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Dancing Agencies in Structures of Verification

Exploring Compliance Through a Lens of Sociomateriality

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Abstract

The current literature on compliance and regulatory mechanisms offers a variety of conceptualizations on how we build structures around verification. Yet, little attention has been paid to what it produces. This is unfortunate since we until this day see an increase in regulatory mechanisms and third party audit in all industries. To this end, we employed an exploratory study based on interviews conducted with professionals within the domain of compliance to see how the study of compliance can be informed by sociomateriality. The findings show that there are three different paths in handling compliance issues that firms adopt; Remain Compliant, The Process of Compliance and The Race to Compliance. These distinct categories were found by studying the subject of compliance through a lens of sociomateriality, where the imbrication of human and material agency is central. First, by applying sociomateriality and the idea of imbrication of human and material agencies on compliance a distinctive pattern of categorisation emerges. Even though the firms face different laws and regulation they all have compliance in common. Secondly this is only true to some extent, compliance as such differ depending on how you view compliance; as a state or a continuum. This has implications on how firms relate to questions regarding compliance and how internal processes, routines and artefacts develop. Furthermore, the study contributes to practice by providing deeper insight into the field of compliance by identifying three distinctive categories on how firms relate to the work regarding compliance. The use of sociomateriality and imbrication applied to the study of compliance constitutes the contribution to literature on compliance and sociomaterial.

Abstrakt

Den nuvarande litteraturen inom compliance och regulativa mekanismer erbjuder en mängd olika koncept kring hur vi byggt upp strukturer kring granskning och verifiering. Ändå så har för få fokuserat på vad det verkligen producerar. Detta är synd då vi idag ser en ökning av regulativa mekanismer och granskning i alla branscher. För detta ändamål har författarna genomför en utforskande studiemetod baserat på intervjuer med personer som arbetar med compliance inom olika affärsområden och industrier för att undersöka hur compliance bättre kan förstås genom att analysera med hjälp av sociomaterialitet. Resultatet av den här studien visar på att det finns tre olika förhållningssätt till compliance; Remain Compliant, The Process of Compliance and The Race to Compliance. Dessa tre kategorier upptäcktes genom att studera compliance genom ett sociomateriellt perspektiv där överlappning av mänsklig och materiell agency är centralt. Först och främst visar resultatet att genom tillämpning av sociomaterialitet i analysen och tanken kring överlappning av mänskliga och materiella aspekter uppstår ett mönster som kan delas upp i tidigare nämnda kategorier. Även om de organisationer som undersökts i den här studien lyder under olika lagar och regler så har de alla compliance gemensamt. Vidare är detta bara sant till en viss utsträckning, compliance som disciplin inom de olika organisationerna skiljer sig beroende på om organisationen ser det som ett tillstånd eller ett kontinuum. Detta skapar svårigheter för hur organisationer hanterar frågor som rör compliance och hur interna processer, rutiner och artefakter tar form och utvecklas. Studien bidrar med ett praktiskt värde genom att skapa en djupare insikt kring compliance genom att identifiera tre distinkta kategorier över hur organisationer hanterar arbetet kring compliance. Genom användningen av sociomaterialitet och överlappning bidrar även studien till litteraturen som berör compliance och sociomaterialitet.

Nyckelord: **Compliance, granskning, Materialitet, Sociomaterialitet, Rutiner, Överlappning**

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1. Introduction

Due to increased globalisation and regionalism in today's business there has been an increase in legislation and regulation to govern global trade (Baldwin, 2011). Furthermore, processes for accountability and rituals of verification have become more common today (Power 1999; Power 2007). Compliance is a measurement on how much something is as it should be. This means that a phenomenon has a set of requirements to relate and adjust to. The rapid growth of information technologies and digitalisation has led to an increase in legislation, regulation and mandatory frameworks (de Vaujany Mitev, Lanzara & Mukherjee, 2015: Von Solms 2005: Lahti & Peterson, 2005). Baldwin (2011) describes a decrease in cost of transaction and a lowering of costs of coordination brought on by the ICT revolution making global supply chains feasible and profitable. However, these flows, global supply chains brought on by ICT, increase the need for regulations and standards to ensure a common base of conducting business as well as to reduce costs even further (Baldwin, 2011). Therefore, regulatory compliance has become a critical concern for many established firms and investment to achieve compliance has increased drastically during the last decade (Abdullah, Indulska & Sadiq, 2016; Abdullah, Hikmi, Indulska & Sadiq 2009: de Vaujany et al, 2015). We can also see that compliance management has received scarce, yet increased attention from the academic Information Systems community (Abdullah et al, 2016). Abdullah et al (2016) provides an academic review of published articles within the field of information systems and compliance during the years of 2001-2011, showing a radical increase in published articles during the years of 2009-2011.

Previous research regarding compliance as such are most often exploratory case studies rooted in management studies, legal studies, financial/economic studies and ICT studies. (Abdullah et al, 2016; Abdullah et al. 2009: Hoffmann, Weber & Governatori 2012; Baldwin, Cave & Lodge, 2011; MEMO-15-6385, 2015). In many of these studies one makes the assumption that compliance is a stand-alone phenomenon, implemented or imposed on firms and organisations, and does not see it as an integral part (Abdullah et al, 2009, 2016). By doing so there are a separation of firm and compliance issues. As omnipresent, laws, rules and regulations have the possible effect of being a source and driver for isomorphism, particularly coercive isomorphism (DiMaggio & Powell, 1983).

Latour (1998) predicts the deepening of the entanglement between humans and things. Furthermore, Latour (1998) presents the idea of non-human needs and

widens the understanding of entities that constitute our society and that we, the humans, have to relate to. Barad (2003) would probably argue that due to entanglement a separation of firm and compliance would not be possible, being in effect a result of each other. Leonardi & Barley (2010) would rather welcome such a separation in order to distinguish what is human agency and what is not, when does the material allow for action, and when does it prohibit the same. Still, sociomaterial dimension is not really present in the body of literature dealing with accountability and regulation (de Vaujany & Mitev, 2013: de Vaujany et al. 2015). Compliance and issues surrounding it has gained an increase in attention from practitioners and scholars alike. Breaches of laws and regulations, a lack of compliance, can lead to disastrous events, as seen during the financial crises of 2008, (Eggert, 2014). Examples where breach of regulations and therefore a lack of compliance had severe consequences are Enron, WorldCom, Parmalat, HIH and Tyco International (Abdullah, et al 2016: Pershkow 2003: Anon Filowitz & Kovatch 2007). These examples are typically associated with the Sarbanes-Oxlay Act, (SOX) released in 2002 for United States (US) companies. This regulation clearly started off a much more urgent need for compliance in organisations (Abdullah, et al 2016).

There is a lot of research on how laws, rules and regulations affect our society. Power (1999;2007) explains his ideas of an audit explosion of verification. This means an increase of audit on our actions to third party institutions to gain trust and accountability. Various approaches can bring valuable insights on the topic of regulation & accountability. A few research bodies such as Marxism, institutionalism, neo-institutionalism, process studies, regulation sociology, affordance literature, practice-based theories and others have been constantly used to analyse and understand regulatory aspects (de Vaujany et al. 2015)

Sociomateriality has been applied to a wide range of fields of science and areas of concern, such as information technology, social media, anonymity and information systems (Scott & Orlikowski, 2014; Yang, 2016; Kim et al, 2012; Schultze, 2014). In combining the material and the social and its interactions, intra-actions, dependencies and co-dependencies the goal is to present a new perspective on compliance. Where Barad (1998, 2003) states that the world is constructed in every action and interaction, Leonardi (2013) offers the view that the world in some instance is out there to be found and explored and the material and the social can be studied separately. That they (the social and the material) are imbricated, like tiles on a roof and therefore can be un-imbricated and studied.

Additionally, in order to understand how regulations, doers of compliance and organisations inter-act and intra-act with one another sociomateriality can be used as a means of analysis and backdrop. Laws, regulations and their products will be considered the material and the "doing" of compliance will be considered the social, if such a distinction is possible.

At last the lens of sociomateriality can broaden the view of what is compliance and how it materialises within established firms. The imbrication of the material and social, human agencies and non-human agencies, the presence of time and linearity, internal versus external relations among entities presented by Leonardi (2013) serves as the foundation of our understanding of sociomateriality.

A few studies have touched upon the subject of compliance by investigating the impact of laws, rules and regulations. De Vaujany et al (2015) present a thorough review of existing literature with regards to compliance in the IS/IT domain. The anthology Materiality, Rules and Regulation (de Vaujany et al, 2015) investigates how the materiality of rules and regulations has an effect on organisations but not specifically on the subject of compliance. The purpose of this study the becomes to fill the gap and seek to answer how the product of laws, rules and regulation, namely compliance, can be understood in the light of sociomateriality.

By investigating how sociomateriality can increase knowledge with regards to the role of compliance within organisations, the following research question has been developed:

- ***How can the study of compliance be informed through a sociomaterial perspective?***

The area of compliance is wide and there are several laws and regulations with different characteristics and we cannot study all of them. Our aim is to study compliance through a lens of sociomateriality, hence the specific laws, rules and regulations become secondary to the actual processes, procedures and artefacts relating to compliance.

After a brief introduction this paper presents a deeper view of related work. Secondly, we present the research method applied followed by the results of the study. Lastly, we discuss findings and provide directions for future research.

2. Related Work

2.1 Accountability

Accountability is described as a situation in which someone is responsible for things that happened and can give a satisfactory reason for them. In many other definitions, some kind of punishment plays a part. This means that accountability implies that individuals who do not provide a satisfactory justification for their actions will suffer from negative consequences or that private parties have to account to public authority (Baldwin et al, 2011). According to Lerner & Tetlock (1999) accountability can be described as follows:

 "Accountability refers to the implicit or explicit expectation that one may be called on to justify one's beliefs, feelings, and actions to others."

In this study auditing is a central term regarding Accountability. Since the middle of the 20th century systems around auditing have become more and more common. Power (1999) explained a situation where checking, evaluating and inspecting has been increasing in our society, which he defines as the "audit explosion". Strathern (2000) describes the rise of an 'audit culture'. By this she means that audit procedures change the way in which organizations and individuals have to operate. If audit behaviour is put into a larger perspective, it takes on the contours of a cultural artefact (Strathern, 2000). She further describes audit as
"A new form of ethics: they are where the financial and the moral meet".

We can no longer trust that anyone does, as they should, thereby we create institutions around audit (Power 1999; Power 2007). Power means that trying to define auditing is an attempt to describe what it could be since its to many things. The use of the word increased heavily during the late 1980s and early 1990s. It started in the regulation of private company accounting by financial audit and emerged into practices of environmental audit, value for money audit, management audit, forensic audit, data audit, intellectual property audit, medical audit, teaching audit, and technology audit which later grew institutional stability and acceptance (Power, 1999; Power 2007). The goal of audit is to assure accountability (Shore & Wright 2015).

This resulted in the fact that companies and individuals became a subject to new or more intensive accounting and audit requirements (Power, 1999; Power 2007). A wave of formalized and detailed constant checking up on what they were doing started to emerge.

Even though Power (1999; Power 2007) argues that it's hard to define what audit is, it has some characteristics. Firstly, it requires a production of documents. Secondly, an independent examination of, and expression of opinion. Thirdly, evidence gathering and examination of documentation (Power, 1999; Power 2007). To make the picture even clearer you could describe audit as agents. Audit could be the requirement for one party (the agent) to give account of his actions to another party (the principal). To make this trustworthy, the principal in this case can't have any relation with the agent.

Auditing may seem like it is just a control mechanism for companies and individuals to do the right thing. It is not only a task of evidence gathering evidence to escape legislation or regulations. It also has a system of values and goals behind it (Power, 1999; Power 2007).

Power (1999; Power 2007) means that today almost every country has established extensive institutions for the purpose of audit activities to ensure trust between actors. However, what if we can no longer trust each other without having extensive routines around us that ensure trust between actors. As human beings, we only engage in the explicit checking of situations in which we might feel doubt, conflict, mistrust or danger. We do not check the restaurant bill if we are not feeling suspicious, we do not require documents on favours done in the past and a guest at a dinner party who constantly demands explanations and justifications on how the food was prepared does not get invited again.

Furthermore, the fact of being accountable, or having to live up to specific requirement in order not to suffer from negative consequences, can be described as compliance or being compliant. This will be described further in the next chapter.

2.2 Compliance

Compliance is the measurement of how much something is as it should be, which means that there are requirements on what needs to be achieved. Compliance requirements are typically associated with regulations internally in an organisation or established by third party institution. These requirements can be derived from a variety of sources like legislature and regulatory bodies, standards and codes of practice, or organizational policies and business contracts (Abdullah, Indulska & Sadiq, 2016).

2.3 Compliance issues

Compliance issues spans over many if not all sectors such as financial services, environmental, healthcare, manufacturing and many more (Syed Abdullah et al. 2009: Hoffmann, Weber & Governatori 2012). These rules and regulations come with a variety of requirements and level of potential impact on the organisation. It is known that trying to comply can often result in failures (Pershkow 2003 : Anon Filowitz & Kovatch 2007). Breaches of compliance can result in serious consequences and even disaster for certain companies or individuals. A few known scandals from the financial industry are Enron, WorldCom, Parmalat, HIH and Tyco International experiencing both market and reputational damage in relation to the US implementation of Sarbanes-Oxlay Act of 2002 (SOX) (Abdullah, et al 2016). This means that failing to comply is not an option for many of today's organizations (Pershkow 2003).

The Sarbanes-Oxlay Act (SOX) released in 2002 started from a much more urgent need for compliance in organisations than previously established financial regulations (Abdullah, et al 2016). SOX mostly has to do with finance, but later a lot of regulations regarding data and information have been affecting organisations. Since many of these initiatives regarding information and data protection are on both global and local scale. Multinational organisations are much more heavily affected. Along with globalisation, digitalisation and industry 4.0 (Lasi, Fettke, Kemper, Feld & Hoffman, 2014) the need for compliance has become even more important. This result in the fact that companies might see compliance as a burden, meaning that there is room for interpretation even if there might be punishments such as fines or withdrawal of permission to do business (Lu, Sadiq & Governatori, 2008). To cope with compliance several frameworks across all industries and sectors have been developed, and multiple new roles for quality control, risk management and security governance both for compliance and operational management have been developed (Von Solms 2005: Lahti & Peterson, 2005). Abdullah et al (2016) argues that even if there is a lot in the domain of compliance there is a diversified interpretation and presentation of core concepts, which leads to a lack of understanding of the core concepts in the domain.

2.4 Laws discussed in this study

See Appendix 1.

2.5 Sociomateriality

Apparatuses and therefore technology is not an isolated object in itself but constituted by objects, physical matter, practices and performativity (Barad, 2003). These practices, doing of apparatus if you like, are open to rearrangement, reworking and other sorts of tinkering (Barad, 1998). However, the apparatus does not exist in a vacuum but constitutes of the enactment of the same and the relations to other apparatuses, users and the interaction with other apparatuses and entities (Barad, 1998). Furthermore, performativity makes human and nonhuman agencies part of the materialisation, the entanglement of the two predicts that you cannot have one without the other (Barad, 2003). This is in part the foundation of agential realism, that the world around us and all that is in it is a construct, enacted through interdependent relations and interactions (Kautz & Jensen, 2013: Barad, 1998). The idea of sociomateriality presented above results in the notion that the social and the material are inseparable and exist only in relation to each other in an entanglement of human and technological agency (Scott & Orlikowski, 2014: Scott & Orlikowski, 2013: Orlikowski & Scott, 2009). The entanglement of, and inseparability inherent to technological and human agency, matter and meaning described by Scott & Orlikowski (2014) and Barad (1998, 2003) leads to a sociomateriality where technologies are not mere influencers of human action but part of creating agential reality in a mixture of matter and meaning. Kallinikos (2011) argues that technology is crucial and fundamental to the construction of social reality. Technological objects are not only determined upon their materiality but also by their function (Leonardi et al, 2012).

Agential realism, according to Barad (2003), means that human is not solely cause nor effect, but an entanglement and intertwined exercise of knowing, doing and becoming. This goes for materiality as well, it's not only an object, but in part a subject in its own right to some extent (Barad, 1998, 2003). In this regard, the concept of sociomateriality questions the notion of independent agents and things (Scott & Orlikowski, 2014). The performativity, the performance, hence the creation and embodiment of sociomateriality is constituted by dynamic ongoing practices where the boundaries, properties and meaning of entanglement only exist in given situations (Schultze, 2014).

Joining the discourse of sociomateriality Leonardi and Barley (2010) find, in contrast to Barad (1998, 2003), Scott & Orlikowski (2014, 2013) and Orlikowski & Scott (2008), that the material and the social is to be studied separately and empirically. This is done in order to determine when the material prohibits action, what it allows, calls for workarounds and effects human agency as well as when the social influences the material (Leonardi & Barley, 2010). They argue that depending

on when, where and with what depth of analysis, agency shifts between social and material, human and nonhuman (Leonardi & Barley, 2010). Artefacts, as material components are viewed not only as physical objects, but also information, information technique, software and other digital artefacts are viewed as the material in sociomateriality (Mutch, 2013). Leonardi (2013) argues that there is a lack of empirical phenomena to be studied when turning to agential realism and suggest that these problems could be solved by *"treating materiality as existing in the realm of structure and social action as existing in the realm of action"* (Leonardi, 2014 p.66). Presenting the idea that a form of dualism exists and that however true sociomateriality might be as a concept, social and material are somewhat possible to study separately. Furthermore, Leonardi (2014) points out that both the social and material in organisations are bound by time, and to some extent place, which is not a consideration in the works of Karen Barad. Leonardi (2014) means that with the absence of temporal components the study of organisations becomes near impossible.

Where Barad (1998, 2003), Scott & Orlikowski (2013, 2014) and Orlikowski and Scott (2009), among others, view the world as a construct where the perceived (and enacted) world cannot be separated from the actual world, Leonardi and the likes of him have a different approach (Leonardi, 2013: Kautz & Jensen, 2012, 2013). Where Barad (1998, 2003), Scott and Orikowski (2013, 2014) and Orlikowski and Scott (2009) talk about, write and reason around agential realism, other scholars have a different stand on sociomateriality (Kautz & Jensen, 2012). Where agential realism rejects the notion of subject-object dualism, critical realism makes a distinction and argues for the possible separation of the two (Mutch, 2013). This separation leads to the possibility of imbrication in critical realism, that the social and the material is structured in an overlapping fashion that can be separated and therefore viewed as separate entities, possible to study individually and in relation to each other (Mutch, 2013: Leonardi, 2011, 2013).

3. Research Design

By reconciling paradoxes and contradictions one is forced to re-evaluate and reframe ones' insights, giving rise to creative reframing and resulting in new theoretical input. To achieve this, we investigate the field of compliance and analyse it through a lens of sociomateriality. Bryman (2012) describes the use of contrasting cases, two or more, examined with more or less identical methods in order to compare and conduct analysis in research, a method applied in this study.

3.1 Empirical selection

The empirical data needed to conduct a study like this must come from stories on how compliance is handled and thought about in a wide array of organisations. To do this the authors have conducted interviews with respondents working with compliance in a variety of areas within organisations.

The authors have chosen to interview professionals with diverse backgrounds and working titles as the study do not seek to focus on one single regulation or industry. The research investigates relations over all areas of compliance and respondents have titles such as Compliance manager, Compliance officer, Chief information officer (CIO), Information security officer (ISO) and IT manager. This has allowed us to investigate how a sociomaterial perspective can help inform compliance, rather than seeking to explore any single specific detail.

The authors have chosen to do interviews at 10 different companies. Through a lens of sociomaterial the empirical data has been analysed regarding the work of compliance, trying to describe relations between social and material agency. This has been done through a semi-random selection of companies from a variety of industries. This again because the purpose is not to be specific but rather to generalise. The companies represented in this study vary in size, number of employees and turn-over. Furthermore, they operate in different business areas and fall under different laws, rules and regulations, even though some, such as GDPR, are the same. Standards that the firms themselves impose differ as well. This means that similarities in how they work with compliance is not due to the laws or rules they abide by but something else.

3.2 Data collection

The use of a qualitative methodology instead of a quantitative is due to the study of social factors, the drivers behind events and the (subjective) reasons thereof (Bryson, 2012).

In this study, semi-structured interviews have been conducted (Bryman 2012), see Appendix 2. This because the authors do not necessarily need the respondents to answer the questions in the exact same fashion but just to make sure that the exact same subjects have been covered. Semi-structured interviews are much more like a guide, to make sure that all areas have been touched upon. The focus is on the respondent, their subjective experience and view on compliance and its inner workings within their organisation.

The interviews are structured as such as that there are two sections. The first section comprises of introduction questions regarding the respondent's title,

educational background, work experience etc. in order to determine the respondent's background that influences the respondent's understanding and vision on compliance issues (Bryman, 2012). The second section comprises of open-end questions regarding compliance issues within the respondent's professional sphere. Furthermore, the questions are constructed in a manner that encourage exemplification.

Before the interviews were conducted a theme for this essay was formulated and one main research question developed. Furthermore, the interviews were all conducted in person at the location of the respondents' organisations to make them feel comfortable and relaxed, but also out of convenience. Using an interview protocol made the interviews thematically structured, facilitating operationalisation and analysis, as described by Kvale (1997).

3.3 Method of analysis
The imbrication of human and non-human agencies as presented by Leonardi (2012, 2013) is the concept of roof tiles forming a pattern, a conjunction of two entities without the loss of interdependence, but with the ability to separate each individual tile. Each tile constitutes human doings and matter, with layers that contribute to a whole. Kautz and Jensen (2012) argue that sociomateriality can be seen as an extension of the common system sciences. Henfridsson & Bygstad (2013) argues that critical realism can inform the field of information systems In the context of this study the material, that in previous studies consisted mostly of technological artefacts (Leonardi & Barley, 2010: Leonardi, 2011, 2012: Scott & Orlokowski, 2013), both software and hardware, instead consist of laws and regulation.

Ciborra (2006) describes how the concept of imbrication captures the impact of representation that human and material agencies constitute and how control strategies are thought to mitigate, reduce or annihilate risk. This imbrication of human and material agencies is described by Leonardi (2011) as the tiles of a roof stemming from ancient ways of construction. The imbrication of each tile allows for something new and grander to emerge, without each individual tile losing its independent functionality (Leonardi, 2011). The building blocks are constituted by human and material agencies, technology and routines, and are the foundation for how people conduct their work. The previous imbrication is the foundation of the current one, regardless if the agency is human or material (Leonardi, 2011). Material and human agencies are distinct phenomena but due to imbrication they come to produce, sustain or change routines and technology depending on each

other (Leonardi, 2013). This becomes an overlapping and integrated process of social and material agencies (Leonardi, 2013).

All of the interviews have been conducted according to an interview protocol, in a semi-structured manner (Bryman, 2013). The validity of the collected empirical data is made sure of by the thematic operability of the interview protocol (Kvale, 1997). The questions asked have been of an open-end model and the respondents have been encouraged to speak freely and exemplify their answers. The interviews have been recorded and transcribed to ensure that they become manageable as empirical data for processing and analysis (Kvale, 1997).

Imbrication (Leonardi, 2012) is the interweaving of two separate elements, human and material agencies, into a structure that works interdependently. Where human agency and material agency differ in intention and capability, they as imbricated entities form a unit. Imbrication is described as the tiles of a roof, where the different shaped tiles could not make a waterproof roof, but where they together form an interlocking entity (Leonardi, 2012). Applying this theory on the study of compliance means that human and material agencies are imbricated, forming a solid structure, thus possible to be separated in its building blocks. The agencies imbricated create an output, a sort of pattern that can be a change in routine, a new use of technology or an interpretation. The imbrication of human and material agencies has a synergic effect, creating something new. By appropriating the agency of the material, it becomes incorporated within the human agency (Leonardi, 2011, 2012).

4. Results

In the following section the results of the study will be presented. We have discovered support for three different categories regarding compliance and the imbrications taking place between human and material agency. The three categories will be presented with a model each, with a text describing each imbrication. The three categories are:

1. Remain Compliant (FinCorp, SoftCorp, HealthCorp, CarCorp2)
2. The Process of Compliance (ComCorp, FinInst, HygieneCorp)
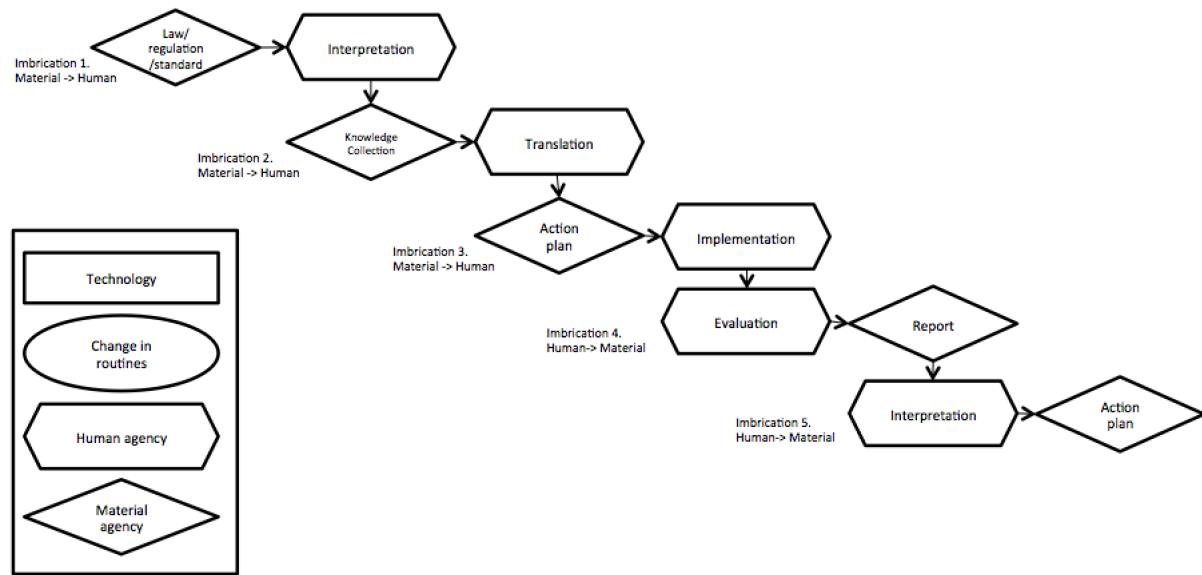3. The Race to Compliant (SafeCorp, CarCorp1, ToolCorp)

4.1 Remain Compliant

Figure 1 Remain Compliant

4.1.1 Imbrication 1 (Law/Regulation/Standard ➔ Interpretation)

FinCorp encounters standards, laws and regulations from different governmental and legislative bodies, but also internal ones. These standards, laws and regulations are interpreted within FinCorp in order to be able to move on. SoftCorp also has both external laws, rules and regulations, as well as internal regulations and standards, to comply to. When presented with a new law, GDPR for example, as a first step it need to be interpreted to be able to continue. HealthCorp has both internal and external rules, laws and standards to comply with. Being in the healthcare business they encounter laws and standards like Patientdatalagen, PUL and SITHS standards. The latter being a secure access service used throughout the company allowing employees to access various systems and documents such as journals. CarCorp2, as the other companies in the category of Remain Compliant, interprets new regulations, laws and standards when presented to them. In common for all the organisations is that when presented with a new or changing standard, law or regulation, they first interpret it to clarify what they need to do. The interpretation of Imbrication 1 constitutes the foundation for Imbrication 2, knowledge collection.

4.1.2 Imbrication 2 (Knowledge collection ➔ Translation)

The Compliance Manager at FinCorp says that all banks in Sweden are part of one and the same external Compliance Network, where they discuss and share information and knowledge regarding new laws, rules and regulations. This is part of knowledge collection leading to translation.

Within SoftCorp the CIO is part of a variety of external networks, "CIO-networks" as she calls it, where they try to inform themselves on new laws, regulations and standards. She says that as of today GDPR is the main topic of their discussions. Within HealthCorp there is a formal internal Group Risk Control network where they share information and rise question regarding new laws, regulations and standards. Furthermore, the VP Information Security is part of an external network, the Information security council of Inera, where representatives of most counties are accounted for. This is part of the knowledge collection within HealthCorp. At CarCorp2 various functions are part of different networks relevant to their respective area of concern. Due to previous encounters with regulations they have a high degree of maturity and are familiar with translating laws and regulations so that they become relevant to their organisation and operations.

A communality between the companies is that, post collection, acquired knowledge is interpreted with regards to laws, regulation or standards, as well as it is translated into their own specific prerequisites and circumstances.

It becomes apparent when looking at the handling of knowledge collected. FinCorp exemplifies this by pointing out that changes in laws and regulations within the financial sector often translate into a question of IT and changes in systems. In SoftCorp the translation occurs when laws, regulations and standards impact not only on their product, but on how they do business and they internalise the change in law, regulation or standard. Healthcorp need to translate the meaning of new or changing laws, regulations or standards. This happens after the collection of knowledge and this knowledge is translated in to company specific meaning. The translation renders company specific translations within each organisation regarding laws, regulations and standards. This encapsulates Imbrication 2 and is the preface of Imbrication 3.

4.1.3 Imbrication 3 (Action plan → Implementation)

As a result of Imbrication 2, FinCorp produces documentation in form of policies, based on the translation of the law, regulation or standard. It is a company specific document that describes what to do, how to do it and expected results of actions taken. It is up to each department to implement policies according to action plans. The translation within SoftCorp occurs in a central level within the company. The central function distributes the translation as policy and standards within the organisation and implementation takes place at a regional level. At HealthCorp the translated laws, regulations and standards manifests as documents of policy, something that the VP of Information security calls "governing documents". The actual implementation and action plans are then formulated within each business area, where yet another translation may occur. CarCorp2 has well developed

processes and procedures in place to formulate adequate action plans and to implement them. They have a legacy of previous work with extensive regulations effecting the organisation. This encapsulates Imbrication 3.

4.1.4 Imbrication 4 (Evaluation →Report)

At FinCorp evaluation is a task for the Compliance Manager. The Compliance Manager evaluates the different compliance issues and, on an annual basis, presents a status report to the board of directors. The evaluation is part of a continuum that is the core of keeping compliant. The evaluation is a *doing* that results in a report, describing the current situation regarding compliance. At SoftCorp evaluation of compliance is part of the CIOs responsibilities. The evaluation is a central function but as the CIO and CSO lacks mandate within the different regions their evaluations result in reports sent to local management. HealthCorp is organised with the different business areas being responsible for compliance issues, whereas the evaluation in any cases is a group function. The evaluation of different compliance areas result in an array of reports and documents where breaches of compliance are addressed and categorised. CarCorp2 has both extensive internal and external evaluations. The responsibility of these evaluations are both on group level as well as down to the departments. The evaluations result in reports, where non-compliances are brought up. These reports lay the foundation for Imbrication 5.

4.1.5 Imbrication 5 (Interpretation → Action plan/Action)

The reports and documents that are produced in Imbrication 4 constitute the foundation of Imbrication 5. In FinCorp these documents are interpreted within the different areas and departments leading to the formation of action plans and actions. From the Compliance Manager's perspective, the involvement becomes more of an educational and informative role and the action plans drawn up in the different departments are based on the interpretations of the reports in previous imbrication steps. The organisation of SoftCorp leads to a step of interpretation within the different business areas in their local offices where they have mandate to set up their own action plans, based on the documents produced in Imbrication 4. There is no mandate for the CIO nor CSO to give them already formulated action plans, but they can escalate breaches to top management within each proper business area. At HealthCorp the different business areas are responsible for each action plan but they are built on and grounded in the documentation from Imbrication 4 and interpreted in order to formulate an appropriate action plan. The interpretation of the reports within Imbrication 5 leads to a new action plan or action. At CarCorp2 one action is naturally to comply where non-compliances is detected, but another one is education and explain how and why compliance within certain domains are important or crucial. Action plans in Imbrication 5 in CarCorp2

are formulated out of checklists that have been adopted to their organisation and their needs. They express the notion that one cannot be compliant, but rather try to remain compliant and hence act accordingly.
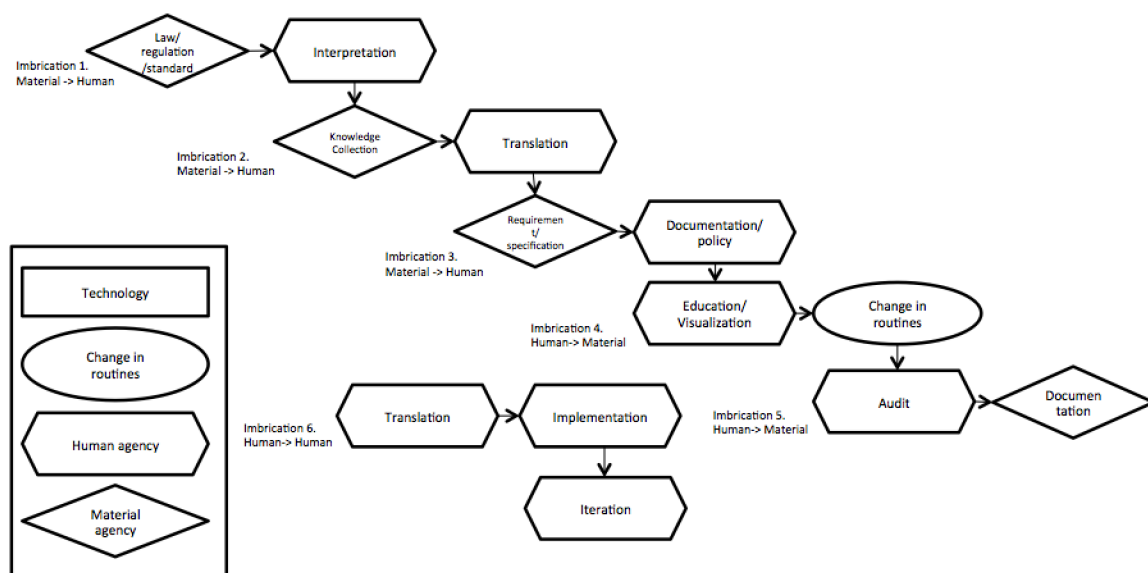
4.2 The Process of Compliance

Figure 2 The Process of Compliance

4.2.1 Imbrication 1 (Law/Regulation/Standard → Interpretation)

At ComCorp laws, rules and regulations are set on both a national and international arena due to its multinational presence. This means that there are many different laws, rules and regulations to navigate and abide by. In ComCorp they also have many standards to comply by in order to secure specific certifications. The Compliance Manager at ComCorp describes how his position means that he knows a few specifics in a vast array of areas and that the deep knowledge lies within different areas of concern. The different laws, rules and regulations then need to be interpreted to coincide with the process of compliance.

At HygieneCorp the IT-Manager at Group Level experiences that many of the laws, rules and regulations are the same throughout the organisation, regardless of nationality or location. This is due to the more technical aspects of the regulations. This means that the interpretations that occur within the IT-Manager's field are applicable in the whole organisation, for example data security.

FinInst differs from the two previous organisations in the way that they are a governmental agency and as such are excluded from some laws and regulations. According to the Compliance Officer at FinInst they abide by specific laws and rules regulating their special niche function within the government. The interpretation of laws and rules are a job for the compliance department, made up by two compliance officers, both with a legal background.

4.2.2 Imbrication 2 (Knowledge collection → Translation)

At ComCorp the collection of knowledge, data is a process that occurs within the different business areas with support of the group function. Furthermore, data collection itself is handled via a specific process, due to the fact that many aspects within ComCorp are highly process driven. When sufficient knowledge is collected, a translation occurs where the law, rule or standard is translated to fit the pre-existing organisation.

Knowledge collection at HygieneCorp is a predefined process according to the IT-Manager. This is due to the fact that the organisation is highly process driven. The IT-Manager explains that when the sufficient level of knowledge regarding a law, rule or regulation is met, a translation phase begins. The translation is meant to fit the essence of the law, rule or regulation to fit the existing organisation.

FinInst has a knowledge collection phase, where they also discuss new laws, regulations and rules with other governmental bodies but also other FinInsts. By informing themselves they then have basis for a translation of collected knowledge into their own organisation. This is made apparent when talking about laws they do not have to abide to. Laws which are still processed in this manner in order to behave like other financial institutions, but without the need of deep implementation.

4.2.3 Imbrication 3 (Requirement/Spec → Documentation/Policy)

The translation within ComCorp is done specific for that organisation and begets its own requirement or specification. This requirement or specification manifests itself in the form of a document, as a policy describing its meaning for the organisation and so forth. The same happens within HygienCorp, where the translated information from Imbrication 2 is presented as a requirement or specification and is recorded in a document. FinInst translate the acquired knowledge to their specific organisational nature. The translation becomes a set of requirements or specifications with regards to the specific law, rule or regulation. The requirements are presented in the form of documentation.

5.2.4 Imbrication 4 (Education/Visualization → Change in routines)

In ComCorp the requirements are made relatable and clear through education and/or visualisation. This is to inform the concerned parties and constitutes the foundation for change in routines. The Compliance Manager at ComCorp illustrates this by the clearance of requirements by group management that leads to the visualisation and education within each business area that becomes a change in routines. HygieneCorp has a very similar approach and the requirements are made visible and are mediated through education in order to change routine and processes. The Compliance Officer at FinInst describes how the education and

visualisation is a joint effort in a sense. The employees are quite few and highly specialised in their areas. Therefore, it becomes a supportive role for the Compliance Officer to gather and distribute the material that constitutes the underlying documentation for the change in routines.

4.2.5 Imbrication 5 (Audit → Documentation)

When implemented as a change in routine the level of compliance will be audited in ComCorp. It can be in the form of an internal audit if the change is within an internally decided standard and procedure. It can also come in the form of an audit from partners or customers to ensure that they are up to par with business specific standards. Audits in ComCorp also include external audits requested by the company to ensure the level of compliance. Common to all types of audits are the results presented in the form of documentation. Imbrication 5 in HygieneCorp follows a similar path as in ComCorp. When an audit takes place, different breaches of compliance may be identified and categorised accordingly. The identified breaches are then documented by external and internal auditors As a governmental agency FinInst has a different set of laws, rules and regulations to comply with than other financial institutions and banks. This means that they do not have to report to the government. Even though they do not need to conduct internal audits they do it anyway to be compliant with market expectations, a practice that only will increase according to the Compliant Officer. They are subject to external audits as well.

4.2.6 Imbrication 6 (Translation → Implementation)

The documents produced in Imbrication 5 are then translated to the specific area of concern within ComCorp. Being a policy and process driven organisation the translation aims at bridging the gap between breaches in compliance with laws, rules and standards and the internal process the company aims to abide by. The translation constitutes the foundation of implementation. HygienCorp translate the documentation into actionable implementation by imbedding the results of the translation in processes and routines illustrated by the IT manager when talking about their new incident handling.

4.2.7 Iteration

Imbrication 2-6 becomes an iterative process within the organisations presented in the section The Process of Compliance. None of the respondents say that you are ever truly compliant but in a constant process of compliance, collecting knowledge, producing documents, changing routines and processes, translating information into organisation specific knowledge that is useful for implementation. After an audit, this process starts all over again, in addition to changes and existing laws, regulations and standards. Compliance is a continuum and not a state of being.
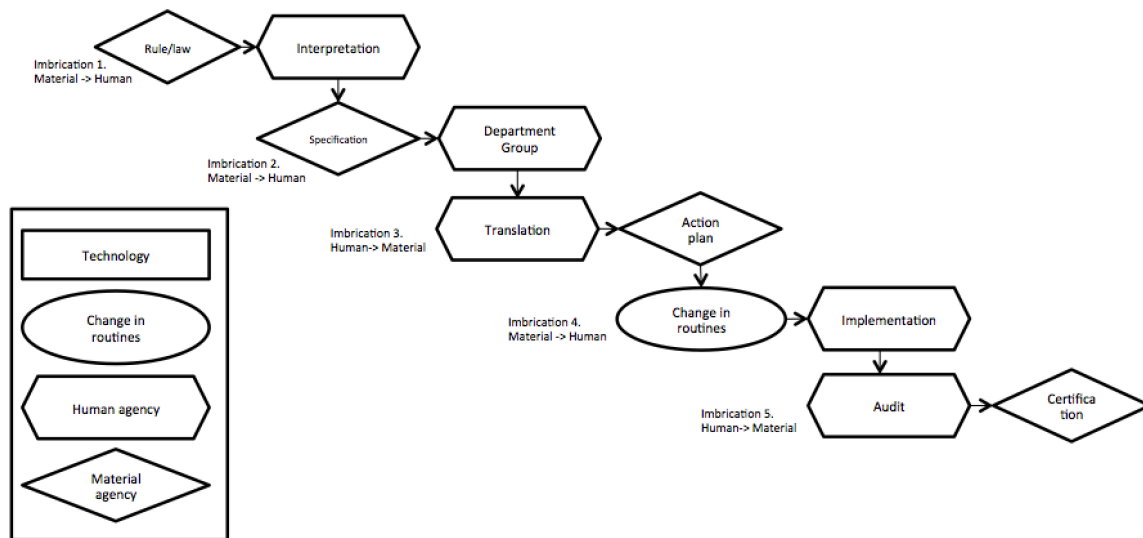
4.3 The Race to Compliance

Figure 3 The Race to Compliance

4.3.1 Imbrication 1 (Law, Rule Regulation → Interpretation)

SafeCorp start by interpreting the meaning of new laws, rules and regulations in an attempt of sense making and understanding. At CarCorp1 the interpretation of new laws, rules and regulations or additions thereof are interpreted in order to be fully understood. At ToolCorp laws, rules and regulations are also interpreted as a first step.

4.3.2 Imbrication 2 (Specification→ Department group)

At SafeCorp the interpretation results in a specification of the new law, rule or regulation that in turn results in the formation of a department group with overall responsibility of the new law, rule or regulation or change thereof. CarCorp1 specifies the new law, rule or regulation or the change thereof accordingly and a group is formed in order to handle tasks at hand. ToolCorp has already a formed group that handles specific compliance areas. The specification rendered by the interpretation ends up in this group.

4.3.3 Imbrication 3 (Translation → Action plan)

The group handling the compliance issue at hand at SafeCorp conducts a translation of the new law, rule or regulation or change thereof into a company specific action plan targeting impacts it will or might have on the organisation. By translating the new law, rule or regulation within the group handling the specific compliance issue an action plan is drawn up regarding the specific area. CarCorp1 translates the new demands on procedures, production and routines within the organisation to an

action plan. Within ToolCorp, the already existing group translates the interpreted information into an action plan, targeted to handle a specific compliance issue.

4.3.4 Imbrication 4 (Changes in routines → Implementation)
SafeCorp changes their routines according to the action plan in the previous imbrication. The routine change involves an implementation of new procedures and routines. As described by the Homologation & Compliance Manager at CarCorp1 the step of change in routines, procedures and production is a manifestation of implementation. ToolCorp implements the changes in routines according to the translation in the previous imbrication. The implementation is a natural consequence of earlier steps taken.

4.3.5 Imbrication 5 (Audit → Certification)
In SafeCorp Imbrication 5 starts with an audit. This audit can be handled both internally or by an external party. The audit focuses on breaches of compliance, in a sense that you are compliant or not. This means that within SafeCorp, whether you are compliant or not, results in a certification. At CarCorp1 the audit can be executed by internal or external parties. Here the main focus is to be compliant and receive a certification that allows for the entry of markets and the ability to sell ones' product. ToolCorp also conduct audits whit the goal to be compliant over a set period of time, resulting in a certification. This certificate is the proof of compliance and that the state of compliance is achieved.

In the category of The Race to Compliance the respondents have all expressed that they can be compliant and that the certification is the final product of the imbrication constituting compliance. You get an artefact that shows for a state of compliance and that the product, procedure or routine is in fact compliant with laws, rules, regulations and standards. This sets them apart from previous categories where compliance is seen as a continuum and not as a fix state for a period of time.

5. Discussion
Central to this study is that the term materiality, in relation to laws, regulations and standards, is used in line with the description by Leonardi & Barley (2010).
This is characterised by viewing laws, regulations and standards as a unified phenomenon even though there is a big difference between the three.
What they have in common is the notion that you can and should be compliant with them.

We can see that in all cases, there is no option to not being compliant. Even if there in some cases are influences of interpretation or translation of compliance as such. When presented with a law, rule or regulation it is not always clear what the requirements are.

The respondents of this study can also be described as convinced when it comes to compliance. Even in the highly-regulated industries respondents show a strong urge of being compliant and that working with laws of regulation is not seen as a waste of time and resources. Power (1999; 2007) describes a society where verification of accountability is increasing and that we constantly build third party institutions that can verify the fact that we are compliant. In our results, we can see that initiatives from third parties are not questioned at all, rather they are followed without questioning. In some cases the respondents even exceed the expectations with regards to complying with standards.

The fact that requirements from third party institutions are not even questioned goes along with how Strathern (2000) describes an audit culture. It becomes a culture of norms and values that people follow and adjust to. It is relatable to our descriptions of flows, that people strive on to be compliant without asking or that people race to the state of being compliant because they have done it many times before. In some sense, there are also a lot of culture elements and artefacts that have arisen not only inside the organisation. Networks and interest organisations that together help each other on how to interpret new laws and regulations are arising, which in turn adds another dimension to Power's (1999) view of increased rituals of verification.

All respondents from the different organisations encounter new or changing laws and regulations stemming from external forces such as national and supranational legislators. Furthermore, many of them say that they have to comply with standards due to pressure from partners, customers and other market players. This all confirms the statement by Abdullah et al (2016) of a continuously increase in new law and regulations to comply with. Powers (1999) states that the increase in audit is to ensure trust between actors, something that can be seen in the implementation of standards within the different organisations. At FinInst the Compliance Officer emphasised that compliance is divided into two components, to comply with laws, as well as regulation out of compulsion. The second part is to comply out of a moral stand point, to do the right thing, illustrating the duality of the system off audit, with both values and goals. This also means that a new form of ethics emerges, as

described by Strathern (2000). The more rigid laws, regulations and standards meet the will of doing right.

As seen in the groups The Process of Compliance and Remain Compliant there is a human agency described as translation. This action, conscious or unconscious, is the translation of something into something that fits and is acceptable in the own organisation (Czarniawska, 2015). This is due to the fact that without translating parts of the laws, regulations and rules would not make sense to the organisation and would not be accepted by its members (Czarniawska, 2015). In the group of Remain Compliant translation occurs as Imbrication 2 and in the group of The Process of Compliance it occurs in Imbrication 2 and 6. The fact that it occurs twice in the category of The Process of Compliance is due to the iteration and translation of the result of an audit. As described by Power (1999), an audit is not an entirely objective truth but contains values and beliefs in need of processing, hence a translation. In addition to the need of translating the result of an audit knowledge collected regarding a law, regulation or standard is in need of being translated. Described by Czarniawska (2015) where numbers, classifications and rankings need to be translated in to a language the organization can process and incorporate in to its compliance narrative.

The enactment of human agency (Kallinikos, 2011) is apparent within the field of compliance, as well the one of non-human agency, the material. Where a law, regulation or standard is the foundation of compliance and has a strong material agency forcing organizations, and the members thereof (humans), to act. This seem to be true for all the organization within the scope of this study. There is however not a clear pattern of imbrications that can be said to be true for all. Given the mixture human agency → material agency and vice versa presented one cannot conclude that these imbrications follow a strict pattern but rather varies depending on the result of previous imbrication. In the case of The Race to Compliance we can see that a material agency, can give rise to a human agency as well as a human agency can be preceded by another human agency. We do not find any imbrication where a material agency precedes another material agency, even though this could happen due to automation. Documents creating new documents, automatic audits and processes of validation creating artefacts. This could mean that there need to be a human agency within the imbrications in order to make the processes surrounding compliance go forward. That the material agency in itself does not have the power to lead the process but rather instigates it and then acts as a form of necessity for human agency in some instances. If compliance is seen as state and you work up to that state you can follow the imbrications as steps towards the goal, to

be compliant. This seems to be the case for the organisations in the group Race to Compliant. What really sets them apart from the two other groups is the notion that you can be compliant, period. You engage in different activities, take action where needed and then as a result you are in a state of compliance. However, the order of imbrications of human and material agency are not what sets them apart, but how the respective respondent views compliance.

The respondents in the groups of The Process of Compliance and Remain compliant both see compliance as a spell over time where there is no one moment of compliance, one is never finished. The human agency, social, and the material as Leonardi (2012) describes them are not entangled but imbricated where they do allow and affect each other, as well as prohibits action in some instances. In our findings, the imbrications are as mentioned earlier never material → material, but rather human → material and material → human and for some instances human → human. Leonardi (2014) suggests that we should treat the material as if in the realm of structure. And by doing so, structure becomes more of an influencer of human agency, setting boundaries, allowing for action and prohibiting the same. We find that the notion of critical realism (Mutch, 2013) is better suited to explain our findings. Bygstad et al (2016) describes the generative elements within mechanisms and by applying critical realism the study of these elements come in to new light. Showing how not just human affordance bring things forward, but also technical elements within mechanisms as agencies. Furthermore, Henfridsson & Bygstad (2013) show how critical realism help us understand information systems and infrastructure beyond individual systems but rather as interconnected collectives of systems and mechanism within organisations. These mechanisms, becoming generative and producing output in a rather autonomous fashion. Given the nature of material agency within the organizations studied, the established laws, regulations and standards in form of requirements demanding for action as subject in its own right. Material agency also can be seen as physical objects, material in the truest sense of the word, but infused with meaning by the human agency transferring meaning, value and moral aspects upon the material.

As described by Leonardi & Barley (2010) agency shifts in over time and place and by the depth of analysis, this means that what is true in one particular setting must not necessarily be true in another. Furthermore, the translation (Czarniawska, 2015) in the imbrications are a human agency that can be said coming from outside of the organization influencing the inner parts. We find that the occurring translations are in fact part of an ongoing isomorphism as well (DiMaggio & Powell, 1983). The translation then allows for organization to mimic each other in order to

become trustworthy in the eyes of others, being a reliable partner, supplier and market actor. And as such seek legitimacy from other market actors as described by Meyer & Rowan (1977) by engage in rituals and rites of inspection and evaluation. Where the implication of non-statutory standards can be seen as ceremony where the agency is human resulting in artefacts, material, such as documents which shows for a level of compliance that is perceived as expected and desirable.

Furthermore, our study shows that compliance and breaches of compliance is categorized within the studied organizations. This categorization can be seen as a part of a human agency but the documented category itself becomes a material agency prompting for further action. This can be seen in the light of entanglement described by Scott & Orlikowski (2014) and Barad (1998) where the distinction between human agency and material agency, where one starts and the other ends can be blurred. This might implicate that there are not only human agencies that decide when to take action, what actions to be taken or how so. This relates to Bygstad et al (2016) and the generative elements within information systems and organisations.

The internal processes, routines and artefacts develop differently within the studied organizations even though they all speak of compliance as one subject of matter. This implies that compliance is seen as one but in contrast to each other another picture emerges. The view of compliance as continuum or state has different implications on organizations and practitioners. If one sees compliance as a goal that one can achieve you will handle it in one manner. But if you in contrast see compliance as a continuum, where you never really are compliant new questions and actions are needed. The three identifies categories contributes to practice providing deeper insights into the field of compliance, the different impacts agencies might have and what the expected results might be. How firms work with compliance is due to how they relate to compliance as such and how they perceive the goal working with compliance.

Implication for practice becomes a question of how one view compliance and the surrounding work. As seen as a state, one has to take certain actions to abide to laws, rules and standards to become compliant. Actions taken are to ensure the completion of a goal. If seen as a continuum compliance is not a state but rather something volatile and impermanent practitioners face different challenges and questions. In common for both parties are that one cannot predict nor decide the outcome of every action taken. This due to the material agencies and that they have implications on the work of their own.

One implications of this study on research is that it joins the discourse of sociomateriality in general and critical realism particularly and as such contributes to existing body of literature. Furthermore, the study fills a gap in the existing literature, where the study of compliance has been absent (de Vaujany et al. 2015). This study do not claim to have uncovered all possible categories of compliance within organisations, however we have seen emerging patterns. Sociomateriality and critical realism work as a guidance in order to uncover patterns not otherwise noticeable. Future studies could take a more specific approach where we have been general and generalizing. These future studies could include the study of one organisation, one specific law, rule or standard. Compliance as such does not appear to be universal but rather fragmented and pluralistic, even though most evaluation depend on universality (Boltanski & Thévenot, 2006). This implies that sociomateriality and critical realism can be useful in order to *unimbricate* and study how the pluralistic realm of compliance can function and become a universal phenomenon. Another interesting approach would be if one, instead of critical realism (Mutch, 2013: Henfridsson & Bygstad, 2013: Bygstad et al, 2016), based a study on the notion of agential realism (Barad, 1998; 2003: Orlokowski, 2014) and how the entanglement of agencies could inform the study of compliance as such.

6. Conclusion

This study has been set out to answer how the study of compliance be informed through a sociomaterial perspective. Three different flows have been identified within the inner workings of compliance, which we call Remain compliant, the Process of Compliance and the Race to Compliance. All of these flows show how we use sociomateriality to describe the relations between the social and the material in the daily work with compliance, laws and regulations. By describing this, we can state that there is both a state and a continuum of compliance, which is the answer to how sociomateriality can add to existing research. This concludes that compliance can be informed through sociomateriality and that this study contributes with new insights in how firms not only work with compliance but differ in perception of compliance as a state or continuum.

The use of sociomateriality and imbrication applied on the study of compliance constitutes the contribution to literature on compliance but also sociomateriality. It widens the use of sociomateriality, applying it on a discipline not until now examined and investigated in the light of sociomateriality (de Vaujany et al. 2015). By applying a sociomaterial perspective on the study of compliance we find a flow of

imbrications of human and material agency being part of compliance, both as a state but also as a continuum. Compliance is made up by material agency, instigating the events that follow in its wake and human agency, driving the flow forward (Bygstad et al, 2016).

We have concluded that sociomateriality can be used to describe the relations between agencies when working with compliance, laws and regulations. Our study merely uncovers a small part of the processes, procedures and artefacts that constitutes compliance and sociomateriality can be used on a more detailed level to outline the material and the social within this area (Leonardi, 2014: Leonardi & Barley, 2010).

References

Abdullah, S. N., Hikmi, S., Indulska, M., & Sadiq, S. (2009). A study of compliance management in information systems research. 17th European Conference on Information Systems, ECIS 2009, 17th European Conference on Information Systems, ECIS 2009

Abdullah, N.S., Indulska, M. & Sadiq, S., 2016. Compliance management ontology - a shared conceptualization for research and practice in compliance management. Information Systems Frontiers, 18(5), pp.995–1020.

Anon. J. L, Filowitz. H & Kovatch. M . J, 2007. Integrating Sarbanes-Oxley controls into an investment firm governance framework. Journal of Investment Compliance, 8(1), pp.40–43.

ACM SIGMIS Database: the DATABASE for Advances in Information Systems, 47(4), pp.93–105.

Baldwin, R., 2011. Trade And Industrialisation After Globalisation's 2nd Unbundling: How Building And Joining A Supply Chain Are Different And Why It Matters. NBER Working Paper Series, p.17716.

Baldwin, R., Cave, Martin & Lodge, Martin, 2011. Understanding Regulation: Theory, Strategy, and Practice 2nd ed., Oxford: OUP Oxford.

Barad, Karen, 1998. Getting Real: Technoscientific Practices and the Materialization of Reality. Differences: A Journal of Feminist Cultural Studies, 10(2), pp.87–128.

Barad, K., 2003. Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter. Signs, 28(3), pp.801–831.

Barry I. Pershkow, 2003. Sarbanes-Oxley: investment company compliance. Journal of Investment Compliance, 3(4), pp.16–30.

Boltanski, L. & Thévenot, L., 2006. On justification : economies of worth, Princeton: Princeton University Press.

Bryman, A., 2016. Social research methods Fifth., Oxford: Oxford University Press.

Henfridsson, O & Bygstad, B, 2013. The generative mechanisms of digital infrastructure evolution.(Case study). MIS Quarterly, 37(3), pp.907–931.

Bygstad, B., Munkvold, E, B, & Volkoff, O, 2015. Identifying generative mechanisms through affordances: a framework for critical realist data analysis. Journal of Information Technology, 31(1), pp.83–96.

Ciborra, C., 2006. Imbrication of Representations: Risk and Digital Technologies*. Journal of Management Studies, 43(6), pp.1339–1356.

Czarniawska, B., 2015. En teori om organisering: ny utgåva, Studentlitteratur, Lund.

Dimaggio, P.J. & Powell, W.W., 1983. The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. American Sociological Review, 48(2), pp.147–160.

Eggert, M 2015. Compliance Management in Financial Industries A Model-based Business Process and Reporting Perspective, SpringerLink

eugdpr. 2017. eugdpr. [ONLINE] Available at: http://www.eugdpr.org/. [Accessed 23 February 2017].

Finansinspektionen. 2017. Regler. [ONLINE] Available at: http://www.fi.se/sv/marknad/regler/. [Accessed 23 February 2017].

Hoffmann, J., Weber, I. & Governatori, G., 2012. On compliance checking for clausal constraints in annotated process models. Information Systems Frontiers, 14(2), pp.155–177.

ISP. 2017. Inspektionen för strategiska produkter. [ONLINE] Available at: http://www.isp.se. [Accessed 23 February 2017].

Kallinikos, J. 2011, Governing through technology: information artefacts and social practice, Palgrave Macmillan, Basingstoke.

Kautz, K.B. & Jensen, T.B., 2013. Debating sociomateriality: Entanglements, imbrications, disentangling, and agential cuts. Scandinavian Journal of Information Systems, 24(2), pp.89–96.

Kautz & Jensen, 2013. Sociomateriality at the royal court of IS: A jester's monologue: A jester's monologue. Information and Organization, 23(1), pp.15–27.

Kim, G., Shin, Bongsik & Kwon, Ohbyung, 2012. Investigating the value of sociomaterialism in conceptualizing IT capability of a firm. Journal of management information systems : JMIS, 29(3), pp.327–362.

Kvale, S, 1997. Den kvalitativa forskningsintervjun, Lund: Studentlitteratur.

Lahti, C & Peterson, R, 2005. Sarbanes-Oxley Compliance Using COBIT and Open Source Tools, Syngress Media Incorporated.

Lasi, H. Fettke, P. Kemper, H-G. Feld, T. Hoffmann, M. 2014. Industry 4.0. Business & Information Systems Engineering, 6(4), pp.239–242.

Latour, B., 1998. From the World of Science to the World of Research? Science, 280(5361), pp.208–209.

Leonardi, P., 2011. When flexible routines meet flexible technologies : affordance, constraint, and the imbrication of human and material agencies. Management information systems : mis quarterly, 35(1), pp.147–167.

Leonardi, P., 2013. Theoretical foundations for the study of sociomateriality. Information and Organization, 23(2), p.59.

Leonardi, P. & Barley, S.R., 2010. What's under construction here? Social action, materiality, and power in constructivist studies of technology and organizing. Academy of Management Annals, 4(1), pp.1-51.

Leonardi. P. M, & Narnd. B, Kallinikos. J, 2012. Materiality and Organizing: Social Interaction in a Technological World, Oxford University Press.

Lerner, J.S., Tetlock, P.E. & Eisenberg, Nancy, 1999. Accounting for the Effects of Accountability. Psychological Bulletin, 125(2), pp.255–275.

Lu, R., Sadiq, S. & Governatori, G., 2008. Measurement of Compliance Distance in Business Processes. Information Systems Management, 25(4), pp.344–355.

Martin, Lawrence L. & Kettner, Peter M., 1997. Performance measurement: the new accountability. Administration in Social Work, 21(1), p.17.

Meyer, J.W. & Rowan, B., 1977. Institutionalized Organizations: Formal Structure as Myth and Ceremony. American Journal of Sociology, 83(2), pp.340–363.

Mutch, A., 2013. Sociomateriality — Taking the wrong turning? Information and Organization, 23(1), pp.28–40.

Orlikowski, W.J. & Scott, Susan V, 2008. Sociomateriality : challenging the separation of technology, work and organization. Annals // The Academy of Management, pp.433–474.

Orlikowski, W.J. & Scott, S.V., 2015. Exploring Material‑Discursive Practices. Journal of Management Studies, 52(5), pp.697‑705.

Ou Yang, S., 2016. Returning to the Philosophical Roots of Sociomateriality: How M. Heidegger and M. McLuhan Questioned Information Communication Technology.

Power, M., 1999. The audit society rituals of verification, Oxford: Oxford University Press.

Power, M. & Ebooks Corporation, 2007. Organized Uncertainty : Designing a World of Risk Management., Oxford: Oxford University Press, UK.

Questions and Answers – Data protection reform (2015) MEMO-15-6385, Brussels, 21 Dec,
(Accessed: 5 Mars 2017)
http://europa.eu/rapid/press-release_MEMO-15-6385_en.htm

Schultze, U. 2014, "Performing embodied identity in virtual worlds", European Journal of Information Systems, vol. 23, no. 1, pp. 84-95.

Scott, Susan V. & Orlikowski, Wanda J., 2014. Entanglements in practice: performing anonymity through social media. MIS Quarterly, 38(3), p.873.

Scott, S.V. & Orlikowski, W.J., 2013. Sociomateriality — taking the wrong turning? A response to Mutch. Information and Organization, 23(2), pp.77–80.

Shore, C. & Wright, S., 2015. Audit Culture Revisited. Current Anthropology, 56(3), pp.421–444.

Strathern, M., 2000. Audit cultures: anthropological studies in accountability, ethics and the academy, London; New York: Routledge.

Sveriges Riksdag. 2017. Säkerhetskyddslagen. [ONLINE] Available at: http://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/sakerhetsskyddslag-1996627_sfs-1996-627. [Accessed 23 February 2017].

Von Solms, S.H., 2005. Information Security Governance – Compliance management vs operational management. Computers & Security, 24(6), pp.443–447.

de Vaujany Mitev, Lanzara & Mukherjee. 2015. Introduction: Making Sense of Rules and Materiality: The New Challenge for Management and Organization Studies?. In: Materiality, Rules and Regulation: New Trends in Management and Organization Studies, Basingstoke: Palgrave Macmillan., pp. 1-29.

de Vaujany, F.-X. & Mitev, N. (eds) (2013). Materiality and Space: Organizations, Artefacts and Practices (Technology, Work and Globalization Series). Basingstoke, UK: Palgrave Macmillan.

Walden, I., 1996. Application of directive 95/46/EC. EDI Law Review, 3(2), pp.85–98.

Appendix 1.

General data protection regulation (GDPR) (eugdpr, 2017) is a regulation committed by the European Parliament, the European Council and the European Commission. It is intended to strengthen, unify and protect individuals within the European Union (EU). Its main objective is to give citizens back the power to control their personal data. It also addresses export of personal data outside of the EU. GDPR was adopted at the end of April 2016 and it has a two-year transition period which means that it will be in full use May 2018. GDPR is also intended to replace the Data protection directive from 1995 (Walden, 1996).

Export control (ISP, 2017),

Säkerhetsskyddslagen (Sveriges Riksdag, 2017) or Safety protection law is a Swedish law that covers all organizations in Sweden where the state has some kind of ownership in or interest. It is intended to protect organizations from espionage, sabotage and other crimes that may threaten national security. Which means that the state has authority to know and act on information threatening national security. It involves laws regarding
- Security Protection
- Information security
- Access Restriction
- Background check
- Records
- Security Classification
- Special personal casing
- Consent
- Examination of information issued
- Claim of citizenship
- Internal training and control
- Supervision
- Law exceptions
- Special provisions concerning the Prime Minister's official residences
- Provisions on enforcement

FI-regler (Finansinspektionen, 2017) or financial inspection regulations is the regulation that applies to all financial institutions in Sweden. This can both be rules

or directives introduced in Swedish government or from the European union. From the European financial sector, there are several organs including the European Banking Authority (EBA), European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities and Markets Authority (ESMA). These organs can introduce technical standards but also guidelines and recommendations. These organs can introduce regulations and laws with the same status as the Swedish financial inspection that Swedish companies have to apply to.

Appendix 2.

Interview protocol

RQ: *How can the study of compliance be informed through a sociomaterial perspective?*

- About the respondent
    - Company – Title – Role – Educational background – Work experience (Current organization and prior engagements)

Human agency - Compliance
- What is the core of compliance would you say?
    (Procedure, documents, laws, regulations etc.)
- Can you describe how you work with decisions regarding compliance?
    - Long term?
    - Short term?
    - Ad hoc?
- When are you finished with one regulation/law/Compliance issue?
    - Examples?
        - What happens next?
- Do you categorize compliance - and if so how? To what end?

Changes in routines (Social)
- When working with compliance issues, do you have a reactive approach or a proactive approach? (What do you do? What is the actual product (artefact/document/change in routines/new rules/commitments) of your work?))
    - Why proactive/reactive?
    - What would the alternative look like and what implications might it have?
- When compliance issues occur, how are these issues handled in the line of command?
    - How is routines affected by these changes?

Material Agency - Compliance
- When presented with a Regulation/Law, what do you do?
    - Examples?

- What is the product (outcome/artefact/doing/procedure etc.) of your work with compliance issues within the organization (Wide perspective)?
- How does compliance issues influence your organization?
  - Examples? (Changes of over time?)
- How does your organization react on regulations and laws?
  - Can you exemplify? (Differences between departments, roles and type of regulation?)
- What impact has regulations on your organization?
  - Can you exemplify? (Manifestation)
- Do your organization handle compliance issues in a manner you like? Examples? What would you like to change?
- Do you work with other organizations regarding compliance? Networks? Interest organizations etc.?
  - Why so, and what impacts does it have?

Changes in regulations & Laws (Material)

- What impact does changes in regulations and laws have on your organization?
  - Examples?
- Does changes in laws and regulations affect your organisation in doing your core business?
  - Examples and manifestations?