study variables. The values of Cronbach Alpha have range from 0.60 to .095 (Hinton et al., 2004). RC has (α=.95), T (F1) has (α=.65), T (F2) has (α=.88) and T (F3) has (α=.77). This shows that data is reliable to an acceptable level. Reliability relates to the consistency of a measure. In other words, if a respondent is consistent in their answers (Heale & Twycross, 2015).

Table 6: Reliability test

Constructs	Cronbach Alpha (α)
RC	.95
T (F1)	.65
T (F2)	.88
T (F3)	.77

4.7 Regression analysis

To analyze the level of trust with respect to the Norwegian Authorities risk communication regarding the Pandemic, regression analysis was performed through SPSS. A regression analysis estimates the relationships between dependent variables (Freedman, 2009). Table 7 shows that the results of the relation between RC and T (β=.73, p <.05) as statistically significant. Thus, this supports the hypothesis that risk communication regarding the Pandemic is influencing trust level in respect to the Norwegian Authorities. In other words, when the Norwegian Authorities communicates information of Risk about Pandemic, it influences the trust amongst the citizens. One

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[3] https://statistics.laerd.com/spss-tutorials/cronbachs-alpha-using-spss-statistics.php

unit changes in RC can result in 73% change in T. R^2 indicated the variance in dependent variable due to independent variables. In the given model, .52% variance is explained in T due to RC.

Table 6: Regression analysis

Hypothesized links	β	R^2	t-values	Results
RC → T	.73*	.52	29.91	Supported

* p < .05

4.8 Conclusions

SPSS software was used to do the data analysis. Data was collected from eight hundred and nine respondents and the data was found reliable. The majority of the respondents were female, between 31-45 years with an education level bachelor, employed, Norwegian nationality, lived in Norway and resided in Rogaland County. To understand the level of trust with respect to the Norwegian Authorities risk communication regarding the Pandemic, a regression analysis was performed. The results revealed that risk communication regarding the Pandemic is influencing trust levels of Norwegian Authorities. Further, a subjective rating of the risk communication performance regarding the Pandemic, is corresponding well with perceived trust level of the Norwegian Authorities. Higher subjective, positive rating of the risk communication equals higher subjective trust level in the Norwegian Authorities accordingly. The data also showed that increasing age was correlated with increasing level of trust.

5.0 Sequence 2: Qualitative data

The analysis did not provide a good answer to the "why`s" which calls for more information. This is as previously mentioned, supported by Lofstedt (2005) who claim that testing for trust is problematic through quantitative surveys, suggesting that qualitative research methods are likely to be more insightful. Hence a qualitative data gathering was found suitable to elaborate on findings from the quantitative analysis to complement and refine the data. Ultimately seeking to be able to explain why people think and behave the way the quantitative survey implies.

5.1 Table of interviewees

With scarce resources, the interviewees were chosen in relation to a few dominating variables found in the quantitative survey with relation to nationality, gender, age and county of residence. This was to attempt reflecting a representative selection of respondents acceptably aligned with the quantitative data. Other variables were not considered as it would be too complex to find suitable candidates fulfilling too many requirements in due time. Hence work/life situation and educational level were coincidental and not deliberately targeted. Despite this limitation, the variation was found to be sufficient to serve as foundation for the data gathering. In the following chapter, findings from 12 separate interviews will be presented. Each interviewee has been coded from 1-12. Where there is a number next to a quote/opinion, that code is linked to the respective interviewee(s).

Table of interviewees, demographics

Code	Nationality	Gender	Age	County	Work/life situation	Education
1	Norwegian	Male	61-70	Rogaland	Working	High school
2	Norwegian	Male	46-60	Rogaland	Working	Master deg.
3	Norwegian	Female	46-60	Rogaland	Working	Master deg.
4	Norwegian	Female	31-45	Rogaland	Working	Bachelor
5	Norwegian	Male	31-45	Rogaland	Working	High school
6	Norwegian	Female	31-45	Rogaland	Unemployed	Bachelor
7	Norwegian	Female	61-70	Rogaland	Retired	Bachelor
8	Norwegian	Female	31-45	Rogaland	Working	Bachelor
9	Norwegian	Male	31-45	Rogaland	Unemployed	High school
10	Norwegian	Female	31-45	Rogaland	Working	Master deg.
11	Norwegian	Male	31-45	Rogaland	Working	Bachelor
12	Norwegian	Female	46-60	Rogaland	Working	Bachelor

5.2 Data

The following chapters will start by describing how the interviewees experience the Norwegian Authorities risk communication regarding the Pandemic, before examining what level of trust they have related. To effectively communicate about risk, it is necessary that the communicators have knowledge of the publics` risk perception (Fischhoff, 2011). This includes understanding of what information the public need and what worries are related. How the individual understands, perceive and experience a risk determines what information he/she needs and how the risk communication should be constructed and conducted (Drottz-Sjøberg, 2003).

5.3 Risk Communication

The majority of respondents stated that they found the updates from the Authorities understandable and actionable (1,3,4,5,7,8,9,10,11,12). This was also very much aligned in response to the question around communication accuracy and repeating messages to keep people safe. Two candidates did however state that the use of words in messages had been confusing and to some extent misleading: "The minister of health (Bent Høie) has a catastrophically coincidental use of the terms «should,» vs «must». And I think this is going to influence people more and more in becoming reluctant of pure confusion, not knowing whether something is absolutely mandatory or volunteer to comply with. (2)" One interviewee also stated that they questioned the routing of the communication. "The choice of communication channels has been questionable. Most people get their news from the mass media, which tend to adjust the information to increase number of viewers. They take basic information and turn it into click-bait. To get neutral information, it relies on the individual`s ability to retrieve it from the right sources and evaluate it critically – in which I think the Authorities should have been more on the ball. They have been understandable, yet too much relying on the mass media to come across, which may have influenced the messaging a lot. They could for instance have used direct messaging to peoples cell phones as an alternative. (10)"

The respondents were mixed in their view regarding the Authorities success in preparing people individually for the challenge they could face. Approximately half of them (2,3,4,7,8,5,10) thought they had been well informed to cope with the challenges they had to face through the Pandemic `till now. "I think the Authorities have done the best they can based on what they know throughout the Pandemic (8)." The other half were less consistent in their view, most being neutral or mildly negative in their overall views (1,9,6,11,12). "I guess they do the best they can. At the same time as an example, we see so many people losing their jobs and it happens too fast to be able to prepare for. I assume this must influence the mental health of many accordingly (9)."

This question also led to timeliness of information, which to the interviewees seemed to trigger views on not only information – also action related. Four candidates (1,4,7,8) stated that they questioned the timing of messages vs action in some cases, where they felt that the Authorities had warned early yet actioned too late. And one of them had also personal experiences in the early phase contributing to this. "My son`s flight

was cancelled. And while Erna (The Prime Minister) was on the news claiming that everyone currently in other countries would get help to get home safely, he had to travel by train through Europe, fly from Germany to Oslo, walked around freely with no restrictions at the airport, they could even leave the airport if they wanted to, before they took the last flight home to Stavanger. And upon arrival in Stavanger, they were allowed to leave the airport and go wherever they wanted with no form of control. It was horrendous. And off course, my son got infected and he infected my husband. And when I tried to get a test, we couldn`t even get through to the Covid call center in 2,5 hours straight. We tried multiple days in a row unsuccessfully. Terrible emergency preparedness. (7)" Another one experiencing some of the choices unfair and meaningless. "To a great extent, many meaningless measures, i.e. the cabin prohibition last year. What was the point of that? And at the same time as implementing measures of pure symbolic value, they allowed travelers from abroad to cross the border freely?! This made me lose confidence in the Authorities ability to run this(1)." There were however other views far more positive on this. Three interviewees (3, 2, 10) acknowledging that the situation called for swift changes and little time to prepare accordingly. "The Authorities have done a remarkable job, an honest and fair job under extremely difficult circumstances. A high-risk activity making difficult choices over extended time. All honor to them!" (3).

Regarding the views on The Authorities knowledge and expertise 1/3rd of the interviewees were very positive (2,3,7,8) and found the Authorities to be knowledgeable and well informed on relevant subjects. "People who claim they would do things different (than the Authorities), clearly don`t know what they are talking about. Erna (The Prime Minister) has been rock solid in her leadership and Bent (the Minister of Health) has been a perfect co-pilot.(3)" Others were uncertain or mildly negative. Or in this particular question, maybe diplomatic is a better word. As one interviewee stated: "A lot of public funding has been used. We have learnt a lot. And it is of course possible that certain things should have been done differently in the early stages. It surely should have. However, it`s easy to be clever in hindsight. And you know, Norwegians don`t like to be dictated by anyone. We are culturally expecting a very high level of democracy from the Authorities. Maybe too much I think. The captain must be allowed to be in charge of the ship as long as he or she is captain. You need the call to be made by one person in charge.(10)"

One person (6), had clear negative views: "The follow up of pregnant women and families with children who suffers various challenges have been very bad throughout the Pandemic. Waiting for clarifications that never come. Timeliness? They should be ashamed of themselves. In addition, I honestly find it challenging to understand what the Authorities really mean in some of the statements. And they clearly don`t understand it themselves either as they are unable to explain it in simple terms."

All the interviewees were aligned on their subjective evaluation of communication regarding measures required to keep one safe. The social distancing and other hygienic measures were mentioned by all as easy to understand. The difference came more into play talking about more detailed recommendations and regulations. I.e. number of visitors in private gatherings vs public. Pubs vs restaurants, personal training vs trainer led sessions, cabin usage in own commune vs other communes, etc. Some of the measures were perceived as confusing and also unfair . "Why can`t we train Yoga in a well-ventilated huge room with 2m between us, with low pulse in a controlled manner, while at the same time people can train freely in gyms, sweating

and breathing heavily spreading everything they may have effectively, as long as the training is not organized… It makes no sense. It`s nonsense! (4)" Some confusion around "must" and "should" also came forward as previously mentioned.

On questioning if the interviewees were clear on what the Authorities are doing in response to the Covid situation, everybody had a general view that they understood the response related. In other words, the clarity in the messages were perceived as generally good. The differences amongst the interviewees shone through more in relation to the actual decisions. Some very positive. And again, other comments of more diplomatic characters. "I think, generally speaking, that most of the measures they`ve implemented are necessary. I do however think they are going to have negative side-effects – in some cases they already do. And we don`t know the longer-term impact. And at the same time, what else could they had done? It`s like a Catch22. You`re damned if you do and you`re damned if you don`t (3)." A minority (1,12) were clearly more negative. "They`re clear enough (The Authorities). It`s just, there`s too much recommendations instead of prohibitions. And the emergency response preparedness must have been non-existing. It took far too long to establish a framework to follow. (12)"

5.4 Trust

On questioning the interviewees if the updates from the Authorities increase their credibility and my trust in them, the answers differed quite a lot. 5 interviewees were very positive (3,7,8,10,11), in terms of acknowledging that the situation was of a complexity that was almost impossible to handle perfectly. And they gave overall good evaluations of the handling since the emerging more than a year ago. This was aligned with the survey finding that 30% of the respondents were positive on the same question. "I am very happy I live in Norway and not Sweden as an example, or Great Britain or the US for that sake. Considering how poor those governments have handled the Pandemic.(11)." Several in the same "batch" did however reflect the growing feeling of tiredness against measures. "I think the Government have done a great job to prevent us all from getting sick from Covid. The people doesn`t take it that serious anymore I believe. I think people simply wear out. They are tired, I am getting tired. And it starts to influence our ability to stay alert.(9)." Two interviewees (2,4) said that they initially thought they did a great job. And that their initial positive view gradually declined. "I think they started off well. Nobody had previous experience from their side nor on the people side, so this was all new to all of us. I do however think that they took a wrong turn early on. When they realized that the virus only kills certain risk groups primarily, they should have shifted their strategy accordingly. Protecting them and letting the rest of society get back to normal. The consequences could have been reduced a lot I think. I know it must be difficult to make those choices, I do however think we need to learn from this and do it differently next time. (4)" Only two interviewees had clearly negative views (1,12). "Scaringly poor action from the politicians. My trust is very low at the moment. They should have protected those in risk groups rather than throw all these measures on to all of us (1)."

Neither of the interviewees feared contracting the virus themselves to significant degree. The majority did however worry that someone close to them would contract it. Hence, it seemed like there was a consistent uncertainty regarding the risk of the virus

itself involved. In other words, I couldn`t sense any complete denial of the virus potentially dangerous properties from anyone, despite some being quite negative towards the content of the risk communication and corresponding measures which has been implemented. This varied slightly from the survey, where I found that 1 in 4 either agree – or strongly agree that they fear contracting the themselves. While the interviewees were aligned on worry of people close to them contracting the virus, the difference in personal worry remained untold, though it may possibly have to do with the fact that interviews provide more insight in the meaning behind subjective evaluations, compared to the quantitative survey. Regarding compliance, all apart from two interviewees claimed to be fully compliant at their best knowledge. Several did however question the compliance of others more than themselves. This was aligned perfectly with the survey that demonstrated a difference of 90% thinking they followed the recommendations themselves, while only 60% thinking the same about others.

"I follow the recommendations and trust them faithfully. I still think the Authorities are too thankful when talking to the people, bragging about how good we are. Most people follow the recommendations and advise – so it`s off course important to acknowledge that. Yet I do see many not following them and doing more or less as they`ve always done. They don`t care about what they are recommended. So instead of bragging to all of us, they should brag to those who deserve it and give consequences to those who don`t participate in this dugnad* (*Norwegian word for volunteer work) (12)."

On fear of economic consequences, five clearly optimistic and in general comfortable moving forward (3,4,5,8,10). This was somewhat more positive than the average view displayed in the survey, where 22% had the same view. "I think that even if it`s somewhat challenging at the moment, most industries learn a lot from this. We become better at valuing our resources and use them with more care. We saw that in the Oil&Gas industry during the last downturn. Companies in that sector have far more resilience towards downturns now than before that crisis. They learnt the hard way. In the same way everyone else is learning now. So yes, I think we`ll see the same in other industries too. We will get through this and the world will become more robust, without doubt (10)." Others portrayed a more neutral perspective (1,7,9,12) aligned with 30% scoring "neither" in the survey.   "I felt my shoulders raising a bit in the initial phase, when the oil price dropped at the same time as the world went into full lock-down. Remembering the previous crisis just a couple of years back. That was a tough one. I lost nearly 50% of my colleagues back then. And it felt like we just recovered from that. And you know, this new situation, it brought back some of that feeling. It`s weird how memories can bring back mental and physical stress just like that. I was incredibly relieved when they (The Government) accepted the tax adjustment proposal from the industry. That made all the difference. I mean, a year after we (the Oil&Gas industry) are back on surfing a steady wave. I didn`t expect that. Looking ahead now, I am actually quite optimistic. Well, less worried at least (laughing) (12). Out of 12 interviewees, two (2,6,11) displayed a clear concern. Two of which were mostly concerned about the larger picture, talking about the enormous consequences of all the measures and how that would cause long term ripple effects that would be very hard to recover from. This was lower than in the survey, where 50% stated that they either agreed- or strongly agreed that risk had not been weighted sufficiently against the economic consequences. "What about the world after Covid? Maybe Norway gets off fairly well, because we were lucky enough to sit on this big pile of money (Referring to the Oil fund). People still need to realize we are part of something bigger, so what

about everyone else? How is that going to impact poverty and other problems in other parts of the world? When this is over, I think we`ll see another wave of people fleeing their homes and seeking asylum in other countries. Due to new conflicts, wars, scarcity of resources, loss of hope. Much like the last wave, just worse. How do we cope with that? Are we planning for this while coping with the current situation? I doubt it. Why is no one talking about that? (2)"

On questioning whether the risks of the coronavirus have been sufficiently weighed against other physical health risks. (i.e. postponed surgeries and other delayed interventions caused by the measures against the virus), the majority were quite positive, significantly different in average than the survey that demonstrated that more than 50% did not think it had been weighted enough against the risk. No one came forward with clear critique, apart from one interviewee on a personal level, annoyed by unfairness of measures. As previously quoted regarding gyms vs Yoga as example. Other than that, I experienced all interviewees as mildly positive or neutral in their evaluations regarding this area. At least positive in terms of acceptance. "I have been waiting for a consultation for quite some time now, to examine the need for surgery on xx. It was originally scheduled six, seven months ago. And it has been postponed a few times. I mean, I get that. It`s not critical. It bothers me to some extent, yet taking the situation into account, I can live with it. I totally understand the priorities (7)."

On weighting the risks of the coronavirus against social risks. (i.e. not being able to see family members, friends, shut down of children`s activities, etc.), the views were mixed, with a majority being negative ranging from mildly- to very negative - on the Authorities handling, apart from three (1,6,7). Aligned with the survey that found that almost 48% either agreed – or strongly agreed that this had not been weighted enough against the risk and close to 30% responding "neither". The majority of the negative comments in the interviews were linked to empathy towards the young. "I think they (The Authorities) have managed the Pandemic pretty good, with a few exceptions. Most importantly, the risk of negative consequences for children. The main goal has been to maintain a low mortality rate, and that has led to the basic needs of children, like physical interaction, have been neglected. This is going to influence an entire generation. It`s sad and they (the Authorities) must as soon as possible establish a plan to compensate for the negative impact of this. I will gladly put my own social life on hold for one more year if it can help a child to get a bit more normal everyday life (5)." On the contrary positive side, the views were largely based on acceptance of necessity as in the old saying "*the purpose sanctifies the means*" (unknown author, folk saying). "I miss my grandchildren a lot. I used to see them every week. And over the past year, the visits have been scarce with all this distancing involved. You know, that is something I miss greatly. And even so, I understand the necessity. I understand that we have to do what we have to do, to get past this sooner than later. We`re all in the same boat. And luckily, patience is a virtue that grows stronger as you get older. One of the few benefits of being old (laughing). And I have high hopes to see my family a lot more soon, when I get vaccinated. And I can tell you I will run to get that vaccine as soon as they offer it to me. Shouldn`t be too long now. I wasn`t first in line, yet not the last either. The second benefit of being old (laughing) (7)."

Questioning whether the risks of the coronavirus have been sufficiently weighed against emotional risks. (e.g., damage to people`s mental health caused by the measures against the virus), the interviewees were all generally concerned or

displayed some level of uncertainty. This was aligned with the survey finding that less than 20% disagreed or strongly disagreed to this being the case. However, neither the interviews revealed this in relation to their own personal level. Their thoughts were rather well-meant concerns for others. "They (The Authorities) haven`t weighted sufficiently the social differences in society and how the Pandemic amplifies that. People living in violent relationships are going to experience more violence. Children being abused are likely to experience more abuse. That worries me. (4)" And another interviewee on worrying about others: "I am thinking about my colleagues a lot. I know some of them live alone, others are expats not being able to travel or see their families for over a year. Many of them have been isolated in home offices for a long time. I mean, we stay in touch through Teams* (* a Microsoft digital workflow software), doing work more or less as normal. And I still wonder, how are they really doing? We don`t get that social part we always took for granted. Five-minute coffee, a laugh together in the lunch. Hey, most people even keep the video off during calls. I can work for a week without seeing a single facial expression. And when even I can feel a bit lonely as a result now and then, with family and friends around me. How must they feel? You know, I feel really sorry for them. And we sort of don`t talk about it (10)"

On questions related to the realness of the situation and whether the Authorities deliberately exaggerates the situation related, the vast majority denied that being a possibility. That is, no one denied that the virus existed or that it had potential to take lives. Three interviewees (6,2,12) were sceptic against the Authorities in terms of questioning their choices weighted against the total consequences. And two of them (1,12) experienced the risk of the virus as communicated by the Authorities being exaggerated, fairly aligned with the survey that found close to 1 in 5 having the same view. One of them stating that "the virus doesn`t kill more people than a normal Flu. The measures can`t be defended in relation to consequences people have experienced. They should protect those who are vulnerable and let the rest of us live more normal. I personally know people who got it and didn`t even feel sick. Most of us will endure Covid without any serious issues.(1)"

Regarding the future, five interviewees (3,4.7,10,11) were consistently positive in their projections of the future. A bit lower than the average of almost 60% in the survey. "I think this situation has proven that we are resilient in nature. I think people has demonstrated a good ability to work together and I think that`s one of our greatest traits as a people. (11)." Two interviewees (2,12) were uncertain in terms of the longer-term impact. "As I mentioned, I think the overall strategy has been wrong since they understood more about this virus. The Swedish model would probably work very good here. I also think the consequences would be less significant than they (Sweden) experienced, due to differences in relevant variables of society. The density of people being far smaller and so on. We wouldn`t experience the same clusters of spread. And the few areas that have similar properties, such as in certain communities in Oslo, why not differentiate more? This country is sometimes a bit too focused on equality. If they have to do something, then everyone else too have to. Equality is great, when it makes sense. In this case it works against purpose the way I see it. I think the Great Barrington declaration[4] is worth reading. I struggle to justify the overall strategy they chose here. Personally, I think the ratio of positive vs negative consequences would be better off with such an approach. Time will show, let history be the judge (2).

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[4] https://gbdeclaration.org/

6.Discussion

Early on, back in April 2020, the Authorities in Norway nominated an independent expert committee called Koronakommisjonen (The Corona Commission). Their mandate was to conduct a comprehensive review and assessment of the management of the Pandemic by the Norwegian Authorities. The members range from Professors of Medicine, Societal medicine, economy, law, high ranked military members and also laypeople with different backgrounds. One year later, in mid-April 2021, the commission presented a comprehensive report with their evaluations of the Authorities handling of the Pandemic accordingly. Their key findings are (Koronakommisjonen, 2021) that in general the Authorities have handled the Pandemic in a good way. They greatly credit this to the collective efforts of the population and they criticize the weak preparedness ahead of the Pandemic evolving.

On socioeconomic evaluations, Holden utvalget (the Holden Commission), another group of independent experts within economy in particular – were instated in 2020 to provide the Authorities with evaluations of measures weighted against socioeconomic consequences. The members are primarily experts in economy and statistics, aiming to provide the Authorities with a good foundation for decisions related to handling the Pandemic. The Authorities have been aligned with the recommendations in general, except for the latest development where the commission recommended to boost vaccination in areas of high spread, compared to areas of low spread. This was initially rejected by the Authorities in terms of continuing the second dosage of the vaccination program to those enrolled rather than postponing the second dosage and prioritizing getting the first dosage provided faster. Holden Utvalget argues that by following their recommendation, the number of hospitalizations are likely to be reduced by 10%, the number of people who contract will be reduced by 15% and the number of fatalities will be reduced by 8%. They also point at the possibility of easing intrusive measures at an earlier stage if this strategy is chosen. From a strategic point of view, it may be questionable to state this publicly, even if openness is important. As a direct advisory group, the Holden Commission may be seen as an extension of the Authorities – rather than an independent actor. Lofstedt warns that in any regulatory/risk management process, the political actor has to support the final outcome. Discrepancy amongst the political actors, may worsen the outcome more than if one had done nothing. Provided that political actors publicly support the outcome of the process; they may help mend divisions amongst various actors and help unify the community. On the contrary, the divisions may increase, leading to greater public distrust overall (Lofstedt, 2005). Provided that these expert groups are considered extensions of the Authorities voice, discrepancy between them may confuse the public accordingly.

In March 2021, a third independent taskforce were assigned by the Authorities, to evaluate the consequences of the Pandemic related to mental health, quality of life and drug abuse. The members primarily subject matter experts led by psychologist Peder Kjøs. The aim was to evaluate the totality related, point out areas requiring attention and propose corresponding measures. The overall conclusion presented states that the majority of people have coped well with the situation. They acknowledge that most of us have experienced a reduced life quality, yet to a limited extent. Those having experienced significant negative consequences, are primarily those who would already be considered vulnerable. "The Pandemic have resulted in reduced quality of life to most of us. In the beginning it worked out well for a majority.

There are however indications that increasing number of people feel the wear and tear related to long lasting spread prevention measures and scarcity of meaningful activities. A limited number of people and in particular those who were considered vulnerable prior to the Pandemic, have experienced significantly increasing mental health problems. Children- and young people in vulnerable care situations have been particularly exposed. We also find an increase in alcohol abuse amongst those who abused already" (Kjøs et al, 2021). The same conclusion is drawn in a separate study (Harris, 2020), finding that the majority of those who experience symptoms above clinical cut-off (e.g. need for treatment) are already vulnerable individuals, while the majority have coped with the Pandemic fairly well in the early stages (Harris and Sandal, 2020). The Kjøs report do however emphasize that a great contributor to the situation have been that we are, as they describe it, resilient as a society. In the foreword to the report the headline is: "Resilient citizens in a resilient society." And quoting: "To great extent, we have managed this enormous task well. The main reason being that we together make up a well-functioning society, where the citizens trust each other and they trust the Authorities and the health care system. Through this, we have managed to take good care of each other. The health care system has also proven to work well in general. In addition, Norway benefit from a huge resource of volunteer work." (Kjøs et al, 2021). It does therefore seem as if the respondents in my survey and my interviewees are more concerned about the impact of this than what has surfaced up to this point. Yes, the report highlights a number of challenges, they do however not reflect the level of worry I have found amongst people in my research. My findings displayed that nearly 60% agree- or strongly agree that the emotional risk have been weighted too low. Including those with neutral views, more than 80% lean towards this perception.

On this background and my own findings from both data gatherings, it is fair to state that there is nothing straight forward about this situation. Testing for trust is challenging and still, both the Korona commission (Koronakommisjonen) and the Kjøs report highlights the importance of the already existing high trust in society between people and towards the Authorities, as a key in Norway`s level of success regarding management of the situation. Hence, measuring the development of trust is important. Exploring Norwegian citizens trust levels in a maturing phase of the Pandemic provided a deeper understanding of why people think, feel and act in accordance. While the quantitative survey provided good insights to general variations in society, the qualitative interviews proved themselves valuable in terms of explaining why people`s opinions are what they are. This was useful as the majority of data from other surveys I retrieved neither gave good insight to "why`s," just variations of opinions and perceptions without deeper explanations. One of the prerequisites of risk communication is that those who communicate are able to predict how the message will be understood by the receivers (Fischhoff, 2011). To attain insight in the population`s risk perception is therefore of utmost importance in developing good communication strategies (Jenkin, 2006). And when communicating risk about the Pandemic to the public, trust is a component that will influence the risk perception accordingly (Siegrist et al, 2005). On risk communication and trust, The Norwegian Korona Monitor (by the company "Opinion," on behalf of the Norwegian Directorate of Health) have measured the Norwegian population`s views on a number of variables related to the Pandemic, on a continuous basis since March 2020. Data from more than 75000 people have been collected since the start (Clausen et al, 2020). They conclude that people`s trust in information from the Authorities have been stable

throughout the Pandemic. In the latest update from March 2021, they demonstrate that the fluctuation from month to month have been very low. Both in terms of people`s evaluation of trusting information from the Health Authorities, and also trusting information from the Government. On trusting the information from the Government, the level measured varies from 66% to 75%, with an average of 70%. On trusting information from the Health Authorities, the variation has ranged from 68% to 73%, averaging at 68%. This is somewhat higher than my own survey findings related, averaging at 51% of people responding that they agree- or strongly agree, that the risk communication have been satisfactory (six questions combined). It is however difficult to compare directly, as my survey asked questions in the category worded different than their survey.

«Jeg har tillit til informasjonen som gis av regjeringen.»
Andel enig dag for dag.

(Ask-Aasheim, 2021. Trust in information provided by the Government. "I trust the information provided by the Authorities")

«Jeg har tillit til informasjonen som gis av helsemyndighetene.»
Andel enig dag for dag.
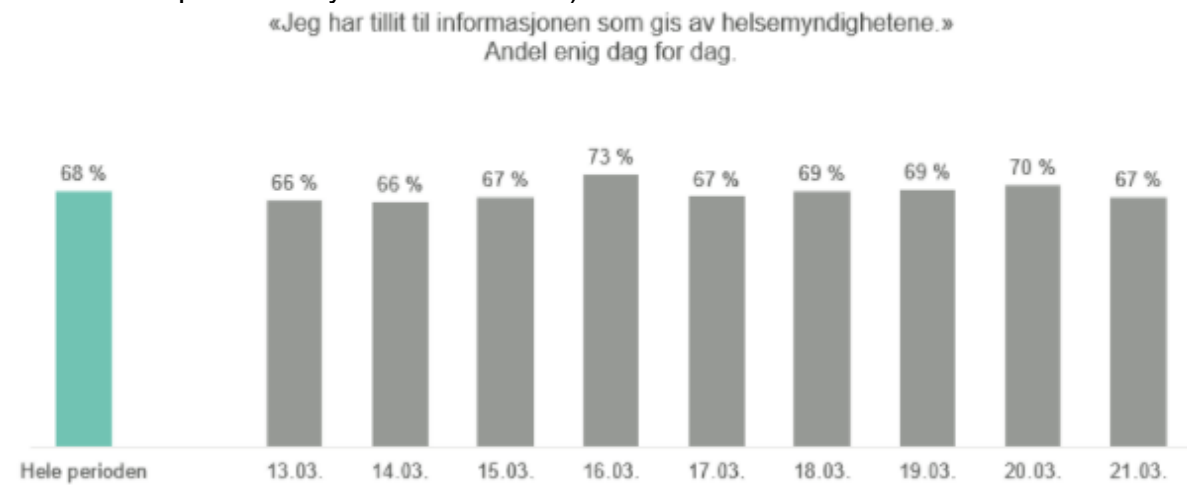
(Ask-Aasheim, 2021, Trust in information provided by the Health Authorities. "I trust the information provided by the Health Authorities")

These findings are also supported when accounting for people`s understanding of the information. Approx. 30% in average from the same surveys stated that they found the information on measures difficult to grasp. Which on this particular item correlates well with the findings in my own survey, demonstrating that 32% either disagree- or strongly disagree to understanding the information provided. As I demonstrated in the data section, some confusion on "must" and "should`s" were also found to be problematic.

This is relevant as the goal of risk communication is to assist stakeholders and the public in understanding the rationale of a risk-based decision (Renn, 2009). And if they don`t understand the reasoning, how are they supposed to trust the information? One spesific example that created confusion in the risk communication was the inconsistent messaging regarding face masks. Early on, the Authorities publicly discarded the use of face masks as an effective prevention mean. In a report issued by The Norwegian Institute of Health in June 2020 (Iversen et al, 2020) they conclude that asymptomatic individuals are not recommended to wear face masks who are not in contact with people who are known to be infected. Then only a few months later, the Authorities implemented face mask requirements in Oslo, the capital, on a range of public arenas[5]. The sudden shift caused confusion and was challenged on National TV in a debate between the Minister of Health Bent Høie and Fredrik Solvang, the lead of the NRK debate show (NRK = The Norwegian Public Broadcaster). Solvang challenged Høie on the contractionary messaging, where they (the Authorities) a few months earlier discarded the same measure they now advocated. Høie unable to explain or justify the shift fully became very defensive and put all his efforts into stopping Solvang from challenging the new decision, becoming visibly agitated. Quoting[6]:

Høie: *-This is very important for me to emphasize, because people can get a different impression by listening to you now. FHI (The Norwegian Institute of Public Health) have recommended all the measures regarding face masks as implemented in Oslo now.*
Solvang: *-They (FHI) state that there`s a weak scientific foundation to support that measure. I spoke with them today.*
Høie: *-Fredrik, you must not cause any uncertainty around this! These are serious matters. FHI is supportive of all the face mask regulations in Oslo, period!*

Mixed messaging, inconsistency or rapid changes seems to confuse some. If the Authorities said one thing last week and a different thing now, it may be hard to accept the justification and explanation. Solid risk communication should assist affected parties to make informed choices about matters of that are of concern to them (Renn, 2009). When 3 out of 10 find this challenging according to my survey, it is likely to influence their ability to comply whether they want to or not. The ambiguity in communication around face masks were inarguably confusing – and even the latest evaluation from the Norwegian Directorate of Health (2021) predicting future scenarios – found the preventive effect of various Covid measures to vary greatly, where face masks only were rated small to medium effect. This only amplifies the ambiguous communication on this measure. The table below has been adopted and translated from the referred Norwegian report and was released in January 2021.

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[5] https://www.vg.no/nyheter/innenriks/i/eKKKxK/kraftige-innstramminger-i-oslo-fra-torsdag-her-er-de-nye-corona-tiltakene
[6] https://www.vg.no/nyheter/innenriks/i/rggPGw/hoeie-i-strupen-paa-nrk-solvang-dette-er-alvorlige-spoersmaal

Measure	Prevention effect	Impact			
		Socio economic cost and negative influence on working life.	Negative influence on well-being and societal health.	Negative influence for children and young people	Negative influence for other vulnerable groups
Face mask	Small-medium	Small-medium	Medium	Medium	Medium
Social Distancing	Significant	Medium	Significant	Medium	Small
Limited social life	Significant	Small	Significant	Significant	Significant
Home office	Medium-Significant	Medium-Significant	Significant	Small	Small
Restrictions on trainings, rehearsals, club gatherings, etc.	Medium	Small-medium	Significant	Significant	Significant
Restrictions on restaurants and coffee-shops	Medium	Signifiant	Medium	Small	Medium
Restrictions on bars, pubs and night life	Significant	Small-medium	Medium	Small	Medium
Restrictions on shopping centers and shops	Medium	Medium-Significant	Small	Small	Small
Restrictions on kintergardens and elementary schools	Small	Signifiant	Significant	Significant	Small
Restrictions on junior high-schools	Medium	Small	Significant	Significant	Small
Restrictions for high-schools and Universities	Medium	Small	Medium	Small	Small
Travel restrictions	Significant	Significant	Significant	Small	Small
Vaccination	Significant	Small	Insignificant	Insignificant	Insignificant
Communiation	Significant	Small	Insignificant	Insignificant	Insignificant
Hygiene: Hand, coughing and cleaning	Medium	Small	Small	Small	Small
Stay home when symptomatic	Significant	Medium	Medium	Medium	Small
Testing and Isolation	Significant	Medium	Significant	Medium	Small
Infection Tracing and Quarantine	Significant	Medium	Significant	Medium	Medium
Restrictions on planned gatherings (i.e.concerts)	Significant	Significant	Significant	Small	Medium
Epidemiological Surveillance	Significant	Small	Insignificant	Insignificant	Insignificant

The finding that there is a correlation between positive evaluations on the risk communication and higher levels of trust, seems evident. People who find the risk communication to be good are also more likely to hold a higher trust. The hypothesis that trust is likely to influence compliance, is supported by other recent studies concluding that trust is associated with greater compliance with policy measures in a Covid landscape (Devine et al, 2020). A report from the Institute for Societal Research found the same clear correlation. "Those who hold medium- to high trust in the Authorities display a great level of compliance aligned with the recommended measures related to the Pandemic. It is in particular those with low trust in the Authorities that stand out negatively." (Wollebæk et al, 2020). A third study that compared people`s compliance with Covid measures, concluded that trust – or the level as such, predicts COVID-19 prescribed and discretionary behavioral intentions well. The study comparing people in 23 countries (N=6948), found that individuals' willingness to engage in prescribed and discretionary behaviors, as well as country-level and individual-level factors that might drive such behavioral intentions were driven mostly by psychological differences in terms of trust in government, citizens, and in particular toward science. They concluded that the higher people endorsed moral principles of fairness and care, the more likely they were inclined to report trust

in science, governments and between themselves, which ultimately predicted prescribed and discretionary behavioral intentions (Pagliaro et al, 2021). Even if Norway was not part of that particular study, it confirms my own findings that because in general, people in Norway had existing high levels of trust which have continued to stay high, the population have to great extent followed prescribed and discretionary measures. Pagliaro et al draws an interesting model building on moral theory to explain what leads to trust in various aspects. And if trust is present, the model depicts` that people`s compliance towards prescribed and discretionary measures will be high accordingly. A fourth study reviewing early research of the Pandemic in relation to trust, also concludes that trust is associated with greater compliance with policy measures (Devine et al, 2020).
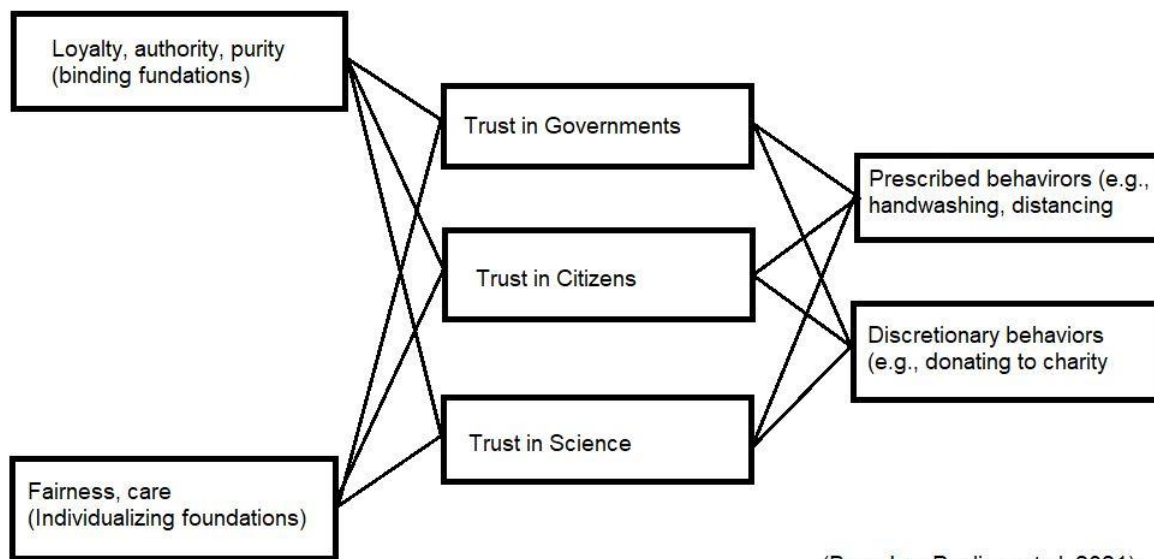

(Based on Pagliaro et al, 2021)

While at the same time as the compliance towards measures has been found to be generally high, it does however exceed the measured level of trust in comparison. This is reflected in my own research, finding that as many as 90,7% of the respondents state they either strongly agree – or agree that they follow the recommendations from the Authorities to their best knowledge, while in comparison 63,4% are either neutral, positive or very positive in terms of saying that their perception of trust and credibility towards the Authorities have increased since the emerging of the Pandemic. I question if this may be a result of bias related to people`s interpretation of "trust" as a term. Do they weight that question on their support- or lack of support against measures to such an extent, that it colors how they respond to questions on trust? This may be a plausible explanation, especially since the survey was launched in a maturing phase of the Pandemic. This also surfaces in the interviews, where a majority of the interviewees who gave negative descriptions, were focused on the choices of the Authorities, not the Authorities themselves. As demonstrated in the theory, critical trust may come forward as negative feedback, yet still be a sign of a healthy democracy (Barber, 1983). In other words, this doesn`t illustrate a pure distrust. It rather illustrates a critical trust, in which the majority hold a foundational trust with critical views. A high level of trust can co-exist where people display high levels of skepticism. People may accept the decisions and/or the risk communication related at the same time as questioning the correctness of the information they receive (Pidgeon et al, 2003).

Another point is that the people`s trust were already high and a significant increase through the time period would be unlikely.   As I will demonstrate further down, trust may also remain stable even when we find a decline in agreement or support towards measures the Authorities choose to govern, which ultimately supports the notion of observing critical trust rather than distrust.

A survey on 1000 people done by Norstat on behalf of Aftenposten in October 2020 found a decline in compliance from March – October 2020, stating that while 90% stated that they followed recommendations in March, only 76% said the same in October [7]. They also found that the compliance dropped most amongst younger people (16-20). This is also aligned with my own findings, suggesting that trust is higher in correlation with higher age while compliance is overall very high subjectively evaluated. The Norwegian Population survey, conducted by Mindshare on a weekly basis on assignment from The Norwegian Directorate of Health (HDIR), found that the trust levels have remained consistently high since March 2020. Finding that an average of 80% +/- with small variations have trust in the Authorities. The greatest variations are found in young people (HDIR, 2020). At the same time, they find that the level of support in relation to measures have declined steadily, clearly demonstrated by the graph below . In their future scenario projection report from January 2021, HDIR is concerned around the compliance towards measures and they question for how long the population will maintain motivation to follow intrusive measures, to what level younger age groups will remain motivated to remain in solidarity with those running a higher health risk? And they question for how long the elderly population will remain motivated to remain isolated from their children and grandchildren (HDIR, 2021).
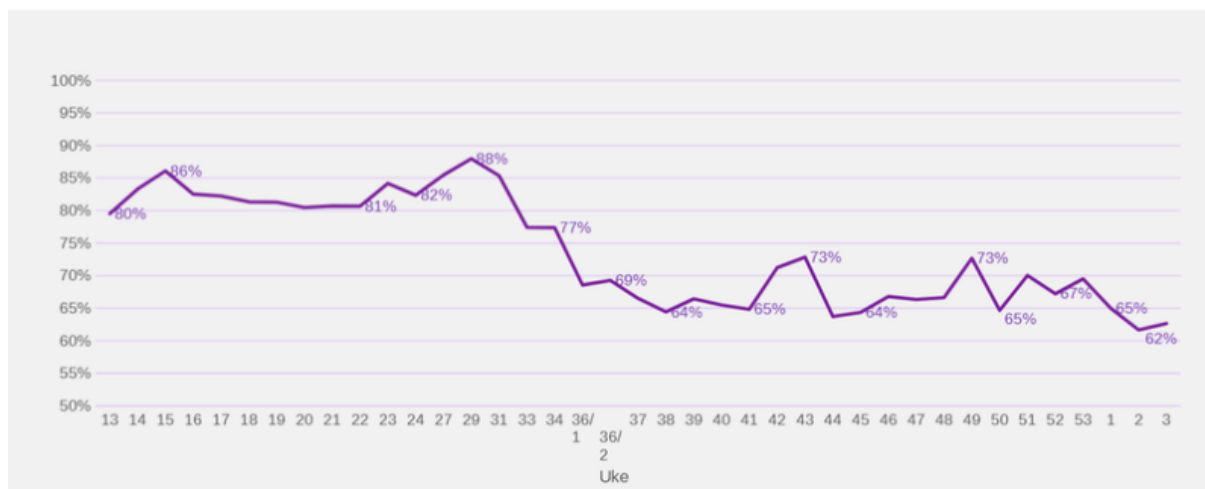
(Level of support towards Covid measures during the Pandemic in Norway, Helsedirektoratet, 2021)

Despite the support itself dropping, they confirm the same finding as myself – that more than 90% states that they follow the recommendations independently whether they support them or not. In which it is as stated an interesting finding that the trust level in Authorities are consistently higher than the level of support related to the corresponding measures. People who trust the Authorities, have evidently shown to gradually dislike the measures they govern more and more. The reason for this is

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[7] https://www.aftenposten.no/norge/i/AldKAn/faerre-foelger-koronaraad-unge-foelger-dem-i-minst-grad

probably multifaceted. One reason being that the measures are experienced as unfair in certain contexts. Another reason highlighted by the Directorate of Health - is the fact that people have become more educated. And in this, they are better able to make up their own opinions related. As Lofstedt states, an educated population can become more skeptical (Lofstedt, 2005). Other reasons can be that measures hit in unfair ways, impacting some areas more than others even if on a subjective level, people find them comparable. As the Yoga vs gym example highlighted by one of my interviewees. Lofstedt warns that if people perceive the measures as unfair, the trust level is likely to drop accordingly (Lofstedt, 2005). Yet another reason may be Pandemic fatigue, also referred to as behavioral fatigue. Fatigue in this context relates to a tendency to become tired of rules and governance related to prevent the spread of Covid-19 (Michie et al, 2020). This was mentioned in my interviews too, becoming gradually more tired. And even if the Kjøs report doesn`t highlight this as significant problem, they warn that wear and tear is becoming gradually more evident (Kjøs et al, 2021). Other studies also show that this is traceable and despite this, no clear evidence have been found that it influences compliance significantly. As long as the trust level remains high that is. One example from the UK, where a documented decline in compliance in late May 2020, seemed to be directly linked to "The Cummings" incident, where the Government defended a political advisor who breached social distancing rules. In which the trust level dropped noticeably (Michie et al, 2020). The drivers behind trust are authenticity, logic and empathy (Frei and Morriss, 2020). This triangle of trust illustrates key components that are required to maintain trust. Loosing either of them will create a wobble in the trust levels. Authenticity is about people`s experience of the (in this context) Authorities being real. Do they come forward with credibility? Do they walk the talk (Frei and Morriss, 2020)? As the Cummings case displayed effectively, trust is easily lost if you fall short on this trait. A similar situation occurred in Norway too recently, where the Prime Minister`s family were caught breaching Covid regulations, in terms of how many people are allowed to gather at the same time. The situation led to immediate distrust, even if not empirically measurable. One poll including 731 respondents claiming to be a representative selection, found that 43% experienced a decline in trust towards the Authorities after this incident. 53% stated that it didn`t change their views[8]. Different from the Cummings case though, was that the Prime Minister did not defend herself at all, nor her family. She went public and apologized for herself and her family`s actions without any attempt of defense. Nor did the government do any attempts of supporting the breach, even if it all seemed to be a misunderstanding. The Police even took out charges against her and her family resulting in a significant fine. This approach showed people that no one is above the law and very likely recovered most of the lost trust effectively. The situation was handled very smoothly in terms of recovering from instant distrust and the incident probably had limited impact in the longer term. The fact that Norway on global scale is considered a high trust country was probably also an important factor (Holte & Aas-Clench, 2020.) That is something I will revert to later in this discussion. The trust driver related to logic is about reasoning. If people fail to understand the reason behind your logic, then trust is bound to fail (Frei and Morriss, 2020). There are clear signs of this being tested as I have demonstrated, exemplifying how people find measures to be unfair or make little sense, yoga and cabin measures, National vs local measures, etc. The question is how this may influence the trust level and compliance moving forward. As I have also

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[8] https://www.tv2.no/a/13899871/

demonstrated, there are no evidence that trust has dropped significantly or that compliance is deteriorating fast. The third key driver of trust is empathy. If people believe you care about them and want them to succeed, trust will increase (Frei and Morriss, 2020). An interesting study pointed out that countries with female leaders have suffered one-sixth as many fatalities related to Covid-19 in comparison as those led by men. Norway being one of them. The study also argued that those countries would likely recover sooner from recession than the rest (Fioramonti et al, 2020). Another article referred to this particular study and suggest that because female leaders are perceived as more empathic than men in general – that may influence people`s compliance accordingly. The authors argue that society at large may become more accepting of leaders (s)elected on their expertise, intelligence, curiosity, humility, empathy, and integrity (Chamorro-Premuzic and Wittenberg-Cox, 2020). The way I understand it, Lofstedt (2005) implicitly supports this theory in suggesting that one should bring forward a charismatic spokesperson in climates of declining trust or low trust. The three core components of Charismatic leadership are envisioning, empathy and empowerment (Choi et al, 2007). Hence, empathy is implicitly an important component in Lofstedt` s recommendation highlighting "charismatic" as a key word. As previously stated, the power of bringing charismatic individuals to the table is often underestimated (Lofstedt, 2005). He argues that in many cases, these types of individuals can be a tipping point of making or breaking the outcome. On that note, Norway is as mentioned already considered a high-trust country (Holte & Aas-Clench, 2020) and logically it shouldn`t be of that much importance compared to other lower-trust climates. It seems, that empathy may also work as a buffer against trust declining. Empathy amongst people has also been found to influence COVID-19-related health behavior, suggesting that those with higher levels of empathy will act more cautionary regarding COVID-19-related health behaviors (de Vries & Hoffmann, 2020). Considering my survey, in terms of connecting people`s higher level of fear of other close relationships contracting the virus to some form of empathy, it makes sense that it influences compliance too in a positive manner.

The annual reputation report from IPSOS (IPSOS, 2020) assigned by the Court Administration, concludes that the top four public institutions in Norway demonstrating the highest positive progress regarding reputation was FHI (The Norwegian Institute of Health), The Government, Helsedirektoratet (The Directorate of Health) and Helse & Omsorgsdepartmentet (The Ministry of Health). One of the key indicators of the IPSOS evaluation is trust, which is closely linked to the term reputation. Reputation can be defined as being the perceptual representation of an organization in the minds of its key stakeholders (Fombrun, 1996). In the 2020 survey, IPSOS found that the percentage of people who had high- or very high trust in the Norwegian Authorities rose from 63% to 85% from 2019 to 2020. This significant improvement may yet be partly explained by irregular low trust levels in the 2019 report compared to previous years, primarily explained by a huge scandal (The NAV scandal; in short, 80 people were found to have been unrightfully convicted for social security fraud) that influenced the views effectively. They also found a correlation between higher education and higher levels of trust related. It could be questioned if this could also be related to the possibility of people with higher education generally having more trust in science- and scientific evidence-based information. And also, the fact that higher education is correlated with higher income in general. This has however been rejected by Holte and Clench-Aas, finding that the correlation on income and trust is significant in countries with low trust levels, yet they find no correlation in countries with high social

and national trust levels. According to them, it seems as if a high level of trust completely eliminates the impact of personal, local and national income in relation to how content people are with their lives (Holte & Aas-Clench, 2020). This was aligned with my own findings too. I could not trace a significant correlation between trust levels and education. On that note, it should again be highlighted that Norway is amongst the top five countries in the world demonstrating the highest level of trust, compared to others in relation to the political system and other indicators (see model below).
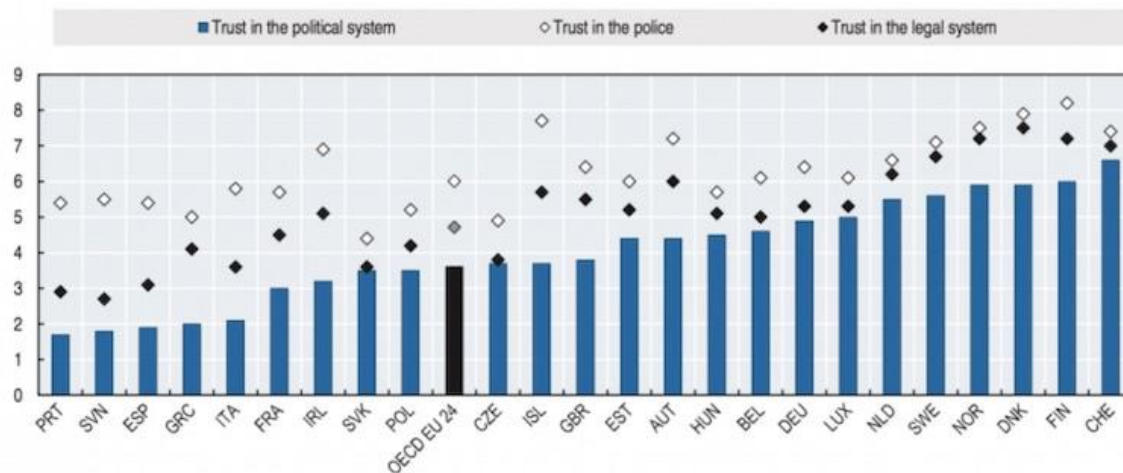

Note: Response options range from 0 ("No trust at all") to 10 ("Complete trust"). The OECD EU average is the population-weighted average of the values included in the chart.

Source: Eurostat (2015), European Union Statistics on Income and Living Conditions (EU-SILC), http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_pw03&lang=en.

(OECD, 2020)

This has also been confirmed by Andreasson (2017), who refers to it as the Nordic Gold, stating that the Nordic region has the highest levels of social trust in the world. Gold because he argues that high levels of trust benefits the economy, individuals and society as a whole. Holte and Clench-Aas (2020) draws comparisons to the infamous "Oil fund," and refers to Norway`s high societal trust levels as the "Trust-fund." They argue that this is even more important than the Oil-fund in terms of coping with Covid-19, as while the Oil-fund is practical in terms of patching the wounds on a short term, high levels of trust are necessary to get people to do what is wise in terms of managing the Pandemic, in such a way that it doesn`t drag out in time more than necessary. They demonstrate that the trust levels in Norway has increased steadily over the past 15 years and argue that this is of the highest importance and value in relation to managing the Pandemic successfully (Holte & Clench-Aas, 2020).

Red line: development of national content level
Green line: development of national trust level
Purple line: development of social trust level.
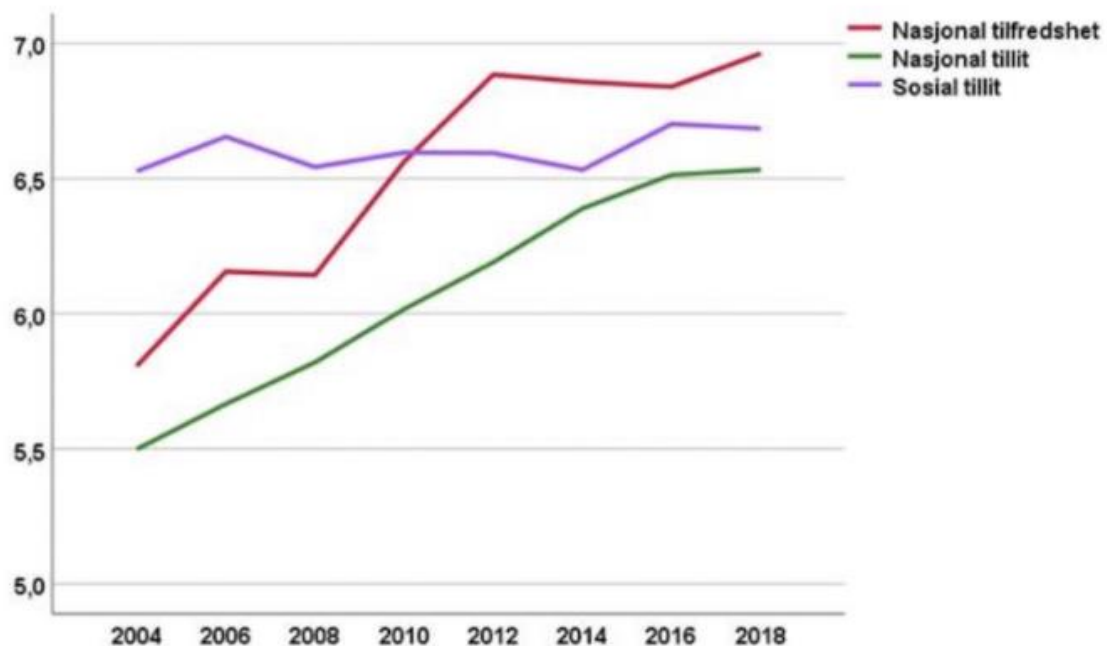
FIGUR 1: Nasjonal tilfredshet, nasjonal tillit og sosial tillit i Norge 2004–2018.
Kilde: European Social Survey (*N* = 3619).

(Holte & Clench-Aas, 2020)

On the contrary, the general trust displayed on the OECD overview are very low in countries such as Spain, Italy, UK and the US, with Brazil on the very bottom of the trust in Authorities scale. These countries have inarguably been hit harder on mortality rates than Norway in comparison, where trust may be a contributing factor, even if the picture is far more complex. On a "health-advise" trust relation, the Wellcome Global Monitor-Study (2018), found that before the Pandemic, the trust level amongst citizens regarding Governmental health-advise, were low in multiple countries such as in Italy, UK, Germany, Spain and the US. Holte & Clench-Aas (2020) argue that the mortality rate in these countries have been correspondingly high, greatly due to this issue – and they believe that because Norway is a high-trust society, the compliance to recommendations from Authorities have been high and contributed significantly to keeping the mortality rate low. Stating that distrust is deadly (Holte & Clench-Aas, 2020). Another study confirms this and draws a very interesting map displaying Mean deaths per million inhabitants by countries' level of institutional trust (Oksanen et al, 2020). As the map clearly displays, institutional trust has a high correlation with number of Covid related deaths.
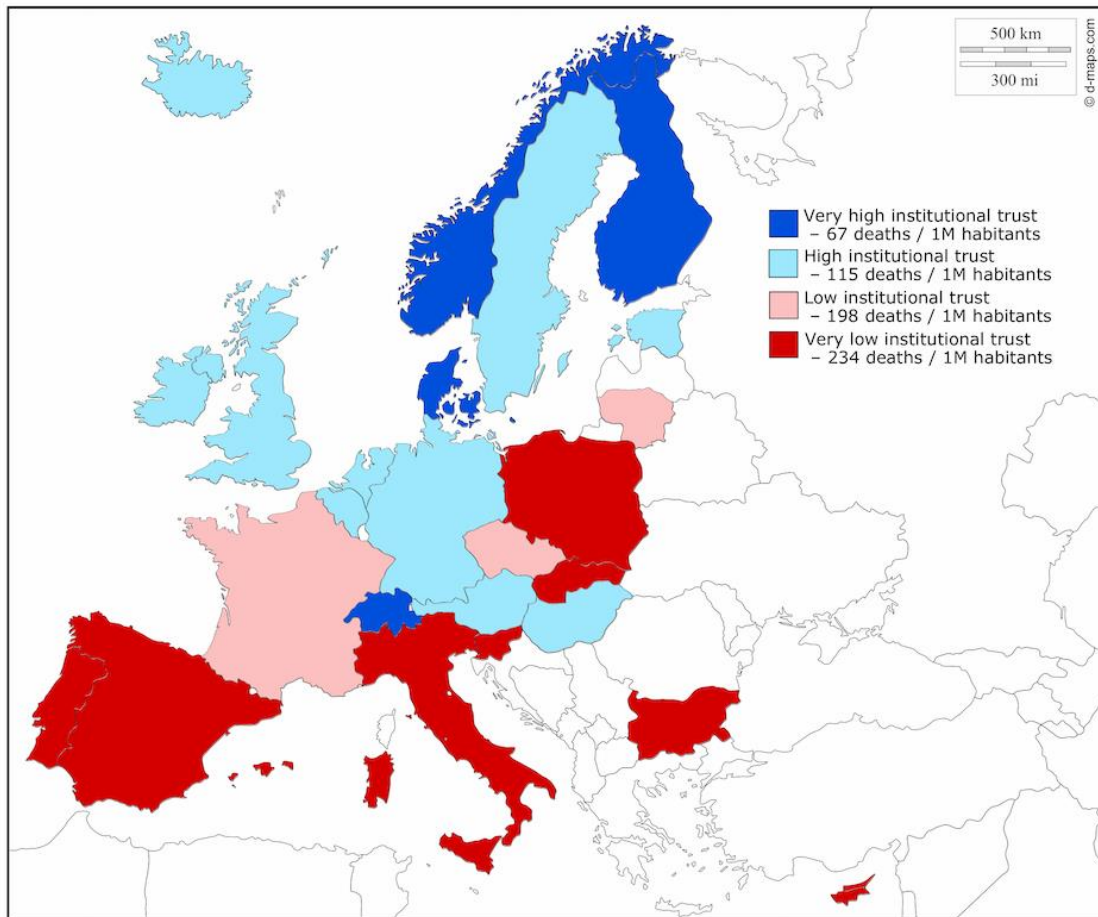
As my data and corresponding analysis find, there are clear evidence of trust in relation to acknowledging the virus as potentially harmful. Even if the majority don`t fear it themselves as we`ve seen, a majority fear that other close relations may contract it. As already suggested, when linked to empathy, this finding is likely to contribute to people`s compliance. To build further on that, they (the people) trust that the virus is real and that it does present a hazard to some. And it seems as if most people have that "some" person in their close relationships one way or the other. Reviewing my own data only 25,4% agree or strongly agree to being afraid of contracting the virus themselves, while 7,4% are uncertain and 67,2% agree or strongly agree that they fear for someone in their close relationships contracting the virus. This finding, that people generally have higher risk perception of the virus on behalf of someone else, is supported by findings in other recent studies as well. One study found that increased efforts were taken by participants from vulnerable groups, to protect themselves or vulnerable members of their households. Those who considered themselves or their households to be vulnerable and perceived the risk of exposure to the virus as high, reported engaging in additional, precautionary measures to protect themselves and their families (Denford et al, 2021). This also adds weight to the level of trust regarding logic and authenticity. People seem to implicitly accept (even if not agree to) measures taken and choices made by the Authorities. A critical trust is present (Pidgeon et al, 2003). And they seem to find that they are made with good intentions and a trustworthy rationale behind them (Frei and Morris, 2020).

To end the Pandemic, there are broad consensus globally that vaccinations are key in returning to normal. How fast is depending on a number of variables, such as people`s perceived risk on vaccines. Slovic (2000) have demonstrated that the risk perception of experts and lay people vary a lot. Interestingly enough, in Slovic` s table, lay people ranked vaccines as less risky than experts. On a ranking of 30 individual hazards, laypeople ranked vaccines on 30th place while the experts ranked vaccines on 25th place (Slovic, 2000). In comparison lay people ranked nuclear power as the highest risk while the experts ranked it as the 20th. Hence the difference between risk perception amongst experts and laypeople regarding vaccination was fairly insignificant. And the perception amongst laypeople was in fact slightly lower, which is positive in terms of vaccination motivation. My own research found that 9,27,% had already been vaccinated, while 75,9% were still waiting. 8,15% stated that they did not want the vaccine and 6,7% were uncertain. Hence, the risk perception of vaccines must be considered to be fairly low. It can also be noted that the survey in this Thesis was done after information about potential side-effects from the AstraZeneca vaccine (AZ) hit the news. The AZ vaccine was found to possibly cause blood clothing and other dangerous symptoms in rare cases, that led to a number of deaths after the vaccine had been received. As a result, the AZ vaccination program was paused in several countries including Norway, to examine the possible correlation further (Statens legemiddelverk[9] , 2021). Despite this, it seems as if the motivation for vaccination remains high. And it seems as if any related distrust is targeted towards the spesific vaccine (AZ) more than vaccines in general. One recent study that examined global attitudes towards a Covid vaccine, did however find that Norwegians of the 15 countries included, were the people where highest number of respondents (45%) stated that the vaccine was of little or no importance to their own health (Mega & Emiliano Rodríguez, 2021). Norwegians were also the country least worried in relation to how challenging it would be to access one. Despite this, the study also finds that the motivation to get the vaccine if it was offered to the Norwegian respondents the same week of being asked, increased from December 2020 to January 2021. An increasing number of respondents also reported that they believed that they would regret it if they rejected the opportunity. The level of trust in believing that the Authorities will provide an effective vaccine was also increasing from November to January 2021 (Mega & Emiliano Rodríguez, 2021). Hence, the findings of the study support my own findings that despite people not fearing contracting the virus themselves, they still trust that it`s necessary to get a vaccine for protecting others. Another motivating contributor may also be that people trust the Authorities standing, that the only way out of this Pandemic, is if a sufficient number of us take the vaccine. People are motivated to return to a more normal life and accept that vaccination is the faster way out. According to the Norwegian Directorate of Health`s (HDIR) report projecting future scenarios (HDIR, 2021), they make it quite clear that successful vaccination of sufficient part of the population is key in returning to a more or less normal society. In projecting what may influence the "way out," they emphasize that for as long as the population lacks immunity, intrusive measures are necessary. The more contagious the dominating virus(es) is, the more intrusive the measures must be (HDIR, 2021). They further state that the more people vaccinated and developing immunity, the less need for intrusive measures (HDIR, 2021). On assessing the effect of vaccinations, they state that when a minimum of 75% of the population in the risk groups have been vaccinated, the mortality rate will go down because the risk of death

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[9] *The Norwegian Medicines Agency, 2021

is highest amongst this part of the population (HDIR, 2021). At the same time, they still warn that the strain on special health services may remain the same as approx. half the deaths occur amongst people without known increased risk, and because many of those who are candidates for advanced and resource demanding intensive care, are fairly young people (40-70y) (HDIR,2021). And further, since there`s little to no knowledge of how strong immunity the vaccinations provide, how long it will last and how well the immunity is likely preventing spread, the projections around this are very uncertain. Hence, they question if even higher vaccination % is required to prevent new epidemic waves (HDIR, 2021). Evaluating the Authorities trust building approach in relation to Renn`s model adapted by Lofstedt (2005), it seems clear that the Norwegian Authorities have had success by applying a top-down strategy since the early emerging of the Pandemic. Greatly leaning on a technocratic approach involving experts from FHI and the Directorate of Health to justify their own actions. Provided that the National trust in Authorities and between people in general have been very high prior to the Pandemic evolving and the fact that Norway in comparison to most countries, have experienced low mortality rates and less economic impact, the Authorities have been able to continue this approach with little interference or any need to consider shifting their strategy fundamentally. This is in alignment with Lofstedt's recommendations (2005) as demonstrated earlier in this Thesis. Lofstedt rate the importance of adjusting to the actual status of the public`s level of trust and corresponding situation. And I repeat:

In a high public trust, high/low uncertainty risk situation, deliberative risk management strategies are not required

(Lofstedt, 2005)

Lofstedt claim that deliberation is best in low-trust environments, where decision makers are viewed as unfair or partial. In situations where the public trust is high, deliberation is not useful he claims, and argues that it may even lessen public trust too. Hence, the strategy the Authorities have led `till this point, have without doubt been successful in terms of completion. If it was perfect or not can be discussed as initially displayed in the Corona Commission's findings, or the Holden Commission`s recommendations or the Kjøs report accordingly. And yet, "perfect" is probably not possible anyway, provided the nature of the crisis itself. As stated earlier, wicked problems like the Pandemic are unlikely to come with solutions without negative side-effects or impact as there are some many interdependencies (Schiefloe, 2020). Independently, trust have resulted in people complying with the Authorities recommendations and rules to great extent. Despite not seeing any significant signs of deterioration of trust, I find a clear decline in support of measures which is illustrated by increasing level of critical trust. How this is going to influence compliance is yet to see.

7.Conclusion

There is a vast array of studies that have previously demonstrated significant differences comparing countries in relation to institutional trust, making it an essential societal element to evaluate in a Pandemic (Oksanen et al, 2020). The Nordic countries have for decades been considered to attain the highest levels of generalized trust and social capital in the Western World. And these levels have been stable for decades (GLH and Svendsen, 2015). Trust leads to compliance and can be considered a Social capital . A social capital can be defined as "the ability to cooperate without written rules and extensive contracts" (Rothstein and Stolle, 2003). Hence this may explain something about a population's commitment to follow guidance from Authorities (Helsingen et al, 2020). The data from interviews vs quantitative data aligned quite well. The data clearly displays a complex situation which is not straight forward in any way. Despite this, it is evident that the trust level is generally high amongst citizens. And a singular risk management strategy from Lofstedt's recommendations is probably ok, as long as the trust level remains as it is and continues to be at the moment. There are however clear signs of increasing discontent with the situation. There is also a certain level of worry related to various dimensions of trust, such as economic - and social consequences. These worries may be higher than what independent experts have found in their evaluations of actual consequences, yet as exemplified through Slovic (2000), laypeople and experts risk perception doesn`t always correspond. The dimensions of trust related to efficiency and fairness (Lofstedt. 2005) should be monitored closely moving forward. It is likely that if the current trends continue to evolve, it may more and more influence trust negatively. And even if top science may produce well-informed best guesses about how good communications are going to work, it may turn out different than what is predicted. Hence it must be evaluated to understand how good it actually is and how it can be improved (Way et al, 2017). People have accepted intrusive measures over extended time and there are signs that this deteriorates steadily, even if slowly. Trust have inarguably influenced compliance positively. And it has influenced the Norwegian Authorities ability to lead successfully. And if this changes and more enforcement is needed, such as increasing number of law enforcement interventions on gatherings, etc., it is likely that the societal trust climate will change for the worse. If it continues to develop, it may move from what has been a high level of mutual trust-based approach, where Authorities have managed to govern top-down on a technocratic level (again; because people`s critical trust make them accept and follow the instructions voluntarily), to a society where trust is declining rapidly. A Danish study from 2015 emphasize that social trust is an important part of the reason for the successful Scandinavian welfare-state. In their end conclusion they state: "If the Scandinavian high-trust societies should in the future turn into control societies, they will probably no longer be among the world's leading countries in terms of socio-economic success" (GLH and Svendsen, 2015). And so, if the growing discontent evolves further, it may lead to a decline in trust and the Authorities may be forced to shift their strategy accordingly to counter it. They may have to introduce a higher level of deliberation, involving citizens or citizen representatives (I.e. unions, interest organizations, etc.) to greater extent, provided the growing distrust is related to fairness. And if the distrust is more related to efficiency, they may have to involve more economic experts and weight their recommendations higher. As shown, there have been certain discrepancies from the Holden commission vs the Health Authorities recommendations surfacing already, in which the Authorities to this point have chosen

to follow the health Authorities. If the efficiency dimension drops, they may have to shift that relationship to weight other actors arguments, such as the Holden Commission, higher accordingly. If they aim to maintain trust consistent that is. As argued by Lofstedt (2005), neither of these are preferred approaches if they can be avoided (2005), especially not the deliberation strategy (Lofstedt, 2005). Hence the Authorities should aim to maintain the level of trust high in the continuation. The independent groups evaluating the Authorities from various angles, including the Holden Commission, have on that note in general contributed positively to trust. Apart from the disagreement in vaccination strategy between the Holden Commission and the Authorities recently, they (the Authorities) have mostly come out well from the evaluations, to a degree that would meet most people`s expectations. I have not found any significant discrepancy amongst political actors until very recently and the feedback have been more positive than negative. This may change for the worse in the coming months, based on already discussed growing discontent on certain trust dimensions. Adding to this, a new approach in the vaccination strategy presented just at the time of writing this, has shifted from even distribution to distribute doses in relation to risk-based evaluations. Areas expected to be at higher risk of more spread will receive proportionally more doses than other areas. The Authorities announced that 24 communes will receive 60% more vaccine doses accordingly[10]. This has led to high level of experienced unfairness in those communes hit negatively[11]. Another recent decision made, where the Authorities decided to forward government politicians in the vaccination queue, may be seen as a failure in terms of contributing positively to trust. While the decision was mounted on the argument that government politicians are considered critical players in society - the result has been that most people see it as unfair and cheating in line. This has been amplified by public interest organizations representing teachers and also health personnel criticizing the choice publicly. Politicians from other parties have taken swift advantage of this and a number of opponents have come forward stating that they will not accept the opportunity to cheat in the line respectively[12]. And all at a sudden, the Minister of Health Bent Høie came forward too, stating that he would neither use the opportunity to fast track his own vaccination schedule[13]. This ambiguity may cause further confusion. In any case, it is likely to see more and more people coming forward towards the end of the Pandemic. Knowledge amongst the population have increased and evaluation reports are made publicly available. Wear and tear is becoming gradually more dominant, unfairness and questions on efficiency is more and more visible - and maybe also there will be an effect of political strategies ahead of the coming Norwegian Parliament election in September, which we already see starting to surface as exemplified above. Small clusters of protestors have also been observed in increasing frequency, yet at very limited sizes, as a recent example where Police had to break up an illegal 17th of May parade in the capital Oslo, where approximately 150 protestors against the Covid measures participated[14]. In any case, the Authorities should prepare for an increase in criticism and resistance from multiple layers of stakeholders, both politically, in the

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[10] https://www.vg.no/nyheter/innenriks/i/we1oq5/helsedepartementet-om-skjevfordelingen-kan-hende-det-ikke-blir-saann

[11] https://www.vg.no/nyheter/i/kR7nxA/oestlandskommuner-kan-faa-ekstra-vaksiner-bergen-skulle-faatt-flere

[12] https://www.vg.no/nyheter/innenriks/i/JJj74J/lysbakken-listhaug-og-vedum-takker-nei-til-omstridt-vaksinetilbud

[13] https://www.nrk.no/nyheter/hoie-vil-ikke-vaksine-prioriteres-1.15508397

[14] https://www.vg.no/nyheter/i/aP6Xn5/politiet-stanset-tog-paa-rundt-150-personer-paa-vei-mot-slottet

media and amongst citizens - and they should monitor this closely while keeping the experts tight for support.

A final word. One major challenge of conducting research on a global live and ongoing event like this, is that the situation changes so rapidly. The complexity of the situation forced me to rewrite the discussion part multiple times towards the end, just to capture the fast and noticeable developments in society. And by the time the reader reaches this point, chances are high that the situation has taken even further and significant turns. This again amplifies the point, that trust is not a constant and is required to be measured frequently (Lofstedt, 2005).

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