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**SCHOOL OF BUSINESS, ECONOMICS AND LAW**

**Signs of innovation opportunities within  
the audit industry**

*- The potential for disruptive- and sustaining innovation*

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# ABSTRACT

There are few fields in the research that have gained the same attention as disruptive innovation. The phenomenon of disruptive innovation can be applied in any industry and affects how incumbents and new entrants perform in the market. Thus, the research of disruptive innovation has been notably important over the past decades as innovation rapidly accelerates.

Although disruptive innovation is widely researched, there is a gap in the research when it comes to the audit industry that this thesis aims to close. To do so, the thesis aims to seek an answer to “*What change might the audit industry face?*” and the signs of both sustaining- and disruptive innovation opportunities and potential signs of actors capitalizing on those opportunities.

The research was conducted with a qualitative and exploratory approach in order to capture signs of potential change in the industry based on the activity and innovative direction of the incumbents.

The key findings of the research were that the audit industry shows signs of sustaining innovation opportunities and signs of actors capitalizing on those opportunities. With regards to disruptive innovation, regulations within the audit industry limits the possibility for actors to capitalize on opportunities.

**Keywords:** *Disruption, Disruptive innovation, Sustaining innovation, Innovation, Audit industry, Audit innovation, Innovation in regulated markets,*

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# 1. INTRODUCTION

*The introduction of this report includes a background of the audit industry and innovation. Following this, a problem discussion and purpose which motivates why the chosen topic is relevant. Finally, delimitations and the deposition of the thesis is presented.*

## 1.1. Background

As the world becomes more technologically advanced and products and services become more complex, industries of different kinds face major challenges. Innovation is a process that occurs constantly and has different characteristics based on the setting that it's deployed in, for example product innovation and business model innovation (Christensen, Raynor & McDonald, 2015). Innovation enables processes and services to become more advanced and more efficient, products more technologically advanced and valuable and business models more complex and dynamic.

There are few works in the field of business research that have gained the same attention as the research conducted by Christensen in the field of disruptive innovation. Disruptive innovation is a process where a new product, business model or solution is established on a market. Generally, disruptive innovations underperform the products that are already established in the mainstream market but instead, bring other features that some customers value. Disruptive innovations are often cheaper, less complex, and often more convenient to use. When disruptive innovation occurs, incumbent firms in the industry overshoot the needs of customers and their targeted segments. The efficiency or quality of new entrants may lack as disruption takes place, though it later comes to develop as a far more efficient or valuable delivery for customers as it overtakes the market. Disruptive innovation starts in lower-end or ignored segments by incumbent firms, where the innovation takes a steady grip of the market (Christensen et al., 2015). Smaller companies are able to successfully establish themselves in a market with fewer or restricted resources, focusing on improving their products and services in comparison to incumbent firms. Incumbent firms ignore the disruptive firms to seek higher profitability in more developed or demanding segments. Though, in a globalized world, new entrants can expand quickly, mobilizing and spreading to customer bases all around the world. When new entrants expand to different markets and segments, their potential performance improves.



When the innovation reaches the customer requirements of the mainstream market, they start adopting it. Disruptive innovation has occurred as new entrants have outcompeted incumbent firms in their value offering while preserving their advantages (Christensen et al., 2015). The importance of understanding how to adapt to such change is critical for incumbent firms. Disruptive innovation cannot explain factors affecting innovation or the success of business models. Though, it helps in predicting and understanding why businesses come to succeed and overtake incumbent firms within industries. By using the theory of disruptive innovation, both incumbent firms and new entrants can better understand what affects firms' innovations successfully and how to predict it.

As these technological developments and innovations can change the fundamental structure of the industry, companies must be prepared for change (Christensen et al., 2015). There are several factors affecting disruptive innovations within industries, as all industries are affected differently. For example, technology, politics, regulations, economic development, and industry dynamics. There is no industry that is never affected, meaning that the understanding of innovations and their external effects must be prepared for (Christensen et al., 2015). Christensen, McDonald, Altman, and Palmer (2018) mention how disruptive innovation must be evaluated on a firm-specific or industry-specific business model. As disruptive innovation has increased in popularity of researchers and firms themselves, it is important to note use the technology-specific framework in a specific sense, not broad generalizing descriptive phenomenon.

The audit industry is generally lingering, as there are few transnational incumbent firms controlling the majority of the market (IESBA, 2015). With the global characteristics of the industry, regulations are strict to ensure reliability, which is the main purpose of the audit industry. Thus, the industry at first might not be considered innovative and dynamic. Though it might not be the case as technology and economic development have fundamentally changed the audit industry over the recent decade (IESBA, 2015). The leading global firms have had an upper hand advantage, upholding new entrants breaking through the market. According to the Swedish Inspectorate of Auditors (2022), there are 2717 authorized auditors in Sweden, working at a total of 209 registered auditing firms. The Swedish audit industry is characterized by a high market concentration where the big four, EY, KPMG, PWC and Deloitte control the majority of the market (Swedish Inspectorate of Auditors, 2020).

The focus of audit can be reflected as binary, as a true and fair view of companies' financial settings. PWC (2019) reflects over the value of the service and how a more forward-looking audit service potentially increases customer and stakeholder value. Though, it can be argued that audit could contribute to more value by looking more into the future, rather than the current state. As it is not possible to predict the future, it may be more of a subjective judgment built upon business- and financial risks. While evaluating the focus of the services provided, innovative solutions have been contributed over the years, as technology has allowed for improved screening and management of financial information. The industry faces several challenges and the value of the services, as for all industries, will always be challenged.

## 1.2. Problem discussion

Disruption can have a big impact on the current firms working within the audit industry. Christensen et al., (2015) suggest that incumbent firms limit themselves to sustaining technologies, thus preserving rather than evolving the business and customer needs. The competitive landscape of market segments, which not seldom is ignored by incumbents, serves as an opportunity for new entrants. The danger of disruptive innovation is incumbents being too comfortable in their market positions. Disruptive innovation could be a real threat, especially in industries where the way of working and the industry dynamics have been constant for a long period of time (Christensen et al., 2015). This may be the case in the audit industry, as it fulfils two of the previously stated dangers. There are few major global firms that have been leading the industry for a long period of time, and the way of working within the industry has been relatively unchanged even though technological sustaining innovations have been deployed.

Disruptive innovations can affect industries differently, and it does not have to change the entire industry structure or instantly make industry leaders obsolete. Disruption does not necessarily imply that an entire company becomes obsolete, it could instead be a business unit or smaller part within an incumbent firm that loses profitability or synergies (Sampere, 2016). New business models and technological development allow new entrants to successfully compete in a mature market. The audit industry, which is strictly regulated and presumably mainstream, can be revolutionized by technological development or changed business models. An example of this in an associated field is Swedish small-firm accounting which has been revolutionized with free online bookkeeping (The Techno Creatives, n.d.). Since disruption is

a process that occurs over time, it is also hard to see beforehand which makes it even more interesting to study (Christensen et al., 2015). Disruption is a concept that has been widely researched. However, disruption within the audit industry is a field that lacks research which makes the contributions from this research both potentially interesting and also potentially valuable for the existing firms within the industry.

### 1.3. Purpose

The purpose of this thesis is to contribute both theoretical and practical knowledge about disruption within the audit industry. This report will study how the audit industry might become disrupted as well as analyse potential paths to disruption within the industry by analysing the big four. Thus, the thesis aims to study the industry and innovation opportunities from a perspective of incumbent firms.

As the process of disruption is widely researched in several industries, there is extensive literature about the phenomena. However, there is a literature gap in the field of disruption within the audit industry that this thesis aims to contribute towards closing. Furthermore, the research also aims to contribute with practical knowledge for the incumbents within the audit industry.

#### 1.3.1. Research question

The research question that this thesis aims to investigate is:

*What change might the audit industry face?*

- *Which are the signs, if any, of disruptive- or sustaining innovation opportunities within the audit industry?*
- *Which are the signs, if any, of actors capitalizing on opportunities for change within the audit industry?*

### 1.4. Delimitations

Limited by the ongoing Covid-19 pandemic, in-person interviews may be limited by constantly changing restrictions in Sweden. As the thesis aims to understand and evaluate the industry to answer the research question of *if*, and if so, *how*, the audit industry can become disrupted, details are important. The thesis aims to investigate this from an incumbent perspective of the

industry. In-person interviews allow for more detailed and understanding circumstances compared to over the phone or the internet.

In order to narrow and define the scope of this research, it will be limited to studying auditing firms with offices in Sweden. Since the audit industry is an international business, it is possible that the contributions from this thesis might only be applicable to audit firms working in Sweden.

The rather short time frame of the study will also impose a challenge. Understanding the audit industry and conducting interviews will be time-consuming. The interviews will be the foundation of an unstudied subject, which therefore requires essential detailed data in order to be analysed. As the accuracy of the thesis is precise, respondents will be carefully chosen to ensure in-depth detailing and complexity.

## 1.5. Disposition

The thesis is composed of six chapters; *Introduction*, *Literature review*, *Methodology*, *Empirical findings*, *Analysis* and *Conclusions*.

Firstly, the *introduction* will contain a background and problem discussion in order to form a research question for the report. The purpose of the study will be described, and limitations set in order to allow a reachable and limited scope for the study. Secondly, the *literature review* will conduct a formal and extensive summary of used literature in the study. It will contain the outlines and context of the subject in order to comprehend and understand the following methodology. Thus, the third and following chapter *methodology* will explain the research-strategy and design. It will also explain the primary and secondary sources of data, the data analysis, and the reliability as well as validity in regard to research quality. The fourth chapter, *empirics*, presents the collected interviews whilst the fifth chapter, *analysis*, will conclude the empirical data with the applied theoretical framework. Lastly, *conclusions*, will summarize and discuss the significant findings and provided results in order to answer the research question. Recommendations for further research will also be presented.

## 2. LITERATURE REVIEW

*The literature review will serve as a foundation for the thesis, including relevant literature to define, understand and thereafter analyse innovation within the audit industry. At the end of the chapter, the theoretical framework is presented.*

### 2.1. The audit industry

The word “*audit*” derives from the Latin word “*audire*” that means “*to listen*” or “*to hear*” (Ajao, Olamide, & Temitope, 2016). Auditing has been practiced since the golden age of Greece around 500-300 b.c (Costouros, 1978). The modern form of auditing started to be adopted and practiced around the start of the 19th century, but in some cases, for example in England, audits were required by law as early as 1845 (Levy, 2020).

According to Power (1997), there is no clear definition of what auditing really means and defining it becomes a matter of describing what auditing could be. There are however some general concepts that are applicable regardless of definition, for example, the independence between the auditor and the matter being audited. Another example or situation that serves as a prerequisite of audit is the principal-agent problem, where audit serves as an aid for the principals in order to mitigate moral hazard and asymmetric information (Power, 1997).

#### 2.1.1. Technological development in the audit industry

Industries head towards industry 4.0, technological advancements and increased automation pressure the audit industry to fundamentally change in order to keep up with the technological development (Deloitte, 2018). Analytics, robotics, and cognitive intelligence are some of the digitalization spectrums which have been rapidly growing during industry 4.0. The technological advancements have improved the service offering within the audit industry. Services are now more human, focusing on the quality assurance, rather than the data management and revising (Deloitte, 2018).

Nagarajah (2016) argues that the audit and accounting industry has the second highest probability of being computerized within the next two decades. Automatization is arguably a long way ahead and requires advanced technological solutions and resources. Though, new opportunities will be created in the long run within the industry (Nagarajah, 2016). The

transformation of the industry may see tendencies for disruption with the use of technologies such as AI, data parser, robotics, and blockchain (Deloitte, 2019). Increased regulation, higher expectations, and increased demand for value are pressuring the industry for technological advancements and disruptors to evolve. The main prioritization when developing new processes for qualitative standardized audit is trust by both client and market. Rather than seeing the future of audit diminish, Deloitte (2019) sees an upskilling of value in the services of auditors and value creation shifts to meet future customer demand. Future work leans toward the advancement of technologies, unique technical skills such as data visualization, analytical- and trendsetting skills. When the value creation and development of value fundamentally changes, the delivery of value in audit risk will change.

Robotic Process Automation (RPA) has been applied in many industries, and audit has not been an exception (Moffitt, Rozario & Vasarhelyi, 2018). RPA works in the same way as a person does, following step-by-step determination of variables and thereafter action. Auditing processes can therefore more efficiently be automated predefined processes. Due to the customizable and templated auditing, evolving software can self-develop auditing processes and improve over time, often mentioned as Intelligent Process Automation (IPA) (Zhang & Vasarhelyi, 2018). IPA has a flexible, scalable, and intelligent ecosystem that allows the AI to learn and predict process patterns and interpret human interactions. In their current state, RPA and IPA improve Audit quality by reducing the margin of error, increasing efficiency, and more importantly automatizing processes to allow auditors the opportunity to conduct more valuable services for clients (Rozario, Zhang & Vasarhelyi, 2019).

Zhang (2019) means that the information required for audit (input) is sequences of transformable data that can be interpreted to valuable information and financial statements using RPA, described as a disruptive technology using AI and blockchain. The RPA, therefore, opens the ability to explore opportunities and risks as it can be redesigned or optimized during the audit process. The RPA system is cost-effective, and the wave of automation will most likely reduce the required number of staff within the industry (Walker, 2016; Zhang & Vasarhelyi, 2018). Although, audit phases require human resources for regulatory tasks and analysis of financial statements. RPA processes are mainly used for repetitive and time-consuming tasks which thereafter are used for auditors' professional judgment (Moffitt et al., 2018).

Power (1997) describes auditing as a constant and precarious process of system knowledge that requires evolving and sustaining an institutional role to preserve its value. The technological development of the industry is more than ever evolving within these guidelines, though it still requires human control. As AI becomes increasingly important for many industries, auditing is not excluded from this technological development. AI is used in current auditing for large populations of data sets to identify outliers and errors which need to be further investigated (Boillet, 2018). To its current extent, AI and machine learning is used to optimize internal processes for auditors to work more efficiently. With current limitations in regulation and technological development, AI and machine learning cannot make auditors obsolete, rather improve the quality and efficiency. Though, the idea of objective AI and machine learning have the potential. Thus, Boillet (2018) means that AI supports the processes rather than overtakes the judgment and analysis in its current state.

### 2.1.2. Regulation within the audit industry

To help diversify and enhance the trust in financial auditing, the audit reform was adopted in April 2014 by the European Union (European Commission, 2014). Auditors were thereafter required to rotate clients on a regular basis and limited to their external non-audit services for certain publicly-interest firms. The audit reform decreased the dominance of big fours' presence in a limited way. These limitations, structural transformations, and the exchange of clients and services have allowed the big four companies to maintain their advantage over outside competitors (FRC, 2019). Institutional and governmental regulations have over the past decades preserved the dominance of the big four, where their competitive advantage has not yet diminished (FRC, 2019).

The audit industry is regulated by national and international laws to comply with standards to foresee the accuracy, objective, and independent assurance of a firm (Skatteverket, 2022). Within the European Union, IASB, (International Accounting Standard Board) works to unite auditing of the country members as well as becoming as closely related to US GAAP (IFRS, 2022). The increased dilemma of developing regulation in the complex environment of audit is the risk of greater demands and monitoring whilst losing the fundamental value of auditing (Power, 1997).

### 2.1.3. Advantages and disadvantages of using the big four

Of the publicly noted companies in the EU and US, the big four have a market share of over 85 percent of these companies for auditing (Hope, Langli & Che, 2020). Frequently, larger firms with high-quality financial statements voluntarily choose big four firms for approval, leading to increased perceived auditing quality. Hope et al., (2020) mentions the importance of big fours' resources and capabilities as the most important factors of their dominance. As their systems for internal and external quality assurance exceed the potential of non-big four firms, they can perform better.

Using a big four auditor and adding independent board members are associated with long-term debt reduction as well as cost of debt (Paananen, Renders & Blomkvist, 2016). These findings are regarding improvements in the information environment of Swedish small and medium-sized firms. Small firms are not legally obliged to use an auditor and are to a majority of almost 65 percent of all Swedish firms and can therefore be seen today's nonconsumers in the industry (SOU 2008:32) Firms with 100 employees and less stand for over 40 percent of the Swedish audit market in the perspective of revenue (FAR, 2021). Big 8, which include; Aspia, BDO, Deloitte, EY, Grant Thornton, KPMG, Mazars, and PWC, stand for 42 percent of the audit industries revenue, and for these companies, auditing stands for almost half of their total revenue. The other revenue-generating areas are for example, tax, consulting, accounting, and other financial and law services (FAR, 2021).

According to the UK Parliament (2011), the big four dominance limits the competition and choice of firms in the audit market in the UK. Despite efforts to limit the concentration, it has rather become more dominant as the fights for large publicly noted companies are fiercely competitive. Due to big fours' international size and their capabilities, few firms can compete with them. UK parliament (2011) means that the main causes of this are due to pricing and corporate knowledge of the client when rotating the auditor. Economies of scale are especially important to be competitive for larger clients. The big four companies have built up a demand for certain audit quality based on their capabilities to undertake global firms (UK Parliament, 2011).



## 2.2. Defining different types of innovation

Goffin and Mitchell (2017) argue that the definition of innovations is not important in itself, not as a tool, but rather as a multidimensional approach for companies. As companies are required to innovate to sustain their market position and competitiveness in a fast-changing global environment, understanding innovations is often used as an organizational approach. Dynamic markets and technological advancements require companies to seize opportunities presented in the market, whether the definition is incremental-, radical-, or sustaining innovation. Most importantly, it is important to know where innovations occur, whether it is products, services, business models, or outside the firm's current industry dynamic boundaries (Goffin & Mitchell, 2017).

The definition of different types of innovation can differ from author to author, overlapping or differing in definitions. With no general definition or accepted terms of innovation and its boundaries, the inconsistency allows for interpretation. Christensen et al., (1997) define two types of innovation, disruptive innovation, and sustainable innovation. Disruptive means that the innovation, if successful, redirects the mainstream market segments' customer value attribution to a more efficient or valuable service provided, often by new entrants. Sustaining innovations on the other hand means more incremental improvements in efficiency or value in the services or products provided (Christensen et al., 1997). Sustaining innovation does not alter the product or service to its dimension of making others obsolete but can rather be seen as improvements to the current state (Christensen et al., 1997). Markides (2006) argues that radical innovations are new to the world, meaning they can be differentiated from existing products or services and thus disruptive towards the consumers. Therefore, these radical innovations can undermine the value of current assets that existing competitors are built upon. Markides (2006) therefore suggests that radical innovation is a type of disruptive innovation whilst Christensen (1997) rather states that sustaining innovation can be identified as both incremental and radical. Goffin and Mitchell (2017) also use radical, as well as incremental, and breakthrough innovations as definitions to characterize the outcome of innovation. How you define and categorize these terms are not the important factor to understand the phenomena, rather how you choose to explain innovations processes. Even if the definitions vary between authors, Christensen's (1997) definition of disruptive innovation has been influential to later researchers.

With the differences of definition and categorization in mind, this thesis will more specifically investigate the phenomena of disruptive innovation and sustaining innovation defined by Christensen (1997). The terminology and latter conducted research lies as the foundation for the investigation of the subject in order to understand how the audit industry may become disrupted. Christensen uses two types of definitions that will be fundamental for the report: disruptive innovation and sustaining innovation.

## 2.3. Disruptive innovation

Disruption defines a process where new entrants, often smaller and with limited resources can compete with well-established incumbent firms (Christensen et al., 2015). Entrants successfully target lower-end segments which are overlooked by incumbents to gain a foothold within the market. Thus, the segments have restraints on profitability and customer base. At the disadvantage of resources and market share, smaller entrants on the market, improve their products and services to improve value. When their services become more sophisticated and demand customers more satisfied, entrants increase profitability and customer base (Christensen et al., 2015). Entrants move up the market with continued advantages acquired in the process, and as mainstream customers start adapting to the higher valued services entrants supply, disruption has occurred (Christensen et al., 2015).

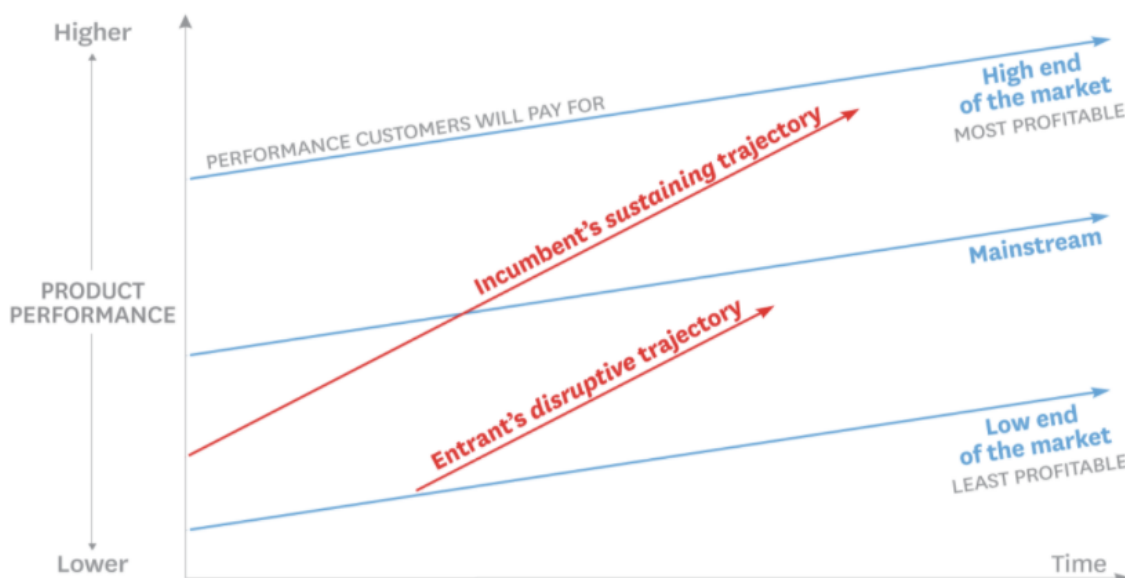


Figure 1

*Disruptive innovation model (Christensen et al., 2015).*

The disruptive innovation model shows the product or services (red line) improving over time. New entrants enter a lower-end market ignored by incumbent firms, as they are focusing on high-profit segments. When entrants improve the performance and value of their services, they overtake the incumbent's firms when reaching the mainstream market. Incumbents lose their grip on the market as they overshoot customer needs in the mainstream market. Disruptive innovation can be hard to identify in its ongoing state and may not be seen as a threat by incumbent firms until they have lost their competitive advantage. (Christensen et al., 2015).

Disruptive innovation is possible because of incumbent firms' ignorance of segments. Entrants start in low-end segments, often recognized as low profitability and a smaller customer base (Christensen et al., 2015). Because of the low profitability, incumbents do not feel threatened by entrants in this segment. As disruptive innovations initially are considered inferior to incumbents, customers and incumbent actors are not willing to adapt. Lower-end segments are more price sensitive which often requires disruptive innovations to be less expensive. When entrants improve their product or service to more profitable customers, incumbents may struggle to realize. Thus, quality has met the standard of the mainstream market while offering a lower price compared to incumbents. Disruptive innovations therefore often lower the prices of a market (Christensen et al., 2015).

As incumbents overshoot the need of a mainstream market, new entrants enter a phase of products that are “*good enough*” for higher-end segments. Their advantages and lower cost attain a foothold in the more demanding customer segments. Disruptive innovations do not compete with incumbents until their quality and value have met the standard of requirements for mainstream customers. As the innovations can be incremental or radical, depending on products and technology, it adds value. In the cases of new-market footholds, entrants create a new market segment that finds previously non-customers to customers. Radical innovations can be major breakthroughs, leading to transformation within the whole industry. (Christensen et al., 2015).

### 2.3.1. The process of disruption

Most disruptive innovations begin on a smaller scale and grow into the market as they improve the quality of their products and services (Christensen et al., 2015). The focus is seldom on improving the product or service, rather the business model. The process of disruption can be very different depending on external factors such as the industry, policies, or geographical location. Thus, it is hard to recognize while in the process. For entrants to overtake the industry and substitute incumbents' products or services may take decades because of the incremental process of improvement. As it takes time, it partly explains why incumbents frequently overlook disruptive innovations. Incremental innovation, as for example technology, is under the state of constant development and may contribute to the distinguished emergence of disruption (Christensen et al., 2015).

When new entrants have reached the mainstream market, the competitiveness between incumbents and entrants increases. The increased competition often leads to lower consumer prices and increased market efficiency (Christensen et al., 2015). Incumbents are pressured to innovate their business to increase customer value. The upcoming entrants are often related to incumbents' strong focus on existing customers whilst stuck in institutionalized internal business models. Incumbents rarely seek disruptive innovation as they are already leading the market. Rather, sustaining innovations to incrementally increase value to customers and effective resource allocation. Incumbent firms have a large well-known customer base and are in no need to disrupt the market. Although this can explain the act of why incumbent firms rarely prioritize disruptive innovation instead more often sustaining innovations, it does not fully explain why entrants effectively can move upmarket before incumbents realize. Christensen et al. (2015) found that the low-end markets of successful disruptive entrants often were competed in by several comparable firms. Thus, the high competition often led to products that were more convenient and efficient to less cost than incumbent competitors. The successful disruptive entrants are ones who can compete with incumbents, in price but most importantly, customer value. Incumbents outcompete most entrants through effective strategies, such as price-based competition. Though, innovative business models and product improvements by entrants allow them to compete against higher cost established competitors.

Disruptive innovation is associated with lower profit margins than sustaining innovation (Christensen et al., 2018). As disruptive innovation targets lower-end segments or ignored segments of profitable customers, thus managers of incumbent firms may lack incentives to compete against new entrants and their disruption. Since disruption seldom fits incumbents' current business model or offerings, it lacks profitability and performance (Christensen, 1997). Though, when disruption overtakes the mainstream segment, incumbents need to respond. Managers need to understand and protect the offering against disruptive competition before new entrants establish a competitive advantage (Bessant, Lamming, Noke & Phillips, 2005).

As disruptive innovation is not a winning strategy by itself, it's not sufficient in changing the industry structure. Disruption requires knowledge of how to acknowledge the right segments and customer needs. Paap and Katz (2004) defines the development of new technologies and innovation as a solution to unmet needs in a certain market. Thus, understanding disruptive innovation and the framework also allows incumbent firms to sustain a competitive advantage in a fast-changing environment. As incumbent firms' ignorance of future needs acts as a pathway for new entrants to overtake market segments. Paap and Krantz (2004) highlights the importance of not solely current customer needs, but potential needs. Thus, to understand how the audit industry may become disrupted, an understanding of the industry's processes of anticipating and managing change is important. To exemplify the process of disruption, Christensen et al., (2015) mentions Netflix launch 1997. Netflix was an online DVD rental, delivered by U.S mail service which took several days until delivery. The very specific early adopters of online shopping combined with the early adopters of DVD, Netflix targeted a very small and specific customer segment. Blockbusters' ignorance of their newly entered competitor was not uncommon, as they served very different needs and customers. Because disruptions take time and take shape in different paths, incumbents often overlook disruptors (Christensen et al., 2015). Collecting data of technologies, customers and competitors applied in planning frameworks leverage incumbent's firms viability and preparations for disruption but is no guarantee for overcoming disruption.

Tellis and Golder (1996) studies the relation of first to market and market leadership, which details the importance of sustaining customer attrition. Disruptive innovation is seldom visualized as a company not maintaining their customer base and the penetrated segment, though Tellis and Golder (1996) highlights the understanding that first to market seldom means market leadership or high success rate. Understanding this, disruptive innovation does not have

to change the long-term market structure, where new entrants overtake incumbent firms, rather it can be thought of as a change of value deliberation to customers. Depending on the dynamics and flexibility, incumbent firms can prevent or embrace disruptive innovation differently. The definition of disruptive does not have to be long-term competition by new entrants, rather the change of industry structure and development. For incumbent firms, it may be difficult to be agile, as they may be international large firms, though it is important to note the importance. The fast-changing nature of industries requires larger firms to maintain flexibility and dynamics by scenario planning or other planning frameworks (Christensen, 2015).

Christensen (1997) mentions three factors as enablers of disruption: Asymmetric innovation investments, performance technology developing faster than the targeted market segment demand and the irrational managerial decision of seeking disruption as an incumbent firm. These factors allow disruptors to gain competitive advantages against incumbent firms. Even if the incumbent firms manage their firm competitively within the industry, towards their targeted customer segments and against their incumbent competitors, they are still able to lose market shares to new entrants (Christensen, 1997).

Asymmetric innovation investment is asymmetry between incumbents, conducting sustaining innovation to increase competitiveness and profitability whilst new entrants conduct disruptive innovation to reach new or ignored customer segments (Christensen, 1997). The asymmetry between how incumbents and new entrants perform and strive for innovation. Incumbents tend to overtime develop overperforming offerings to the mainstream customer segments as high-end customers serve for higher profitability. If incumbents overshoot customer needs, disruptive innovation conducted by new entrants over time reach the mainstream segment, most often being more efficient and price effective against the mainstream segment (Christensen, 1997). Overshooting is often caused by incumbents striving for higher profitability by increasing the offerings performance (Christensen and Raynor, 2003). The performance technology may be higher than the customer demands when overshooting occurs. By increasing the offerings performance quicker than the targeted customer segment requires, or are willing to pay for, incumbent firms overshoot customer needs. New technology or technology applied in new markets often allows firms to increase their efficiency or quality. Though, firms need to adopt and utilize the created value in order to demand the increased performance (Christensen and Raynor, 2003).

Since the mainstream segment often pays for more than they need as for performance of the incumbent firms offering, the profit model of incumbents constrains shifts in innovation investments (Christensen et al., 2018; Christensen, 1997). The high profitability of their offering and constant development through sustaining innovation restrains managers from seeking disruptive innovations as it cannot be defined as a rational decision. As discussed, disruptive innovation starts from lower-end segments due to its efficiency and quality, meaning the profitability is generally lower compared to the mainstream or high-end segments (Christensen et al., 2018). Incumbent firms seldom strive for ambidextrous organizations, meaning a diversified product portfolio, rather synergies between products and markets (Christensen, 2003). Thus, the rational managerial decision can be assumed to not conduct disruptive innovation, even though it may lead to capitalizable opportunities and competitive advantages (Christensen, 1997).

### 2.3.2. Critique against Christensen's theory of disruption

King and Baatartogtokh (2015) mentions that few academic research theories have been as recognized and influential as Christensen's theory of disruptive innovation. Though, with its widespread theory, King argues that disruptive innovation cannot be defined as clearly as Christensen implies. King and Baatartogtokh argue for the validity and generalizability of Christensen's research as it was mainly focused on the hard-disk industry in the 1970s and 1980s. The criticized argumentation is based on research of 77 companies from different industries. The research found that not all incumbent firms, rather only 22 percent of all incumbents, overshoot customer needs (King & Baatartogtokh, 2015). The vast majority of firms do not exceed customers' needs or are likely to in the future. Technological advancements and innovations rather allowed businesses to increase the efficiency and quality of their products and services, not because of what customers wanted, rather because of efficiency or quality. Incumbents increase their value with the trajectory of customer needs with incremental improvements, as Christensen et al., (2015) mentions sustaining innovations. King mentions the animation industry for an example, where hand animations were replaced for computer animation, not because it overlooks customers' needs but because of the quality and costs. As for most innovations, customers find value in increased efficiency and quality. King and Baatartogtokh (2015) therefore suggest that customers keep up with development in most cases, increasing their value from innovations, rather than Christensen's view of overshooting value.

Christensen et al., (2015) argue that incumbent firms have the ability to respond to disruptive innovations and new entrants. King and Baatartogtokh (2015) research rather show that only 39% of the cases studied, the incumbent business had the capability to respond. The study even implies that incumbents in some cases were restricted to respond, even if they had the capability to. Christensen mentions online education as an example, even though legal education has restricted numbers of online education to not lose their accreditation or jeopardize the quality of their graduate's exams (King & Baatartogtokh, 2015). As there are many examples of how industries were not capable or suitable to defend their industry position towards disruptive new entrants, the argument that Christensen et al., (2015) of incumbents, can be questioned. If incumbents are unable to respond, identifying disruptive innovation and its usefulness may be diminishing. King and Baatartogtokh (2015) found that one-third of incumbents were not displaced by new technology. The study rather shows that 38 percent of the incumbents had other outcomes, for example leading to complementing actions, allowing incumbents to increase the value of their existing actions. Thus, disruptive innovation co-existed with incumbent business models.

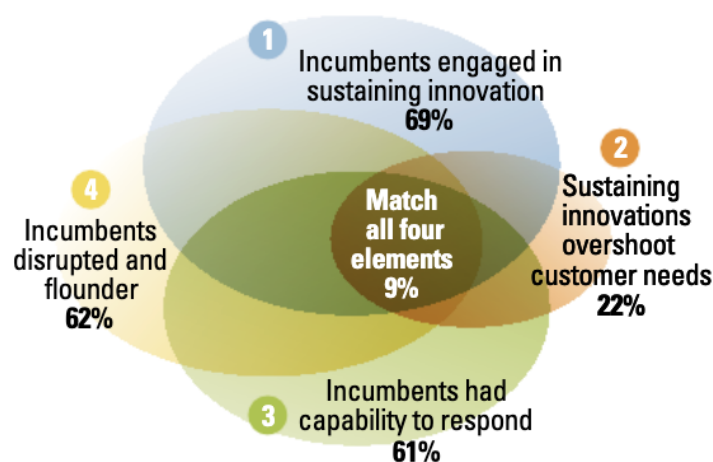


Figure 2

*Disruptive innovation elements (King & Baatartogtokh, 2015).*

Using the four key elements of Christensen, only nine percent of the exhibited cases matched the theory (King & Baatartogtokh, 2015). Though, it does not have to be considered irrelevant analysing these cases as disruptive, nor vital for the understanding of how the phenomenon is illustrated in reality. Christensen et al. (2018) mentions the inconsistency of defining and understanding disruptive innovation as a main cause of the uneven trajectory. Christensen et



al. (2018) mention the theory as a technology change framework, with a descriptive limited scope, which has thereafter developed by continued research to a more broadly used exploratory theory of innovation and competitiveness in technological evolution. Christensen et al. (2018) mean that this evolutionary development has created misconceptions of the framework itself, not focusing on the sustainable innovation overperforming customers' needs. How disruptions can be a relative phenomenon is for example in the mail and catalogue retailers, where the internet introduced a sustaining innovation for increased revenue streams in their existing firm-specific structure, whilst in-store retailers have suffered from losses due to internet-based retailers (Christensen et al., 2018).

### 2.3.3. Regulations impact on disruptive innovation

Cortez (2014) argues that agencies are too tentative with regulating innovation which can lead to suboptimal environments in the long term. As technology advances and innovation affects industry structure, regulations change to foresee new prerequisites. Trubnikov (2017) analyses the role of regulation and how mainstream technology, as well as innovation, is able to be implemented in highly regulated industries. Closed and regulated industries do not contribute to disruptive technology, nor promote as many opportunities as open and unregulated industries. However, sustaining innovation can still provide attractive opportunities within these industries (Trubnikov, 2017).

Modern-day examples of disruptive technologies, such as autonomous vehicles, blockchain technology or genomics may evoke or threaten current socio-economic structures within the society (Trubnikov, 2017). Technological advancements and potential innovation which might become disruptive may bring advantages and disadvantages which cannot be estimated. If, and if so, how these technological innovations affect current industries is hard to estimate. Unexpected consequences are a big factor of newly discovered technology which is applied in new ways (Trubnikov, 2017). Though, regulation may also hinder innovation which is why governing these innovations is challenging due to their consequences and uncertainty (Taeihagh, Ramesh & Howlett, 2021).

## 2.4. Sustaining innovation

The definition of sustaining innovation is more clearly defined by improvements to existing products, services, or business models (Christensen, 1997; Charitou & Markides, 2003; Denning, 2016). Examples of sustaining innovation are improved shaving by adding a fifth blade on a razor or improving the TV resolution (Christensen et al., 2015). While individual products or services may be seen in life cycles, growth, maturity, and downfall, categories of products or services rather follow an evolution (Christensen, 1997). The incremental improvements aggregate the product or service's value with a trajectory of improvement. Thus, the performance and value for customers increases in the market of customer demands. Sustaining innovations can be incremental advancements or greater breakthroughs, ultimately, they allow incumbents to sell more products or services to their profitable customers (Christensen et al., 2015).

According to Denning (2016) sustaining innovation allows incumbents to increase prices by adding new features or technology to increase the value of their services. Technological innovations and advancements have allowed companies to provide greater functionality and accessibility. Continued differentiation also increases the specificity of the products, which thus may result in overshooting of customer needs in the mainstream market (Christensen, 1997). For incumbents, sustaining innovations are meant to incrementally improve their products to gain competitive advantage against established competitors. Since the market demand is foreseen, good managers strive for sustaining innovation which may be more reliable and as the risks of pursuing disruptive innovations may be high (King & Baatartogtokh, 2015).

Customers seek convenience in products, meaning sufficient functionality, reliability from well renowned companies (Christensen, 1997). Though, pursuing higher customer demands and more demanding customer segments puts the mainstream segment at risk for new entrants if the customers cannot absorb the innovated value. Sustaining innovation between competitors thereafter shifts to price, leading the pattern of evolution of their products and services. Though, as the price increases and pace of innovation and development, incumbents may overshoot customers' needs. The product, service or business model might be too overwhelming for customers which includes more than the customer is willing to pay for (Christensen, 1997).

It is hard to define or categorize innovation between authors. Christensen et al., (2015), discusses the case of Uber's strategy, breaking through the taxi market, which may be seen as disruptive by other authors, Though, this is not the case according to Christensen et al., (2015) because of the innovation's standpoint compared to existing firms. Uber cannot be defined as inferior compared to the traditional taxi market, thus not disruptive. Uber rather supplied a service that increased the efficiency of booking and quality of taxi rides while sustaining highly competitive pricing (Christensen et al., 2015). It may not be important if you consider Uber disruptive or not, though it is important to understand the difference for the incumbent firm. Lower end entrants and high competition is ordinary within a profitable industry with low entry barriers, though identifying the potential disruptive entrants may be critical to maintaining a competitive advantage in the market at all (Christensen et al., 2015).

Sustaining innovation is associated with incumbent actors in the industry in the pursuit of creating additional value to their products or services (Christensen & Raynor, 2003; Denning, 2016). Though, not all innovations by new entrants are therefore disruptive, rather the opposite. New entrants do not always achieve or pursue disruptive innovation. Innovation is more to be seen as improvements and development of the existing business model, products, or services. These improvements for new entrants often affect the industry, as it requires other actors to respond to the innovation process (Christensen et al., 2015; Bessant et al., 2005).

Christensen et al., (2015) mean that the increased speed of development and constant innovation requires competitors to act upon sustaining just like disruptive innovation to sustain competitive advantage. Sustaining innovation is often well handled by incumbents due to their market position and incomparable access to resources. There are more recent cases proving that new entrants can outcompete incumbents even with limited resources, as Christensen et al., (2015) exemplifies with Uber and Tesla. Uber and Tesla were not disruptive competitors, rather striving for sustaining innovation and differentiation. The reason for sustaining innovation's importance is its requirement of development and improvement in a competitive industry (Christensen et al., 2015). Sustaining innovation is associated with lower risk and smaller implementations requirements to the existing offering or business plan (Bessant et al., 2005). Sustaining innovation differs from disruptive in the eyes of the competitors as it often targets ignored customer segments for incumbents, thus losing relevance of competition (Bessant et al., 2005).

Sustaining innovation aims to generally foresee the needs of the mainstream market as these needs change over time (Christensen & Raynor, 2003). The reason is that the added value of sustaining value in a competitive market attracts high-margin customers in the mainstream and upper end of the market. Undershot customers can through sustaining innovation increase incumbents profit margins (Denning, 2016). As previously discussed, incumbents focus on these customer segments and the importance of understanding their needs. Incumbents mostly focus their customer understanding on these segments and strive for a close relationship to compete in the industry. As customers value newly developed features of products or services, sustaining innovation is forced (Christensen & Raynor, 2003). As sustaining innovation advances the performance of today's business model, service, or product, disruption rather creates opportunities for new segments or business models (Christensen, 1997; Christensen & Raynor, 2003; Denning, 2016).

## 2.5. Signals of change

According to Christensen, Anthony, and Roth (2004), it is possible to identify potential industry change by looking at certain consumer groups and the development within each of the different groups.

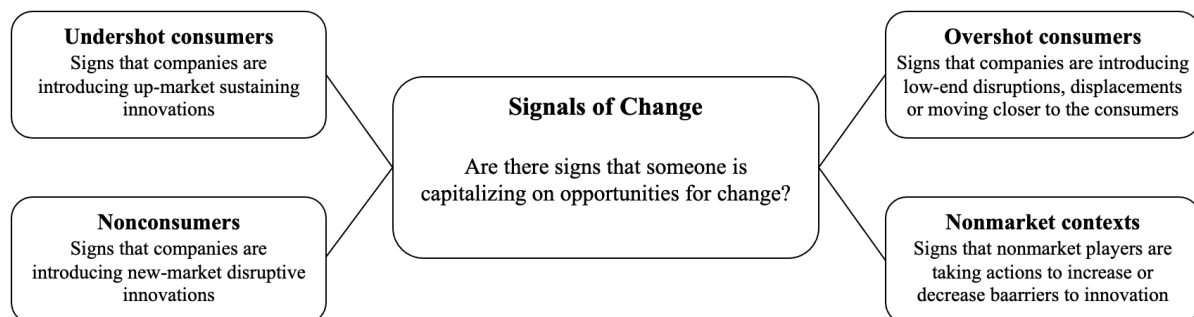


Figure 3

*Signals of Change (Christensen et al., 2004).*

Using the framework of Christensen et al. (2004) and analysing the direction of the industry, it is possible to gain insights of potential change within an industry. Figure 3 illustrates four different factors that should be analysed. To see what's next as of innovation to predict industry change, there is a three-part process according to Christensen et al. (2004), which follows; Firstly, signals of change show companies emerging meeting customer needs which are: undershot customer, to the customer whom it doesn't exist a current good enough solution. Signs of undershot customer segments are their incentives to try new products, increased prize

acceptance, and struggling product offerings from other firms. Sustaining innovation of currently available product/service is often the solution to meeting undershot customers; The overshot customer segment where current solutions are too good and the valuing and pricing thereafter (Christensen et al., 2004). Overshot customer segments are often reluctant to purchase new products or services as the current offering already exceeds their needs of performance and including features. Overshot customer segments are looking for new alternatives, often low-end disruptive innovation, which can offer sufficient technology and performance to a lower price than the current market; and lastly the nonconsumers who lack abilities, wealth, or opportunities to benefit from current solutions (Christensen et al., 2004). Nonconsumers welcome new technology creating disruptive innovations which serve other purposes than current services or products. These could be ignored customer segments due to skillsets, capabilities, health, or wealth (Christensen et al., 2004).

Secondly, in the process of seeing what's next, the process requires analysis of the competitive battles to identify firms that may emerge and thereafter triumph (Christensen et al., 2004). This is often done by overlooking the market segment and identifying each firm's strengths, weaknesses, and blind spots. This is done by evaluating a firm's resources and their allocation of resources. Thereafter it should be evaluated if the firm has any specific asymmetries giving the firm advantages, skills, or motivation in the future. These can be current as well as what the company may do in the future with their abilities or resources gained from asymmetries (Christensen et al., 2004).

Thirdly, evaluate the emerging firm's strategic choices which can help identify winning or failing paths for the firm (Christensen et al., 2004). Though it may be hard to identify and evaluate paths if firms are taking a disruptive approach to a traditional industry, all previous attempts may have failed. Previous experience of the emerging firm or its management can help verify their potential or willingness for disruption (Christensen et al., 2004).

Christensen et al. (2004) means that evaluating value network participants such as suppliers, distributors, and partners can help understand if the firm is searching for a disruptive path or not. Entrants resisting to engage in the current value network, rather creating a new path, have a greater chance of being disruptive and changing the industry. As the opposite, entrants who establish in the current network create a directly competitive possibility for incumbents and are more limited in their differentiation. Most importantly is the new entrant's capability and ability

to develop and utilize their disruptive path. During the process, internal and external processes affect the firm and the industry itself, meaning that disruptive firms must respond to incumbent threats of entering the disruptive pathway with an ambidextrous organization (Christensen et al., 2004).

An example of a firm that rose in a competitive market that clearly signals industry change is Skype (Christensen & Anthony, 2004). The service was competing against nonconsumption by introducing more efficiency, price-effective, and technology of interactive communications. Free calls between users in between devices such as phones, computers, and others using high-speed networks and Wi-Fi. At the current time, operators and other incumbents in the IoT-Industry lost their market dominance when Skype established its free application. Customers were now able to make free phone calls and phone communication through an online application, and incumbents lost their core product as a consequence of Skype's business model. Skype's business model was differentiated, meaning their revenue came from voicemails and advertisements, generating a differentiated business model to gain an upswing of market share during the early 21th century (Christensen & Anthony, 2004).

## 2.6. Theoretical framework

Since the purpose of this study is to research opportunities for change within the industry, signs of non-market actors have been removed from the framework and altered slightly as can be seen in figure 4. The three different variables analysed for the modified framework of Christensen et al. (2004) is: Undershot customers, overshot customers and nonconsumers.

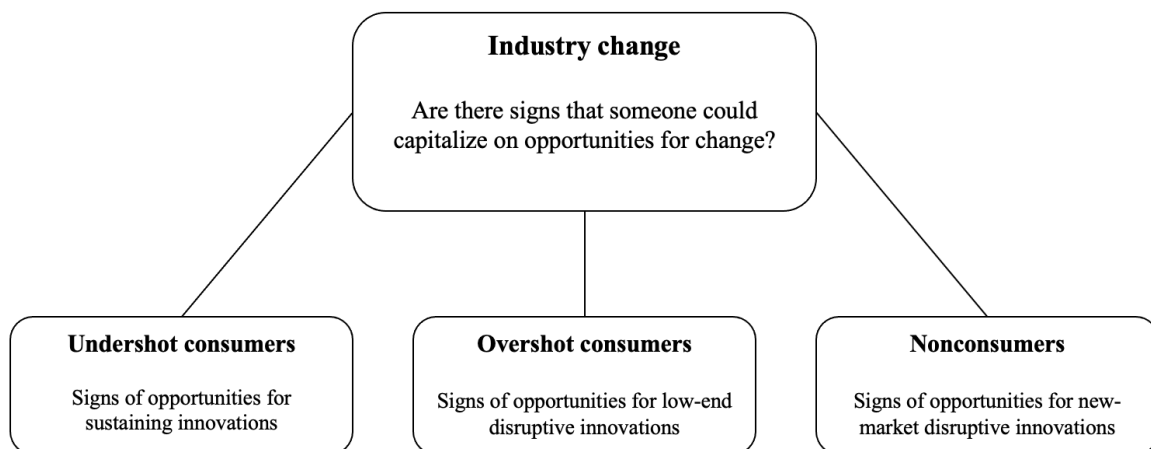


Figure 4

*Illustration of the signals for potential industry change based on Christensen et al. (2004).*

Christensen et al. (2004) uses the signal of change framework to explain and provide insight of future industry change by observing historical data. Analysing previous disruptive innovation in other industries enables identification of signals. These historical insights linked to innovation indicate various outcomes in the future of an examined industry. Christensen et al. (2004) uses the analytical framework as an analytical tool to identify future change in the shapes of disruptive- or sustaining innovation. The tool can be based on historical analysis of previous industries and transformation to foresee how an industry will change, different opportunities which will be presented and how actors can capitalize on these opportunities. Signals of change uses three identified customer segments which are thoroughly discussed in Christensen's articles about disruptive innovation throughout the years. By looking at how the actors within the industry targets and works with different customer segments, different change paths can be identified. Table 1 summarizes the customer segments attributes, innovation opportunities and signals of opportunities (Christensen et al. 2004). The customer segments, their needs and how to capture the opportunity of these needs are identified in the table below in table 1.

**Table 1**

*Identifying customer segments and their opportunities for innovation (Christensen et al., 2014).*

<b>Customer segment</b>	<b>Attributes of the customer segment</b>	<b>Innovation opportunity</b>	<b>Signals of opportunities</b>
<b>Undershot customers</b>	Customers who are willing to pay a higher price when the offering improves in performance and efficiency.	Sustaining innovation of the current offering will in the long run meet the demands of the undershot customers. The opportunity exists for mainstream or high-end segments until the product performance reaches the mainstream or high-end market segment.	Technological development of existing offerings leading to opportunities of improvement of the services, products, or business model. New technology increases the efficiency or utilization of the offering.

<p><b>Overshot customers</b></p>	<p>Overshot customers are offered to complex or complicated offerings regarding their needs. These customers are unwilling to pay for the improved performance.</p>	<p>Low-end entrants offering substitute offerings to a substantially lower price than the current incumbent firms. Disruptive innovation opportunities seize the overshot customers as it improves over time.</p>	<p>New offerings that are radically different in their value and attribution to their customers. This is often associated with new technology, products, services, or business models.</p>
<p><b>Nonconsumers</b></p>	<p>The nonconsumers segment is ignored or unreachable by the current offering. The offering may lack accessibility, affordability, or attributes to reach the nonconsumer customer segment.</p>	<p>Improvements to the current offering can't attain nonconsumers. Disruptive innovation creating new offerings in their service, product or business model are required to turn nonconsumers to consumers.</p>	<p>New technology introduced to the market changing the offering fundamentally by increasing accessibility, affordability, efficiency, or convenience. Radical changes in the offering can change the structure of the industry and their consumers.</p>

Figure 5 is used by Christensen et al. (2015) to illustrate the trajectory of sustaining and disruptive innovation from incumbents and new entrants respectively. The creation of overshot customer needs is when the mainstream market's demand for product performance is exceeded in a trajectory for the high-end market. Before reaching the mainstream market, the mainstream market was unmet in product performance. Incumbents generally use sustaining innovation to meet customer segment demands. When disruptive innovation meets the mainstream market, incumbents lose their competitive advantage. Undershot and overshot customers can be illustrated for both new entrants as well for incumbents. The illustration in the trajectory shows the potential of low-end disruption (Christensen et al. 2015).



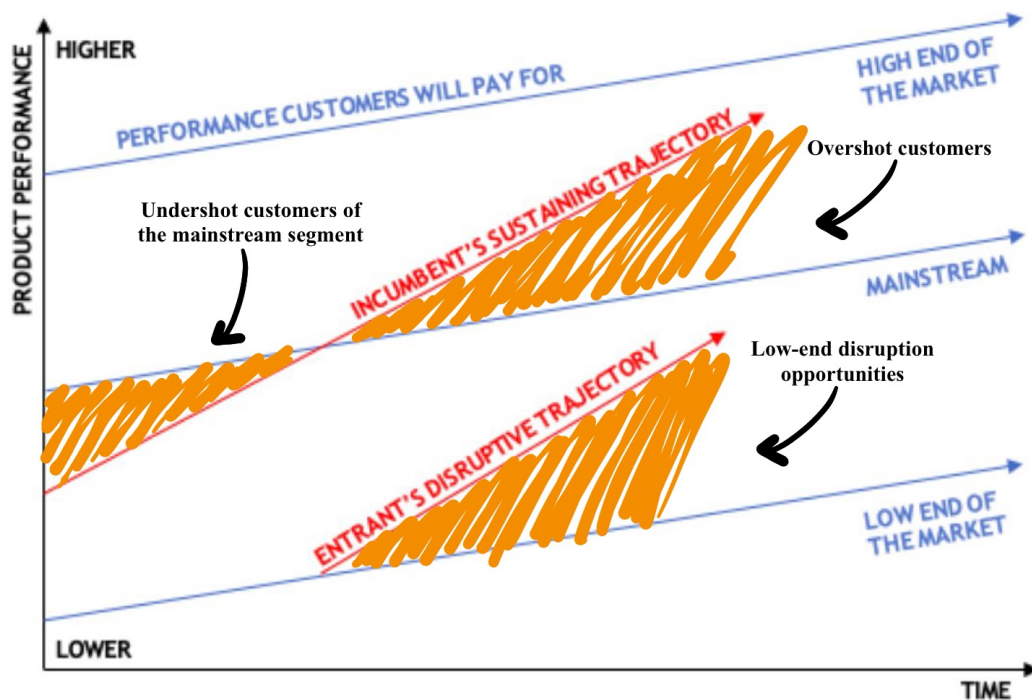


Figure 5

*Undershot, overshot, and low-end disruption opportunities based on Christensen et al. (2015).*

The service of auditing is not only mandatory for larger and publicly noted companies, but it also adds value to firms. To add value, innovative processes and automatization have been applied. As the big four has grasped the industry globally, further digitalization and automatization has made the industry technology more cost effective. The ever-changing industry is heavily dominated and regulated by national- and international laws. External factors as politics and industry dynamics affect how the industry transforms and evolves into the future.

As innovation is a term defined and used differently by authors, the terminology used for the thesis has followed Christensen's definition of disruptive and sustaining innovation. Christensen's arise of disruption and signals of disruption are illustrated in table 1. Disruptive and sustaining innovation is conducted by new entrants and incumbents and thereafter affects the industry customer segments. As innovation increases product performance over time, customer segments' demands are met as the trajectory of incumbents sustaining and new entrants disruptive diminish the undershot performance of the product as seen in figure 5. Sustaining innovation is associated with incumbent firms, increasing the value of their

offerings, products and services, or business model, to sustain high probability and performance towards high end segments. The highly profitable high-end customer segments demands are above the mainstream segment, meaning that the mainstream segment pay for more performance than they require. Disruptive innovation capitalizes on the opportunity of the overshot customer value propositions. Disruptive innovation starts in low-end segments, often ignored by incumbents, where they develop and refine their product, service, and business model. Thereafter, as the performance of the offering improves, the trajectory line close into the mainstream segments demands. When it reaches the mainstream segments demands, mainstream customers switch to new entrants offering, supplying the demanded value, performance, and efficiency whilst less expensive. Thus, being a more cost-efficient alternative for the segment.

Disruptive innovation is often associated with a form of innovation within products, services, or business models. Most often, disruptive new entrants are associated with a new business model compared to the incumbent firms. Disruption often takes place as technological advancements give further efficiency in cost and performance in the current market or an opportunity of use of technology in a new segment. As disruption targets low-end or ignored segments, it often underperforms the current offering by incumbents on the market. Disruptive innovation is a process and may be hard to recognize for incumbents. As it may be hard to recognize, the rational managerial decision is often not to conduct disruptive innovation for incumbent firms, even though it may lead to increased profitability in the long-term. Well-established and managed incumbent firms can be overruled by new entrants because of asymmetric innovation investment strategy, technology performance outrun the segmented demand or that sustaining innovation is the only rational managerial decision for incumbent firms. As these factors help to explain why incumbents allow new entrants to capitalize on market opportunities, it does not help to prevent it from happening. Instead, signals of change, a predictive tool for industry change help incumbents to address disruptive entrants. Signal of change identifies customer segments, their individual innovation opportunities for each customer segment and how these opportunities can be capitalized upon by industry competitors. The innovation opportunities are disruptive and sustaining and are differentiated depending on the customer segment: overshot customers, undershot customers and current nonconsumers.

## 3. METHODOLOGY

*The methodology will review the reports research- strategy and design. The method choices of the report will be explained and thoroughly discussed. Sampling and interview set-up is presented as well as a discussion about research quality.*

### 3.1. Research strategy

According to Bell, Bryman, and Harley (2019), there are two main options with regards to the overall strategy of the business research: inductive and deductive. As the thesis aimed to obtain an understanding of how the audit industry might become disrupted, it was suitable to focus the research on questions regarding why and how. The general aim of the study was to provide descriptive findings out of observations. Bell et al. (2019), imply that inductive approaches are more relevant to provide descriptive findings. Therefore, a qualitative research strategy was appropriate to fully understand the current state, problematics, and opportunities for disruption within the industry. A quantitative method was not suitable for the thesis because of the research questions' inability to be quantified in any relevant way (Bell et al., 2019). A quantitative study is generally based on an existing theory with a deductive approach. Since the process of disruption is affected by the industry setting, it is hard to test a theory numerically when there is very limited previous research in the field, as in the audit industry.

A qualitative method contributes to an in-depth analysis of several factors' impact and their correlation to the industry in the specific context. It also simplified the gathering of exploratory information and the opportunities presented by disruption, as it was important to understand respondents' opinions and thoughts of topics and factors of importance. How these factors correlate and the use of prior research within the field of disruptive innovation help to guide the interviews to become satisfactory in explaining *how* and *why*. By following a qualitative method, broad generalization of answers as well as in-depth-detailing can be accessed. Qualitative methods allow for more specific and detailed data collection, as it is more carefully extracted. The chosen method needs to be able to explain necessary details not presented in current literature or studies. To analyse the future to contribute to the new theory, current data is not only necessary, which is why an exploratory approach is suitable (Bell et al., 2019).

The thesis aims to contribute new insights into future disruption with an inductive approach (Bell et al., 2019). Since there is an extensive theory within the subject of disruption, but very limited when adapted to some industries, such as the audit industry. An inductive approach does not require as much literature and data on the subject, which is applicable within the audit industry in this case.

### 3.2. Research design

Within the field of qualitative research, there are several different types of research design that can be applied, for example, longitudinal, comparative, case study, and cross-sectional (Bell et al., 2019). The research design that was deemed most appropriate to answer the research question was a case study. Even though multiple organizations are represented in the study, the focus and aim of the report were to understand the industry in general, not to compare the different actors within it. Since the industry, in this case, was aimed to be analysed as one unit and is also geographically limited to Sweden, the case study design was chosen (Bell et al., 2019). A case study is suitable when a deep understanding and detailed analysis are needed, thus appropriate in order to answer the research question.

According to Bell et al. (2019), one of the things that distinguish the case study from for example the cross-sectional design is that the case study design takes an idiographic approach. The idiographic approach aims to focus on the unique features at a given time. In contrast, the nomothetic approach aims to generate insights that apply independently of time and place. Since disruption is a process, something that could happen, and that evolves over time, a nomothetic approach is deemed inappropriate since the potential findings won't be applicable over time and outside the specific context. This further strengthens the choice of the case study design.

### 3.3. Primary data collection

Interviews are the most used method for data collection in the field of qualitative research (Bell et al., 2019). Interviews were conducted as the primary data to ensure relevant and extensive answers from respondents working within the audit industry. As the report aimed to answer *if*, and if then *how*, the industry might become disruptive, respondents need to give extensive answers founded in reality and experience. Thus, a pre-constructed questionnaire will not guarantee the fulfilment of detailed exhaustive answers. Interviews supply efficient in-depth

answers to analyse respondents' interpretation of certain factors of disruption and possible occurrence opportunities. Interviews allow a simple collection of respondents' nuanced reflection and open dialogue. The disadvantage of interviews when conducting reflective and nuanced answers is the comparability. As the aim was to explore beyond current research, the primary data needed to be reliant to analyse.

### 3.3.1. Sampling

In order to answer the research question, two distinct levels of sampling were required. Firstly, sampling was required to select organizations within the case, that is within the audit industry. For the second level of sampling, a method for the selection of respondents within each organization was required. The most dominant sampling method in qualitative research is purposive sampling. Compared to probability sampling, which is concerned with obtaining a sample that can be generalized to the population, purposive sampling is more focused on obtaining the right sample in relation to the research question when applicable (Bell et al., 2019).

For the first level of sampling, the big four firms were chosen to represent the industry in this research which limited the sampling to the firms EY, Deloitte, PwC, and KPMG (Swedish Inspectorate of Auditors, 2020). For the second level of sampling, a sequential approach to purposive sampling was used. With a sequential approach, sampling is considered as an ongoing and evolving process where the sample is evolved during the process when it's beneficial for answering the research question (Bell et al., 2019). Although the aim of the research was to obtain a sample that represents the audit industry in Sweden, interviews are dependent on the relationships and availability of the respondents, therefore, it was hard to set a distinct sample beforehand. It was also viewed as beneficial in the light of the research to be able to include additional respondents from the same company if that person's competence and knowledge are brought up as interesting for the research in an interview with a first respondent at the company. The purposive and sequential sampling method also enabled the researchers to include an industry expert that one of the respondents provided contact details to.

Given the qualitative research strategy and the purposive sampling, no sample size was set beforehand, instead, the researchers focused on data saturation as described by Saunders et al. (2019). Data saturation in qualitative research is a principle that describes the state where

further data collection and analysis yields the same results, making additional data collection unnecessary (Saunders et al., 2019)

One problem that often arises in academic research when conducting interviews is the need of getting access to organizations (Bell et al., 2019). Since the research purpose contributed with both theoretical and practical knowledge, giving organizations valuable information about the industry access was relatively easy to gain. By not examining or comparing the different organizations against each other, there was no intention of supplying secretive information, rather understanding, and analysing the general industry. Thus, no unwillingness to conduct the interviews was experienced, probably since the purpose was to contribute with knowledge that could be of value to all actors within the industry.

In order to choose the right respondents, criteria were set to ensure the right qualifications and experience. Criteria of the correspondent's expertise, and experience was seen as highly important. Therefore, the first criteria for respondents were to have a minimum experience of five years within the audit industry. The second criteria were that the respondent had expertise in the Swedish audit market. Bell et al. (2019) discusses using a purposive sample method and the necessity of the use of criteria for respondents. The criteria are conducted to ensure appropriate and detailed explanations while reassuring guidance and optimal conditions to perform the interviews. As an organization can be resistant to allowing or contributing to such interviews, the criteria are only for guidance prior to the interview to reassure correct and detailed data, not to exclude opportunities that may arise in a case study. Diversity in size and position was considered favourable, though with limitations to experience, as it gives multiple perspectives and broad overviews of the case study.

**Table 2**

*Second level sampling criteria*

<b>Interview sampling criteria</b>
Industry experience of at least five years
Expertise in the Swedish audit market
Have worked or are working for a large sized firm in the audit industry

### 3.3.2. Semi-structured interviews

To analyse the disruptive innovation within the audit industry, semi-structured interviews were used to guideline the interviews to a certain point. A structured interview can in the purpose of allowing elaboration and exploration, limit the respondents and thus the analysis. The structure increases the reliability and validity of the data but on the other hand, in qualitative research, the main interest is on the respondent's thoughts and ideas and therefore, the need for possible elaborations and getting insight into what the respondents think is important is of absolute significance. While unstructured interviews limit the guidelines within the subject and comparability, semi structured interviews find the in-between, allowing for elaboration while at the same time following a structure that both allows comparison between different respondents and ensures that the interview stays relatively within the research area (Bell et al., 2019).

Since the semi-structured interview is based on a degree of structure, it is also possible to inform the respondents about the different areas that are planned to be discussed prior to the interview. A brief overview of the themes as well as an introduction to the topic of disruptive innovation was presented to the correspondents prior to the interview. To attain relevant and deliberate answers, there is a trade-off between flexibility, structure, and comparability. Thus, by providing a brief overview of the subjects and disruptive innovation, respondents can think freely of the subject before the interview. Comparability between the interviews is also a factor of why the semi-structured interview was advantageous.

### 3.3.3. Interview set-up

Based on the sampling criteria and the sampling method, a total of eight interviews were conducted as can be seen in table 3 below. The interviews were held at various dates and in different forms. Prior to the interviews, an email was sent to the respondent with information about the interview and the topics that would be covered. Given the recent covid-19 pandemic, most of the interviews were held through digital solutions such as Microsoft Teams and Zoom. Both researchers were present during the interviews and rotated the roles of taking notes and moderating the interview. The interviews were between 35-75 minutes long and were held in Swedish. The quotes that are presented in chapter 4, Empirics are therefore translated to English.

With the permission of the respondent, the interview was recorded in order to allow for transcription of the interview afterwards, in one case, where recording was not permitted, comprehensive notes were taken instead. Reassuring high quality transcriptions and quotations of the interviews, notes and summarizations of the interviews were composed by both authors. These were conducted directly after the interview to not lose context or understanding of respondents' arguments. Interviews were booked and conducted until data saturation was reached. Data saturation was concluded as respondents answered similar to prior respondents to the presented questions from the interview guide (Miles & Huberman, 1994).

Respondents have under the terms of full privacy approved the participation in the thesis. After the interviews, respondents have had the opportunity to clarify their statements and preview their quotes used in the thesis. To preserve privacy for the interviewed companies and respondents, they have not been named in the thesis. However, respondents' roles at their current company are presented in table 3. Respondents' statements are not identifiable with the *empiric's* chapter in order to keep individual roles excluded from correlating quotes.

**Table 3**

*Overview of respondents*

Respondent	Role	Date	Length	Setting
1	Manager	2022-04-13	55 min	In-person
2	Partner	2022-04-15	45 min	In-person
3	Senior Manager	2022-04-21	65 min	Video call
4	Partner	2022-04-22	35 min	Video call
5	Senior Manager	2022-04-22	60 min	Video call
6	Partner	2022-04-23	60 min	Video call
7	Industry Expert	2022-04-29	75 min	In-person
8	Senior Auditor	2022-04-29	40 min	In-person



### 3.4. Literature review

According to Bell et al. (2019), there are two different approaches to conducting a literature review: systematic and narrative. The literature review used in this thesis was conducted using a narrative approach since it is favourable when conducting qualitative research with an inductive approach (Bell et al., 2019). A narrative literature review enables the researcher to gain a fundamental understanding of the research topic and offers a higher degree of flexibility compared to the systematic approach which is in many cases a necessity when conducting qualitative research with an inductive approach since the theory in many cases needs to be broadened or shifted based on the results of the analysis of the data collected (Bell et al., 2019).

In order to conduct a comprehensive literature review and provide the reader with a clear and extensive theoretical background, literature from credible sources was used. The theoretical background was drawn from information from books, peer-reviewed articles and reports that have been found through the university of Gothenburg library and Google Scholar. Keywords were used initially to identify relevant literature regarding the research topic and based on the authors knowledge about the subject. However, as literature was found, additional keywords were identified and used in the search as proposed by Bell et al. (2019). This can be summarized as a snowball effect, a method of enrolled research that develops throughout the findings of relevant literature. As relevant literature and related authors were found, a pattern of research topics and further research was presented Bell et al. (2019).

Keywords: *Disruptive innovation, Sustaining innovation, Innovation, Audit industry, Audit innovation.*

### 3.5. Data analysis

According to Bell et al. (2019), one of the main difficulties in qualitative research is the large amounts of unstructured data that transcripts of interviews quickly transform into. The richness of the data, that is the value of qualitative research makes it hard to analyse. Since there are no independent fitted structures and clear rules on how to analyse unstructured data, a mixture of general approaches is commonly used.

To analyse the data collected, a thematic analysis was conducted which examines the main features in data as it connects themes with underlying codes of the unstructured data. As thematic analysis doesn't include any specific techniques, the approach is adjustable based on the researcher's preferences and the data that is collected. In the analysis, codes were identified in the transcripts and in the notes from the interviews based on the research question and the theoretical framework (Bell et al., 2019). Different themes were thereafter built up based on groups of codes. In order to ease the process of coding, a software program (NVivo, distributed by the University of Gothenburg) was used. The software allowed the data to be more easily compared and illustrated.

According to Bell et al. (2019), a heavy criticism against coding is that it tends to fragment the data. When fragmented, the data may appear objective whilst the conclusion of the data becomes subjective to the coder. Since underlying theory is limited within the chosen industry, the coding becomes crucial to analyse the data. One problem identified with the thematic analysis was the identified risk of solely focusing on fragments of the empirical data, thus losing context of respondents' arguments (Miles & Huberman, 1994). To resolve the risk of fragmenting the data and losing context of the collected transcripts, transcripts have been re-listened to by both authors multiple times and coded manually and with the use of software. To mitigate coherence or subjectivity between the authors, the coding was done by both authors individually. This was conducted in connection with the interview to understand the context and argumentation of the respondents more easily.

### 3.6. Research quality

The avoidance of lacking quality or risk with the methodology choices is evaluated throughout this chapter. Reliability and validity will be discussed and the potential quality risk and how to mitigate these. These criteria are chosen as they are most common within quality measurements and can therefore be related to previous and latter research quality measurements of other reports globally (Bell et al., 2019). The chosen qualitative method of interviews portrays risks such as subjectivity and personal interpretations. These risks will be discussed and more thoroughly analysed in this chapter. To ensure quality of the thesis, the criteria of reliability and validity will be used to ensure legitimacy of the research (Bell et al., 2019).

### 3.6.1. Reliability

Reliability can be analysed in an internal and external perspective (Bell et al., 2019). The reliability term overall reflects the ability of secondary researchers to repeat the process of investigation and effectively obtain a high similarity of results under a similar methodology (Golafshani, 2003). Reliability can be compared to stability as a high degree of stability indicates a high degree of reliability, thus replicability. A study can be motivated reliably if it is possible to replicate the study with a high accuracy, consistency and low degree of error using the researchers' instruments.

There are three factors of reliability; stability, internal reliability, and inter-rater reliability (Bell et al., 2019). Stability means that the results of the study should be consistent over time whilst internal reliability reassurance that whoever performs the method should attain the same results. To reassure reliability with a qualitative study, interviews should be conducted with more than one person on each benchmark to exclude personal opinions and/or errors. Using the interview guide, whoever conducts the interview should not generate different answers from the interviews, thus reassuring high reliability of the report. Inter-rater reliability means that the conducted data from the interview should be objective and consistent. With the data being collected through interviews, it is not as easily observed or deemed objective. Thus, several interviews with different respondents without connection will reassure objective and generalisable data for the study. However, human errors during the interviews are an ingrown risk. This risk is minimized by sharing the summarized interview with the respondent to reassure correct and useful data as well as privacy for confidential information (Bell et al., 2019).

External reliability in qualitative research is a criterion that is difficult to meet since the social setting and other circumstances of the original study is hard to replicate (Bell et al., 2019). To increase the external reliability of this research, careful documentation of the choices and motivations with regards to the methodology have been provided in this chapter. Internal reliability refers to the reliability within the research, specifically when there is more than one observer and mainly to the question about if the researchers agree about what they see and hear (Bell et al., 2019).

### 3.6.2. Validity

Validity confirms if the researched study measures what it was intended to measure (Golafshani, 2003). Thus, the truthfulness of the results can be predicted by the validity of the researcher's report. It can be validated by asserting what questions are asked to gather data and how the data is gathered. Validity in a qualitative study is often reassured by a test or other processes showing that the study's result shows the qualitative study measures what it intended to measure. Bell et al., (2019) divide validity into internal and external validity to represent how the quality of the findings represent the real world. The interview guide represents the model used in order to get respondents to help answer the research question. During the study, a theoretical framework has been created to support the thesis of the study, thus allowing researchers to gain knowledge about the subject using respondents' expertise. The validity can be assumed high as the interview guide is built upon theoretical references which have been cited and approved. With a high degree of reliability, the interview guide can be interlinked with studies and literature, meaning that the interviews can be assumed valid (Bell et al., 2019).

External reliability is the degree to which the study can be generalized (Bell et al., 2019). The results should be applicable over time or countries to be considered generalizable. Thus, as the study tries to identify disruption within the audit industry, it will seek to do this over a period. As we also generalize the big four as the industry, it can be applicable as the industry globally since the big four acts and dominates the global audit industry. However, industry structure is not permanent and nor is disruption. The study may not be seen as generalizable over time nor geographically forever. If similar studies are conducted, this study may be considered to contain high external validity in the near future if the industry structure remains similar and without any disruptive changes within the industry.

## 4. EMPIRICAL FINDINGS

*The empirical findings chapter will present the collected data from the eight interviews. The empirics is presented around three main categories: customers in the audit industry, the competitive battle and innovation.*

### 4.1. Customers in the audit industry

#### 4.1.1. The need for auditing

The audit industry is a regulated industry, meaning that it is somewhat standardized. Respondent (3) highlight that the service provided is relatively uniform, however different companies require different quality assurance, technology advanced services or prior knowledge. In regard to this, respondent (7) instead notes that the product cannot be seen as a standardized product. Quality assurance towards high-end segments is described as complex and extremely demanding. Generally, respondents agree on the formal requirements of the service and see the regulative framework as a base for what is required. Respondent (3) means that different clients are interested in the audit process to various degrees. Their audit or additional services whilst others see the audit process as a quality assurance and important for future development.

*“A standard product, regardless of who you go to, there is a regulatory framework that needs to be followed. You have a list of things that needs to be conducted, does not matter who does it, the same things need to be done. The interpretation of the rules however can differ, which affects the audit.”*

(Respondent 3)

Respondent (6) described that bare minimum service, the legal requirements of an audit can be seen as a standardized product, however, there is much more value that an auditor can contribute with in several cases. Respondent (6) highlights the importance of utilizing quality audit services, not only the seeing audit as a required service without value as it supplies clients with an understanding of risk and potential in their current and forecasted business.

Respondent (5) explains that the core value that a company buys with an audit is assurance, both for the company and for the market, therefore the reputation of both the firm and the auditor becomes highly important which is also noticed by the other respondents. Respondent (5) also highlights that the essence of the audit differs based on the owner structure of the client, where the audit for listed companies tends to be more focused on compliance of rules and demands. For privately owned companies, the audit is more personal and aimed at fulfilling different goals and identifying areas for improvement.

Respondent (4) highlights that the role of auditing has undergone a fundamental transformation over the past years. Under the years of working in auditing, respondent (4) says the role has developed from a standardized and more of a controlling task to a more complex quality assurance, evaluating risk and forecasting. Several respondents agree that auditors now enjoy a more qualitative work, increasing the quality and insight for stakeholders. This also requires auditors to increase their knowledge about their customers, potential risk both in general and industry or firm specific, and their future estimations according to respondents. Respondents (3) mean that the regulated basis of auditing now is more complex than it was before, meaning that clients enjoy more insights from the audit service.

#### 4.1.2. Customer segments

The respondents generally describe (3) different customer segments, large-, mid- and small sized clients with different demands for audit and additional services. All respondents agree that the large clients are in focus and gain a lot more attention compared to the smaller ones. Respondent (2) describes a constant pursuit for larger clients generally in the industry, regardless of size of the audit firm, this view is also supported by respondent (5) who believes that the shift in the perspective of the larger firms is especially visible in the USA. The pursuit is described further by respondent (3) that explains that the phenomena is largely explained by the administrative process of the auditing firm:

*“With a larger audit firm, the administrative process is more complex which means that if you are going to start an audit, it quickly costs a hefty chunk of money and already at this stage it could be more than a smaller customer would be willing to pay.”*

(Respondent 3)

In the perspective of profitability, respondent (7) argues that there is not a specific segment that can be described as more profitable than another on the industry level since the revenue model is the same regardless of client. However, as respondent (2) and (3) describes, respondent (7) agrees that larger clients enable some degree of economies of scale and also provides opportunities for sales of additional services that can enhance the profitability. According to respondent (6), the demand for additional services and values is however starting to increase among smaller clients as well.

With a general focus on large companies, respondent (6) exemplifies their Swedish customer base as 1 percent large companies, 4 percent medium sized and 95 percent small clients. To utilize internal capabilities, a technologically advanced and innovative process is used towards all customers. However, customer segments utilize the service of audit differently. As different firms value the service differently, customer segments are differently targeted. According to respondent (6) the competitive price hold of each market segment is different due to the customer segments demands. Respondents agree that high-end customers, often large, listed companies, associated with high complexity, requiring intense human capital and knowledge are not as price sensitive as low-end segments. The low-end segments are small clients, often not seeking more value from the service than an approval of their audit and only use auditors because of the regulatory requirements. Respondent (1) mentions that an innovative and advanced audit process is therefore more associated and pressured from high-end customers.

*“With new technology, the auditor can become more pointed towards the qualitative tasks. Thus, technology can bring value to all clients and customer segments”*

(Respondent 1)

Large investments are required for the larger firms as they work with extreme amounts of data according to respondent (2). The internal platforms and systems constructed are used to analyse financial data and reports to identify risks. By using these automated and detailed tools, larger companies have the ability to further meet the customer demands according to respondent (4). These systems allow large firms to meet customer demands for global listed companies. The reason larger firms are almost explicitly used by global companies are described by respondent (2) as;

*“If you look at the big four, they’re almost solely focused on providing audits for large, listed companies. If you look at a medium sized company, you often talk about the big five or big six. It has become even more complex and regulated during the last years, meaning it’s even harder for companies outside the big four to audit large, listed companies.”*

Respondent (2)

#### 4.1.3. Nonconsumers

According to the respondents, there are no clear nonconsumers of audit services since as a result of the legal requirements. As the requirement of using an auditor is limited to larger companies, both private and public, and the excepted companies are regarded as unbeneficial of audit services since their activities in general is rather simple and given the constraints, limited with regards to time and extent. Respondent (6) says that firms who are not required to use an auditor may use other financial services and does very seldom use auditors. Other financial services, such as accounting, supplies qualitative assurance to clients at a lower price than auditing does and therefore fills the gap of nonconsumers in the industry. Respondent (6) however mentions that bookkeeping from an accountant does not supply as much value or assurance for clients as auditing. However, clients who are not required to conduct an audit may not utilize the value either way because of its limited size and thus capabilities.

#### 4.1.4. New services

A growing topic of discussion of the respondents is sustainability. As regulation increases and the importance of the topic for stakeholders follows the same trend, it has started to grow and is anticipated to become an important part of the audit in the future. With a new focus and segment of auditing, all firms start from a relatively undiscovered base. Respondent (1) works within sustainability and mentions the start of a new competitive scene;

*“The sustainability segment is relatively new. Most important is to identify customer needs and keep a constant ability of change and adaptation in a segment which is in the high rise. When a segment of sustainability auditing is growing in a rapid phase, new regulations and customer needs developed by stakeholder, national regulations or other incentives can rapidly change the way you need to work or deliver value with*



*your service. Keeping a competitive advantage in a segment which is under constant change is very different.”*

Respondent (1)

The segment of sustainability and its uprisings has provided a new important factor of value. Respondents from all larger firms mention sustainability as an upcoming important focus. To meet customer needs and create synergies with current value propositions, respondents agree on a high focus and development of sustainability branches under a short period of time. The development of the segment has required firms to develop new knowledge to supply current and new customers. Respondent (2) highlights the importance of not falling behind on these trends;

*“The sustainability segment is one of the fastest growing segments for big four firms. It is not solely important to gain future customers and develop insight in a growing trend, but also to sustain current customers and meet current customers’ expectations of quality auditing.”*

Respondent (2)

As the competition for the newly developed segment will be high and the requirements unsure, many firms outside the current competitive market will be able to compete for high quality customers according to respondent (2). However, respondent (4) also mentions that it is unsure how interconnected the sustainability auditing will be to normal auditing services. Respondents have noted the overall importance of delivering a service as a whole and the competitive advantage of larger firms to deliver an all-in-one service. Respondent (1) discusses the importance of meeting customers’ expectations as a whole;

*Having a global reach and working with international companies does not only require expertise and highly complex systems and solutions. Most importantly, the service itself and its quality needs to be in line with what the customer wants.*

Respondent (1)

## 4.2. Competitive battle

### 4.2.1. The business model

Respondent (7) describes the business model of the audit industry as standardized and based on chargeable hours. Respondent (7) continues to argue that this business model should be questioned and that competence, know-how and what value the customer gets should be what the firm charges the client. As the majority of the industry is concentrated to few large companies, the revenue model and structure of the industry is slow according to respondents. Respondent (7) mentions the importance of developing a more innovative and expanding outlook to its services and their value. The respondent continues;

*“I am still waiting for the audit industry’s Ryanair!”*

Respondent (7)

The competitive battlefield of the audit industry is described as a weak point of innovation according to respondent (8), who familiarizes with respondent (7) statement of innovation within the industry. According to respondent (8), the industry is limited to its regulation and strives for change by the larger firms. Respondent (4), (7) and (8) mention that increased competitiveness within the industry would benefit the development of the industry and how value would be delivered.

Respondent (3) mentions customers' understanding of the auditor's role sometimes to be confusing for clients. For customers who are not familiar with the industry, the role of the auditor and the assurance of clients are not easily understood. Respondent (3) continues with the argument that the new more standardized way of working, with systems that are generating standard outputs might lead to a shift in the way audit is performed. However, respondent (3) mentions that the importance of the auditor's role is what the auditor produces with the standardized output that systems produce. The importance of the auditor's knowledge and interpretations is further highlighted by respondent (6):

*“There is no system that can do the estimations and judgements that an auditor do”*

Respondent (6)

#### 4.2.2. Factors within the industry

Respondent (6) mentions the importance that technology has had to firms within the industry. Technology has been, and still is, a competitive advantage for firms according to respondents. Although, respondent (6) highlights that technology will become more accessible and price efficient over time, meaning that the focus lies at firms personal. To conduct a qualitative audit, respondents agree on the importance of knowledge and organizational structure. Respondent (6) continues;

*“Even if all firms had the same technology, which they probably will, or at least the gap of innovation and technology within the service will reduce over time, large companies still outcompete others by their knowledge and reputation”*

Respondent (6)

According to the respondents, one of the factors that has the biggest impact in the perspective of competitiveness in the field of larger clients is the global reach and sheer size of the firms. Respondent (3) and (4) highlights the global reach and respondent (5) describes the network and the competence within it as a foundation for competitiveness.

*“It becomes harder and harder to enter the market for larger clients, larger differences between big four or big six compared to other firms. The threshold is the global reach.”*

Respondent (4)

Respondent (5) describes competence as a strong factor that affects the competitiveness of different firms, where bigger firms with good reputation have an easier time attracting and keeping competence. Respondent (5) continues to argue that mid-sized firms might have the competence for bigger clients at the top, but towards the bottom of the pyramid, the competence isn't sufficient. Respondent (3) agrees and exemplifies the benefit of their reputation by their advantage of attracting competent and educated personnel. Other respondents mention the competence building and strong focus on educational programs of the personal for larger firms. Respondent (5) mentions the heavy investment on their personnel as an advantage of attracting and keeping their personnel within the firm. Respondents mean that the investment does not only attract personal, but it also reassures high quality and efficiency of their work.

Respondent (7) mentions the owner structure of large auditing firms as a weakness. The respondent continues to argue that the ownership structure limits innovation within the firms as they focus more on their own and personal profit rather than developing the profession or industry itself. Other respondents do not agree to the same extent; however, the respondent (8) mentions the importance of the ownership structure as a way of attracting competent personnel.

Another factor that is brought up by respondent (5) is the pure history and track record of the bigger firms that creates a barrier of entry for other audit firms. This barrier is also pointed out by respondent (7), especially for companies that are depending on external capital, that are forced to use established firms. This is also confirmed by respondent (3) that highlights the importance of trust and reputation of the audit firm:

*“If you look at listed companies, they are mostly concerned about reputation and trust in the market, and it may be the first thing you look at when choosing an auditing firm. Then you’re already down to only the big four companies due to their reputation and dominance. I don’t think it is about the product as of auditing itself, rather the relationship and reputation of a big four firm that outcompetes other companies.”*

Respondent (3)

This notion is also mentioned by respondent (8) that argues that price isn’t the main focus for larger clients when choosing an audit firm. The respondent continues by arguing that differences in the product and offering neither is sufficient for winning market shares. The main argument when choosing an audit firm is rather the auditors experience and knowledge of the client and its industry. Looking more specifically at listed companies, respondents mean that it’s solely the few largest firms who compete. According to respondent (3), the market’s trust is a large factor in showing external stakeholders of their financial credibility. Using smaller or unrecognizable auditors can have an impact on market reputation for clients according to respondent (3). Respondents (5) mentions the standardization of the service itself, and highlights other competitive advantages as relationship to clients, client recommendations and importance for auditors understanding as well as experience of the industry. In relation to the importance of relationships with clients, respondent (3) mentions the advantage of larger firms’ ability to supply a broad array of financial services. Larger firms have a broad foundation of services and expertise appreciated by clients. Respondents are noting the broad net of competence within the firm as a competitive advantage towards the smaller firms. Respondent

(3) also mentions the appreciation from customers for a “One stop shop” whilst respondent (5) says that it’s perceived that customers often benefit from “one point of contact”.

#### 4.2.3. External factors

One of the factors that affect the audit industry the most is the rules and regulatory guidelines that the audit firms and the auditor needs to comply with. Respondent (4) explains that the quality has increased because of increased regulations, however, the customers might not experience the increased quality since it’s simply connected to increased regulations. This is further mentioned by respondent (3) that describes situations where customers have called and asked, ‘why do you need to do this?’ and the answer is that the regulations and the standards have increased. According to respondent (3), the regulations can to some extent remove value from the audit since it becomes more complex and expensive. Respondent (7) highlights that even though digital tools have changed the way an audit is conducted, the demand for compliance with regulations remains.

Respondent (3) highlights the regulatory framework that steers the way of working the audit industry. The respondent continues by arguing that judgment and how you work with regulations is what affects the outcome;

*“It’s a standard product, regardless of who you go to there is a regulatory framework. It’s a requirement list, and it’s not affected by whom conducts the audit, rather the judgment and quality affect the outcome”*

Respondent (3)

Respondent (5) agrees with respondent (3) and mentions the importance of understanding the regulatory framework as it shows the market how qualitative an audit firm performs. If firms get a lot of notes because of faults in the audit when it’s inspected by federal intuitions, it rapidly becomes a bad reputation on the market. Thus, delivering a financial audit with high quality and marginal errors is of high priority according to respondent (5).

## 4.3. Innovation

### 4.3.1. Innovation in the audit industry

The automated and more sophisticated process of auditing differs heavily from the past and respondents who have been working within the industry over the past decades testify of increased complexity. As more of the standardized work becomes automated, the intellectual and judgmental decisions of how to focus to create a qualitative audit report is constructed. Respondent (4) is involved in innovation and technological development of the audit services and means that innovations have an incredibly important role for customers, employees as well as for the evolution of the auditor role as well. Respondent (6) agrees with respondent (4)'s statement of the importance of innovation within audit which has increased during the recent years. Both respondents are highly invested in the development of future audit processes, witnessing a current fast paced trend of advancements within AI, machine learning and other innovations.

Respondents argue that identifying customer needs with regards to innovative parts of the audit is a process of internal and external development and a requirement to gain future customers as well as retaining current customers. Respondent (1) argue for the importance of identifying these needs and explain how these processes are prioritized in internal processes. Respondent (2) agrees and mentions that even though the audit firms in most cases lead the product development, several clients are often a part of the process. The needs are identified and defined through the process of working with new tools and processes in cooperation with firms, sometimes free or at a heavily reduced price.

*“Our innovation team works with constant development whilst the team using the tools take upon feedback and co-develops systems and tools with customers. The dialogue with the customers is extremely important”*

(Respondent 2)

According to respondent (4) there is various interest for clients in co-developing a digital audit or new processes for innovation. The respondents continue to explain that the interest is higher in contributing to innovation for large companies than in smaller. By listening to customer feedback and the efficiency of the perceived tools and systems, constant innovation is possible. Though, the cost of this is not cheap according to respondent (2);

*We meet our customers' demands and high expectations because we are heavily invested in their current and future needs. We have for example invested several hundred million dollars in internal tools and systems and will invest a couple of hundred million dollars more in the upcoming years.*

Respondent (2)

However, respondent (7) means that even if large audit firms invest hundreds of millions of dollars in innovation and technology, it only strives to improve their personal offering and processes. Thus, the respondent means that it cannot be argued as innovation, rather business development to reassure personal gain and efficiency within the firm. In regard to this, respondent (6) mentions that the technological development is driven by the audit firms rather than the clients themselves. According to respondent (6) there is unlimited technology to utilize, however the usable fields and clients where it can be applied is limited. Respondent (7) continues on the same track as respondent (6) and highlights that the larger audit firms innovate to stay competitive rather than develop the industry or the market itself.

#### 4.3.2. Product development

The advancements of technology within the industry have allowed AI and internal platforms to be constructed. These AI and analytical tools are today a competitive advantage of big firms, however, respondent (3) states this may not be the case for the near future;

*“AI and technological advancement allow analytical tools to automate services which today is a competitive advantage due to high investment. However, it may not be a competitive advantage in the future, rather a prerequisite to be able to do auditing even in a smaller context.”*

(Respondent 3)

Respondents seem to agree on the positive trend of AI and technology in the industry. As it is hard to anticipate change, the industry has adapted to new conditions of competition. Importantly, the value of auditing becomes more forward looking. Respondents seem to agree that the value of auditing is supplying analytical and risk analysis of the future, which however is not auditing as it is predictions, not verification of the past. As auditing supplies to deliver

value for investors, management, and other stakeholders, what is considered valuable from the audit may be very different between actors.

#### 4.3.3. Product utilization

Respondents agree that the qualitative work of auditing has increased, and the administrative tasks are being minimized to create value. Respondents (2) and (8) however point out that the increased adoption of automation and AI hasn't led to more price efficient services, rather improved quality.

Respondent (3) mentions that small firms required to conduct an audit may not care about improved quality, rather only demand a lower price for the service. However, respondent (6) mentions that there is a lot of technology applicable. Even though the industry innovation is mostly focused towards larger clients due to their focus from large audit firms, it is often easily applied on smaller clients as they are more easily tailored to fit. The respondent continues arguing that technologies applicability may be limited to large companies as they are so complex. However, respondents (2), (3), and (5) mean that the focus of innovation is towards larger clients, and the spill-over effect of that innovation is carried on towards smaller clients. Respondent (6) agrees, but also highlights the fact that many smaller clients don't utilize the innovations and the technological tools that are developed. However, respondent (6) also points out that they try to utilize as much technology as possible, regardless of size of the client to get a more qualitative and efficient audit.



## 5. ANALYSIS

*The analysis combines the collected empirics from the qualitative interviews with the literature review to analyse the potential of innovative opportunities. In depth, the analysis investigates disruptive and sustaining innovation opportunities.*

### 5.1. Main findings

The main findings from the analysis are presented in table 4 below. The table presents the identified customer segments, their innovation opportunities, and signals of capitalization on these opportunities. The main findings are further developed later in the chapter in the presented order.

**Table 4**

*Main findings*

Customer segment	Identifying customer segment	Innovation opportunity	Signals of capitalization
Undershot customers	<ul style="list-style-type: none"> <li>- Some customers in the industry want to be a part of the innovation of processes and tools. Customers want to co-develop systems to achieve higher efficiency and improved quality of the services.</li> <li>- Some customers are willing to pay a premium for technologically advanced processes and features in the audit</li> </ul>	<ul style="list-style-type: none"> <li>- Improve quality and efficiency by using existing technology in current processes.</li> <li>- New knowledge areas and new technology provides opportunities to develop business models and services.</li> </ul>	<ul style="list-style-type: none"> <li>- Audit firms are developing tools, processes, and systems in order to provide more qualitative services based on their current customer's needs.</li> <li>- Expansion of services to meet customer demands in new developing areas.</li> </ul>

<p>Overshot customers</p>	<ul style="list-style-type: none"> <li>- Low service utilization among several customer groups.</li> <li>- Customers in the mainstream and low-end market segments are reluctant to sustaining innovations.</li> <li>- The regulatory requirements to conduct an audit expands the overshot customer segment.</li> </ul>	<ul style="list-style-type: none"> <li>- Innovation, offering new business models or offering to change the value propositions of current incumbents.</li> </ul>	<ul style="list-style-type: none"> <li>- Firms do not utilize technology and current tools to increase price efficiency to attract overshot customer segments.</li> <li>- No sign of capitalization, mainly because of the regulatory nature of the industry and the high requirements of quality and judgements in the audit process.</li> </ul>
<p>Nonconsumers</p>	<ul style="list-style-type: none"> <li>- Companies that are not required by regulations to conduct, and audit are in most cases nonconsumers.</li> <li>- The current offering lacks accessibility, affordability, or attributes to reach the nonconsumer.</li> </ul>	<ul style="list-style-type: none"> <li>- Disruptive innovation creating new offerings in the service, product or business model are required to turn nonconsumers to consumers.</li> </ul>	<ul style="list-style-type: none"> <li>- No sign of capitalization, nonconsumers demand more price-efficient solutions.</li> </ul>

## 5.2. Sustaining innovation

### 5.2.1. Undershot customer segment

An undershot customer segment is described by Christensen et al. (2015) as a segment that demands a more developed offering. Focusing on a mainstream market, high-end segments will suffer from undershot attributes, meaning the value of the service does not meet their expected demand. As large firms strive to reach high-end customers, having high expectations, can therefore be associated with sustaining innovation (Christensen et al., 2015). The empirics implies that the most desirable and therefore profitable customers are the larger ones. One of the reasons for this is according to the collected empirics that large clients require more personal and qualitative hours for the audit. Since there are administrative processes connected to an audit, being able to utilize economies of scale becomes important. The respondents point out that the customers that their innovation efforts are aimed towards the high-end segment. In the audit industry, the high-end segment is associated with larger, more complex companies. Thus, auditing firms have high pressure of expertise, knowledge, and global reach to meet high-end customer demands. The requirement limits the available firms to conduct audits for these complex clients to a handful, willing to pay a premium. According to Christensen et al. (2015), larger companies can therefore be viewed as undershot since they are willing to pay for sustaining innovations.

The general impacts of technological development and innovation have been increasing the value of their services and their efficiency rather than being required by their customers. Respondents don't agree to delivering an overvalue for customers, rather that the value delivered often is appreciated. As the price sensitivity for large customers is reportedly lower than in other segments according to respondents, and the general price point very similar between firms, customers value quality and efficiency of the services highly. The general understanding of respondents is that the more technologically advanced and attractive the audit service is packaged and delivered to customers, the more they increase their competitive advantage.

Incumbents have over time become more focused towards large clients to increase their profitability according to the empirics. As their focus has over time become more limited to large clients, it has required a broader global reach and complex organization structures of audit firms. Complex publicly noted companies have required audit firms to develop more efficient

and complex systems to meet the higher end customer segment. This can be related to Christensen et al., (2004) theory that nonconsumers and lower-end segments are left out prioritized or excluded from incumbents' offerings. This is as incumbents strive to serve customer segments of high profitability, often recognized as high-end customers (Christensen & Raynor, 2003). However, respondents mean that outside large firms are limited in their organizational and financial abilities to supply audits to compete with larger firms. Thus, respondents agree with the competitive advantage of large firms. Limitations of resources is common when competing with incumbent firms and discussed by Christensen et al., (2015) and is illustrated in the case of the audit industry. Their limitations vary from different geographical locations according to the respondents which mean that the industry structure is very different. Incumbent firms have been increasing their value offering, which according to respondents may leave a growing gap for audit for small firms. What is considered large customers in certain countries or between national locations may be considered small in others, thus the perspective of segment size.

### 5.2.2. Sustaining innovation opportunities

Sustaining innovation is reportedly an important focus of larger firms, witnessed by respondents. New roles within the work of innovation and technology audit have been developed and large branches have been constructed to understand and develop future strategy. Empirics witness high integration of innovation as all parts of the organizations work with clients and internal groups to develop future value of the service. To sustain profitability, sustaining innovation can help firms reach higher value by improving the offering with features, efficiency, or other innovation (Denning, 2016). Arguably, the respondents noted willingness to increase their value offering through sustaining innovation shows that the audit industry is no exception.

The industry is described as mature and differentiated between firms, as they target different customer segments of the industry. As few large firms dominate the industry, seen in a performance and market share perspective, the literature argues that these larger firms should seek to conduct sustaining innovation. Christensen, (1997) means that incumbents conducting sustaining innovation not only reach higher profitability, but also increased competitive advantages. The respondents generally agree to the objective of sustaining innovation and mentions large clients' attraction for innovative and technologically updated auditing

processes. Christensen et al., (2015) mean that these sustaining innovations, likewise larger firms' incentives for sustaining innovation, help firms increase sales as the service becomes more attractive. As respondents also witnessed a technology shift, a paradigm, which has shifted efficiency and quality of audit, Christensen et al., (2015) theory of sustaining innovations importance is illustrated within the industry. The automatization of the industry has allowed firms to increase their efficiency through sustaining innovation over time. This is recognized by respondents who have been within the industry over a longer period of time. They witness that the auditors' work has become more qualitative as processes have become more automated. Respondents agree that technology and innovation has increased in importance as the industry is moving forward at a fast pace. Thus, large firms within the industry have invested large amounts in improving their service offering according to the empirics.

An exemplified segment of sustaining innovation is the sustainability segment. Respondents argue that the regulatory framework, increased external pressure of sustainability auditing and customer demand created a fast-growing segment within the industry. The segment's customer value has exponentially increased as regulation and external stakeholders have pressured a global change towards increased sustainability. Thus, auditing firms have been required to develop a new area of expertise and knowledge to serve customers and meet the expectations of a broad service offering and “one stop shop” according to respondents. The sustainability segments thus illustrate the importance of developing a new service and competence in their business model through sustaining innovation.

### 5.2.3. Signs of capitalization on sustaining innovation opportunities

Given the nature of sustaining innovation, incremental improvements to existing products and services equals capitalization on sustaining innovation opportunities (Christensen, 1997; Denning, 2016). Respondents exemplify that larger firms have the availability of investing large sums in innovation. Respondents mean that larger firms invest hundreds of millions of dollars to increase efficiency and quality of their services. These investments can be recognized as sustaining innovation, as it aims to improve the current offering and sustain competitive advantage on the high-end segment (Christensen et al., 2004). Respondents witness that the high-end segment appreciates a service which is attractive in the way of technological features, innovative processes, and efficiency, even if the customer price remains the same. These

investments are important to stay ahead in the industry but are reported as necessary and in near future required investments which all firms within the industry need to do. Respondents mention that innovation does not in general lower prices within the industry. Automated processes rather increase quality and the value of the services. This is recognized as sustaining innovation by Christensen et al., (2015), where investments are said to be required to increase firms' profitability on the market. Christensen et al., (2015) mentions that sustaining innovation aims to improve the offering towards undershot customer segments to increase profitability.

Empirics show that respondents do not recognize any opportunities to prevail in the industry. As the large firms dominate and have dominated the industry for decades, respondents cannot seem to recognize any opportunities for new firms to disrupt the current industry structure. However, respondents mean that incumbent firms focusing on the lower segment regularly try to improve their offering to attain more profitable clients in higher segments. Even though respondents mean that these attempts are mostly successful, the high-end segment seems limited to only a few large firms. In regulated industries, Trubnikov (2017) means that sustaining innovation still can provide an attractive opportunity. As respondents agree that regulation may be a hindrance to disruption, long-term development of sustaining innovation or changes in the industry structure may prevail as options to disrupt larger firms' market presence according to respondents. Trubnikov (2017) means that a regulated industry does not consider as high of a risk of disruptive innovations. Respondents argue in line with Trubnikov's (2017) theory as they report that sustaining innovation has been most common in the industry. The technological shift has therefore privileged the current big actors, larger firms, to prevail in the industry. The competitive advantage of the larger firms is therefore affected by its regulations and the limited ability of disruption.

### 5.3. Low-end disruptive innovation

#### 5.3.1. Overshot customer segment

According to Christensen et al. (2004), overshot customers are reluctant and don't demand the sustaining innovation brought to the market to the undershot customers. To reach overshot customers, new entrants or new business models supplying a more cost-efficient solution can gain an advantage within the industry (Christensen & Raynor, 2003). According to respondents the current actors of the larger firms overdeliver in their value offerings, thus a customer segment of overshot customers pays for more than they need. Empirics mean that the

mainstream and low-end segments do not utilize innovation to such a degree as large firms. However, respondents mean that firms' incentives are to use as much of the technological spillovers from innovation on as many customer segments as possible. This is in line with the literature of Christensen et al., (2015) as well as Christensen and Raynor (2003), as the literature mean that innovation is mostly focused on the high-end segment alike the empirics.

The empirics suggests that low-end customer segments, regulated to conduct an audit, do not utilize nor appreciate the value of the offering to the same degree. Regulation affects which companies that need to conduct an audit report. As Christensen and Raynor (2003) discuss, overshooting is often caused by incumbents striving for higher profitability by increasing the offerings performance. This is often associated with higher end segments in the literature (Christensen & Raynor, 2003; Christensen, 1997; Denning, 2016). The firms that are required to conduct an audit, and which are smaller in size, do not utilize the audit in the same way as larger companies. Respondents mean that publicly noted companies have a larger pressure of choosing their auditing firm and auditor to signal reputability and trust to the market. To do so, respondents mean that there are only a few handfuls of large global auditing firms to choose from. In relation to larger firms being limited to which auditing firm they choose, the literature suggests that firms that use big four auditors attain a lower cost of debt (Paananen et al., 2016). As the respondents mean that large firms are more or less required to choose larger firms for their audit, it's therefore in line with Paananen et al., (2016), that cost of debt decreases if companies use big four auditors as large firms improve trust for external stakeholders.

Large firms focus mostly on high-end segments, large and publicly noted companies according to the empirics. Thus, small to medium size companies can be seen as overshot customer groups. Overshot customers are generally non focused segments for larger firms. Due to their high pricing and organizational structure, lower-end segments or less profitable customers leave an attractive market for outside firms. Outside the big four, sustaining innovation can help these firms reach and follow industry leaders. According to the empirics, the technological advancement and increasing efficiency of the audit industry has allowed outside big four firms to reach higher potential. However, respondents agree that outside big four firms still do not attain the capacity or organizational efficiency of supplying services to large and high-end customer segments. Thus, these customers are not only limited to the big four by reputation and quality, but also by other firms' inability to deliver audit services to these complex firms.

Respondents mean that their ability to access these customer segments, now and in the future, is limited.

### 5.3.2. Low-end disruptive innovation opportunities

Empirics show that high investments and complicated systems are not needed for small firms, thus creating opportunities for other firms to gain competitive advantages for these segments. In line with what Christensen and Raynor (2003) discusses, the services and features need to be deemed unnecessary for customers in order for them to be overshoot. In the audit industry, respondents mean that the value of their services are not what is excessive, rather the organizational structure and limitations of serving smaller clients as big clients gain more efficiency and profitability per human capital. Respondents witness a high cost of the organization, competing and starting an audit process, meaning that it may already exceed customers willingness to pay. These customer segments provide an opportunity for local or small national firms to gain access to. However, respondents also mean that these firms seek high quality and insights in their audit, thus seeking for reputable auditing firms.

As for firms outside the big four, disruptive innovation is of high importance. According to the respondents, outside firms have a lower possibility of reaching into the competitive scene of big four within the near future. Due to very high investments in technology and innovation, which only the big four have been able to fund, the high entry barriers of financial investments restrict firms from the competitive scene. Given the regulative nature of the audit industry, the opportunity for disruptive innovation is somewhat limited since regardless of technological solution, the audit still needs to comply with the rules and regulations.

### 5.3.3. Signs of capitalization on low-end disruptive innovation opportunities

To reach overshoot customers, Christensen et al., (2015) means that new business models, products or services are needed that are technologically sufficient and priced at a level that better reflects the needs of the lower customer segments. Christensen et al., (2015) suggest that current services offer excessive value and features. In the audit industry, respondent's witness that their value exceeds what is necessary for smaller clients and the service quickly becomes inefficient in its offering because of the organizational structure and large procedures to start the audit process.



The limited ability of change in the way audit is conducted, decreases the effectiveness of disruptive innovation and the regulations. Trubnikov (2017) explains the reason for the disruptive innovations' limited ability in regulated industries as a result of industry complexity. As processes require certain human judgment and analysis, respondents agree with the theory of disruptions limited ability within the industry. Respondents say that regulation increases the complexity of the process for large firms. For smaller firms it may not be as complicated, however the process still requires manual labour and values qualitative judgment. The qualitative factor increases the importance of reputation of the audit firm, auditor, and the innovation of the service. Whilst lower-end segments are not as demanding, the process cannot be automated or improved to the point where their expectations are met in the current state of audit according to respondents. The process is limited to certain human interaction and judgment, thus a certain point of value and price thereafter. The lower-end segment's demand for the service has therefore still not been changing under the technological shift witnessed by respondents.

## 5.4. New-market disruptive innovation

### 5.4.1. Nonconsumers

Nonconsumers are not willing to pay for the services provided by current actors. In contrast to overshot consumers, it's not sufficient to pay for an *overvalued* of the service since the current offering does not attract the customer segment at all. To reach nonconsumers, disruptive innovation is needed according to Christensen et al. (2004). New entrants or business models can attain the customer segment by shifting the focus. Respondents generally mean that current nonconsumers are small firms, often not required to conduct an audit by an auditing firm. However, respondents insist of a value to the audit service, indifferent to firm sizes. A qualitative audit gives not only insight and brightness to the financial reports' truthfulness and correctness, but also a futuristic outlook for management and other stakeholders. Literature shows that the value of identifying foreseeable risk and audit firms' judgment does provide value, for example in the form of lower cost of debt. With the insight that SMEs make up a large segment, especially in terms of number of firms, an opportunity for disruptive innovation has been identified.

Respondent witness of no technological development or innovation efforts to reach current nonconsumers. Efficiency and automatization have not yet allowed nonconsumers to co-develop or automatize processes of audit in order to create sufficient value. Respondents mean that current nonconsumers of audit services are firms which are not obliged to conduct an audit, thus have a high price sensitivity. Respondents mean that if an automated audit service could provide valuable insights and quality assurance of conducted financial reports, the service would potentially disrupt the market. Respondents mean that the potential service could mean a market efficiency and price decrease of the audit service. However, the need for nonconsumers is hard to predict, as the service is not offered or competing with larger firms because of their complexity according to respondents.

#### 5.4.2. New-market disruptive innovation opportunities

Respondents do not recognize a new market disruptive innovation opportunity as the industry structure is described as slow. Respondents mean that the industry is slow due to regulation and limitation of innovation in the offering. Trubnikov (2017) means that sustaining innovation is attractive in regulated industries as disruption is unlikely to prevail. Current nonconsumers in the industry are very limited according to respondents. Because of regulating factors of requirements for auditing, many smaller companies are not required to use an auditor. Because of the cost and witnessed unexploited value of auditing services for smaller companies, a new market opportunity seems limited. However, substitutes to current auditing services for smaller companies can create customer value which is sufficient for nonconsumers according to respondents. Christensen et al., (2015) discusses the opportunity of a new market or introduction of substitute products when current offerings are limited in value, creating a nonconsumer segment. The opportunity to create a new-market opportunity is limited according to the respondents because of the regulations in the industry. Respondents further argue that the limited utilization of the offering as well as available substitutes for nonconsumers leaves no opportunity for new-market innovation opportunities for current clients.

### 5.4.3. Signs of capitalization on new-market disruptive innovation opportunities

According to the empirics, and the regulated nature of the industry, the opportunities for capitalization are limited by several external factors. Current nonconsumers are price sensitive and current technology, AI and innovation have not yet reached desired efficiency. The limited opportunities of new market disruptive innovation logically affect the opportunities for capitalization. Furthermore, the offering developed by incumbents, indifferent of segments, does not focus on nonconsumers because of nonconsumers unidentified need. Because current nonconsumers are not required to conduct an audit, it serves no purpose because of the very limited scale the business is in. Thus, current offerings from incumbents, systems, and tools to provide knowledge and insight with analytical tools and technology to large global and complex clients are not attractive for nonconsumers. Current offerings do not contribute value to their small size. Nor do incumbents gain any profitability or value from serving current nonconsumers.

## 6. CONCLUSION

*The conclusion presents the answers to the research questions based on the analysis. The implication of the research is thereafter presented, both with regards to practical and theoretical aspects. Finally, suggestions for further studies are presented.*

### 6.1. Answering the research question

The aim of this research was to seek and answer the research question: “*What change might the audit industry face?*”, and the sub-questions “*Which are the signs, if any, of disruptive- or sustaining innovation opportunities within the audit industry?*” and “*Which are the signs, if any, of actors capitalizing on opportunities for change within the audit industry?*”

Based on the analysis, the audit industry might face continued sustaining innovations and potentially, low-end disruptive innovations. Current signs of opportunities presented in the thesis conclude that the current focused customer segment of high-end customers is sustaining innovation and for the middle and low-end segment, disruptive innovation. The analysis concludes that opportunities for sustaining innovation are driven by the focus of increasing profitability as the high-end segment is willing to pay a premium for increased efficiency, technology, and overall quality of services.

Firms expand their services to meet customer demands in new developing areas to sustain their advantage in the high-end segment, where undershot consumers have been identified. These areas of expertise serve the purpose to meet current and new customer demands. For high-end customers opportunities are presented as current technology and existing innovations can be used. New knowledge areas and new technology provide firms with opportunities to further develop their business models to serve demanding customers within the high-end segment. Firms are capitalizing on these opportunities by co-development of services and tools to help firms reach customer demand and increase their profitability as they improve their offering. These innovations can be linked to sustaining innovation for high-end segments.

In the middle segment and low-end, identified overshot consumers, disruptive innovation is desired to change the way of how the industry is structured and how customer demands are met. The results show that the presented opportunities are to change the fundamental value of the business model of incumbents and how the achieved efficiency may reduce price and value of the audit service. However, the study concludes that there are no current firms which capitalize on the opportunity. Mainly, the study shows that the missed opportunity of capitalization is found to be caused by the regulatory nature of the industry and requirement of qualitative judgments. Because of the required human judgment and regulatory processes to conduct an audit, firms are limited in their advancements in efficiency allowed by current technology and AI.

Lastly, the opportunity to reach current nonconsumers the opportunity found is through disruptive innovation create a new offering of the service, product, or business model. In the nonconsumer segment, no signs of firms capitalizing have been found. This is due to the inefficiency of the audit service for customers who are not regulatory required to conduct an audit. Thus, the study has concluded that substitute services are more efficient in supplying value for nonconsumers.

Innovation is affected by regulations, external stakeholders and by the firms. Identified barriers of innovation have been recognized in the analysis, concluding that the potential of disruptive innovation is limited. The industry can be seen as strict and limited by current firms working processes, reputation, and global size. These factors have shown to prevent small to medium sized firms from competing with reputable firms within the industry. Thus, the identified opportunities for innovation lies mainly within the field of sustaining innovation. It can be concluded that the conducted innovation can be recognized as capitalization of opportunities of undershot customers. Sustaining innovations within the industry is conducted to increase profitability in high-end segments and sustain competitive advantages against competitive firms.

## 6.2. Research implications

### 6.2.1. Practical

One part of the purpose of this research was to contribute with practical knowledge about potential change and disruption within the audit industry. Through this research, different innovation opportunities and potential change paths have been identified.

There are several opportunities for sustaining innovation within the audit industry. The opportunities lie mainly within improving the offering with regards to improved tools and processes that increases the quality of the audit. Another potential sustaining innovation opportunity that some companies are beginning to capitalize on are offerings in related fields, in our research, highlighted with the sustainability segment.

The fact that the industry is developing along the sustaining innovation trajectory implies that there is a potential for disruption within the industry. Given the regulated nature of the audit industry, disruptive innovation opportunities are somewhat limited since the solution needs to comply with the rules and regulations. However, regulations might change in the future, and thus, aiming some innovation efforts towards less attractive segments could be appropriate given the strong sustaining trajectory that the industry is developing along.

### 6.2.2. Theoretical

With regards to theoretical contributions, this study contributes with findings in the field of both sustaining- and disruptive innovation in general and specifically within the Swedish audit industry. The qualitative approach that the study was conducted based on contributes to a more comprehensive understanding of change within the audit industry and further strengthens the theoretical foundation of disruptive innovation. The study also confirms that the opportunities for disruptive innovation are limited in a regulated market as suggested by Trubnikov (2017).

### 6.2.3. Limitations

Given the complexity and potential to view sustaining- and disruptive innovation from different perspectives, there are some limitations to this study. One of those is the rather limited sample size which has implications on the generalizability of the study, for example with regards to the region, where the results might only be applicable in Sweden since regulations and market mechanisms vary between countries.

The method, to only conduct interviews with representatives from the biggest companies within the industry based on the notion of their large market share could also impact the generalizability, specifically in the perspective of drawing conclusions for all companies within the industry based on the findings from the large companies.

### 6.3. Recommendations for future research

This research has been conducted with an exploratory approach in order to identify potential change within the audit industry by investigating innovation opportunities. As stated in the introduction, change and disruption are highly researched topics, however, since the topic is wide, there is room for further research and therefore, some potentially interesting topics will be presented.

Firstly, since change, especially disruption, is a process, it would be highly interesting and beneficial to study the industry with a longitudinal research design in order to capture change and fluctuations in another way. Furthermore, it would also be interesting to conduct a follow-up study in order to gain and explore additional insights in the process of disruptive innovation.

Secondly, disruption is in some way a balancing act between the innovative direction of the companies and the customers' demands. Thus, it would be highly interesting to both conduct a study solely based on the customer side, and with a combination of respondents from both the supplier and demand side to capture additional perspectives and allow for a more developed view of the characteristics of the customer segments and their behaviours and needs.

Finally, this study was conducted with an exploratory and qualitative design. Given the limitations of the qualitative approach, it would be interesting to conduct a study with a more quantitative approach, both in order to confirm the findings suggested by this study, but also to provide more generalizable findings.

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# APPENDIX

## A. Interview guide

### Information about the interview:

- Anonymous
- Is it okay for you if this interview is recorded?
- Is it okay if your company is mentioned in the report?
- Your words may be used as quotes, though without your name specified to it.

### Introduction

1. How long have you worked within the industry?
2. How long have you had your current position?
3. What is your responsibility/duty in your current role?
4. Have you read the description of our report before the interview?

### General

5. How would you describe the industry's evolution in terms of:
  - 5.1. Competitiveness over time?
  - 5.2. Pricing over time?
  - 5.3. Demand over time?
6. How does pricing compare between actors?
  - 6.1. How price sensitive are customers?

### Customer groups

7. Which are your current customer segments?
  - 7.1. Are there customer segments which have a higher/lower focus?
8. What are the current targeted customer segment expectations on your offering in regard to product development?
  - 8.1. Are there requirements of constant development of the offering?
9. How do your company identify customer needs to meet your customers' expectations and needs?
10. Have you recognized any change in customer needs over the period of your role?
11. Do average customers utilize all innovation and product quality developed?

### **Nonconsumers**

12. Which customer segments are currently outside your company's targeted scope?
  - 12.1. Why? Price? No need? etc.
13. Are there new customers who you decline? If so, why?
  - 13.1. If so, could they become potential customers in the future?
  - 13.2. What are the limitations or hinders for them becoming customers?

### **Innovation**

14. How are your company's innovation strategy chosen?
15. How does your company work with innovation?
  - 15.1. Is there any innovation that could help you improve your offering to less focused customer segments or improve the offering to the customer groups targeted today?

### **Summarizing open answer and discussion questions:**

16. Do you see any tendencies of change within the industry or the industry structure?