The Production of Comfort - How Financial Auditors Experience that they Become Comfortable with IT-auditors

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ABSTRACT

Auditors need to feel comfortable when signing the audit in order to produce comfort to society. Today, most companies use complex IT-systems that require that an IT-audit is performed. Rarely auditors possess the sufficient knowledge to perform the IT-audit and therefore an external part of the audit team is involved, namely IT-auditors. It can therefore be problematic for the auditors to ensure the quality of this part of the audit. In this thesis we aim to widen the understanding of how IT-auditors affect how auditors experience that they become comfortable. To investigate the addressed problem the following research question is asked: How do financial auditors experience that they become comfortable with IT-auditors? Ten auditors were interviewed on how they experience the different senses of the Comfort theory to become comfortable. With these senses as background, the study’s aim is to gain a perception of how auditors in Sweden perceive that they become comfortable with IT-auditors, which makes the auditor comfortable to sign the audit. The conclusions are that certain characteristics, such as technical and social skills together with good communication and understanding of the IT-auditors work is perceived as important factors for auditors to become comfortable.

Keywords: Auditors, comfort, comfort theory, information technology, IT-auditors.
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1. INTRODUCTION

“Globalization is a fact… Not just in finance, but in communication, in technology, increasingly in culture, and in recreation”, Tony Blair, former UK Prime Minister, 2001 (Dicken, 2007, p. 3). Globalization has been a widely used term in recent decades and has provided us with not only opportunities, but also threats. The economic environment is becoming more complex and is as a consequence affecting corporations around the globe where the demand for visibility and transparency is increasing. This becomes especially evident in times of financial crises, or such as the unexpected collapses of the multibillion companies Enron and WorldCom (Cullinan, 2004; O’Connell, 2004). Even more so important, the crash of Enron also led to the collapse of one of the world’s greatest accounting firms, Arthur Andersen (Cullinan, 2004; O’Connell, 2004). This came as a consequence of the audit team not being able to detect Enron’s attempt to fraud, which also heavily affected the auditing profession (Squires, Smith, McDougall and Yeack, 2003).

Arthur Andersen was during the scandal charged with obstruction of justice for withholding, altering and destroying evidence that the Securities and Exchange Commission needed to investigate Enron (Squires et al., 2003). However, Arthur Andersen claimed that it was Enron whom had withhold crucial data of the company’s finances, but was despite this charged and ceased to be an auditing firm for publicly traded companies on the 31st of August 2002 (Chaney and Philipich, 2002; Squires et al., 2003).

Even though Arthur Andersen was later in 2005 acquitted from all charges the name and reputation of the firm was demolished (Chaney and Philipich, 2002). As Squires et al. (2003) argue, financial auditors (financial auditor will throughout the present thesis be referred to as auditor) are not trained in criminal investigation. Large companies usually have so many transactions that an audit team can only cover a sample size of those transactions, and as a result solely bring a reasonable assurance (Squires et al., 2003). Therefore, detecting all Enron’s attempts to fraud was problematic for the team auditing the company. What especially made it difficult was Enron’s complex Information Technology (IT) systems, where Arthur Andersen failed to perform the audit due to Enron’s ability to take advantage of IT’s fast development (Squires et al., 2003). The collapse of Enron became an eye opener for both society and the audit profession regarding the performance of IT-audits. As a result of the scandals the Sarbanes-Oxley Act was introduced setting the first requirements on how to perform IT-audits (Singleton, 2011). After this the demand for IT-audits have further increased as well as becoming an important part of the financial audit (financial audit will throughout the present thesis be referred to as audit) (Singleton, 2011).

Society and stakeholders (throughout the present thesis we will include stakeholders in the concept society) has come to demand visibility within audits as well as IT-audits as they need to feel secure and comfortable when making decisions (Singleton, 2011; Quick, 2012). In order to bring trust and confidence to the market, the auditing profession has become a key player and contributor to the financial stability (Carrington and Catasús, 2007; Quick, 2012). Since the
Enron collapse major changes as to how companies work, share information, both inside the company as well as towards its clients has continued to occur and corporations today work very differently compared to a few years ago. Nowadays businesses IT-functions are becoming more and more a core function, along with the change and development of technology, have increasingly demanded professionals to constantly adapt to these changes (Le Grand, 2013). Knights (2011) claims that the growing amount of information which is shared through a company’s IT-functions has led to that technology in itself is becoming a gatekeeper for corporations’ most sensitive data, and therefore the IT-department is one of the most regulated in a corporation.

The increasing use of IT has also put pressure on the auditors’ knowledge (Le Grand, 2013) to be able to produce comfort to society by providing a true and fair view of companies’ financial statements (Pentland, 1993), which in most cases are produced by IT-systems. As a consequence of this, IT-audits are becoming more and more relevant and is also expected to rise in the future and, until now, the need for IT-audits has grown even in periods when the overall demand for audits have decreased (Duval, 2013). An IT-audit is an audit of a company’s operation processes and management by monitoring the company’s IT-system (Carlin and Gallegos, 2007). The IT-audits objectives may include evaluating and assessing the reliability of information that have been provided by IT-systems, determine if actions made by the company are applicable with laws, or to detect unusual instances that might be connected to fraud (Carlin and Gallegos, 2007). Since IT often is a highly complex area of expertise it is common that audit firms includes external competence in their audit team (Vendrzyk and Bagranoff, 2003). This comes as a result of that auditors do not have the right expertise needed to fully understand these complex systems and are as a consequence not able to audit them fully on their own (Vendrzyk and Bagranoff, 2003).

The complexity and fast development of IT-functions might therefore lead to difficulties for auditors to perform quality audits. Performing quality audits has been an issue since the beginning of external audits and is one of the most researched topics within the area of auditing (Robert Knechel, Krishnan, Pevzner, Shefchik, and Velury, 2013). However, previous studies by particularly Carrington and Catasús (2007), Pentland (1993) and Sarens, De Beelde and Everaert (2009) have shown that the production of comfort by auditors is often more relevant to study than research about high quality audits. This is supported by Power (1999) who argues that the explosion of auditing comes from the need for processing risks and creating trust and comfort in a distrustworthy society. Pentland (1993) argues that auditing is a process for creating comfort where the main objective of the audit itself is to transform the financial statements from an untrustworthy state into something that the auditors and society can feel comfortable with. As the use of IT-functions within businesses has explosively increased in the previous decade (Knights, 2011; Le Grand, 2013), and that auditors today seem to lack the demanded knowledge (Vendrzyk and Bagranoff, 2003), it is relevant to discuss how auditors perceive the production of comfort in an IT-audit. Also, the scandal of Enron and the fall of Arthur Andersen, due to limited
knowledge of IT among the auditors, further shows the importance of understanding how auditors are able to produce comfort to society when performing an IT-audit.

1.2 PROBLEMATIZATION

Pentland (1993) argues that auditors produce comfort to people with interests in the audited organisation. Moreover, according to Carrington and Catasús (2007), auditors discover areas of discomfort that are turned into comfortable areas. For auditors to produce comfort to society, the auditor firstly needs to become comfortable with his or her own audit (Carrington and Catasús, 2007). How auditors produce comfort is studied by Carrington and Catasús (2007) by translating the Comfort theory, developed by Kolcaba and Kolcaba (1991), which is based on the relationship between nurses and patients. The increasing use of IT-systems in organisations can be argued to be a new area of discomfort for the auditors. This area is instead of auditors performed by IT-auditors and it is on their information the auditors need to be able to rely on (Vendrzyk and Bagranoff, 2003).

Previous research has shown that the assembly of an audit team have a high impact on the quality of the audit (O’Donnell, Arnold and Sutton, 2000a, b; Stoel, Havelka and Merhout, 2012). When the audit team decides to involve IT-auditors, which is an external part to the audit team, the assembly of the team changes. The IT-auditors provide the audit team with information that the audit team sign off with what Pentland (1993) refers to as “the sacred signature”, which in turn produces comfort (Pentland, 1993). This area of discomfort is therefore not resolved by the auditors’ own creative solutions, but instead resolved externally (Vendrzyk and Bagranoff, 2003). As argued by Manz and Simms (1989) people in leading roles feel reluctant to allocate work assignments fully to subordinates since it leads to a lack of control. Because of the need to involve IT-auditors in the audit, the auditors themselves have limited insight of what is being done within the IT-audit. Auditors might feel that they loose control and understanding of the audit that is performed and in this case it is of importance that the auditors are able to rely on the information provided by the IT-auditors.

Carrington and Catasús (2007) examine how auditors perceive the production of comfort where they mention the importance of actors, other than the auditors themselves, which can influence the production of comfort. However, the authors do not in their study examine how these other actors influence the audit and the production of comfort. Moreover, Power (1999) states that there is also limited knowledge among society regarding what leads to the production of comfort in an audit. Therefore, given the major changes in the past several years of IT-audits and the lack of research on how special competence, such as IT-auditors, influences how auditors reaches comfort, more research is both important and timely. It is vital to study how auditors’ work to ensure that they become comfortable when performing an audit together with IT-auditors where they have both limited control and understanding. In the light of what has been mentioned, and that auditors often need support from IT-auditors in order to perform an IT-audit, one may question how auditors perceive that they become comfortable when involving IT-auditors. This leads to the following research question:
1.2.1 RESEARCH QUESTION AND AIM

How do financial auditors experience that they become comfortable with IT-auditors?

When auditors are subject to a discomforting area, in this case the feeling of having limited control and understanding for the work being done by IT-auditors, it is of importance to become comfortable. The aim of this thesis is therefore to gain a perception of how auditors in Sweden perceive that they become comfortable with IT-auditors, which in turn makes auditors able to sign the audit. It is important to understand the auditors’ perspective because it is the auditors that hold full responsibility for the audit, which includes the IT-audit. To gain this perception the thesis further aims to answer the following sub questions which are based on the Comfort theory; 1) how do IT-auditors with their presence make auditors feel comfortable, 2) how do auditors experience that they become comfortable with the information produced by IT-auditors, and 3) how do auditors knowledge develop from their experience with IT-auditors. This will shed light on auditors’ perception of how the auditors become comfortable with the IT-auditors.

1.3 CONTRIBUTIONS

The present study provides academic contributions to the knowledge on how comfort is constructed and obtained in the context of auditing. In contrast to Pentland’s (1993) study, which focus on how the audit rituals produce comfort, this study will contribute more to the knowledge regarding the emotional senses of comfort creation as in accordance with Carrington and Catasús (2007) study. Practical contributions are also provided for the auditing profession in their work with IT-auditors to better understand this work relationship.

Carrington and Catasús (2007) study is performed in Sweden where they examine how senior auditors perceive the production of comfort. Their study show that an acceptable level of comfort primarily depends on the signing auditors emotional state and also that the signing auditor identify when a comfortable state is reached. Another finding is that discomfort areas constantly change together with the actions of the auditors (Carrington and Catasús, 2007). In the present study the IT-auditors are included as an element of discomfort. This new element enable the study to, in combination with the three senses of comfort, examine how comfort is produced within IT-auditing.

Further, Sarens et al. (2009) have in their study found that audit committees seek comfort regarding control environments and internal control. This comfort is provided by the expertise role of internal auditors because of their specialised knowledge within these areas (Sarens et al., 2009). In the same way as the internal auditors hold special expertise in Sarens et al.’s (2009) study the IT-auditors are in the present study the party that possesses special expertise regarding IT. The key assumption for the present thesis is the same as for Pentland (1993) and Powers (1999), namely that auditors produce comfort, in this case through IT-auditors.

Overall, the present study contributes to expanding the knowledge on how auditors perceive comfort based on information from external actors, IT-auditors. The present thesis will, based on the structure and theories of these previous studies, examine a new area, namely IT-auditors.
Studies of IT-auditors’ impact on auditors’ perception of comfort have to our knowledge not been examined previously and the present study will therefore contribute with new knowledge upon the topic. Further, the study will be based on the Swedish context, which adds to the knowledge regarding IT-auditors in the Swedish market. This limitations is taken due to the time constrains for the present study.
2. BACKGROUND - AUDITING AND INFORMATION TECHNOLOGY

This section of the thesis treats auditing and how it has become a vital building brick in securing today’s financial stability. The section also discusses the development of IT and its affect on auditing.

2.1 AUDITING AND ITS IMPORTANCE TO SOCIETY

The audit profession has grown in the past decades, especially after the world being struck by the major scandals of Enron and WorldCom, which also led to the collapse of one of the largest accounting firms, Arthur Andersen (Cullinan, 2004; O’Connell, 2004). Free, Salterio and Shearer (2009) argue that the audit profession preserve a crucial role in supervising and influencing different fields of societal and organisational life, as well as detecting fraud (Cohen, Krishnamoorthy and Wright, 2002). Auditing has become a key player in today’s society as well as an important contributor to the financial stability in bringing trust and confidence to the financial market (Quick, 2012). The auditor’s role is to bring reasonable assurance regarding if organisations’ financial statements holds a true and fair view, which should reduce the risk of material misstatements as well as decrease the risk of business failures (Newman, Patterson and Smith, 2005; Quick, 2012).

As a consequence of higher demands from society towards the auditing profession, much research has been done on the quality of an audit (Robert Knechel et al., 2012). According to DeAngelo (1981) the quality of an audit relates to the ability, or probability that the auditor manages to both detect material misstatements in the client’s accounting system, and hereinafter issue an appropriate report based on those findings. Defining audit quality has shown to be difficult and is therefore much debated but little understood (Robert Knechel, et al., 2012). Robert Knechel et al. (2012) believe that yet over two decades of research little remains certain about how to define or measure audit quality. However, Carrington (2010) goes on saying that a sufficient audit is one that meets all the demands set by the Swedish Supervisory Board of Public Accountants. Francis (2011) on the other hand says that audit quality is achieved by the issuance of the appropriate audit report where the question is of either “audit failure”, or “no audit failure”.

Measuring audit quality can therefore often seem difficult, however, Pentland (1993) argues that when the audit report is signed with the “sacred signature”, the audit has reached a level that the auditors can feel comfortable with. As difficulties with measuring audit quality has arose the discussion regarding using production of comfort as a measurement for audits has increased. As previously stated, Carrington and Catasús (2007), Pentland (1993) and Sarens et al. (2009) all discuss comfort and how auditors produce comfort in the audit. Since quality can be regarded as a subjective and problematic measurement, how auditors produce comfort becomes relevant. Instead of quality, the focus in the present thesis will therefore be put on how auditors perceive comfort production.
2.2 INFORMATION TECHNOLOGY ADVANCEMENT

In order to save time and money, IT-systems are today used in most corporations for sharing information (Knights, 2011; Management Study Guide, 2015; Stoel et al., 2012). According to Knights (2011) an increasing amount of information is nowadays shared through IT-systems, and IT has therefore become a gatekeeper for corporations’ most sensitive data.

However, the pressure for change towards the use of IT within businesses is not a new phenomenon but has been discussed widely in previous research (Dicken, 2007). Since late 1980s and early 1990s practitioners such as Forcht, Kulonda and Moates, (1987), Hartog and Rouse (1987), Kirkley (1988) and McCann (1992) all agreed upon that the job requirements and skills needed within IT were rapidly changing and increasing. Lee, Trauth and Farwell (1995) further argue that few technologies had managed to advance as swiftly as computing technology had in that time.

As mentioned, IT was quickly evolving during the 1990s and especially through the transition from analogue to digital systems (Dicken, 2007). Dicken (2007) describes this phase as digitalisation where the shift meant that all kinds of information now could be stored as “electronic digits”. The author also describes digitalisation as a key to many of the global economy’s developments and meant that information now could be easier stored, processed and manipulated by computers as well as transmitted almost instantly anywhere in the world. Therefore, Dicken (2007) argues that digitisation is the most fundamental and significant technological development in our time. This was further acknowledged by Le Grand (2013) who explained that the change within IT is today constant and that the rate of change in technology is increasing. This change is something that has affected and been recognised by most professions, among them the audit profession. Due to the argued importance of auditing and the development of IT, it is further needed to discuss how this has come to affect the profession.

2.2.1 INFORMATION TECHNOLOGY AND ITS EFFECT ON AUDITING

The increasing use of IT-systems by organisations (Knights, 2011) can be argued to result in a gap of knowledge for auditors. To be able to evaluate financial numbers, the auditors need to rely on the accuracy of the system producing the numbers. Auditors knowledge of IT-systems is, however, generally limited (Vendrzyk and Bagranoff, 2003), which creates difficulties for the auditors to produce a comforting audit. According to the American Accounting Association (1972) and INFOSEC (2015), the auditors evaluate economic actions and the IT-auditors evaluate the systems that produce the information of the same economic action.

Therefore, due to the increased reliance on IT, IT-audits have become increasingly important for providing assurance of IT to corporations (Stoel et al., 2012). The need for IT-audits has grown even in periods when the overall demand for audits has slowed where auditors with Certified Information Systems Auditor (CISA) certifications have been preferred by the audit firms according to Duval (2013). The CISA certification is a global certification for auditors with experience of IT-audit control, assurance and security (ISACA, 2015). Bordman (2013) argues
that today the CISA certification is important for auditors to have due to the fact that CISA ensures that auditors are knowledgeable in providing guidance and assurance in technology and information systems. The Standing Advisory Group as mentioned by Stoel et al. (2012) emphasises the importance of IT-audits and argue that IT-audits are used internationally for examining operations, controls, effectiveness and security of IT-systems to find potential weaknesses or opportunities. Further Weidenmier and Ramamoorti (2006) highlight the need for more research and better understanding within the field of IT-auditing. This is supported by Filipek (2007) who argues that IT-auditing is a field that requires improvements. Due to the growing importance of IT-functions the IT-audits needs to be of a quality that is capable of ensuring that the IT-functions works as intended (Weidenmier and Ramamoorti, 2006).

O’Donnell et al. (2000a, b) and Stoel et al. (2012) concludes the importance of how an audit team is formed and how well the communication within the audit team works as a major factor in performing an assuring audit. IT-auditors are an external part from the audit team but provide the audit team with information that the team later sign of as satisfying (Vendryzk and Bagranoff, 2003). As argued by Manz and Simms (1989) leaders with responsibilities feel a loss of control when allocating assignments to subordinates. Within auditing it could be argued that auditors lose control when including IT-auditors and therefore auditors need to be able to feel comfortable with the IT-auditors to sign the audit. As Carrington and Catasús (2007) and Power (1999) argue, a successful audit produce comfort, but further Power (1999) argues that there is limited knowledge of what this comfort emerges from in the audit process. Consequently, as an increasingly growing part of the audit, the IT-audit needs to produce comfort as well. This speaks for the importance of the relationship between auditors and IT-auditors, and that auditors can rely on information produced by IT-auditors.
3. PRODUCING COMFORT

In this section the concept of comfort is presented closer. First an overall presentation of comfort within auditing is made followed by a section on how the Comfort theory has emerged and how it has been used in practice. Lastly, the model used in this study is presented.

3.1 COMFORT THROUGH AUDITING

Auditing is a process for creating comfort to society, according to Pentland (1993), the audit process turns untrustworthy financial information into comfortable information and this comfort is what makes the order of the capital market possible. Auditing is not only structured, where the auditor follows certain steps in completing the audit, but also an emotional process which forms a social order that leads to comfort (Collins, 1981). Also Armstrong’s (1991) study shows that comfort is created and shared within the audit team, with the client and society.

Carrington and Catasús (2007) further mean that auditors can produce comfort for society only when they themselves achieve comfort with their work. Thus, auditors achieve comfort by creating solutions for situations where they feel discomfort (Carrington and Catasús, 2007). Power (1999) argues that a successful audit is one that creates comfort, but that our knowledge about what leads to comfort in an audit process is too low. Moreover, the American Institute of Certified Public Accountants performed interviews with auditors showing that the word comfort and its meaning is highly discussed also among auditors (Pentland, 1993). The interviewees reveal that the phrase comfort can be linked to both an emotional feeling as well as to how the audit is performed (Pentland, 1993). This emotional aspect of comfort creation is supported by Humphrey and Moizer (1990) who describes comfort more as a “gut feeling” then a rational thought.

3.2 COMFORT THEORY

The term comfort was first introduced within nursing and the first studies on the subject are also based on the nursing practice. Studies on comfort can be found as early as in the 1920th when Harmer (1926) found that the combination of environmental comfort with relief of pain was the base for a good nursing practice. Further, Orlando (1961) concluded the importance of nurses creating a good relationship with their patients for creating comfort. In 1989 Hamilton stated that comfort is multi-dimensional having different meanings to different people. Based on the different meanings of comfort and the previous studies from the nursing practice, Kolcaba and Kolcaba (1991) started studying the concept of comfort to establish a more specific meaning. According to Kolcaba and Kolcaba (1991); three senses of comfort could be found when studying the nursing practice; 1) a state of peaceful contentment and ease, 2) the relief of discomfort and 3) what makes life easy or pleasurable. The first one is when the patient is in an environment that is comfortable and gives the feeling of safety, it does not necessarily mean that the patient does not feel any pain (Peplau, 1952). The second sense is when the patient is relieved from the pain through medical care (Carpenito, 1987), and lastly, the third sense is when
the patient can recover and return to his or hers normal way of living (Kolcaba and Kolcaba, 1991). These senses fulfil different needs for reaching comfort whereas the first one is mainly psychological, the second one physical and the third one is recovering and learning (Kolcaba and Kolcaba, 1991). Further, these senses are to be seen as a parallel process and not as three steps where one follows the other (Kolcaba and Kolcaba, 1991).

Based on this conclusion, Kolcaba and Kolcaba (1991) developed the three technical senses of comfort; 1) State sense of comfort, 2) Relief sense of comfort and 3) Renewal sense of comfort.

*State sense of comfort* – Kolcaba and Kolcaba (1991) explains that the State sense of comfort is the surroundings that creates a feeling of comfort and is nothing more than a verbal institution that signals relief of discomfort to the individual. The State sense of comfort is linked to personal characteristics and to the situation where comfort is desired to occur and can be reached with or without the relief of discomfort (Kolcaba and Kolcaba, 1991).

*Relief sense of comfort* – According to Kolcaba and Kolcaba (1991) this refers to actions made to relief the person of the actual pain or discomfort. This includes finding what is causing the discomfort and making this feeling go away by finding a solution for it (Kolcaba and Kolcaba, 1991).

*Renewal sense of comfort* – In this sense the definition of comfort changes in regards to previous experience of discomfort (Kolcaba and Kolcaba, 1991). According to Kolcaba and Kolcaba (1991) what changes the level of comfort is learning, new knowledge and recovering. Further, the Renewal sense of comfort can take place early in the process as well as later and is not depending on if the patient has experienced the other two senses (Kolcaba and Kolcaba, 1991).

I. Patient with comfort needs met
II. Patients that need to be in a state of comfort
III. Patients that need to be in a state of comfort and need relief from discomfort
IV. Patients that need relief of discomfort
V. Patients that need relief of discomfort and renewal
VI. Patients that need renewal

*Figure 1. Kolcaba and Kolcaba’s (1991, p. 1307) model; The comfort needs of patients.*

Later in 1997 Vendlinski together with Kolcaba developed the Comfort theory further by combining the theory with contexts where comfort can occur. They also renamed the senses to Ease sense of comfort, Relief sense of comfort and Transcendence of comfort as a step in
adjusting the theory to be applicable to their study. Vendlinski and Kolcaba (1997) found that when one of the comfort senses is reached this will positively affecting the other senses as well, supporting the view of the three senses as parallel during the process of creating comfort. Based on Vendlinski and Kolcaba’s (1997) study, the Comfort theory can be argued to be a broader and more complex phenomenon in practise, due to the different contexts in which it can be used and the different settings it can be adjusted to. The study linking the three comfort senses with realities different contexts made it more applicable in real practice.

3.3 COMFORT WITHIN AUDITS AND IT-AUDITS - DEVELOPING THE THESIS MODEL
Carrington and Catasús (2007) expanded the contexts of which the Comfort theory can be used further by applying it on the audit practice. Carrington and Catasús (2007) give the example of how a big 4 audit firm in Sweden, which includes Deloitte, EY, KPMG and PwC, state that they use the term client and not patient or customer, but that the relationship between auditors and clients can be seen as the same kind as between nurses and patients. This, Carrington and Catasús (2007) say leads to the valid point that, even though audit clients are not patients, the creation of comfort is an obligatory point of passage for both professions. The main difference between the professions is, according to Carrington and Catasús (2007), that in nursing the patient decides when comfort is reached whereas within the audit profession it is the auditors who makes the decision when the financial statement is comfortable (Carrington and Catasús, 2007). Carrington and Catasús (2007) continue explaining differences among the professions and find that within auditing the audit reaches one special point where it becomes comforting, which is when the auditors signs the audit. Further, Carrington and Catasús (2007) elaborate how the three senses developed by Kolcaba and Kolcaba (1991) can also be seen within the audit practice. Below, the senses are further elaborated in order to suit the present thesis analytical model (see section 3.3.1), which is developed on the application on IT-auditing. The senses are furthermore strengthened with other researchers within the area of comfort and auditing to better understand how comfort is produced within an IT-audit.

State sense of comfort – The auditors have a particular level of comfort in every audit that has to be reached in order to feel comfortable, this level is the State sense of comfort. According to Carrington and Catasús (2007) it is reached when all the relevant actors has been convinced and satisfied with the situation. Due to the signing auditors experience and the professional respect that senior auditors have towards them, senior auditors are dependent on the signing auditor to identify when the audit have reached a comfortable level (Carrington and Catasús, 2007). Professionalism is also acknowledged by Frowe (2005) who argues that professionals possess specific skills and expertise that in turn conveys professional trust. Further, Carrington (2010) argues that the mere appearance or behaviour of the auditors can create comfort, which also Kolcaba and Kolcaba (1991) state when mentioning the importance of personal characteristics to create comfort. Moreover, there are some factors that will increase the level of comfort in an organisation, among these are for example a positive relationship with colleagues and good
communication (Brown, Schultz, Forsberg, King, Kocik and Butler, 2002; Walker, 2001). It is further important for employees to feel part of the team and to have good relationships with other employees to feel comfortable (Pitts, Marvel and Fernandez, 2011). When looking at personal characteristics, a difference in sharing information with colleagues can be found between introvert and extrovert employees, where the extrovert employees more often share knowledge with others (Awad and Ghaziri, 2004).

Relief sense of comfort – How the auditors are relieved of discomfort and what actions the auditor uses are the Relief sense of comfort (Carrington & Catasús, 2007). Within auditing this sense regards what specific actions the auditors use to move from discomfort to comfort (Carrington and Catasús, 2007). This further means that auditors decide what needs to be done in the audit process to reach comfort (Carrington and Catasús, 2007). Pentland (1993) found that the audit signature is the final level of reaching comfort, in the relation between firm and society, and explains that the signature is the final signal for society that the audit is trustworthy.

This phenomenon has further been studied before and within auditing the Relief sense of comfort is closely linked to the signing of an audit as well as the actions taken to reach the signing. As previously stated by Pentland (1993), Willett and Page (1996) also mention that the audit is considered complete when the audit is signed. Pentland (1993) further mentions that the more experienced auditors have to agree and sign off work completed during the audit as well and not only after being finished. Signing off during the audit is also important in order of “getting comfort” Pentland (1993) argues. After completion it is the more experienced auditors that communicate the findings to the client, therefore, it is important for the signing auditor to understand the information and findings provided to them (Willett and Page, 1996).

In other studies weaknesses has been found in regard of the level of comfort reached when signing the audit. Willett and Page (1996) elaborate wanting to test the results found by other researchers, that due to time constraints, auditors usually finds shortcuts in order to complete the audit procedures before actually being finished. This led to what Willett and Page (1996) called “premature sign off”, meaning that the auditors sign off certain audit procedures before actually completing them (Willett and Page, 1996). However, the general picture illustrated that this usually does not happen (Willett and Page, 1996), which then again showed the importance of actually understanding and being able to assure the quality of the audit by the ones responsible for it. Further, Chaney and Philipich (2002) argue that companies are willing to pay higher audit fees if they can receive, what the authors refers to, higher quality audits.

Renewal sense of comfort – Within auditing, Carrington and Catasús (2007) argue that the Renewal sense of comfort is the new level of what is acceptable auditing. The level is constantly changing and is renewed for every audit that is made and can be seen in the same way as the bar that rises in every jump performed by a high jumper (Carrington & Catasús, 2007). Sarens et al. (2009) conclude in their study that within internal auditing comfort changes due to changes within their corporation, something they argue is a renewal of comfort.
The learning culture in an organisation is highly important for developing an organisation (Andriessen and Fahlbruch, 2004). Learning from previous experience is according to Duhon and Elias (2008) linked to cultural and social factors in employees. Further, according to Simon (1991) learning is a social phenomenon and depends on what employees learn from others in the organisation and also what information is presented in the organisation. Knowledge is important since it plays a key role in organisations ability to develop (Li, 2002). Still, it is important that learning is not only documents and repositions, instead it needs to be a part of an organisation's processes and norms (Davenport and Prusak, 1998). For organisations to learn, people, processes and technology systems needs to be working (Duffield and Whitty, 2015). Further, Duffield and Whitty (2015) concludes that the combination of people and systems is the best way of organisational learning. Also, Van den Bring (2003) lifts the three aspects of people, organisation and communication technology as the three key aspects for increasing knowledge. Gupta and Govindarajan (2000) also discuss the importance of leadership in the process of learning. There is a link between management and development issues, leaders need to have a positive attitude towards learning and invest in it (Liljenberg, 2015). Davenport and Prusak (1998) argue for the importance of employees sharing knowledge, but highlights at the same time that employees rarely do share their knowledge unless it is beneficial for them to share. For the knowledge sharing process to work, trust among employees is highly important according to Scarbrough and Swan (2001). Further peoples’ personality, introvert or extrovert for example, affects the level of knowledge sharing (Awad and Ghaziri, 2004).

Finally, it is important to remember that everyone who makes a difference in the audit process is an important actor (Latour, 2005), and it is therefore not only the auditors who create comfort. Carrington and Catasús (2007) further conclude that the production of comfort is highly linked to which party is included in the process of creating comfort. This becomes especially clear when studying IT-audits where the IT-auditors play a key role in the creation of comfort for the auditors.

3.3.1 ANALYTICAL MODEL

Within IT-audits the creation of comfort becomes more complex since it is the IT-auditors who provide the auditors with information that is needs to make the auditors feel comfortable enough to sign the audit. The production of comfort is achieved firstly when the auditors themselves are comfortable with the audit that has been performed (Carrington and Catasús, 2007). When IT-auditors are involved in performing the IT-audit, the auditors themselves might feel a lack of control and understanding of the work being done by the IT-auditors and therefore experiencing this as discomforting. Kornberger, Justesen and Mouritsen (2011) argue that auditors at big 4 firms learn to perform their work through the socialisation and formation of their professional identity that they experience and further learn who to trust their work with. Since IT-auditors provide the auditors with information that is a part of the audit, the IT-auditors affect how the auditors experience that they become comfortable. Carrington and Catasús (2007) mention how other actors than the auditors are important for the production of comfort but do not study these
actors in their study. It is therefore vital to test how external actors, such as IT-auditors, affect auditors perception of becoming comfortable when put in a situation with limited understanding and control. As a result of previous studies mentioned above, the model below (Figure 2) has been created to best fit the present thesis aim and research question. For the same reason, as Carrington and Catsis (2007) and Vendlinski and Kolcaba’s (1997) studies were, the present thesis model is adjusted to better suit a study on IT-auditors. The model still contains three senses, as the original comfort model, but the senses are renamed and slightly adjusted since these names better represents the meaning of the three senses when applying them on IT-auditors. The senses are in the present study called Ease sense of comfort (developed from State sense of comfort), Relief sense of comfort and Development sense of comfort (developed from Renewal sense of comfort). Kolcaba and Kolcaba (1991) explain that the three senses are to be seen as a parallel process, to clarify this, the present study’s model is adjusted so that the three senses are all overlapping. In addition to the three senses the IT-auditor has been included in the model. This enables the study to examine the IT-auditors relation with auditors.

A. The IT-auditor as discomfort
B. Ease sense of comfort
C. Relief sense of comfort
D. Development sense of comfort
E. The auditor

Figure 2. IT-auditors through the Comfort theory.

The model shows the process of how to create comfort for auditors when performing an IT-audit. The IT-auditor is the one who directly processes the information from the IT-functions used by corporations and is therefore the first step (A) in this model. In similarity with Kolcaba and Kolcaba’s (1991) model, comfort is created through the three senses of the Comfort theory, these are named (B), (C) and (D). As mentioned, to better fit the thesis aim the three senses are named Ease sense of comfort, Relief sense of comfort and Development sense of comfort. These senses form the platform on which the IT-auditor interacts with the auditor (E), with the aim to make the auditor comfortable. The auditor (E) is an important part of the model because we study E:s perception of A-D, by interviewing auditors in the present study. Further, the three senses are all
overlapping and working as a parallel process, which is illustrated by the three senses overlapping in the model. The production of comfort is a process that relies on the interaction between the IT-auditor and the auditor, which is illustrated in the model by the arrows going both ways between these two parties.

The model enabled the present study to focus on the unique complexity that occurs when performing an IT-audit. The IT-auditor has direct knowledge of the IT-audit and has to be able to communicate the findings to the auditor in such a way that the auditor feels comfortable. At the same time it is the auditor who is responsible for the audit and will give the final statement that the audit is done, in turn meaning that the auditor is comfortable enough to sign it. Since it is the auditor’s comfort that produces comfort to society it is of importance to know what makes the auditor comfortable. Therefore the present study will focus on the auditor’s view of comfort and how they experience it, based on the adjusted model of Kolcaba and Kolcaba’s (1991) Comfort theory as well as research within comfort production and auditing. A-E is therefore based on the theoretical background that is presented in section 3.3.

A. **The IT-auditor as discomfort** – To include the IT-auditor in the audit process is uncomfortable in itself since the auditor has to rely on another party’s information when signing the audit. The IT-auditor creates discomfort for the auditor due to the lack of understanding for the IT-auditor’s work, in combination with the loss of control that occurs when the auditor allocates assignments to the IT-auditor. It is the IT-auditor that has to be experienced as comfortable for the auditor. In the present study it will be examined how auditors experience the different senses of the analytical model (Figure 2) to perceive comfort.

B. **Ease sense of comfort** – Comfort in this sense begins with the selection of the IT-auditor for the audit. It is uncomfortable not knowing who is filling this important step in the audit process, as well as who chooses the IT-audit team and what previous experiences the IT-auditor has. Further, the IT-auditor’s background, personal and professional reputation is also considered to affect this sense. Furthermore, the experience of the Ease sense of comfort comes from the overall feeling created by the IT-auditor. Included in this is both professional appearance and behaviour. In addition to this the IT-auditor needs to be perceived as easy to communicate with and be able to provide a competent and informative explanation to the auditors in a way that is understandable for the auditor. The Ease sense of comfort is the overall feeling that the IT-auditor produces to the auditor.

C. **Relief sense of comfort** – This part of producing comfort is more specific and comes from the information given from the IT-auditor to the auditor. This can be compared to the Relief sense of comfort between auditor and society where the “sacred signature” signals that the auditor is relieved of discomfort. Relief comes from all information given by the IT-auditor indicating that the IT-functions hold a desirable level of quality. It is the IT-auditor who decides what level is accepted in each case and lets the auditor know if it can
be accepted or if something needs to be improved. It is this information that becomes the 
base on which the auditors decides whether to sign the audit or not.

D. Development sense of comfort – The third sense is about how the level for what is 
expected in an IT-audit is renewed based on previous experience, both from current 
audits and from previous audits made. As a metaphor you can use a high jumper where 
the constant increase of the bar can be seen as a face of renewal, for each height that the 
jumper has overcome s(he) wants to jump higher. In the same way the auditor always 
want to raise the bar for what is acceptable and seen as good audit. To experience the 
Development sense of comfort the auditor needs to feel comfortable with that the right 
developments are made regarding education on IT-audits and communication with the 
IT-auditor without having a direct part in the IT-auditing process. Increased knowledge 
and understanding for the IT-auditor’s work will facilitate the auditors’ ability to raise the 
acceptance level of a comfortable IT-audit.

E. The auditor – In this study this can be either an authorised signing auditor that has the 
final responsibility for the audit or a senior auditor who works in the team led by an 
authorised auditor.

The theoretical expectations, which have been derived from the previous literature, are the base 
for the analytical model (Figure 2). First of, it is believed that the auditors experience discomfort 
when involving IT-auditors, it is therefore of interest to understand how auditors experience the 
senses of the analytical model. To experience the Ease sense of comfort it is expected that the IT-
auditors need to have the right behaviours and characteristics. The Relief sense of comfort is 
thought to be when the auditors and IT-auditors have a satisfactory process of working together. 
Finally, in the Development sense of comfort the auditors need to raise the bar for what is 
acceptable IT-auditing. The study is based on the assumption that the goal of experience the 
analytical model (Figure 2) is to experience enough comfort to be able to sign the audit.
4. METHODOLOGY

In this part the chosen strategy and design of the thesis is presented more closely. How data and information is collected and dealt with in regards of reliability and validity will also be discussed.

4.1 EPISTEMOLOGICAL AND ONTOLOGICAL CONSIDERATION

This study adopts an interpretivism consideration (Bryman and Bell, 2011) as the aim of this thesis is to gain a perception of how auditors in Sweden perceive that they become comfortable with IT-auditors, which in turn make the auditors able to sign the audit. This consideration is preferred since the study aims to discover how reality is perceived by the auditor. The purpose is to understand and get a perception of the relationship between auditors and IT-auditors, by answering the research question. Hence, the expectation is to derive knowledge of how the interview respondents perceive their reality (Bryman and Bell, 2011). Also, this means that the respondents are supposed to express how they observe their surroundings and not contribute with substantial facts (Saunders, Lewis and Thornhill, 2009). In this type of study it is problematic to contribute with substantial facts because the respondents express their subjective interpretations of their surroundings (Saunders et al., 2009).

How auditors experience that they become comfortable with IT-auditors might change over time due to the developing role of IT-auditors, which is stated by Duval (2013), and therefore the work relationship between auditors and IT-auditors is developing. Therefore, the empirical study of this thesis is conducted from the condition that the perceived reality of auditors is in constant change and affected by the work relationship between them and the IT-auditors, thus, in accordance with Bryman and Bell (2011) adopting a constructive consideration. However, this constant change makes it even more important to provide up to date research to understand the development of the stated problem.

4.2 RESEARCH STRATEGY

Due to the chosen interpretive perspective of this study a qualitative method was considered most suitable because of the emphasis on how individuals interpret their social world, which is the focus of a qualitative research strategy (Bryman and Bell, 2011). This considered, the study concentrates on the perception that the respondents have of the production of comfort. This thesis aim is to find an explanation behind a phenomenon, thus, foremost using an inductive orientation (Bryman and Bell, 2011). However, the study was also partly using a deductive orientation (Bryman and Bell, 2011) since the analytical model (Figure 2) includes theoretical expectations of how the auditors experience that they become comfortable. This approach can be argued to be advantageous since we aim to draw conclusions from the observations we make together with the theoretical expectations, which were used as guidelines to develop the interview questions. The concept comfort was chosen since it has a wide meaning and can be interpreted in many different ways (Kolcaba and Kolcaba, 1991). This is suitable to the present
study since it enabled us to examine the relationship between auditors and IT-auditors with as few limitations as possible. To move from discomfort to comfort involves many concepts such as control, understanding, trust, security, reliance, knowledge, among others. For this reason it is of importance to study the concept of comfort and thus using the Comfort theory.

4.3 RESEARCH DESIGN

Primary data is used in the present study, data that have been collected from interviews (Jacobsen, 2002). Interviews were performed because this way of gathering primary data was suitable to understand how auditors perceive their reality. In the present study focus is put on comfort production in IT-audits where the study consists of ten interviews with external auditors at the big 4 firms in Sweden. These firms are all global companies and therefore they are affected by global trends regarding auditing. Further, interviews were considered suitable because of the flexibility to gather information that is not based on assumptions but rather on the respondents own perceptions (Bryman and Bell, 2011). Another reason to perform a qualitative study based on interviews is that after being in contact with the big 4 firms the perception given was that the auditors are, at this time a year, busy because of their work with annual accounts and only a few of the auditors could spare the time to take part in the study.

4.3.1 INTERVIEWS

In order to achieve the aim of the thesis it was desirable that the respondents were able to speak as freely as possible but still within the scope of the research area. Therefore, the performed interviews were semi-structured, in which format themes and questions are listed and do not necessarily need to be given in a specific order depending on the development of each interview (Saunders et al., 2009). The questions were open-ended which further let the respondents formulate their answers as they wish. This enabled us to follow certain patterns within the interviews, getting the answers needed and at the same time give the respondents room to form their answers as they wish (Saunders et al., 2009).

Because this thesis examines the work between auditors and IT-auditors, the study reflects a relationship. To ask the respondents how this relationship works might be considered a sensitive subject that might affect the respondents’ willingness to answer truthfully. To prevent the respondents to answer the questions in line with what is generally accepted it was decided that the information provided by the respondents was treated confidentially. This was desirable because the respondents with this prerequisite were able to feel secure with lifting possible criticism that they have regarding this work relationship. This was further preferred to ensure that the information provided by the respondents will not be used in a non-research purpose or be used to harm the respondents in any way (Bryman and Bell, 2011). Furthermore, the questions were configured as directed to the auditors at the respondent’s firm instead of asking the respondents themselves. This was done to prevent the respondents from giving defensive answers, meaning that they would not be willing to talk about their own flaws. The respondents
were also able to decide the location for the interviews to further ensure that they felt secure to talk freely.

The ten interviews that were performed in the present study were considered sufficient to discern patterns among the interviewees to obtain a conclusion. According to Eisenhart (1989) this is called theoretical saturation and additional interviews would not contribute further as the studied phenomenon has already been confirmed by previous interviews.

4.3.2 INTERVIEW GUIDE
Because semi-structured interviews have been conducted, an interview guide (Appendix 1) was developed where themes and questions was listed, which also constituted the bases for the interviews (Bryman and Bell, 2011).

Based on the research question, the aim of this thesis is to gain a perception of how auditors in Sweden perceive that they become comfortable with IT-auditors, which in turn makes the auditors able to sign the audit. The IT-auditor’s (A) involvement can be perceived as a discomforting part of the audit process. For auditors to perceive their relationship with IT-auditors as comfortable, three sub questions, which are based on the analytical model’s (Figure 2) three senses (B-D), needs to be included; 1) how do IT-auditors with their presence make auditors feel comfortable, 2) how do auditors experience that they become comfortable with the information produced by IT-auditors and 3) how do auditors knowledge develop from their experience with IT-auditors. The auditor (E) is not subject to the interview guide since it is the auditors that are interviewed. In the interview guide (Appendix 1), 17 open-ended questions were formulated. This gave the respondents the possibility to formulate their answers freely and think of replies that could be connected to the aim of the thesis (Bryman and Bell, 2011).

Throughout the interviews the questions have been connected to the research question and to the Comfort theory. To connect the questions to the Comfort theory, answers that indicated that the auditors go through the different senses of comfort were asked. The interview questions aimed to answer how auditors perceive that they become comfortable with IT-auditors, where how questions are usually what a qualitative study aims to answer according to Bryman and Bell (2011).

4.3.2.1 TESTING OF QUESTIONS
Before the interviews were conducted, informal meetings were performed at the office of a big 4 firm in Stockholm with one senior auditor, one authorised auditor and one IT-auditor. In these situations questions were asked how the auditors and IT-auditors work together. Their answers indicated that this work relationship in many cases is considered problematic. To further make sure that this problem was possible to connect to the theoretical problem of this thesis, the interview questions were tested on one respondent. The questions were asked to a person that previously have been working as an auditor at one of the big 4 firms and that currently works with IT-audits. When the interview was performed the respondent were asked to comment on
questions that were obscure or hard to understand. The answers provided were also considered sufficient to distinguish that the theoretical problem in this thesis is relevant because the answers where in line with the operationalization of this thesis (see section 4.3.4). After the interview the respondent were asked about the overall impression of the questions and the feedback provided was mainly positive apart from a few changes of the questions to make them easier to understand.

4.3.3 RESPONDENTS

All of the respondents in this thesis are external auditors from the big 4 firms in Sweden (Appendix 2). Auditors, and not IT-auditors, have been interviewed because the aim is to understand the auditors’ perspective of how they experience comfort when IT-auditors perform an IT-audit. This is due to the fact that the auditors bear the full responsibility for the audit of which the IT-audit is a part. An advantage of interviewing auditors from the big 4 firms is that these auditors represent a similar professional group. This thesis does not aim to examining differences between how firms work with IT-auditors, and therefore it is preferred to examine firms with similar work approaches and preconditions. Also the big 4 firms work procedures are often used as an example for work procedure for other firms (Suddaby, Gendron and Lam, 2009), hence, making big 4 firms work applicable on other firms as well. The respondents furthermore work at departments within the big 4 firms that audit big organisations, which generally are organisations that have complex IT-systems and therefore IT-auditors tend to be included while auditing these organisations. Further, all of the respondents have experience from at least one audit where IT-auditors have been involved in the process. In accordance with Carrington and Catasús (2007) the targeted respondents are partly senior auditors, which are the auditors that have worked for approximately two- three years. However, based on the result of Carrington and Catasús (2007) study, that authorised auditors are an important part in the creation of comfort, authorised auditors have also be interviewed. The targeted respondents are included in the study since these are auditors that have experience within the professional field, unlike junior auditors. Consequently this group have the responsibility for the completion of the audit and are also involved in the planning of the audit. Since the research question is focused on how auditors in their professional role manage to perceive IT-auditors as comfortable, it is important that the respondents are relatively homogeneous in their professional role (Bryman and Bell, 2011). This group is considered homogeneous due to their responsibility with planning and completing the audit as well as their experience.

4.3.3.1 DATA COLLECTION

Contact with the respondents has mainly been through personal contacts. With personal contacts, we refer to contacts with firm representatives from student events and tips from these representatives of suitable respondents. At first, emails were sent to the Human Resources departments of all the big 4 firms. All the firms responded that they rarely participate in theses due to a high rate of requests from students. Therefore, personal contacts were a preferable alternative. First the respondents were asked by email, phone or face-to-face to participate in the
research and when they accepted they were sent an email with a short presentation of the subject and the aim of the thesis. The reason to inform the respondents about the aim was to increase informed consent and give the respondents an opportunity to decide if this was a study they wanted to participate in or not, thus they could decline their acceptance to participate (Bryman and Bell, 2011). Further, the interviews were recorded and continued for approximately 30 to 60 minutes. The interviews were transcribed and sent back to the respondents if they wished to take part of their answers and also see if everything was understood correctly.

4.3.4 OPERATIONALIZATION

In this section the theoretical expectations that are based on the present study’s analytical model (Figure 2) are presented. Each section, A to D, is further named with the same letters as in the analytical model (Figure 2).

4.3.4.1 A: THE IT-AUDITOR AS DISCOMFORT

The first section of the interview guide (question 1-5) aims to answer if the auditors perceive that the decision of including IT-auditors in an audit is perceived as discomforting. In this context IT-auditors create discomfort for the auditors due to the lack of understanding for the IT-auditors work, in combination with the loss of control that occurs when the auditors allocates assignments to the IT-auditors. To distinguish this we wanted to know what experience the auditors have with IT-auditors as their experience might affect the auditors’ perception of discomfort. Further, we wanted to know how the auditors feel when the decision of including IT-auditors is made and why. This indicates how the auditors perceive that IT-auditors might be helpful to the audit or not. Also, the respondents were asked about the process of an IT-audit, their knowledge of the IT-auditors work and if the auditors feel that their knowledge regarding IT-auditors work is sufficient. If the auditors’ answers indicated lack of knowledge for how the IT-auditors work, the IT-auditors can be interpreted as a discomfort.

4.3.4.2 B: EASE SENSE OF COMFORT

The second section of the interview guide (question 6-9) focused on questions regarding the Ease sense of comfort, and how IT-auditors with their presence can make auditors feel comfortable. Questions that would answer what knowledge that the IT-auditors possess that the auditors did not, aimed to shed light on why the auditors felt that the IT-auditors was needed. Also, how the selection of IT-auditors is handled was asked, and if the auditors found this important in order to see whether this was crucial to increase the level of comfort. It was of further importance to reveal if there are certain characteristics that the auditors found important for the IT-auditors. The answers could however differentiate heavily from auditor to auditor since this sense is experienced differently depending on the respondent, as it is a state of mind. Lastly we wanted to discover what role the IT-auditors and the auditors take on during an audit. This was significant in order to observe if the current situation was comfortable to the auditors.
4.3.4.3 C: RELIEF SENSE OF COMFORT

The third section of the interview guide (question 10-13) was developed to bring clarity regarding what information or feedback the auditors receive from the IT-auditors to feel comfortable enough to sign the audit. This section was based on the Relief sense of comfort and regards what practical actions that are undertaken to move from discomfort to comfort. The questions aimed to give answers to how an IT-audit is planned. Also, the questions were formulated to answer what information the auditors receive from the IT-auditors and how that information reaches the auditors. The auditors should be provided with information from the IT-auditors, this since it is this information that becomes the foundation for the auditors comfort. The level of information provided and how this is done provides us with information of how the foundation on which the auditors makes his or hers decision is given. Further, to be able to perceive comfortable with the feedback given from the IT-auditors the auditors need to be able to understand the information given. Therefore, questions were asked if the feedback from the IT-auditors has ever been hard to understand, what is done to understand it and if the auditors ever have questioned the feedback. To get a better understanding of who makes the decisions regarding when comfort is experienced in an IT-audit a question was asked on who decides when the IT-audit is finished. This is important to get an understanding of since it is the auditors that in the end are accountable for any faults in the IT-audit.

Finally, to let the auditors share their opinion on how the IT-audit process works a question regarding the IT-audit process sufficiency was asked. This showed if the auditors perceive that the IT-audit process makes them feel comfort or if they perceive the process insufficient and unable them to experience comfort.

4.3.4.4 D: DEVELOPMENT SENSE OF COMFORT

The last section of the interview guide (question 14-17) focuses on the Development sense of comfort. Here the respondents were asked if their work with the IT-auditors is developed in regards to communication and understanding towards the IT-auditors work during the audit itself, this to understand if the auditors continuously learn. The respondents were also asked if they perceive that their knowledge of IT-auditors’ work has increased from their experiences and if the audit team together process the information produced by IT-auditors. This is important to be able to distinguish if the requirements on IT-audits increases along with auditors increased knowledge. The last question was if the auditors get continuous education from their firm regarding IT-auditors work. This indicates that the firm increases the employees’ knowledge of IT-audits and the requirements on their employees which in turn would improve the processes regarding work between auditors and IT-auditors.

4.4 RELIABILITY AND VALIDITY

To be able to conduct a study with as high reliability and validity as possible, a few considerations have been taken into account when performing the interviews. Also, considerations regarding generalisation have been reviewed.
The open-ended questions that were asked during the interviews were used to prevent conductive questions. This has minimised the risk of the respondent being affected by our perceptions during the interviews, which according to Saunders et al. (2009), is referred to as interviewer bias. The risk that the respondents would not feel comfortable with answering the questions truthfully, called interviewee or response bias, were reduced by handling the respondents information confidentially (Saunders et al., 2009). To further prevent interviewee bias the respondents were able to choose the location of the interview to be able to feel as secure as possible to talk freely.

External reliability is another difficulty while conducting a quality research. However, as this study aims to reflect reality at a specific time, other researchers might not reach the same results as in this study if trying to perform similar studies at a different time (Saunders et al., 2009). IT-auditing is developing (Duval, 2013), indicating that the role of IT-auditors will change, which also may affect the role of the auditor.

What this thesis strive to contribute with to existing research is an in depth description of the unique situation that auditors at big 4 firms are subject to when involving IT-auditors in the audit. Hence, intending to provide a detailed description of this relationship. Other researchers can then use this description as a base when referring to similar situations and judging if the findings from the present research is applicable to their research (Bryman and Bell, 2011). To make sure that the interviews were held within the scope of this research, the interview guide was developed (section 4.3.2 and Appendix 1). The guide helped to ensure that all themes that was intended to be covered during the interviews was in fact covered. The configuration of the interview guide facilitated to match observations made during the interviews with the analytical model (Figure 2) which is based on the Comfort theory, thus connecting observations with concepts (Bryman and Bell, 2011). Further, the analytical model (Figure 2) have been used to ensure that the obtained observation from the interviews have been analysed in the same way by the whole research team. Possible answers from the interviews have been categorised in the interview guide to indicate the different parts of the analytical model (Figure 2), preventing various analytical conclusions within the research team (Bryman and Bell, 2011).

4.4.1 LITERATURE CRITIQUE

It is of importance to critically review the theories that are chosen in a study as the quality of the theories affects the quality of the analysis (Saunders, 2006). Therefore, it is of interest to take some aspects into account, for example, if the previous literature is objective and what is considered to be established knowledge (Saunders, 2006). In answering the present thesis research question and aim, the Comfort theory developed by Kolcaba and Kolcaba’s (1991) has been used. This study is based on a different industry, namely nursing, which might make it difficult to generalise their findings to the present study. To convert the Comfort theory into an auditing setting, Carrington and Catasús (2007) study that applies the Comfort theory within auditing, is used as verification that the theory can be applied to other settings. To not solely rely
on Carrington and Catasús (2007) study, other researchers within the business area that study auditing and comfort has been used as complement to develop the analytical model (Figure 2). To complement the theoretical base further we have searched for specific keywords, such as comfort, auditing and IT-auditing, on conventionally accepted databases. We argue, in line with Saunders et al. (2006), that the present study has reached a point of saturation within our theory section and that additional literature would not contribute to the relevance.
This section firstly presents the empirical findings, which are based on and named with the same letters, A-D, as in the analytical model (Figure 2). These are further followed by an analysis of each sense.

Figure 2. IT-auditors through the Comfort theory.

5.1 A: THE IT-AUDITOR AS DISCOMFORTING

All the respondents acknowledged that IT is becoming more and more relevant and agreed upon that the demand for IT-auditing is ever so increasing. When asked when IT-auditors are involved in the audit all the respondents mentioned it to be during the planning process. The respondents explained that IT-auditors are most likely to be involved when the company audited has such complex IT-functions that the auditors lack the knowledge to perform the IT-audit by themselves.

“I usually order the specialist help myself to try to make them a part of the audit team, they should not, in my world, be seen as some specialist working separately, but rather be a part of us.” – Auditor 4

When asked how it felt to include IT-auditors the respondents did not express discomfort since they considered it to be a natural part of the audit, but also something that has developed through the years and made IT an expected component when performing audits. Auditor 2 simply concludes that it feels comfortable including IT-auditors since they possess knowledge that the auditors do not. Further, Auditor 4 jokes saying that it feels scary to include IT-auditors, but then continue saying that the more understanding s(he) gets regarding IT-audits, the more comfortable it feels to include IT-auditors. However, as the interviews continued, some of the answers indicated the contrary. Auditor 8 and 9 expressed the need to control the IT-auditors work.

“…then they come back with their report and present their findings. Then I ask some control questions to see if they really have made all the controls that we had agreed upon.” – Auditor 8

When asked what the IT-audit process look like the respondents could not explain the process of the IT-audit but rather explained how the auditors and IT-auditors work separately. The auditors express that they do not have much insight or understanding of what the IT-auditors do. Auditor
7 on the other hand mentions the ongoing development towards working more integrated with each other’s processes is what makes him or her more comfortable with including IT-auditors.

“It feels good including IT-auditors, but they should be more involved, attend more meetings and explain to the teams what they have tested and why we can rely on the information provided.” – Auditor 3

“Of course I feel comfortable with the competence from our specialists.” – Auditor 5

Despite feeling comfortable when involving IT-auditors several of the respondents felt that they lacked knowledge regarding IT-audits. Also, the respondents expressed that their firms has no specific expectations on the auditors IT-knowledge. Auditor 3 mentioned that they rarely spoke about the IT-risks during their team meetings more then determining whether they got the support they needed from the IT-department or not. In spite of believing that auditors in general needed more knowledge regarding IT, they simply did not have the time to fully learn and understand all the IT needed to perform a complex IT-audit on their own. Auditor 4 and 9 expressed that it is the auditors’ responsibility to recognise a situation where IT-auditors are needed, but not to have knowledge regarding the process of the IT-audit. Auditor 5, 6, 7 and 9 express that the expectations from their employees might increase in the future due to the increasing importance of IT-audits. Further, Auditor 7 mentioned that the firms expectations are based on the demands from the Swedish Supervisory Board of Public Accountants (Revisorsnämnden) developed for auditors, and that those do not include any specific demands regarding IT-audits.

All the respondents mentioned that the signing auditor has full responsibility for any faults in the audit, which also includes the IT-audit. Further, Auditor 7 mentions the dilemma with assuring the quality of the IT-audit, which the auditors have full responsibility of but does not fully understand.

“As signing auditor you can not just say, “It was an IT-auditor who reported wrongfully.” It is the signing auditor who has the responsibility. Therefore we have full responsibility.” – Auditor

5.1.1 ANALYSIS OF THE IT-AUDITOR AS DISCOMFORT

As mentioned by O’Donnell et al. (2000a, b), changing the assembly of the audit team affects the quality of the audit, which should make the decision to include people in the audit team discomorting. Including IT-auditors also decreases the auditors control, this is something that people in leading positions tries to prevent according to Manz and Simms (1989), which can be argued to lead to discomfort. The respondents’ lack of discomfort when including IT-auditors in the audit indicates that this decision is not seen as discomorting. The inclusion of IT-auditors is rather a standardised process and solution to the discomfort that the auditors feel regarding IT-audits. However, some of the auditors felt the need to control the work done by the IT-auditors indicating that these auditors felt discomfort after all. This might be a result of these auditors having full responsibility for their assignments as signing auditors that can be considered a
leading position, which is line with Manz and Simms (1989) study. This is in accordance with Carrington and Catasús (2007) result that the signing auditor has the most knowledge and experience regarding the audit, including the IT-audit. Also Willett and Page (1996) argue that the more experienced auditors have responsibility towards the client and therefore these auditors might be more eager to possess as much information as possible.

The auditors’ inability to retell the IT-audit process indicates a lack of knowledge regarding the IT-auditors work, which also was confirmed by the respondents when asked about their knowledge of IT-functions. This should further be questioned, as the respondents did not feel any discomfort when including IT-auditors despite not having enough knowledge regarding their work. Further, most respondents acknowledged the signing auditor to hold full responsibility for the audit, which should imply more discomfort when including IT-auditors. However, the fact that the respondents’ employer does not have any expectations on their knowledge regarding IT-audits suggests that the firms trust the competence of their IT-department. It can also be argued that the comfort perceived by the auditors is based on the knowledge that the IT-auditors are employees at the same firm as themselves. Several auditors express the feeling of security saying that they trust that their firm knows what competence is needed and employ the right people for the job. This is in accordance with Kornberger et al. (2011) who argue that auditors are socialised into their firm and therefore also learn whom to trust. Because the respondents are experienced auditors they have probably gone through this socialisation and therefore know whom to trust.

5.2 B: EASE SENSE OF COMFORT

The first question regarding the Ease sense of comfort aimed to answer what knowledge the IT-auditors possess. The respondents answered that the IT-auditors have a background within IT, which the auditors do not. This means that they better can understand complex IT-functions as well as they “speak the IT-language”, which several of the respondents mentioned. Auditor 8 mentions that IT-auditors have broad knowledge about the risks associated with different IT-systems.

“IT people and business people speak very different languages, professionally so to say.” – Auditor 1

This further led to the question of how the IT-auditors are selected for the different audits, where the answers differed among the respondents. In general the formal way of choosing IT-auditors is at three of the four firms to send a request with specifications regarding the requirements for the IT-audit that needs to be performed. It is then the IT-department that selects which IT-auditors that are needed for the audit. Auditor 3 is critical to the selection process since the only way of contacting the IT-department for resources is through a request form. Still, most of the respondents stated that it is a possibility to personally ask specific IT-auditors for help, which usually comes from an earlier and successful collaboration. As mentioned, one of the firms did not have a formal way of contacting the IT-department but instead the contact is made
personally. According to Auditor 6 this could be a result of the size of the firm, and it is possible that as the company continues to grow a more formal way will emerge.

“We do not decide who is going to do it or what level the person should be on, we do not really decide anything regarding if we want a manager or a partner from the IT-department. This is completely up to them and the ones in charge at their department.” – Auditor 3

Auditor 1 and 2 explained that who is part of the IT-audit team was not that important, it was more vital that the job gets done. The other respondents stated the contrary, as mentioned by Auditor 7, it is the more experienced auditors who report their findings to their clients forcing them to be knowledgeable in the area and to be able to explain their findings, including questions regarding the IT-audits.

“It is a people business as we call it and therefore essential to have people that you can trust. So absolutely, it is very important to include the right persons.” – Auditor 6

Regarding if the selection process is satisfying the respondents answered uniformed that the process works satisfactory but that they see room for improvements. However, most claimed that it was not possible to change the process due to the structure that the firms are based on. This meaning that even if it could be better for the auditors to choose the IT-auditors it is not a good solution for the firm at large since the IT-department is disfavoured, as well as the resources need to be allocated to where they are most needed. Auditor 3 expressed that it would at least be preferable if the auditors could decide what level of knowledge that the IT-auditors should hold. Also, Auditor 8 mentioned that the responsible person working at the IT-department have a high competence and that s(he) trusts this person’s judgement to provide the team with the right IT-auditors. The respondent further mentions that continuity is desirable, that the same persons are involved in the team as much as possible, which also is confirmed by Auditor 6, 7, 9 and 10.

“You always want the best people in all teams but it is not possible, some people might be more suited for certain audits.” – Auditor 2

“... I also want continuity on the assignments [...] It is like in everything you do, if you know you will be involved in an assignment for several years you will take a bigger responsibility.” – Auditor 8

Further, when asked about certain characteristics that the IT-auditors should have, most of the respondents explained that knowing different IT-systems was important since it is this knowledge the auditors’ lack. Auditor 4, 6 and 7 expressed the importance of social competence, especially when dealing directly with clients. Social competence makes it easier for the auditors to work with the IT-auditors, partly as it is needed while having contact with clients, but also to be able to explain complex findings, Auditor 7 mentioned. Auditor 1 explained that the question of finding the right characteristics is handled much earlier when employing new IT-auditors, and is therefore not a question for the auditors. Even though most respondents seem to prefer certain characteristics, it is clear that they all feel comfortable involving IT-auditors. This is supported by the statement of Auditor 5:
“I feel safe with the competence level among our specialists.” – Auditor 5

“Absolutely technical competence, but it is also important with social competence, at least in the field.” – Auditor 4

It was expressed by several respondents that they wished that the IT-auditors should have knowledge regarding both IT-audits as well as audits in general. This as the respondents believed that the IT-auditors would get a better understanding for the auditors work as they claimed that the IT-auditors perform their work to assist the audit team.

“I think that the IT-auditor should understand what the auditor needs […] knowledge of an financial audit as well as an IT-audit.” – Auditor 8

Lastly, we wanted to discover what role the two actors held during an audit. The answers demonstrated clearly that the auditors and the IT-auditors work separately. However, some differences regarding the integration of IT-auditors could be found. Auditor 2 and 3 explained that they rarely communicated during the IT-audit process. The information was only received when the IT-auditors reported their findings in the firms own audit programs. Auditor 1 explained that the working process is very segregated but that they do communicate, however, this is mostly when a problem occurs.

“Between us I can only say that we work separately, which I rarely find as a good thing.” – Auditor 4

On the other hand, most of the respondents mentioned that they usually try to integrate IT-auditors early in the process to mitigate possible misunderstanding regarding what their job is during the audit. It was also mentioned that some auditors tried to include the IT-auditors at several meetings with the client in order to better collaborate throughout the audit. It is further understood that the auditors tries to have an ongoing communication, but confesses that the communication and integration could be improved further. It also seem as the communication was most important in the planning of the IT-audit as well as when finalising the audit, which was confirmed by Auditor 7. This to make sure that everyone worked towards the same goals in the audit and in the end for the auditors to understand the findings made by the IT-auditors.

“Regarding the audits I have been involved in, we have received reports from the IT-auditors with their findings and they have been like “this is what it looks like, if you have any questions contact us”.” – Auditor 1

5.2.1 ANALYSIS OF EASE SENSE OF COMFORT

How the IT-auditors were selected differed amongst the respondents where one way can be considered as a more formal approach whereas the other one can be seen as more informal. The respondents expressed that the formal way could prevent the auditors’ ability to control that the right competences was selected for the IT-audit team. As O’Donnell et al. (2000a, b) state, the assembly of the audit team affect the quality of the audit would most likely affect the auditors will to be a part in the selection of IT-auditors. Also maintaining control is important as argued
by Manz and Simms (1989). Therefore, some of the respondents use an informal way of selecting IT-auditors based on their personal contacts within the firm and on the competences or characteristics that they believed are needed for the IT-audit team. Kolcaba and Kolcaba (1991) argue that personal characteristics create comfort within a profession, which was also evident amongst the respondents where two characteristics were especially valued, namely social and technical skills. This is also argued by Carrington (2010) who describes how a person’s behaviour or mere appearance can create comfort and how this is also strongly related to a person’s social skills. Awad and Ghaziri (2004) have found that the more extrovert an employee is the more willing are colleagues to share information with this employee. Therefore, it can be said that the more social skills a person have the better cooperation is possible, which is expressed by the respondents. Moreover, Frowe (2005) argues that you can feel trust for professionals who possess certain skills, in this case IT-auditors knowledge regarding IT.

At the same time, some of the respondents did not see the importance of being able to choose IT-auditors. This could come as a consequence of that the IT-auditors work at the same firm as the auditors, which means that even if they are not from the same department the IT-auditors is not considered as external competence for the audit team. The answers might have been different if the auditing firm could not provide IT-auditors internally. Therefore, comfort could be seen as a production within the firms. The auditors trust their own colleagues and are confident that their human resource team has hired the right people for the job. Kornberger et al. (2011) argue that big 4 firms socialise and shapes their employees to become professionals, which some of the respondents also explains as a reason to trust in the IT-auditors.

Even though the auditors and IT-auditors worked separately during the process most of the respondents expressed the importance of integration that is best solved by good communication, which is confirmed by Brown et al. (2002) and Walker (2001). These authors argue that good communication creates comfort within an organisation, which it is apparent that the respondents believe as well.

5.3 C: RELIEF SENSE OF COMFORT

In the second sense questions regarding what practical actions that were taken to move from discomfort to comfort were asked. Regarding how the IT-audit plan is developed Auditor 6, 9 and 10 explained that the IT-audit plan needs to be checked and approved by the signing auditor in order to see that the plan is inside the scope of the audit plan. This is further done to move towards the same goal, Auditor 7 explained. The respondent furthermore expressed the importance of integrating the IT-auditors early in the process to secure that everyone moves in the same direction. Auditor 9 and 10 explained that they are at the moment developing a standardised document that will be signed by both auditors and IT-auditors to make sure that both teams will perform what has been agreed upon.

“Then they [IT-auditors] get involved in our risk assessment and often we try to meet the client together, at least initially where someone from the audit team and someone of the IT-auditors so
that we get a connection of the financial risks and then they plan their work which we approve, so that we know that it is connected to our audit.” – Auditor 6

Moreover, Auditor 4 explained that the auditors include the IT-auditors in the audit to feel comfort with the audit and therefore provide the IT-auditors with a general description of what they want the IT-auditors to do. This to make sure that the IT-auditors work within the scope of the audit and provide the information that makes the auditors comfortable.

“... if the audit team wants to involve IT-auditors to help them reach comfort or to prove the account statements, for example the accounts completion, based on this we provide the IT-auditors with a description of the routines, not on a detailed level but at some level at least.” – Auditor 4

When further asked what feedback the auditors receive from the IT-auditors, most respondents answered that it is reports that comprise the IT-auditors findings in the firms own audit programs. This usually happens in the end of the audit and according to the deadlines that was decided during the planning phase. Ongoing feedback is only received when the IT-auditors find obstacles during the audit or when the auditors require feedback. After receiving the feedback, most of the auditors take time to try to understand the findings where the general feeling among the respondents are that the IT-auditors tries to make the information more understandable.

However, sometimes the different languages used by the auditors and IT-auditors make it difficult for the auditors to understand the information received from the IT-auditors. Auditor 7 and 8 also expressed that IT-auditors have a tendency to be too focused on details instead of seeing the wider picture and what information the auditors actually demand. Auditor 4 and 7, expressed the need to really understand the information while, Auditor 1 and 3, focused on the IT-auditors’ conclusions. Auditor 7 explained how important it is to understand the information since s(he) as the signing auditor holds the responsibility towards the client, and that it is the signing auditor that presents the findings.

“... it is almost like the Emperor’s new clothes. If I do not get this I’m stupid, if I do not see the Emperor’s new clothes I’m stupid. After a while you just feel “I need to understand!”.” – Auditor 4

“What they can do is speak this language with the clients that we do not know and sometimes they speak this language to us and then we do not understand.” – Auditor 9

When asked about when the IT-audit is finished some of the respondents answered that it is when the IT-auditors report their findings. Also, Auditor 4 and 6 explained that the IT-audit’s finalisation in a way is decided on forehand as the IT-audit is supposed to be finished at the deadline that were decided during the planning. However, the signing auditor has to assure the quality of the IT-audit before it is completely approved. As a consequence Auditor 2 mentioned that the decision of whether the IT-audit was finished or not was decided by the responsible IT-auditor together with the signing auditor.
“When the IT-auditors have filed a report on the areas we agreed upon in the initial planning, the IT-audit is considered finished.” – Auditor 5

Regarding whether there are any disagreements when the IT-audit is finished, some respondents argued that there rarely are any disagreements saying that it is the IT-auditors who decide when the IT-audit is finished. At the same time other opinions came from Auditor 4 and 7 who argued that the auditors can have opinions about the IT-audit, which can affect when the IT-audit will be finished. Reasons for disagreements can be that the IT-auditors needed are occupied by other more important assignments, or that they can have different opinions regarding what information is essential for the audit, Auditor 4 and 7 argue.

Most respondents expressed that they think that the IT-audit process and their work relationship with the IT-auditors are satisfactory but that there is room for improvement. Generally the auditors want to integrate the IT-auditors more in the audit team. Auditor 1 expressed that s(he) always wants to have an IT responsible person in the team and Auditor 3 saw the need to include the IT-auditors in the planning meetings as well as having continuous contact.

“The process is good except the communication, and that we view the process with different perspectives [...] Just that the IT-audit tend to be a bit too detailed sometimes and they provide us with things we do not feel are trustworthy or think is relevant to what we do.” – Auditor 5

5.3.1 ANALYSIS OF RELIEF SENSE OF COMFORT

The IT-audit plan is part of the full audit plan and the respondents thought it is important to be involved in the processes of deciding what controls that the IT-auditors has to perform. This indicates that, even if it is the IT-auditors who perform the controls, it is still the auditor who decides when s(he) moves from discomfort to comfort. This means that reaching comfort still is in the hands of the auditors as Carrington and Catasius (2007) argue, even though the auditors in this case do not have direct contact with the IT-functions controlled. Further, to perceive comfort several respondents lifted the importance of good communication and the need for addressing the IT-findings together with the IT-auditors. This can be seen as the same process that Pentland (1993) discusses when stating that the auditors need to understand and authorise the information given by IT-auditors ongoing during the audit process to reach comfort. The importance of understanding the content in an audit, as mentioned by Pentland (1993), for reaching a high quality audit as stated by Willett and Page (1996) can be seen within IT-auditing as well. Several respondents highlight the importance of understanding what the IT-auditors have done, both to feel comfortable but also to provide their clients with the right information to give a professional impression. The desire to provide clients with a certain feeling of comfort goes in line with Chaney and Philipich (2002) who state that clients are willing to pay more for high quality audits. This also indicates that the auditors do not use premature sign off within IT-audits that sometimes can be a problem according to Willet and Page (1996). But, even though the respondents can see the importance of understanding the IT-audits they all mentioned difficulties regarding the communication between the two parties. It was expressed that problems occur
especially due to the different languages used among IT-auditors and auditors. The respondents expressed the need for understanding the IT-auditors findings to reach comfort but at the same time there seem to be difficulties in understanding each other. On the other hand, some respondents did not find it equally important to understand the information given by IT-auditors. These respondents had all few years of experience compared to the other respondents and their answers can be explained by Carrington and Catasús (2007) and Willett and Page (1996) who claim that it is more experienced auditors who handle the contact with clients as well as take all responsibility for signing the audit.

Further, Carrington and Catasús (2007), Pentland (1993) as well as Willett and Page (1996) lift the signature of an audit as the point where comfort is reached. Within IT-audits it seems as there is split ideas of when the auditors feel comfortable with the IT-audit. Some respondents state that it is the IT-auditors who decide when the IT-audit is finished, others say that the auditors and the IT-auditors together decide whereas some argue that is the auditors who make the final decision regarding closing the IT-audit. However, ultimately it was evident that it is the auditors that make the final decision of signing the IT-audit, which is in line with the findings of Carrington and Catasús (2007), Pentland (1993) and Willett and Page (1996).

Lastly, the respondents found the IT-audit process as satisfying, but that there is room for improvements. Mainly, improvements regarding communication and integration between auditors and IT-auditors were asked for. This goes in line with Brown et al. (2002), Walker (2001) and Willett and Pages (1996) who claim the importance for understanding the information given from IT-auditors as well as the need for good communication for a well functioning organisation.

5.4 D: Development Sense of Comfort

In regards of the Development sense of comfort it was firstly important to reveal if the two parties work evolves during the audit, which most respondents agreed it not to do during the audit itself, but that it did in a longer perspective. Auditor 7, 8 and 10 expressed that the relationships has developed regarding communication and understanding for each other’s work. Auditor 7 and 10 also stated that this is facilitated by the fact that the auditors often work with the same IT-auditors.

“It is often helped by continuity among the managers that we work with from IT, where you usually have the same person from year to year. This makes us develop a very good relationship between us in the audit team as well as towards the client and their IT-department.” – Auditor 7

When further investigating if the respondents perceive that their knowledge about IT-audits had increased, most of the auditors claimed that it had. Especially Auditor 7 and 8 discussed how their knowledge and understanding for different businesses IT-programs have increased, but also how IT has come to affect the audit as mentioned by Auditor 8.
Whether the auditors processed the information provided by the IT-auditors in order to learn from the IT-audits, most claimed not to. Auditor 7 mentioned that this is at least not done with the intention of learning, but more with the focus of being able to present it to the client. The general perception was also that it is mostly the signing auditor that processes the information. However, Auditor 4 mentioned that they discuss examples of good IT-audits in the audit teams to learn from them. Auditor 10 also mentioned that at his or hers firm they have a monthly meeting where they report their experiences regarding IT-audits to each other. This is part of a pilot project that is conducted at one of the firms during 2014/2015.

“I think it is a great initiative to have IT as a standing item at our monthly meeting.” – Auditor 10

When asked if the auditors receive any continuous education concerning IT-audits all of the respondents replied that they do not. Although, Auditor 1, 9 and 10 all talked about the pilot project performed at their firm where they try to involve the auditors in the IT-audit more to increase the knowledge and understanding for IT-audits. Further, Auditor 9 explained a coaching program at their firm where coaches challenge the auditors to be able to motivate the use of the IT-audit in specific assignments. The respondents also desired an increase both in education and processing of IT-information among auditors, but expressed that time and money was a constraint to achieve this.

Some of the auditors also expressed the need for IT-auditors to get education of audits to gain a better understanding for the audit as well. This was believed to increase the cooperation between auditors and IT-auditors and make them work within the same scope.

“I have noticed sometimes when we have been at the client together that also the IT-auditors get an “aha experience” and understood more how we assess risks and makes our judgements and they understand how their audit plays a part. They got to see the whole process which made their job considerably more fun.” – Auditor 7

Finally the respondents were asked if they think that the audit profession will get increased knowledge requirement regarding IT, most of the respondents answered that they do not think so. The respondents referred to that the IT-auditors’ job is not supposed to be done by auditors and the two different professions have completely different backgrounds.

5.4.1 ANALYSIS OF DEVELOPMENT SENSE OF COMFORT

All the respondents say that their understanding for IT-audits has increased during their years at their respective firm where both auditors ability to communicate with IT-auditors and their understanding for IT-functions has developed. Somin (1991) argues that learning is a social phenomenon and the respondents all stated that their development within IT-audits comes from interacting with IT-auditors. As Carrington and Catasús (2007) explain, Renewal sense of comfort, in the present study referred to as the Development sense of comfort, involves raising the bar for what is comfortable auditing. This can also be seen in the present study through the constant learning and development of the relationship between auditors and IT-auditors. This
also goes in line with Li (2002) who states that knowledge is key for an organisation to develop further. But, even though there seems to be constant development within the field of IT-audits there seems to be limited education provided by the firms where the respondents work. Instead it seems as if the respondents themselves see the importance in continuous learning, which makes them take own responsibility for ensuring this development by learning from each other. This can be argued to be positive since it is important to learn from previous experience, as well as that learning needs to be more than just documents according to Davenport and Prusak (1998) and Duhon and Elias (2008). At the same time a learning culture and organisations that support learning is crucial for an organisation to continue developing, according to Andriessen and Fahlbruch (2004). It can therefore be questions if the audit firms should take a bigger part in the auditors learning in regards of IT-audits, in addition to the social learning that seems to be the main base for development currently. This is supported by Duffield and Whitty (2015) saying that all parts of learning need to be in place for an organisation to learn, meaning people, processes and technological systems. Also Van den Bring (2003) sees the importance for the organisation to be involved in the learning processes. If the learning is singularly social it is depending on the fact that all employees are willing to share their knowledge, this is not the case according to Davenport and Prusak (1998) who state that employees often need to feel that sharing information with others will benefit themselves in order to share the information. Also, trust among employees as well as employees’ personalities plays a part in how much they are willing to teach others (Awad and Ghaziri, 2004; Swan, 2001). All these are factors that can be argued difficult for an organisation to control. It can therefore be beneficial to ensure learning and development through introducing other learning alternatives, such as courses or similar. Another aspect mentioned by some of the respondents was the importance of good leaders at the IT-departments to enhance development. Leaders are key actors when it comes to create a learning culture within an organisation according to Gupta and Govindarajan (2000) as well as Liljenberg (2015).

The fact that the respondents did not believe that IT-knowledge would be an increased requirement for auditors contradicts the trend of the increasing employment of auditors with CISA-certifications. This might be an effect of the CISA-certification as a trend, at the moment more current in the U.S. than in Sweden. However, as mentioned previously, the big 4 firms are international companies that are influenced by international trends indicating that CISA-certifications actually can be relevant also in Sweden.
6. CONCLUSIONS

The research question that the present thesis aims to answer is how financial auditors experience that they become comfortable with IT-auditors. To answer this question the Comfort theory has been used as a frame when analysing the conducted study.

The present study has shown that auditors experience that they become comfortable with IT-auditors through working with technically and socially skilled IT-auditors from their own firm, which they trust as colleagues. They also perceive that they become comfortable with IT-auditors by understanding the IT-auditors work. To gain an understanding of the IT-auditors work the auditors participate in the planning of the IT-audit as well as decide when it is finished. Finally, to constantly develop their perceived comfort auditors increase their knowledge of IT-auditors’ work by social integration and learning.

The auditors started expressing that they are comfortable with including IT-auditors due to the standardised process. However, as de interviews emerged, other aspects of the situation revealed that the IT-auditors are an element of discomfort for the auditors. None of the auditors could account for what the IT-auditors work includes more than the structure of their work, this showing an uncertainty that can be linked to discomfort. Also, the auditors expressed the feeling of losing control when including IT-auditors which further shows insecurity related to discomfort. The auditors do not have sufficient knowledge regarding IT-audits and therefore this adds to the feeling of discomfort. Further, it is clear that the comfort that is expressed derives mainly from the fact that the IT-auditors work for the same firms as the auditors and that the auditors trust their colleagues.

To experience the Ease sense of comfort the study showed that it was evidently important for the auditors to be confident that the IT-auditors had the technical competence that the auditors lacked. It was also desirable to include IT-auditors with high social skills to facilitate the communication. The auditors are comfortable that IT-auditors with the right characteristics are selected when the IT-auditors are employed. It is further evident that the auditors are comfortable leaving the selection of IT-auditors for each specific IT-audit to the responsible person at the IT-department. But, several auditors expressed the wish to be able to choose IT-auditors themselves to ensure that the IT-auditors hold the right characteristics for the auditors to experience comfort. This showing that the auditors are not fully comfortable with how the process of selecting IT-auditors is handled.

The present study revealed that, for the auditors to experience the Relief sense of comfort, it is important that the IT-audit plan is a part of the audit plan. This is important so that the auditors can control that they receive the right information from the IT-auditors and make sure that they work towards the same goal. It is further important for the signing auditor to understand the information given from the IT-auditors to experience comfort. In this area the auditors expressed some problems regarding both receiving information from IT-auditors as well as understanding it. But, as most of the auditors argued they make sure to control and understand the information
given before signing the audit. To increase the control and understanding of the IT-audit the auditors want the two professions to integrate more with each other during the IT-audit. Further, the IT-auditors are responsible for completing the IT-audit, but it is the auditors who make the final decision when the audit is finished. Therefore it is the auditors’ perception of comfort that becomes the base for the decision to finish the audit by signing it.

The Development sense of comfort is according to this study experienced through the auditors continuously feeling that their knowledge about IT-auditors work increase, affecting their requirement on the IT-auditors work at large. The auditors constantly develop the work process with IT-auditors and learn from them, this showing the Development sense of comfort. The auditors want to learn more about IT-audits to keep up with the fast growing area of expertise, but that the lack of time and budget constraints led to that there was little room for more education. At the same time the lack of education provided from the auditors’ firms extend the learning of IT-audits for the auditors and therefore also the Development sense of comfort.

Further, even though the auditors want to learn more about IT-auditing they still wanted the two professions to maintain separate professions. This contradicts the auditors expressed need for more integration between the teams, showing that there are limits for how much effort the auditors are willing to put in to be involved in the IT-audit process.

Considering the limited research regarding comfort production within IT-auditing, this study is beneficial from an academic perspective. The present study has contributed to the knowledge of how auditors experience that they become comfortable with IT-auditors and their work. This study can further provide auditing firms with the knowledge of how auditors experience the working relationship with IT-auditors. This can be useful for auditing firms in understanding this work relationship better. The present thesis has been able to show examples of how auditors today experience working with IT-auditors. However, because auditors’ perceptions of how they become comfortable with IT-auditors might differ, depending on experience for example, the findings from this study might not be applicable for all auditors.
7. LIMITATIONS AND FUTURE RESEARCH

The findings on this study indicates that the loss of control and lack of understanding for the IT-auditors work can be overcome by the trust the auditors feel towards the IT-auditors as colleagues at the same firm. Further, the present study suggests that certain characteristics, communication and social learning are major factors for the auditors to experience comfort. However, certain limitations have been taken into account when interpreting the results of the study. The choice of respondents was limited to senior and authorised auditors, thus, this was considered a homogenous selection of respondents. Though, the experience of the auditors differed from senior auditors to partners which affected their experience with IT-auditors, which in turn affected their answers. A more thorough selection of the respondents in regards to their experience would have created a more homogenous selection.

Further, it can be difficult to know if the respondents’ interpreted the interview questions differently. This limitation was moderated by sending the respondents the aim of the thesis before the interviews were conducted and that the transcribed interviews were sent to the respondents afterwards if requested. To neutralise this limitation further, more thorough explanations and definitions of the concepts of the study could have been sent to the respondents before the interviews.

To gain a better understanding of how the profession is changing in regards to IT, it would be of interest for future researchers to study the development of the auditors’ profession in regards to IT. In the present study it is shown that the auditors express the need for better understanding for each other’s professions in regard of IT-auditors and auditors. In a longitudinal study of the audit professions it could therefore be investigated if the CISA-certificate would become more relevant also for the Swedish audit profession as well as for the U.S. This since CISA is developed to enhance auditors understanding of IT. It could also be of interest to perform the study from the IT-auditors perspective and examine if they experience the relationship in the same way. The knowledge can then be used to understand the working relationship between auditors and IT-auditors.

As this study has shown, auditors have the desire to develop their understanding for IT-audits but are not provided with the education they need by their audit firms. This, together with the fact that the audit team and IT-audit team is not working integrated enough advocates a study of how audit firms work to facilitate the cooperation between auditors and IT-auditors.
REFERENCES


Carrington, T. 2010. An analysis of the demands on a sufficient audit: professional appearance is what counts!. Critical Perspectives on Accounting, 21(8), 669–682.


Further explanations of the development of the interview guide are presented in section 4.3.2.
## APPENDIX 2

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Title of Respondent</th>
<th>Work Experience Within the Firm</th>
<th>Type of Interview</th>
<th>Date of Interview</th>
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<tr>
<td>Test of Questions</td>
<td>Auditor/ IT-Auditor</td>
<td>14 Years of Experience</td>
<td>Personal</td>
<td>2015-03-12</td>
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<tr>
<td>Auditor 1</td>
<td>Senior Auditor</td>
<td>3,5 Years</td>
<td>Personal</td>
<td>2015-03-26</td>
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<tr>
<td>Auditor 2</td>
<td>Senior Auditor</td>
<td>2,5 Years</td>
<td>Personal</td>
<td>2015-03-26</td>
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<tr>
<td>Auditor 3</td>
<td>Manager</td>
<td>10 Years</td>
<td>Personal</td>
<td>2015-03-30</td>
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<tr>
<td>Auditor 4</td>
<td>Partner</td>
<td>20 Years</td>
<td>Personal</td>
<td>2015-04-01</td>
</tr>
<tr>
<td>Auditor 5</td>
<td>Senior Auditor</td>
<td>3,5 Years</td>
<td>Telephone</td>
<td>2015-04-08</td>
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<tr>
<td>Auditor 6</td>
<td>Senior Manager</td>
<td>9,5 Years</td>
<td>Personal</td>
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<tr>
<td>Auditor 7</td>
<td>Partner</td>
<td>15 Years</td>
<td>Personal</td>
<td>2015-04-10</td>
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<td>Auditor 8</td>
<td>Partner</td>
<td>18 Years</td>
<td>Personal</td>
<td>2015-04-15</td>
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<td>Senior Manager</td>
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<td>Personal</td>
<td>2015-04-17</td>
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<tr>
<td>Auditor 10</td>
<td>Senior Auditor</td>
<td>3,5 Years</td>
<td>Personal</td>
<td>2015-04-27</td>
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