



**LUND UNIVERSITY**  
School of Economics and Management

# **Salespeople working with Big Data Analysis, a study of their Identity Construction**

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Lund University School of Economics and Management

MSc Managing People, Knowledge and Change

BUSN49 Degree Project

By

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Johan Thylander & Erik Eekhof

# Abstract

- Title:** Salespeople working with Big Data Analysis, a study of their Identity Construction
- Authors:** Johan Thylander & Erik Eekhof
- Supervisor:** Nadja Sörgärde
- Date:** 20<sup>th</sup> May 2016
- Purpose:** This research aims to explore and thus achieve an increased understanding of how salespeople working with big data analysis construct their identity. Furthermore, we aim to find how salespeople perceive big data analysis and position themselves in relation to it.
- Relevance:** With the increased presence of big data technology in the workplace it is of significant relevance to get an understanding of people's identity construction in regards to this technology. As it can provide valuable insights into how technologies can effectively be implemented in the workplace.
- Methodology:** We based our research on a qualitative research design and the interpretive paradigm.
- Findings:** Our research indicates that salespeople construct their identity by centralizing their own capabilities to succeed within their job. This is done through the two pictures trooper and cultivator, which both emphasize their personal qualities at the heart of their identity as a salesperson.
- Contributions:** We contribute to the existing literature on technology implementation, by providing a new perspective through looking at this phenomenon through the lens of identity. This, as we acknowledge identity as playing a role in the implementation process.
- Keywords:** Big Data, Big Data Analysis, Technology implementation, Salespeople, Identity, Identity construction, Identity Work.

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# 1 INTRODUCTION

This chapter provides an introduction to our study. First we will provide some background information on big data and big data analysis, implementing technology in the workplace and identity. Thereafter the underlying problem and our research objective is described. The final section will give an overview of how the report is structured.

## 1.1 BIG DATA

Online retailers such as Amazon are able to recommend products based on our buying patterns, healthcare providers that are able to dig in to patient records to come up with, more individualized treatment plans, news site Business Insider (2014) talks in this way how big data becomes more prominent in our society. The amounts of data in our world have been exploding, the ability to analyze these large sets of data, so called big data is argued by leading consultancy firm McKinsey's Global Institute (2011) amongst others, to allow for new waves of innovation and productivity growth. It is said to be one of those things both start-ups and big companies are talking about all the time as being the "the next big thing" (Harvard Business Review, 2013).

The term big data analysis is used to describe the process of analyzing complex set of data sets to discover information. Large pools of data can now be compiled and analyzed to uncover patterns, leading to the ability to make more informed decisions, allowing better decision making (Henry & Venkatraman 2015). Hence, big data and big data analysis are considered a source of enhanced productivity. This led to the belief of many scholars and industry experts that big data analysis will become the basis of competition and growth for individual firms (McGuire et al. 2012).

### 1.1.1 BIG DATA TECHNOLOGY IN THE WORKPLACE

When one looks at how big data analysis can be applied, it can be divided up in to two perspectives. The two perspectives are decision-oriented and action-oriented. Decision-oriented analysis is supposed to produce business decisions, by looking at selective subsets or representations of larger amounts data. The action-oriented analysis is used in order to be able to respond rapidly to changes (Hurwitz et al. n.d.). These technologies are applied in various contexts, The technology media company Tech Target (2016) provides examples of IT companies that harness big data analysis to gain new insights on how their customers are using its network, marketers, track and analyse shopping activities of consumers to allow for a more

tailor-made product offering. Forbes Magazine (2015) states that it will not only give birth to new industries, but also revolutionize old-school industries and as such the people working in these industries.

## **1.2 TECHNOLOGY IMPLEMENTATION**

There is a consensual view amongst prominent names in the business world such as Forbes Magazine (2015), McKinsey Global Institute (2011) of consultancy firm McKinsey and scholars such as Bloomfield and Hayes (2009) and Pinch (2008) who highlight the increased impact over the years of technology in the workplace, and the continuous increase on the effect of this development on tasks and job characteristics. Big data analysis can be seen as another phenomenon in the stream of technological developments that has brought about change to society at large, but also more specifically in the workplace.

Studies are now starting to focus more on how new technologies generate change and impact day-to-day business practices, but moreover, role descriptions, paths of activity and decision making, thus as such the people working with the technology (Bloomfield & Hayes, 2009). That technology plays a role in organisations is something that is therefore widely seen, and something we ascribe to and see as a relevant realization when studying people who work with a new technology such as big data analysis.

It is identified by Eriksson-Zetterquist and Lindhal (2013) that technology is often not considered when social science is studied. Recently, research is gearing more towards interaction of these research areas, like Pinch (2008), where he studies the influence of technology in institutions. It is argued in the Actor Network Theory by Latour, (2005), to integrate human and non-human factors when studying technology innovation and the application of technology. The emphasis in this perspective is on the intertwining of social processes and the material properties of technology. This as the implementation of a new technology can lead to various organisational outcomes and experiences (Barley, 1986). We argue in line with these researchers who argue for the relevance of considering the presence of (new) technologies in the workplace. Our perspective is seeing technologies as a social

construct, which in our view demonstrates the relevance of taking the identity construction of the people working with the new technology into account.

Studies on new technologies are now starting to be aimed at finding out more on how new technology are impacting the day-to-day business practices, but also, role descriptions, paths of activity and decisions making (Bloomfield & Hayes, 2009). An important perspective on these type of studies is made by Orlikowski (2010), who argues that technologies and its impact, needs to be studied and analysed in their own particular circumstances and environment, meaning new technologies like big data and big data analysis should be studied separately from other technological developments. This is a view that we as authors share, and one of the reasons decided to study the phenomenon of big data analysis technology, while focusing on the specific group of salespeople. Our perspective is to look at salespeople's identity construction, how they position themselves in relation to big data analysis, and what their perception of the technology is.

### **1.3 IDENTITY**

Acknowledging that technology is a socially constructed phenomenon that interacts with people in the workplace makes us interested in the interaction with salespeople's identity. This as the development of identity is very much a social process (Alvesson & Robertson, 2006; Weick, 1995). It is Weick (2010 p. 461) who furthermore states on identity: 'it can be seen as: [...] a person's sense of who he or she is in a setting; what threat to this sense of self the setting contains; and what is available to enhance, continue and render efficacious that sense of who one is all provide a centre from which judgments of relevance and sense fan out'. Meaning that a person's identity is very much at the heart of the sensemaking process for people. The sensemaking of one's identity is described as having become a central concept in efforts to portray behaviour of both individuals as well as them as members of organisations (Gioia et al., 2002), behaviour we argue to be relevant when implementing a new technology in the workplace. This as we take the viewpoint that there is an intertwining within the social process and the material attributes of technology. Moreover, taking the perspective that technology people's identity construction is argued to be influenced by several factors, both personal but also situational factors (Kahn, 1990), leads us to believe there being a phenomenon with the identity construction of salespeople working with big data analysis, that is worth to be explored.

## **1.4 RESEARCH CONTEXT**

As we ascribe to Orlikowski (2010) that technological phenomenon should be studied individually and in their specific situation, is why we decided to look for a specific research context. An area where big data analysis is believed to have a great impact is sales. For example Forbes Magazine (2013) states that it is “the biggest game-changing opportunity” for sales since the introduction of the Internet. It is believed that salespeople will successively adopt methods of big data analysis in order to target prospective clients and that this technology will take the place of the “gut feel” when trying to predict sales, as argued by business news website, INC, (2015). This particularly got our interest, as we both have experience from the analytics-industry and sales. Johan working at an IT-company where big-data is very much at the heart of the business, Erik, coming from a sales background.

## **1.5 AIMS & OBJECTIVES**

Due to our interpretive standpoint, our aim in this research is to explore and thus achieve an increased understanding of how salespeople working with big data analysis construct their identity. We aim to thereby contribute to the existing literature on technology implementation, by exploring the potential role of identity construction and identity work in this process. Furthermore, we aim to find how salespeople perceive big data analysis and position themselves in relation to it.

These research aims guided us to the following research question:

- *How do salespeople working with big data analysis construct their identity?*

To answer this research question we conducted a qualitative research study. Drawing on semi-structured interviews with salespeople in Sweden, Switzerland, The United Kingdom, Germany and the Netherlands. In total 8 semi-structured with salespeople working with big data analysis in their work contributed to this study

## **1.6 OUTLINE OF THE THESIS**

This thesis is structured in six main chapters, namely: introduction, literature review & theoretical review, methodology, findings, discussion & analysis and conclusion. After having introduced our topic of study within this chapter, we will provide the theoretical background and base for this study in chapter two. This by giving an outline and review of relevant literature on big data, technology implementation and the concepts of identity construction and identity work. Moreover, it will give an insight into how we as researchers view and refer to these concepts within this study.

The third chapter, methodology, will introduce our philosophical grounding, our research approach- and design. Furthermore, we will showcase how we conducted our research and which methods we used to analyse our collected empirical data. Our empirical findings from the interviews will be presented in the fourth chapter. Fifthly, a discussion and analysis of the presented findings will be performed. In our final chapter, we will present our conclusions drawn from the analysis of our data as well as self-critically discuss the limitations of our study and highlight some possible future research areas.

## 2 LITERATURE & THEORY REVIEW

In this this chapter we present the reviewed literature, which helped us to gain a deeper understanding of the different relevant topics as a basis for the analysis in our study. We will present an outline of the literature on big data analysis and the implementation as well as application of new technologies in the workplace. Thereafter, a description of the literature on identity, the construction of identity and identity work will be provided. This allows for drawing upon existing theories, contextualize our topic within this literature and build a theoretical perspective that guides our study that is the basis of our analysis that will lead to us answering our research question.

### 2.1 BIG DATA & BIG DATA ANALYSIS

Philip Russom (2011) describes the data being collected as having three main characteristics, volume, velocity and variety. This means that the data that is being collected has to be in large volumes, and it is usually measured in terabytes or petabytes. The variety means that the data is coming from a variety of internet-enabled sources. These sources could for example include logs, clickstreams and social media. The velocity of the data can be seen as the frequency of the data generation, i.e. how fast the data is generated. Researchers have conducted studies on primarily trying to get a common definition of “Big Data”. For example De Mauro, Greco and Grimaldi (2015) do a survey of some of the existing definitions of the term in their study. Their proposed formal definition, which we ascribe to, is:

*“Big Data represents the Information assets characterized by such a High Volume, Velocity and Variety to require specific Technology and Analytical Methods for its transformation into Value.”* (De Mauro et al. 2015, pp.103).

This data that is being collected and defined as big data, is used in order to perform big data analysis. This is the procedure of performing advanced analytic techniques on the big data. Philip Russom (2011) uses this definition when performing a study where he tries to map out what users call the procedure of big data analysis. His findings show that there is no consensus on what this analytic procedure should be called. As can be seen in figure 1, there are over eight different names for big data analysis, and almost half of the respondents used a unique term in order to describe big data analysis. Overall we agree with the above-stated notions that big data and big data analysis are hard to define, hence they will be named differently by people. The

different terms are used interchangeably in the literature that we have reviewed, in order to study the phenomenon of big data analysis we will view the different terms and definitions as one research phenomenon as it stems from the same technology.



Figure 1: Definitions of Big Data Analysis, Philip Russom (2011)

Since big data and big data analysis is a rather new technological development, the studies that have been conducted within the management field have been geared towards a wide variety of business activities, such as, decision-making, customer intelligence, quality management, supply chain management and risk management (Elgendy & Elragal, 2014). In the variety of the studies that have been conducted, we identified two different perspectives. These are the positivist and the critical perspective.

**2.1.1 POSITIVIST PERSPECTIVE**

In this subchapter we will present the positivist perspective of this research. There has been research on how big data has transformed and improved various industries, such as insurance, online retailers and even specific industries as university presses (Greco & Aiss, 2015). One implication that big data analysis is argued to have is, an influence on decision-making. Henry and Venkatraman (2015) are some of the researchers that argue for the influence on traditional decision-making. Conventionally, a manager gets information about the situation via reports from systems and business intelligence, and combines that with skills, past experiences, biases, intuitions, among other things in order to come up with a decision. It is also important to consider luck, since the uncertainty of external factors is often high. This makes the process very subjective and based on past experiences of decision makers. With the use of big data analysis this subjectivity could potentially decrease as argued by Henry and Venkatraman (2015) as illustrated in figure 2 They ascribe to the view that if managers have access to information that comes from real time big data and big data analysis they will have access to

real time deep insights about the subject. Making their decisions more objective, based on actual events, relying less on subjective inputs and past experience.

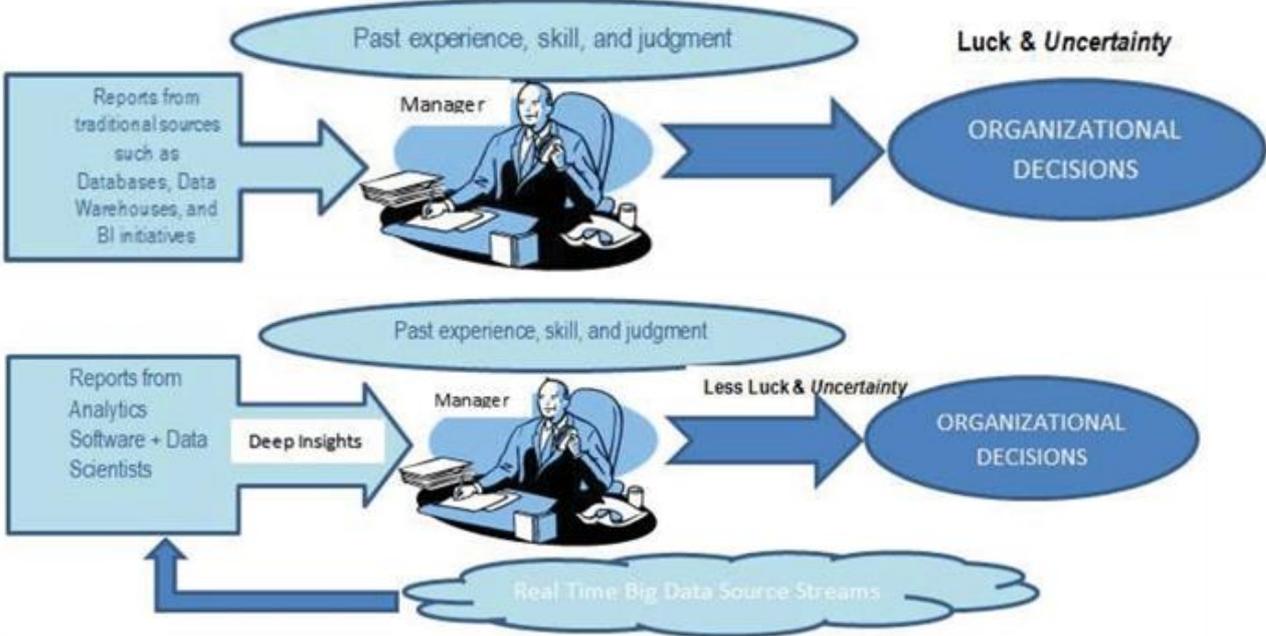


Figure 2: Decision-making model, Henry and Venkatraman (2015)

McGuire, Manyika and Chui (2012) takes the implications for management even further and present a rather radical view that big data analysis could replace management in some areas, while at the same time enhance productivity. They point out an oil company that implemented the technique and were able to cut operation and staffing costs by 10 to 25 percent, and at the same time increasing production by 5 percent. They also point out the opportunities for sales-departments of using big data. It could be used in a way that enables the sales team to recognize when customers are near a potential purchase and give the team different suggestions that could nudge the potential buyer over the edge.

McAfee and Brynjolfson (2012) present that companies who are using big data and data driven decision-making are more productive and profitable than other organizations. They also present some challenges for management, one of these is the challenge of changing the company culture and move away from acting on hunches and instinct.

After assessing the positivistic literature on big data and big data analysis it becomes evident to us that there are factors that are not taken into account. For example it does not investigate if

there could be any problems with applying the technology, and it does not address the hurdle of actual implementation of the technology.

### **2.1.2 CRITICAL PERSPECTIVE**

What seems to be lacking in most literature is a reality check on the effect big data analysis might have. As with any new phenomenon it is essential to critically assess and give room to a more critical perspective.

There is a group of researchers that display some caution on whether big data actually brings such great opportunities. It is for instance Pope, Halford, Tinati and Weal (2014), who ascribe to this more critical perspective when they voice three areas of concern about big data, questioning the accessibility, classification and the linkage of data. They also point out that data alone does not tell anyone anything, since it is dependent on who analyses it. In addition to this, there is research that points to the cognitive limitations of our brains, and how we will not be able to deal with the amount, and complexity of the data (Weinberger, 2012). We argue from the lack of literature representing this critical perspective, that this critical view seems to be overpowered by all the positive expectations and experience with the technology, losing sight of this more restraint reality. Therefore there is a need to listen to this more cautious perspective and explore and find out more, as people working with big data analysis might share this perspective and view.

What we find to be lacking in the research on big data analysis, is studies on the implications of implementing this new technology. The effect on the people working with big data analysis does not seem to be a factor in research on big data and big data analysis. There is no research on how people perceive big data analysis or how this might affect their identity. Potentially, this is caused by the fact it is a rather new phenomenon, however, this does not take away the fact it is relevant to consider. As a result we decided to look at existing studies on technology implementation.

## **2.2 TECHNOLOGY IMPLEMENTATION**

There is no specific research available on how people perceive big data analysis or on people's identity construction in regards to implementing big data analysis as a new technology in the workplace. Therefore we reviewed the existing literature on the introduction and application of technologies in the workplace.

Early studies of technology focused on creating models that look at the introduction and acceptance of new technologies, such as the theory of planned behaviour, (Ajzen, 1991) aiming to explain someone's individual intention to adopt and use a technology. Or Thompson et al. (1991) who looked at the predicted usage rather than people's intention to use the new technology. Later, Compeu and Higgins (1995), studied how the expected outcome on self-efficacy can be guiding individual behaviour in the adoption of new technology.

In more recent years, most research has been done specifically in the area of introducing information technology in the workplace ( Davis et al., 1992; McCauley and Ala, 1992; Keil, 1995; Kumar et al., 1998; Edmondson et al., 2001). These studies have identified several challenges in the process of the implementing new technologies, related to organizational characteristics, technological problems but also behavioural problems involving users, for instance, strong resistance and hostility towards the new technology.

One of the most predominant implementation models in IT was created by Kwon and Zmud (1987), where they describe the process of introducing a new technology in the workplace and the process of acceptance in six clear steps. These steps are: initiation, organisational adoption, organisational adaptation, user adoption, established use and infusion. The reason this is a widely accepted and used model is the fact it is hinged on the famous change model by Lewin (1952) as stated by Cooper and Zmud, (1990). Also several other researchers in this area of study, such as Premkumar et al., (1994) have done studies using this six-stage model as a framework to analyse and study the process of technology implementation.

Researchers have over the years altered their views and perspective on technology several times, thus impacting the way it should be studied. It can be found that technology like many other concepts is something that is difficult to grasp in one clear definition (Eriksson-Zetterquist & Lindhal, 2013). Some see it as a method for channelling and associating human and non-human forces (Law, 1987) or as, "knowledge that can be studied, codified, and taught to others" (Berniker, 1987 p. 10). Others define it as an external and objective force, which determines

how an organisation is structured (Orlikowski, 1992), to the focus being on how technology plays a role in social action (Barley, 1986).

New perspectives really started to come about when Latour and Woolgar (1986), demonstrated that scientific facts were constructed. This came as a surprise for many others, as it led away from thinking that facts were objective. As a result a new approach with a different perspective arose, where the sociology of science got a more prominent role in the discussion on the position of technology. This led to ethnographic studies conducted in the field of technology implementation, for instance Kunda, (1991), who focused on technology as both a practice and a culture and how these two socially interact. It is in this perspective when technology is no longer considered being a constant, but seeing it as a social phenomenon that is worth exploring. Studying its presence in the particular work context of people who work with this technology. Researchers in favour of this have put the emphasis on the intertwining of social processes and material properties of technology, in the perception of whether new technology enable or limits work life experiences (Barley, Meyerson & Grodal, 2011). But also Prasad (1993) who mentions the more symbolic processes taking place during technological change. Where she talks about the fact that people can hold multiple meanings towards new technologies, such as anxiety, hope, dreams and how this differs amongst people.

Acknowledging this, it is researchers like Wajcman and Rose (2011) who started looking at the impact of new technologies on workers and their personal perception. In a study by Barley, Meyerson and Grodal (2011), they interviewed people on their perception and feelings related to how email was putting a strain on them. Where they also found and emphasized the symbolic aspect of the constantly perceived feeling of being connected, but also their perception of having to produce more, being enabled by email. Barley, Meyerson and Grodal, (2011), are saying that technology is often left out when management and social norms are studied by social scientists. However, they also point out the strong recent interest by organizational scholars such as Pinch (2008), who ask questions such as, how the telephone changed society?

Orlikowski (2010) points out that many technologies and its impact need to be studied and analysed in their own particular circumstances and environment, not as part of a general study on technology. Thus arguing, that there is room for studies of new and upcoming technologies such as big data analysis. The studies should focus on the particular implications of introducing

this new technology, what to take into account and the people affected by it. As a result these studies should provide a better understanding of how successful technology implementation can be achieved. This focus contrasts with more traditional sociologists who have a more constructivist view. Grint and Woolgar, 1997) argue for example, that technology itself hardly matters in discussions on processes of social change.

Studies are now starting to focus more on how new technologies generate change and impact day-to-day business practices, role descriptions, paths of activity and decision making, thus as such the people working with the technology (Bloomfield & Hayes, 2009).

There is agreement amongst both scholars such as Bloomfield and Hayes (2009) and Pinch (2008) but also extensive business reports by Forbes business Magazine (2015) and by the McKinsey Global Institute (2011) of consultancy firm McKinsey, who stress the increased impact over the years of technology in both management and other work tasks and the ever-continuing increase of this development. It is nonetheless important to stay critical of these perspectives, especially the latter might stand to gain from this development. Technology playing a role in organisations is something that is widely agreed upon and something we ascribe to and see as a relevant realization when studying people who work with a new technology such as big data analysis.

### **2.3 IDENTITY**

Various scholars point out that there are many definitions and interpretations of identity, (Alvesson 2010, Brown 2015; Kenny et al. 2011; Ybema et al. 2009). Identity can be related to questions such as: “Who are we?” and “What is distinctive about us?” (Alvesson et al. 2008). This can either be linked to externally oriented image-management or more internally, focused towards organisational culture. He clearly uses the term “we” and “us”, hinting at identity being something that is related to a group, which could be an organization or a team. Weick (2010 p. 461) says on identity: “it can be seen as: [...] a person’s sense of who he or she is in a setting; what threat to this sense of self the setting contains; and what is available to enhance, continue and render efficacious that sense of who one is all provide a centre from which judgments of relevance and sense fan out”. Here the identity has a more individual perspective, making it

that a person's identity is at the heart of the sense-making process. Others such as Sommer and Baumeister, (1998) say that identity should be seen as a source of meaning, this is also supported by Sveningsson and Alvesson, (2003). They define identity in their later study on manager's identity (Sveningsson & Alvesson, 2016) as "a question of how you view yourself in a particular context. Identity is about seeking to build a self-view that is consistent and coherent and can provide a relatively stable platform for orienting oneself in life and organizations". We adhere to this definition and view, thus study identity from this perspective.

Identity is something that we view as being complex, but at the same time a highly relevant concept to study in regards to technology implementation. It is important in our view to assume a critical mind-set towards assumptions about our ability to clearly define and classify this concept, as is attempted by some scholars. It is this same critical perspective we took while looking into the existing views on identity construction and the related concept of identity work.

## **2.4 IDENTITY CONSTRUCTION**

The struggle of pinpointing where identity actually takes place is evident to us. For Alvesson, Ashcraft and Thomas, (2008), the process of constructing identity loosely refers to subjective meanings and experience, to our on-going efforts to address the twin questions, "Who am I?" and—by implication—"How should I act?". The construction of identity is said to be complex, as Albert et al., (2000, p. 14) state, "there are far fewer identity givens ... and more frequent changes over the life course". This demonstrates that it is challenging to pinpoint, what someone's identity is at what point, what is constructed when and how. Nonetheless, these same researchers point out that: "Identity is problematic – and yet so crucial to how and what one values, thinks, feels and does in all social domains, including organizations – that the dynamics of identity need to be better understood" (Albert et al., 2000, p. 14). We agree that there is a strong relevance to dig into the construction of identity, when looking at organisational change, such as technology implementation.

While talking about identity it becomes clear that it is something that looking at its characteristics is rather personal, it blends in elements of your professional and personal life, about who you are at work and outside work (Nippert-Eng, 1996). Kahn (1990) writes on this, that self-definition and self-esteem intertwine with work. This implies that a change in the workplace actually could be rather overwhelming for an individual. In this study we are

focusing on the individual aspects of identity. We do this by focusing on the same questions as Sveningsson and Alvesson (2016) ask in their study on managers. These questions are: “Who am I?”, “In what ways am I similar to/different from other people?”, “Which groups do I identify with?”, “What do I stand for?” and “What is important for me?”.

There are also various opinions on whether identity can be considered as something that is created once, and is rather stable, versus the perspective of it constantly changing. We adhere to the latter and see identity as something that is fluid. Alvesson, Ashcraft and Thomas, 2008 emphasize their assumption of the presence of multiple, shifting and competing identities, while at the same time acknowledging the possibility of identities appearing more orderly and integrated in particular situations. Others argue in line with this perspective and want to stress the dynamic character of the social world, stressing it is, very much context sensitive and temporary (Ashforth, 1998). This is also a finding of Watson (2009). In his study on managers, he identified that the answer to the question of who you are as a manager, will not be the same all the time. It varies depending on the time and context this question is answered. This implies that if the context were to change, identity would be affected, something which is relevant to take into account when implementing a new technology into people’s place of work. The context for this thesis is within the workplace for salespeople working with big data analysis. When looking at people in the workplace, the construction of identity is influenced by several factors, both personal and situational factors (Kahn, 1990). Sveningsson and Alvesson (2016) present a similar perspective, when they emphasize that identity in working life is always work related and it is constructed by personal orientations and how you, develop a self-view in relation to work.

It is also found that identity very much differs amongst people. One of the reasons being it is influenced by a person’s genetic material (Gioia et al., 2002). Alternative scholars have pointed to the differences amongst societies and cultures on how identity is constructed (Castells, 1997; Williamson, 1998). This indicates as (Alvesson & Robertson, 2006; Weick, 1995) argue that the development of identity is very much a social process, taking place through interaction.

Another important element in the construction of identity is sense making, which means that people by telling stories can develop and construct their identity, this by expressing themselves through stories, to others as well as themselves. This allows for experimenting with varying identities (Ibarra, 1999). This experimenting with identities is as Denzin, (1989) mentions, a

way by which people can make sense of their own experiences, while at the same time it allows for the discovery of new ideas and types of thought processes. This process often takes places using silent dialogue (Archer, 2007), meaning it is about the things people do not say. Linde (1993) points out that the development of personal identity can therefore best be seen as a narrative, a process that is reflexive (Archer, 2007).

## **2.5 IDENTITY STRUGGLES & IDENTITY WORK**

Studies on the identity of people have found that people are not always sure, or know what they stand for. Meaning there is a discrepancy between practice and their personal ideals (Sveningsson & Alvesson, 2016), they argue this having implications for people's identity. These discrepancies can originate from organizational situations, demands, expectations and other managerial ideals. They argue that in a perfect world, our ideals would be perfectly aligned, meaning reality would perfectly reflect our ideals. We argue in line with their perspective, that in reality this is far from being the case. It is these clashes, contradictions and inconsistencies that are arguably the cause for identity work to take place.

Sveningsson and Alvesson (2016), showcase this in their study on managers, where they argue that managerial work is controlled by various contradicting and to an extent fragmented forces, which than clash with their ideals of the role of being a manager, this same argument is made by (Clarke et al. 2009; Watson 2001).

The concept of people dealing with an identity struggle was coined identity work by Snow and Anderson (1987), they refer to it as “the range of activities individuals engage in to create, present and sustain personal identities that congruent with and supportive of the self-concept” (Snow & Anderson 1987, pp. 1348). There are other perspectives on this, which have been presented by Schwalbe and Mason-Schrock (1996), who argue that identity work is both something that is accomplished at group and an individual level. They broaden the definition to: “anything people do, individually or collectively, to give meaning to themselves or others” (Schwalbe and Mason-Schrock, 1996 pp. 115). Some, as Alvesson et al., (2008) view identity work as an on-going and day-to-day routine. We agree with this view, however, there are events that trigger the need for identity work more than others. Meaning changes in work-environment, tasks or exposure to changes and development outside one's own control. In this case we think of new technological phenomena, such as big data, something that is also partially argued by

Ibarra and Barbulescu (2010), where they talk about role transitions and the affect on people's identity. This leads to various forms of, to put it in simple words, repairing but also the maintenance, reviewing and building of one's own identity.

There are different names and models on how people are engaging in Identity work and how it takes place. Stryker, Owens and White, (2000) name for example, identity amplification, where strengthening an existing identity and amplifying it leads to a strong enough identity to feel comfortable and confident with themselves. Then there is identity consolidation, where two prior incompatible identities are combined to create a new identity, thirdly they talk about identity extension where the existing identity is extended until it fits with the movement around one. And the most extreme identity transformation, where people do not work from their existing identity but truly move away from it to create a completely new one.

Sveningsson and Alvesson (2016) do also present different levels of identity struggle. In their study on managers who are aiming to build a self-view, these levels range from friction identified as being limited, to problematic.

Identity adjustment is the first level of identity work that nearly everyone goes through, as almost everyone is sometimes faced with the need to reassess how to view him or herself. Some of this goes on without thinking of it, as it is so called identity neutral, where other activities require revising people's self-view or persuading oneself, 'that's not me'. It might involve action like assuming a certain role, which in their mind will be temporary. It is argued that this is a continuous process throughout one's working life that can cause some frustration and is hard work, but will go rather smoothly.

They argue the second 'level' is identity expression, which is to be said the most common form. It occurs when people who come across a struggle to maintain a positive and also coherent self-view. This phenomenon will include compromise, but it is also achieved by expressing one's own identity and making sure it is reinforced within the organisational context. Reinforcement takes place by expressing it openly. Potentially, it can lead to conflicts, but it is done to build one's own identity.

The last non-problematic level of identity work they define is identity juggling. This arises from friction between the self-view, expectations and the demands from the environment. It leads to

a discrepancy between what you do in your job and how you view yourself in that position. They use examples of someone who is not doing the things he wants to do, it is no radical threat to the self-view, and thereby it will not cause an identity crisis. This implies that the friction is still at a manageable level.

In their study on managers they also identified two levels where the identity struggle has serious proportions, and the studied managers really showed a struggle that was problematic. They define the first one as being identity wrestling. It is characterised by the fact that someone's self-view is only slightly confirmed by others or their own accomplishments. Which leads to a situation in which their identity feels undermined, resulting in a strong need to fix, repair and reinforce this identity. Consequently, this identity will end up being maintained and reinforced – or result in a lost battle where identity crashing takes place. This identity crashing is the second and most serious level of identity struggle. This indicates a major gap and contrast between one's self-view and the environment in which the undermining takes place. Leading to an identity that is on the verge of collapsing, which Sveningsson and Alvesson termed identity crashing. They argue it does not have to mean early retirement or other extreme outcome, but someone's well-being will be seriously affected and be at a low.

## **2.6 SUMMARY OF THEORIES**

In this section we will provide a brief overview of the perspectives in the literature that we found to be most relevant in order to conduct our study. It is these definitions and perspective that we will also use in our discussion and analysis of the findings, as they provided us with a theoretical perspective.

Firstly we will demonstrate our view on big data and big data analysis, the way it plays in how business and moreover sales is conducted. Our perspective is as put forward by Henry and Venkatraman (2015), where they argue that big data analysis has a big influence on the process of decision-making. As more information has become available in the workplace, through the use of big data systems and other types of business intelligence. They argue, that past experience, skills and biases as well as intuitions of people have become less of a factor in the decision-making process with the presence of big data analysis. This represents in our view a big change in how business is being conducted as a result of technology implementation. We use this theory

going in to our study to explore whether reality is as straightforward, like this model portrays it.

Furthermore, we ascribe to scholars such as Kunda, (1991), who argue for viewing and thus studying technology as both a practice and a culture and how these two socially interact, focusing on the intertwining of social processes and material properties of the technology. In this light we argue for the relevance of taking identity into account when studying this phenomenon. This as Kahn (1990) writes, self-definition and self-esteem intertwine with work. Implying that there is relevance on studying the implementation of new technology to the workplace from an identity perspective.

Identity is in our perspective how Sommer and Baumeister (1998) say, a source of meaning, which is dependent on the context. “Identity is about seeking to build a self-view that is consistent and coherent and can provide a relatively stable platform for orienting oneself in life and organizations” (Sveningsson & Alvesson, 2016). This in our view shows that it is a fundamental concept when (technological) change is brought to the workplace.

We assume that the construction of identity is as Alvesson, Ashcraft, Thomas, (2008) put it, how people come to answer the questions of ‘Who am I?’ and—by implication—‘how should I act? Which, we presume to not be one stable portrait, but rather consisting of multiple, shifting and competing identities. In our view this is an important realization as we consider this to be in line with the social world, also being very much context sensitive and temporary (Ashforth, 1998).

We assume that identity and its construction is something of which people are not always sure, or know exactly what they stand for (Sveningsson & Alvesson, 2016). We agree with their view on potential discrepancies between practice and their personal ideals. It is in our view that these discrepancies have implications for people’s identity and thus are relevant when looking at the implementation of a new technology such as big data analysis in salespeople’s workplace.

We draw upon these perspectives to analyse our empirical data in chapter 5 to identify how the studying salespeople's identity can prove to be relevant while looking at big data analysis implementation.

# 3 METHODOLOGY

## 3.1 PHILOSOPHICAL GROUNDING

All social research is shaped by its meta-theoretical stance and methodological framework, both of which include the basic ontological and epistemological assumptions of the researchers (e.g. Alvesson & Sköldbberg, 2000; Bryman & Bell, 2007). Firstly in this chapter we will discuss our interpretivist paradigm and our personal beliefs about the nature of knowing and reality. In the second part, we will reason our qualitative research methods by considering our research design, sample, data collection and data analysis. Lastly the weaknesses, validity and reliability will be articulated by discussing our own reflexivity in this research.

## 3.2 RESEARCH APPROACH

When conducting research, several important considerations regarding theoretical and philosophical foundations have to be taken into account. Easterby-Smith et al. (2012), state that, philosophic foundations are important to research, as disregarding them has a potentially negative influence on the quality of research. Ontology and epistemology help in the search and decision for research methods, however, the always present underlying assumptions will result in there not being one best method in conducting research. Which is mainly the case as studies have different aims, leading to different research methods being applied (Holloway & Wheeler, 1996). We subscribe to the view of Alvesson and Sköldbberg (2009) who claim that studies in social science are often better handled in qualitative research since it allows for ambiguity, as interpretive possibilities make the researcher's perspective of what is being explored more visible

We ascribe to an interpretive perspective and paradigm in our study, which means that we see the world as socially constructed by multiple interpretations (Chalmers, 1999), thus not driven to finding one single truth. We think that individuals' realities are subjective and therefore there is not one fixed or single agreed upon truth to be discovered (Merriam, 2002). In our research we are consciously aware of how interpreting the world is dependent on contextual factors (Alvesson & Sköldbberg 2009), as in, individuals socially construct meaning in their interaction with reality. Moreover, since we do not believe there is one objective truth, our relativist ontological assumption is that people construct reality through inter-subjectivity. This is done by meanings in social and experiential constructions.

Our research is based in a qualitative tradition, making us interested in highlighting the salespeople's perspective, instead of confirming our own assumptions (Bryman, 2008). Therefore we aim to recognise the multiple truths that salespeople in this research present us with. Adopting this perspective, we acknowledge that there are several constructions and interpretations of reality, which change over time. Our aim is therefore to get an understanding of these different interpretations at a particular context and moment in time, to capture the various subjective meanings. This to allow for getting an increased understanding of how salespeople working with big data analysis construct their identity, how they perceive big data analysis, the potential impact on them as salespeople and how they position themselves in relation to this technology. In all this we acknowledge, it is about understanding the meaning of the different experiences by individuals, and how they interact with their social world (Merriam, 2002).

Our data will not provide us with clear-cut and complete observations. Through abductive reasoning we aim to find the likeliest explanation for the findings in the collected data (Hanson, 1958). This is done by analysing the data, seeking similarities and differences between several observations, which is done through systematic comparison and analysis. As we aim to identify patterns by the process of abduction, this will take place by moving between the collected data and the theory. Our study has a hermeneutics design, applying the hermeneutics circle during the interpretation of the interviews, we understood the text as a "whole" that give meaning to the individual parts and vice versa. By not jumping into conclusions based on individual statements made in the interviews, for example: "I don't believe that sales will exist in another 20 years", but aiming to understand these thoughts within the totality of an interview. By using the hermeneutics method we fostered our aim to create a "dialogue" between the text and ourselves as researchers interpreting the text. All to achieve a textual and self-understanding (Gadamer, 1960 as cited in Prasad, 2005 p.37). It allowed us to "listen to the text", allowing it to "speak to us" to from there create more meaningful questions for the next interviews. The conduction and interpretation of interviews was happening simultaneously, using both the "hermeneutics circle" and the "dialogue" we engaged into a theoretical endless repetitive process of the data, going back and forth until a satisfactory level of understanding was achieved. This understanding will allow us to identify themes and patterns leading to theoretical generalization (Flick, 2005).

As Mayring (2007) mentions, generalization is necessary in qualitative research, but there is a need to differentiate between the various aims of generalization. Our study will not lead to definite laws or rules, but to a contribution to the existing body of research on technology implementation. Not by creating a new model or theory, but highlighting the angle or perspective of identity work that could be considered when looking at the implementation of new technologies or future research in this area.

### **3.3 RESEARCH DESIGN**

To follow our underlying theoretical standpoint, we relied on qualitative research methods in our search for answers to our research questions. Taking into account the complexity of the concepts identity, identity construction and work we saw qualitative methods as the best suitable approach to carry out this study. This approach allows for a deeper understanding of these phenomena, while at the same time it accounts for our own stand in a world that is socially constructed.

To conduct research in a collaborative way that leads to a meaningful construction of reality, we decided on the method of interviewing. Alvesson (2003) emphasizes the relevance of this method for researching the construction of meaning. We specifically chose to use the method of semi-structured interviews, as it allows for an open dialogue, between us as interviewers and the salespeople as interviewees (Bryman & Bell, 2007). The generated data should as a result of using this method, capture the personal and thus subjective perception and views of salespeople. This allows us to capture their social construction, thus providing us with theoretical saturation. We omitted the use of structured interviews, as it would limit possibilities for creating an open dialogue. Neither did we feel confident about using unstructured interviews, as it would challenge us as unexperienced researchers, being faced with material that would be more difficult to compile and interpret (Bryman & Bell, 2007).

### **3.4 RESEARCH CONTEXT**

We decided on studying the identity construction of salespeople working with big data analysis, and then even more specifically salespeople working in B2B sales. This as we believe that

salespeople in their daily job are particularly affected by the development of big data analysis. The assumption is based on Erik's personal experience, having worked in sales for many years, while Johan is working in a company where big data is at the core of the business, seeing first-hand the implications it has on salespeople's job.

We defined several criteria to select candidates that would prove to provide us with the empirical data required to answer our research question: How do salespeople working with big data analysis construct their identity? We decided to focus our research on salespeople. This as a result of the belief they are actively affected by big data analysis technology, something which is strongly argued in dominant business literature, such as Forbes Magazine (2015) and sales strategists at for example INC (2015). Moreover, it stems from a personal interest in this line of work and profession. We targeted people, of which their main responsibilities are sales activities, being responsible for new business acquisition and managing existing relationships with clients. This was done to ensure we really got an understanding of how in particular people in this type of position construct their identity. To find out what characterizes their identity construction, as a result of being exposed to big data analysis in their sales jobs. Due to interviewing people in different organisations, we talked to salespeople with different titles, such as, account manager, district manager, sales executive, in this study we will refer to each of these job titles as salespeople, as this term covers all of these titles.

A second and most important criteria was, for them to work with big data analysis tools in their jobs, this to allow us to ask questions about practices, the implications of the technology on their job as well as their personal perception on big data analysis technology. Furthermore, we decided to focus on people working in B2B sales, this to have a clear criterion to select salespeople and increase the likeliness of them being exposed to a similar type of sales and type of big data analysis technology.

Lastly, concerning the sample size, we applied the saturation approach, as this should always be the guiding principle in research (Mason, 2010). He also mentions that as qualitative research is rarely about frequencies, as one occurrence data can have the same importance and relevance in understanding the topic. This was our aim while at the same being realistic about the limited time frame of 2 months, making the amount of 8 participants a realistic number. Big data analysis is a rather new phenomenon, finding people that work with big data analysis on a daily basis can prove to be challenging. We contacted interviewees making use of our personal

networks. The interviewees were selected on the basis of their availability and the criteria we set. To allow for anonymity and easy text reference we gave all the interviewees a number.

We do not base our study on one particular company, but on a sample of salespeople based on the stated criteria. After a discussion amongst ourselves, and our supervisor on how to select our sample, we found that it would add value to our research when interviewing salespeople in different organisations and context. This as we are interested in the profession of salespeople in general, and not in the perspectives of salespeople in one particular organisation, as this might affect their perspective and thus limit the wider applicability. Considering our research topic we felt that this approach would enable us to get a better understanding of the phenomenon of identity construction within a work environment where big data analysis is being used. Additionally, we feel it is also more interesting than the niche effects of salespeople in a specific organisational context. The company that we were initially going to work with, is a company where big data analysis is their core-business, making it harder to reveal people's true feelings and perspectives on this topic, due to them being biased. Arguably there are consequences and limitations that come with this approach. The different cultural context in which the interviews were conducted can have implications for how their identity is constructed. A limitation could be that the perspectives of these salespeople on what big data analysis is, might differ (Rossum, 2011) depending on their specific job.

### **3.5 INTERVIEW PROCESS**

For the collecting of empirical data we as mentioned used semi-structured interviews, some of these were conducted face to face, where others were conducted through Skype, this as the interviewees were not working in one organisation or geographical location.

Both of the researchers were present at most of the interviews, interchanging the roles of interviewer and note-taker. We conducted 8 interviews during a period of 2 weeks, with interviewees from Sweden, Switzerland, The United Kingdom, Germany and the Netherlands. Each interview lasted for approximately 40 minutes to one hour. This timeframe provided us as researchers with the possibility of gaining insight into the interviewees' perspectives and views of themselves, while at the same time being a reasonable duration for the interviewees to participate. All of the interviews were recorded after being granted permission by the interviewees. Each of the interviews was transcribed on the same day. To reflect and discuss some potential contextual findings we sat down after each interview, going over what we had

heard, to then make notes on the interview and make further adjustments for the next interview. The aim was for all the interviews to be conducted in English, in order for both researchers to understand and analyse the data. However, in some cases the interviewee was facilitated, 2 feeling more comfortable in their native language Swedish, where 2 others preferred their native language of Dutch. We agreed to this as it enabled the interviewees to speak freely about her perspectives and express themselves in the best possible way. The transcripts of these interviews were then translated from Swedish and Dutch into English, this to allow for easier codification and allowing us both to analyse each interview. We realized that some meaning and context might get lost in translation, but still having the original files as a reference we mostly saw benefits in this approach.

We decided to have an interview guide present at the interviews, as it provided us with an outline regarding the key topics that needed to be discussed (Kvale, 1996). Such key topics were: influence of big data analysis in their job, personal perception of big data analysis, their view on sales and being a salesperson and personal motivations. While providing guidance it allowed us a form of flexibility to ask follow-up questions where needed, to get clarification (Kvale, 1996). Typical questions during the interview were: “What constitutes a good salesperson?” and “How would you describe the sales process?”

To allow us to test our interview guide and see whether it provided us with the needed and relevant empirical material, we did a pilot interview with a salesperson before we conducted the other interviews. The pilot interview lead to some minor restructuring and rephrasing of our interview guide. We noticed that the questions we asked on their view of big data were not clearly understood by the interviewee. Overall we were very much satisfied with the data gathered from the trial interview, leaving us confident about the guide and the rest of the interviews to be conducted.

### **3.6 DATA ANALYSIS & INTERPRETATION**

We abductively analysed the gathered data, in order to identify recurring patterns or common themes (Merriam, 2002). Making use of this approach provided us with the ability to use specific data gained in the interviews. While at the same time allowing us to make some necessary changes when it came to the structure. Moreover, it provided the opportunity to continuously move between the empirical material and theories from studied literature. This for

example allowed to change our focus slightly after our first interviews, where we started out mainly focussing on their perception of big data analysis, the first outcomes steered us also towards the concept of identity construction and then particularly how salespeople do so.

For the analysis and interpretation of the empirical data we made use of the hermeneutic approach. We both transcribed half of the audio data collected from the interviews. The first read of the transcripts we did individually, openly reading it and making comments. Secondly, we read the transcripts together while comparing notes of our individual read. During this second step we aimed to identify salient themes. To be able to make sense of the collected data, the transcripts were coded, this to allow for identification of important categories and themes, which are necessary for both comparing and explaining empirical data (Ryan and Bernard, 2003). It was at this stage that we both realized that an insufficient amount of data on the perception of big data analysis had been gathered to make this the spear-point of our study. This as our interviewees put more emphasis on themselves and how they felt about working in sales and them being a salesperson. As a result we went back to the collected data with an open mind, and started with open coding to reveal themes that appeared repeatedly throughout the interviews. In the second round of coding, we aimed to align the themes with topics we identified as relevant from literature and research questions. In this process we applied what Ryan and Bernard (2003) call the method of scrutiny, we looked for repetition, salient themes, contradictions and potentially missing concepts. It is in this phase we really started to make sense of the interviews. Using the hermeneutic circle to interpret the material in a reflexive manner, as we moved between parts of the empirical material and the interviews as a whole to keep an eye on the bigger picture.

After this second read we identified more detailed codes such as: (1) Disinterest in Big Data Analysis, (2) Trooper, (3) Cultivator.

It was at this stage that we also noticed that the themes and codes started to make more sense, And interpreting the empirical data became more straightforward. Not all themes we identified from the interviews are of equal significance to the research (Ryan & Bernard 2003). Our third read was therefore aimed at finding more material to vivid picture around these themes. The selected themes we used to ultimately group our findings. During the process of grouping we were also able to identify missing data in our material.

By not directly mentioning identity, identity struggles or hinting at the presence of big data analysis within this process, we aimed to not steer them towards our research themes, but to let the data tell us what can be said about these topics. Having read the transcripts, we recognized that our findings contained a substantial amount of data that hinted at different types of identity construction and some identity work.

### **3.7 CRITICAL REFLECTION**

Qualitative research is frequently accused of being too subjective in nature (Pope & Mays, 1999). The pre-understandings of researchers are subjective, but drive the thought process, which influences how phenomena are seen. This calls for reflexivity, to increase the validity, one of the procedures that Creswell and Miller (2009, p.127) suggests, is disclosure of researchers' "personal beliefs, values, and biases that may shape their inquiry". Furthermore, they stress the importance of researchers pointing out their own biases at the beginning of the research. This will allow and facilitate the readers in understanding what biases and standpoints were present during the study, as these might influence the observations and findings. We feel our thesis will benefit from this reflexivity, since it leads to transparency on both our strengths and weaknesses throughout the study, fostering its credibility (Tracy, 2010).

One of our assumptions is the view we have on salespeople, them valuing their independence more than anything else. This was maybe infused by one of us personally identifying with salespeople and valuing this element of the sale role very highly. Originating from this was our expectation to find resistance or avoidance and to some extent hostility towards big data analysis technology. We aimed to overcome this bias by going into the interviews in a neutral way, and by reading up on salespeople that have embraced other new technologies and changes to their job. This was important in order not to fall into the trap of finding what you are expecting to find.

Our second assumption going into the research is that we expected to find that salespeople would identify big data analysis as playing a big role in their daily job. This was mainly infused by our preliminary readings on the topic, where big data analysis was presented as a disruptive technology.

Thirdly, our assumption is that we expected to experience difficulty in getting our interviewees to talk about their own perceptions and view of themselves. Assuming that there might be a

kind of “pride” of not being affected by anything and only focussing on their success stories, and not letting us in on potential challenges and doubts about themselves but also their true intrinsic motivators for the job. This assumption was also influenced by personal experiences working with salespeople and some of our preliminary readings. Much existing literature and other readings such as leading sales platform Sales Strategy (2014), are pointing towards this. We took this into account while drawing up the interview questions, by not mentioning words such as feelings or emotions, but rather focussing on letting them come up with stories to exemplify feelings and opinions. Making participants bring up their own stories and experience on their feelings of working with big data analysis, their job as a salesperson and their personal views and feelings in regards to both. Another way of dealing with this was by ensuring to create an open and honest atmosphere and focussing on asking the questions on personal views casually we aimed to avoid being led by this assumption.

## 4 FINDINGS

In this chapter we present our findings from the empirical data that can be related to our research question: How do salespeople working with big data analysis construct their identity?

While seeking to understand how salespeople working with big data analysis construct their identity, we let the collected empirical data speak for itself, and let it guide us. Firstly, we will present our findings on how salespeople talk about big data analysis in their work, to then introduce and illustrate two different metaphors of how salespeople portrait themselves. These metaphors we interpreted during our analysis of the data. Each of the interviewees was very forthcoming and open, which lead to rather elaborate explanations and thus quotes.

During the analysis of our findings we discovered that salespeople did not talk much about big data or big data analysis, its influence, position and impact on their role and job of being a salesperson. Which made us eventually zoom in on their identity construction, which resulted in detecting the two metaphors, namely the one of trooper and cultivator. However, we will start by presenting what the salespeople that are working with big data analysis had to say about this phenomenon.

### 4.1 BIG DATA ANALYSIS IN SALES

In this subchapter we will try to illustrate how the interviewed salespeople that use big data analysis in their work, perceive and view the use and position of big data analysis technology in their work. We do this in order to get an understanding if the salespeople in this study see big data analysis technology as something that is of importance for their identity construction. This will be done in two ways. First by presenting statements from the interviewees, in which they describe the different steps in the sales process where big data analysis is used. Secondly, by acknowledging the lack of detail in these statements, meaning the rather broad and not very detailed descriptions. Furthermore, the finding that the interviewed salespeople under acknowledged the presence of big data analysis by a lack of mentioning it in their statements on their decision-making in the sales processes.

When interviewee 1 was asked about the sales process at his company, he described the process in detail. When it came to the part of the process where big data analysis is used the most, he stated the following:

*“So we have websites in the main languages, customers come, prospects come, download and start a trial. STR (the department that work with big data) who does the initial contact and initial qualification, they kind of go through all the shit. This is not interesting, this I interesting, oh well, this I’m going to put through to (salesperson’s name), and he can follow up on it and I am starting the sales cycle from there. So kind of they do the first 10% and I do the remaining 90%. “ – Interviewee 1*

This statement in our minds shows that he does not value or show an interest in this part of the sales process. It is also evident that he does not see this part of the process to add much value. One could go even further in stating that he does not even see it as a part of the sales process at all, since he states *“I am starting the sales cycle from there”*. The disinterest in this part of the sales process can also be seen in interviewee 4’s statement on whether the influence of big data analysis generates any good sales leads for him, when he is asked about the sales process, he states the following:

*“I’d say I don’t really use it that much because I rather talk to people and generate leads from that. Where the main leads comes from for me comes from talking to other people, which means to other salespeople in the field working for other companies, but also we largely distribute our products through wholesalers and having a cup of coffee with guys who work in the same district but their district tends to be a bit smaller, so they are more zoomed in on the clients and who needs what. So talking to them, for me is a better way of generating leads than staring at a screen of clients that have been generated on certain criteria. So for me that is the main way of generating leads.” – Interviewee 4*

It is evident that he does not seem to believe in big data's capacity of generating leads. It is also interesting that he does not describe anything on how this process is applied, in excess of when he says: "*than staring at a screen of clients that have been generated on certain criteria*". This disinterest in the process of big data analysis can also be seen in interviewee 6's statement:

*"In our company it is, you are responsible for your own clients and your own district of clients. But the company will set, yeah basically monthly or six weeks targets, like this is going to be the focus of the next six weeks. And based upon that you will get a database with clients that have the highest potential of achieving a good result on the targets that have been set for that period. But then at the end of the day it is up to the salespeople to decide to what extent, yeah or how he is going to go about it. Because everybody will have different approaches in that. But at the end of the day the idea is to work from that database of clients that has been given to you by company and by the people who do the analysis part of the data."*- Interviewee 6

The fact that he, in our mind, sees it as something that is just there, and cannot really pin down what it is or why it is a part of the process strengthens our notion that big data analysis is not considered as being a big part of his job. Interviewee 7 does also show a hesitant attitude and a kind of "suspicion" towards big data. When he is asked if he believes big data analysis to be useful he states the following:

*This is a discussion that we have been having many times, amongst colleagues as well where we say bring it on, make a comparison of the new clients that we bring in. how much actually comes from the big data that you provide us and how much actually comes from our personal network. And to be really honest we never, they never make that comparison. It is a good question and I am curious actually to what extent it actually comes from the data and I think that is also where we as salespeople feel like "make the comparison, prove us wrong" because we strongly feel that the*

*leads that we generate ourselves are a lot more profitable and a lot more likely to succeed than the ones we get from the big database. - 7*

In our minds, this statement does not only show a disinterest in big data analysis it does also show a disbelief in its potential to be useful. Another fact that adds to this view of the salespeople under acknowledging big data analysis as part of the sales process is; they simply do not mention it when they are asked about the details of how the process is organized. To some, this might sound to be a somewhat strange rationalization. However, this is in our belief an interesting finding, as we know that big data analysis is used in their work and something they rely on. This as it was a main criteria for us in selecting the salespeople we interviewed.

## 4.2 SALESPEOPLE'S IDENTITY CONSTRUCTION

What we found when we interpreted our data was that they in fact constructed their identity in two ways. The interviewed salespeople constructed their identity by constructing themselves as being troopers and cultivators. With troopers we mean that they portray themselves as being on the frontline and making sure their respective organizations can survive. The image of the cultivator is in our view the constant talk about how important their relationships with clients is and the psychological factors involved in this process. Their focus is to preserve the contact and being the bridge between the client and the company by taking care of the client.

## 4.3 THE TROOPER

We will start this subchapter with trying to paint the reader a picture of what we mean by a trooper. This will be done by taking quotes from the interviews, and providing surrounding comments to show our perspective, the key content of this chapter however, constitutes of the quotes we identified as being relevant findings and supporting our two different identity portraits.

The picture of the trooper is a person who is "one of the few" the company revolves around and relies on, who has the confidence and ability to handle the pressure of dealing with sales, both in terms of targets and in being on the frontline of the market, battling with competitors.

The confidence and the ability to handle the pressure of targets is something that is displayed in interviewee 1's statement on how he feels about being a salesperson, when asked he stated:

*"If you like it yes, if you don't like it no, I don't believe that sales will exist in another 20 years, at least not as many salespeople, it will all be self-service. So far I like it, lot of people hate it, if you don't hit your numbers, especially in bigger companies, such as Oracle, if you don't hit your numbers for 2 quarters you're out, if you can handle that stress, yes, if you can't you shouldn't." - Interviewee 1*

This statement displays a certain “one of the few”- type of attitude, in the sense that there is only a few people that are able to handle this type of pressure on hitting the set targets. Interviewee 3 does also show this attitude but focuses a bit more on the confidence of the salesperson:

*“They may just have had a bucket of garbage over them 3 minutes before an important meeting and then they are still making it a great show. They are, are just there, those are the people, self-confidence and that's the main thing. You need that in order to cope with it. Diplomas and all of those other things are absolutely, absolutely of no interest to me.” - Interviewee 3*

Even though interviewee 3 talks in the third person, like it is about other people, when talking about the salespeople. His statements still represent this glorification of the confidence that a salesperson is supposed to have. The importance of the confidence does also shine through in Interviewee 2 and 5's statements on what constitutes a good salesperson. They state the following:

*“ I believe that being a salesperson is in your personality, of course there is different types of people who can become really successful in sales. But I do feel you got to be a strong personality, someone who is confident and believes in his own ability to make it happen, it really comes from the inside, if you don't have that I think it will be difficult to enjoy sales and be successful.” - Interviewee 2*

*“I had one customer who said, I love your product, I want to buy from you, but he wasn't signing. After a while I said, good luck and I walked away. I spent a lot of time, but you know, one of the key things is to know when to walk away. A lot of people don't dare to walk away. In fact you walk away from money and commission. But if you know it is not going to happen, accept and walk away.” - Interviewee 5*

The trooper's "one of the few"- type of attitude does not only display itself in the confidence of the salespeople. It is also displayed in the way that they describe themselves as a lone wolf that is helping the company to survive by battling on the market first hand with competitors. This attitude can be seen in interviewee 4's following statement:

*"I'd say that sales is different, because you are at the heart of the business. You are driving the business. Basically every role within an organization is at the end of the day there to satisfy the client but as a salesperson you are not just there to satisfy clients, but it is also to drive the business, bring in new business." – Interviewee 4*

The past statement emphasizes that the salesperson is the one who is driving the business, which in a sense, makes them "one of the few" that really contributes to the success of the company. This notion is even more evident in the following statement of interviewee 7:

*A sales role is very much frontline, you are usually the first point of contact for people, and that can mean when they walk in to a shop but also when you go out in the field and you visit your clients. A lot of people buy products from your company, but they have never met anyone from that company, except for you. So in that sense you are the company, they don't really care if they are buying from whatever big company you are working for, but they buy particularly from you. And they happen to like the products, which don't hurt, but the main thing is that they buy from you. So in that sense you are really the face of the company." - Interviewee 7*

In this subchapter we presented the portrait of the trooper. As can be seen in the presented statements, the trooper is a person who is confident in his abilities and seems to think that these are important in order to be "one of the few". We will now move on to the other portrait that we could construe from our empirical data, the portrait of the cultivator.

#### **4.4 THE CULTIVATOR**

In this subchapter we aim to demonstrate what we mean by a cultivator. This is a portrait of the other part of the salespeople's identity working with big data. In this portrait the person is anxious to stress the importance of existing relationships and preserving these, this is done in order to reap the benefits of having affiliations to clients by relying on the psychological factors of a relationship, thus taking care of the company's clients. It is a more sensitive portrait than the one of the trooper and contains a lot of examples of different types of communication and psychological aspects. However it is not sensitive in its nature, it is still about business relationships.

The portrait of the cultivator is a person who is very interested in listening and trying to assist the client in a way that is beneficial for them, but also for the salesperson personally. This is illustrated in a statement that interviewee 1 makes:

*“Second thing is, listening, often salespeople think you have to push a product through peoples throat. It's not true, the customers tell you what they want. You have to shape what they want, in what you can offer.” - Interviewee 1*

In this statement we believe it becomes clear, that the cultivator is trying to influence the client. By trying to shape what the client wants, the salesperson can provide an offer that can be beneficial for both the salesperson client. Interviewee 4 does also stress the importance of conversation and dialogue in his statement:

*“Yeah, like as in I think every conversation is a, is almost a sales conversation cause it always has an opening and an analysis part and an ending type of thing. And I strongly feel that for example in the way I talk is that I make everything or I naturally try, or not even trying, but make everything sound beautiful and try to be persuasive. It becomes a big part of who you are, and how you talk to people...” - Interviewee 4*

What this statement provides, in our view, is a glimpse of a person who really identifies with the role of a salesperson. It does also stress the importance of the psychological factors that exist within a meeting between two parties, where one tries to persuade the other. Interviewee 7 does also point this out in his statement:

*“ Clients are not stupid, when you talk with them you are trying to sense their responses, but this goes vice versa. They notice when you are not sure what you are talking about, it is your role to take away their doubts, they have to sense you don't have any.” – Interviewee 7*

The psychological factors are also a big part of interviewee 6's view on sales and being a salesperson. He puts an emphasis on these factors, which he claims are there in order to provide trust, and to build a relationship with the client. He states the following:

*“ First and foremost is the psychology within sales a very important factor of it. You should be able to read people and you should be able to adapt yourself to different situations and be humble and be able to create trust between you and the potential client. Plainly put, you should be able to create relations.” – Interviewee 6*

It is clear in our opinion that the trust that he wants to obtain is in order to sell the client the product. It is however not only this, it is also important to establish this relationship in order to create future business opportunities. This is even more clearly demonstrated by interviewee 8's following statement:

*“It is not just about generating new business, I think a big part of my job is to make sure we don't lose our clients, like some of my clients have been with our company for years, losing them would really be a big problem.”  
– Interviewee 8*

The focus on psychological factors and relationship building traits is also something that is evident in interviewee 5's statement. It has also a particular focus on trying to help and take care of the client. He sees it almost like he is working for the client. He states the following:

*“I view sales as something positive, because it is something that actually makes it possible to develop the companies that you work for, or yeah, sell to. The meeting with the client is especially fun for me, I am driven by these meetings in particular...” – Interviewee 5*

In this subchapter we have presented the portrait of salespeople as cultivators. What we believe is evident in this portrait is that they see themselves as people who are developing the company's existing clients, as well as taking care of them. There is a focus on relationship building traits that are used both for personal gains by selling more or to ease the process for future business. The focus is also aimed at providing the clients with the feeling they are being helped and developed into better companies. In this they present a picture of them being the center of these business relationships, hinting that it is only them who can facilitate this.

#### **4.5 SUMMARY OF THE FINDINGS**

What we found in this chapter is that the salespeople working with big data analysis do not seem to be interested in using it as a part of the sales process. They present a picture where big data analysis does not play a big role in their work. The salespeople that work with big data analysis try to portray a reality in which they are centralizing their own capabilities as being the key to succeed within their job. This is done through the two pictures of them being a trooper and a cultivator.

## 5 Analysis and Discussion

Within the first section of this chapter, we will analyse the findings outlined in chapter 4, interpreting, discussing and relating it to existing literature. The key findings will then be highlighted and our research question will be answered. The second part of this chapter is our discussion, where we will discuss our analysis and findings and relate it to theory.

### 5.1 BIG DATA

What we noticed after having studied the interviews is that the salespeople working with big data analysis displayed a disinterest towards it. They did not mention it as a factor in the decision-making process, not in the decision of which leads to follow, what clients they should focus on or while talking about how they were able to be successful in their job. In fact, it was not a part of their decision-making process at all. This, in our opinion, opposes the view of Henry and Venkatraman (2015) which we ascribe to, they argue that big data analysis has a big influence on the process of decision-making and that past experience, skills and biases as well as intuitions are less of a factor in the decision-making process when big data analysis is applied.

This is furthermore demonstrated in the lack of detail in the statements made by the four interviewees who actually mentioned something regarding big data analysis in their answers. They were not able to pin point what it is exactly, and in what way the big data analysis added value to the process, this in regards to generating leads and business for them. The interviewed salespeople that do make statements regarding big data analysis do this in a way that we view as negligent. They either showcase a disbelief in its' capabilities of adding anything, or a denial of the process playing a role. A finding that adds to this notion is that half of the salespeople did not mention big data analysis at all when asked about the sales process, thus dis-positioning themselves from it. According to Henry and Venkatraman (2015) big data analysis should play a big role in decision-making but after we assessing our findings it is evident that this is not the case. Our findings in this section indicate to us that the process of big data analysis is not implemented in a way that it is totally integrated in how salespeople make their decisions. The tone, in which they talk about big data analysis, indicates they have not embraced it and do not identify with the technology and the process.

We were startled by the fact that the interviewees, that we know use big data analysis in their work, did not reflect its presence or importance. As can be seen clearly by the findings on whether the salespeople view it as a part of their job, which is not the case. This struck us as an interesting phenomenon, leaving us with an interest in exploring how salespeople working with big data analysis do construct their own identity, how they answer the questions about “Who they are?” and “How they should act?” (Sveningsson & Alvesson, 2016).

## **5.2 THE PROBLEM WITH THE TWO PICTURES**

The way that we found that the salespeople construct their identities, is through two different pictures, namely through being a trooper and a cultivator. As we have stated in our previous chapter, the picture of the trooper is a person who is “one of the few”, that the company revolves around and relies on, who has the confidence and ability to handle the pressure of dealing with sales, both in terms of targets and in being on the frontline of the market, battling with competitors. The picture of the cultivator is a person who is anxious to stress the importance of existing relationships and maintaining these, this is done in order to reap the benefits of having affiliations to clients and taking care of them, by relying on the psychological factors of a relationship. This is aligned with the existing theory on identity construction that there can be a presence of multiple, shifting and competing identities within a person (Alvesson, Ashcraft and Thomas, 2008). We see these two pictures as something that exists in all of the salespeople that we interviewed, to a certain extent. The pictures are context dependent as it depends on what part of their work the salespeople are talking about. We will now briefly describe these two pictures and the context in which they appear.

*Trooper:* The trooper is most evident in the context in which the salespeople are talking about how they deal with bringing in new clients. It is here the competition from other companies is more prevalent and the pressure from targets is rigorous, which can be seen as a situational factor influencing the salespeople’s identity (Kahn, 1990). The context is defined from the salespersons perspective, where identity is reflected in how you view yourself in a particular context (Sveningsson & Alvesson 2016), it is about trying to build a self-view that is coherent, which could provide a somewhat stable platform to stand on in both your personal- and work life. Within this context the salespeople view themselves as “one of the few”, putting their ability to deal with the context of achieving targets and beating the competition at the center of

their identity. A type of lone wolf metaphor shines through in the statements that are provided by them. They are very focused on traits such as confidence and their capabilities to meet targets and so on.

*Cultivator:* The context where the cultivator is the most evident is in the process of the sale itself and in dealing with clients. This is where the salespeople emphasized the need for relationship skills. This as there is, many psychological factors existent within the client-salesperson-relationship. Here salespeople put their own qualities at the heart of their job and thus identity. Something that is in line with Sommer and Baumeister (1998) who argue that identity is a source of meaning. This picture can be further explained by the importance of returning clients, providing a more intrinsic reward for the salesperson, namely the recognition from others.

We now feel that we are able to answer our research question:

- *How do salespeople that work with big data analysis construct their identity?*

The salespeople that work with big data construct their identity by centralizing their own capabilities to succeed within their job. This is done through the two pictures, trooper and cultivator, which both emphasize their personal qualities, putting these at the heart of their identity as a salesperson.

### **5.3 IDENTITY WORK**

This in our view presents a discrepancy between salespeople and their personal way of identity construction versus reality, which is the cause for identity work (Sveningsson & Alvesson, 2016). We will now move on to how our reasoning behind this has been established, to then argue why we see that identity work is taking place.

What we thought when we started this thesis was that the influence on big data on the salespeople's identities would be substantial. This was infused by both the popular business literature, as well as more academic sources, such as Henry and Venkatraman (2015). Here big data analysis is portrayed as a major factor in sales and decision-making. When we then wanted

to see how the salespeople who are working with big data analysis construct their identities, we expected the technology to have a greater impact on the identity construction. This expectation was however not confirmed by the empirical data we gathered. In our minds this is caused by the change in context, which plays a role in the identity construction (Sveningsson & Alvesson, 2016). We were expecting traits such as an analytical mindset or technical expertise in big data analysis to play a bigger part in their identity construction. Which would be caused by big data analysis having been implemented at their respective companies. Potential explanations for this phenomenon can be the fact that salespeople feel threatened by big data analysis, or them having the feeling their job and role are being limited. This in our view could be the explanation for the salespeople emphasizing their own personal qualities, this to reinforce their own role and importance.

We view this as a reinforcement of an existing identity by the salespeople, this is referred to as identity amplification by Stryker, Owens and White (2000). They argue this type of identity work takes place when people are not confident, or uncomfortable with themselves. Based on our interviews we see this situation occurring within the salespeople, where their view of their own identity is not being confirmed within their situation. Salespeople are faced with a reality where they are not sure about their own identity, this is in line with Sveningsson and Alvesson (2016) who argue, that an identity is not something people always are perfectly sure about. Another way to define the activity salespeople take part in to deal with this insecurity about their identity is identity expression (Sveningsson & Alvesson, 2016). This is said to be a situation where people struggle to keep a positive and coherent view of themselves. In our perspective this is a situation that these salespeople are faced with as a result of the implementation of big data analysis to their work. It leads to people expressing their identity openly, to allow for reinforcement of their own identity. This we recognized happened during the interviews, where the salespeople were keen to emphasize how they felt about being a salesperson, and what sales constitutes for them. This in our view is a relevant occurrence to take into account, when intending to implement a new technology into an organization.

# 6 CONCLUSION & IMPLICATIONS

## 6.1 CONCLUSION

What we can conclude from this research is that the salespeople who are working with big data analysis are constructing their identity by centralizing their own capabilities to excel at their job. This is done through the two pictures, trooper and cultivator. In the trooper they try to portray themselves as being on the frontline, and making sure their respective organizations can survive. In the image of the cultivator the salespeople have constant talk about how important their relationships with clients is, and the psychological factors involved in this process. Their focus is to preserve the contact and being the bridge between the client and the company by taking care of the client. What we found that the two pictures had in common, was that both of them emphasize their personal qualities and put them at the heart of their identity as a salesperson.

This was contradicting our assumption that big data analysis would play a big role in their identity construction, which we found not to be the reality in this case. The fact that they identified themselves as a trooper and a cultivator can be seen as an attempt to escape reality, causing a discrepancy in between the salespeople's personal ideal and the existing reality. This resulted in identity work from the salespeople's part, more specifically we argue that they take part in both identity amplification and identity expression.

## 6.2 PRACTICAL IMPLICATIONS

We believe that this has implications, which need to be considered. This to not let this discrepancy between their ideal and reality turn into a problem while organisations are making their organisations work with big data analysis, hence the following should be considered.

We think that the salespeople need to become aware of the under acknowledgement of this part of their job, particularly as big data analysis is likely to play an increasingly larger role in the future. They have to realize their role is changing, however, this does not necessarily imply they are becoming less relevant or important. Yet, different skills might become more prevalent, changing the expectations on what their job looks like within the organisation.

It is crucial that not only the salespeople acknowledge the different demands that are being put on salespeople, but the organisations should also be aware of this. Moreover, they need to understand this might lead to potential discrepancies in how salespeople construct their identity and how they view their role and the reality of the job. As this could ultimately result in salespeople having a different view of what is expected than their respected organisations. The different views and thus expectations can have implications for how satisfied and happy salespeople are with their job. Arguably, this could in return have implications for how satisfied the employers are with their salespeople performance. Organisations invest a lot of time and money into the implementation of new technologies such as big data analysis. They understandably believe in the potential of big data related technologies and the opportunities they bring. However, when not realizing the way it is perceived and viewed by people in their organisation, this could lead to not utilizing the full potential of these technologies.

The fact that salespeople do not seem to fully accept and acknowledge the potential of big data analysis, thus, not truly embracing this new context is also relevant to consider. As this could potentially lead to widening the gap between their identity construction and reality, leading to more severe levels of identity struggles, such as identity crashing.

Additionally, as the influence of big data related technologies in the workplace is likely to increase, we would suggest companies to be aware of the discrepancy that might also exist in how sales and the role of salespeople is viewed by people having the desire to work in sales. Knowing that organisations want to utilize the full (future) potential of big data analysis. Organisations should be clear on the change in role due to the big data technology does result in different requirements for the role of salespeople. Eventually, it could also have implications for how the salesperson's job and role should be marketed, providing a realistic image that does not infuse discrepancies. Thus companies might have to consider taking this into account when hiring and looking at the requirements for recruiting salespeople.

We acknowledge the context dependency of these implications, as a result it might imply different consequences depending on the context. Therefore acknowledge that these practical implications would have to be adapted to fit specific organisational environments and context, such as type of company, industry and the exact role of salespeople.

### **6.3 THEORETICAL CONTRIBUTION**

The outcome of our study indicates two main theoretical implications. Our main finding argues for the fact that salespeople under acknowledge the role of big data analysis in their work, but construct their identity by centralizing their own personal capabilities in the identity construction. This is something we believe needs to be taken into account when studying technology implementation. In the existing literature on technology implementation, identity construction and the potential for identity work are not taken into account as a major factor. In contrast the emphasis is on the technological features and making people familiar with these. Consequently, the impact of new technologies on peoples identity is not considered to be of essential relevance to the implementation process. We like to believe that we have been able to contribute to demonstrating the relevance of identity as a social factor in the process of technology implementation. Therefore, we reason that this is a finding that could be seen as fitting into a gap in the literature on technology implementation.

### **6.4 FUTURE RESEARCH**

With our study we aimed to get an increased understanding of how identity and identity construction can prove to be relevant when aiming to understand technology implementation. However, since our research is based on relatively short interviews with just eight people, the outcome is not widely generalizable. Consequently, this leads to room for further research, more specifically it would be interesting to study this phenomenon in a longitudinal study where observations in the workplace could also be used to collect empirical material.

Additionally, as big data analysis is a rather new phenomenon, we argue that to get a true understanding of the implications on people's identity, a research context where big data analysis has been present over a longer period of time, could provide insights into the long-term effects of the technology on people's identity construction.

Lastly, more study could be done on technology implementation and application where the social factors such as identity are taking into account. This to identify how new technologies in the workplace might lead to identity work taking place, as it is a situational factor that impacts people's identity. We feel that with the increased influence of technological developments, this leads to there being further research opportunities of how identity and identity work can and should be considered relevant when implementing new technologies.

## **6.5 RESEARCH LIMITATIONS**

While conducting our research study, we have acknowledged several limitations. We aimed for a high degree of reflexivity, as we wanted to acknowledge our own weaknesses and thus limitations in our study, this to defend the legitimacy of our research. As we interviewed only 8 salespeople working with big data analysis, and did so with people in different types of sales, from different (cultural) backgrounds, we are not able to draw a conclusion that universally applies to salespeople and how they construct their identity. However, our intention was never to find generally applicable findings for all salespeople. We were nonetheless able to gather rich data, leaving us confident that we had a sample allowing us to provide well-informed findings on identity construction of salespeople where big data analysis is present in the day to day job, granting a better understanding of this phenomenon.

A second limitation we experienced was the period of time in which the study had to be carried out. Studying people and truly understanding and grasping their personal views and drivers is a rather complicated process. The question can be raised whether a true understanding of someone's identity can be identified in a 40 minute interview. We feel that we really identified and touched upon the key issues considering salespeople's identity construction and identity work and the potential role for big data analysis in this process. However, we acknowledge that several more in depth interviews, observing and following people on the job would provide a deeper understanding and perhaps more insights. Other researchers and experts in the field might question the results of our thesis, this in regards to the above mentioned limitations. Yet, it should be emphasized that we were constantly aware of these and have been reflexive throughout the process, plus concepts being discussed are guided by existing relevant literature. Nonetheless, our research has its limitations and leaves room for further investigation and research.

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