QUALITY RESEARCH IN AUDITS

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Abstract
During the financial crisis multiple company scandals led to high financial damage for shareholder. This led to an international discussion over the quality of audits, since prior to this almost all of the affected companies concerned had received an unrestricted audit certificate. To regain the trust in statutory audits, political leaders were forced to take action, the European Union passed the Directive 2006/43/EC. This article contains an analysis of how different researchers on the topic, such as Linda Elizabeth DeAngelo, Kai-Uwe Marten, Matthias Rebhahn and Mark Leuchtmann, describe and evaluate quality in audits. These researchers focused either on direct or indirect audit quality research, which will be outlined after a short description of the different definitions. Afterwards, a short abstract of a research project conducted by the author will be presented. Here it is outlined if the size of an auditing company has an effect on the quality of audits.

Keywords: External quality control, quality in audits, company size

Introduction
There are extensive theoretical approaches and empirical studies examining the influence of various factors on quality of audits, such as the size and/or the specialization, the duration of the mandate and accounting policy and a possible competitive pressure. They examine, to what extent there is a correlation between the respective factor and the quality of audits. Some of these scientific studies show, that in large auditing companies – simply due to their size – the quality is better than in small auditing companies, namely the models of DeAngelo and Ewert. Other studies examine the correlation between the quality of audits and the size and specialization of the auditing companies. They also attempt to prove that large and specialized auditing companies have a higher quality of audits than small or non-specialized auditing companies. The empirical studies examined by Jany, however, were not able to show such a correlation in all countries. Studies for the USA, after the introduction of the Private Litigation Reform Act and for China, showed a correlation between liability provisions and the varying quality of audits between small and large auditing companies. A study which was carried out in Europe, on the other hand, was not able to find such a correlation. Other studies by Choi et al. and Francis/Wang came to contrary conclusions. They examined the influence of liability regulations on the difference in quality between large and small auditing companies and compared it internationally.

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2 Lanfermann; Maul, 2002, p. 1725
3 DeAngelo, 1981b, p. 183
4 Jany, 2011, p. 201, examined whether the design of liability rules has an impact on quality differences between large and small and specialized and non-specialized firms.
5 Francis & Yu, 2007 pp. 1521
6 Jany, 2011, p. 153
7 Jany, 2011, pp. 151
8 Jany, 2011, p. 149
9 Jany, 2011, p.151
The theoretical studies and models of DeAngelo and Ewert come to the conclusion, that the large auditing companies have a greater incentive to produce a higher quality of audits than small auditing companies\textsuperscript{10}, and that the motivation to produce a higher quality of audits directly depends upon the amount and the probability of the mandates that could potentially be lost as well as the loss of mandates itself.\textsuperscript{11} In the analysis of 39 examined studies on the actual quality of audits, however, Jany\textsuperscript{12} came to the conclusion the results can differ quite a bit, even if their tendency confirms the theoretical models. Twenty-three of the studies examined by him come to the conclusion that the quality of audits is higher in large auditing companies than in small ones, fifteen do not reach a consistent conclusion and only one study shows a higher quality of audits for small auditing company. Among the studies examined by Jany, only the studies of companies in the USA showed a higher quality of audits in large auditing companies, the studies focusing on companies in Europe either reached mixed conclusions or showed nearly insignificant differences in quality.\textsuperscript{13}

**Description of Different Definitions**

In recent years there have been a lot of discussions about the term “Audit Quality”. However, as Marten\textsuperscript{14} criticizes, there are – at least in German – no sufficient definitions of the term available to the expert audience. According to Marten, it is taken for granted, that in the auditing profession, everyone is supposed to know, what the term “quality” denotes.\textsuperscript{15} DeAngelos’ (American researcher on quality in audits) definition has for a long time been the most quoted.\textsuperscript{16} : “The quality of audit services is defined to be the market-assessed joint probability that a given auditor will both (a) discover a breach in the client’s accounting system, and (b) report the breach.”\textsuperscript{17} To DeAngelo, quality therefore means the “auditor’s technological capabilities” and his independence.\textsuperscript{18}

In the German speaking area there is no uniform working definition for what is to be understood by quality in auditing. This applies to research as well as to legislation and profession. Nevertheless, there certainly is a multitude of approaches to be found with try to explain the term. One can make a distinction between those two approaches, similar to the quality of services: Differentiating between those with a product-oriented approach and those also considering the expectations of the recipients concerning the final audits; therefore the customer-oriented approach.

According to Schmidt\textsuperscript{19}, a supporter of the product-oriented approach, this means that the quality of audits depends on whether the auditor is able to give a reliable judgment about the conformity of the annual financial statement computed on the basis of accounting policies. “The quality of the final audit is the qualification of the annual auditor (meaning his ability and independence to judge) and accomplishment of action of audit (that means the appropriate judgment) for giving a reliable audit judgment about accounts.”\textsuperscript{20} For Schmidt, an audit therefore is of premium-quality, once it manages to fulfill the legal and professional

\textsuperscript{10}DeAngelo 1981b, p. 183
\textsuperscript{11}DeAngelo, 1981b, p. 183, Ewert, 1993, p. 156
\textsuperscript{12}Jany, 2011, p. 91
\textsuperscript{13}Jany, 2011, p. 91
\textsuperscript{14}Marten, 1999, p. 184
\textsuperscript{15}Marten, 1999, p. 184
\textsuperscript{16}Marten, 1999, p. 184
\textsuperscript{17}DeAngelo, 1981b, p. 186
\textsuperscript{18}DeAngelo, 1981b, p. 186
\textsuperscript{19}Schmidt, 2000, p. 12
\textsuperscript{20}Leffson, 1988, p. 66
demands. Copley and Doucet also take the point that the quality of audits depends exclusively on the compliance with auditing-norms.21

What’s more, Niehues defines quality as product-oriented by stating that quality of the final audit means the implementation and reporting through a member of the profession, who complies with all rules and regulations while performing his duties. The addressee as the recipient of the audit is not being considered. Marti and Eberle anticipate a high quality when one complies with the auditing-norms, but nevertheless concede that the auditing-norms will never be fully able to meet the norms in each and every situation and therefore remain partly in the responsibility of the auditor.22 Additionally, it is not possible for the external addressee of the audit to assess the performance – in this case controlling the compliance with auditing norms. Only the reviewed annual account with the audit certificate will be published.

It seems, according to Marten23, that the term audit quality is understood as “synonymous with compliance with requirements and statutes.”24 For a long time, the recipient of the services of the auditors, the companies which are audited or the interested public, have not been in the focus by the definition of quality in audits.25

One of the first, who also considered a customer-oriented approach into the definition of quality measurement, was Leffson.26 He describes “quality as trustworthiness of the judgment which includes as essential component accuracy belongs.” Thereby however it is assumed, that trustworthiness in the auditor’s judgment only can be evaluated by the receiver. Leffson defines quality in the way that the auditor hands in a “trustworthy and flawless” judgment. For Leffson, preconditions for that is the power of judgment of the auditor – the general as well as the specific knowledge; the freedom of judgment – the autonomy of the auditor; as well as the appropriateness of judgment, which is given, once the auditor bears in mind the principles of integrity, essentiality and objectivity. Leffson demands, that the processes of judgment on behalf of the auditor has to be comprehensible for third parties – he includes the recipient of the final audit into his definition.27

Dr. Anke Müßig is searching for a definition of the term “quality”, as well. She comes to the conclusion, that in the case of financial audits, it is all about the fulfillment of expectations.28 To define what “quality” means for financial audits, one needs to question whose requirements and expectations need to be fulfilled. Does the judgment of the definition differ on the part of the observer? The few examples show, that an absolute definition of this term does not exist, because the subjective requirements of the service recipients for financial audits are diverse. The auditor himself would certainly define “quality” in a different way than the company that is being audited would do. Similarly the chief executive officer (CEO) would have another definition than the supervisory board would arrive at.

For the auditor quality means to perform the audit in a special amount of time and to reduce the risk of liability. For the profession of financial auditors “audit quality is not simply about following a rulebook of auditing standards and regulations (…), it is about professionals reaching the appropriate judgment in difficult and complex situations.”29 For the CEO or the management, as the receiver of the service “financial audit”, an audit with high quality is an audit that is run fast and without any problems, questions and discoveries. In contrast to that, a supervisory board judges an audit positively if it gets the information fast

21 Copley; Doucet, 1993, pp. 89
22 Marti, Eberle, 2004, p. 418
23 Marten, 2004, p. 15
24 Lindgens-Strach, pp. 275; qtd. in Marten, K., 2004, p. 15
25 Marten, 2004, p. 15
26 Leffson, 1988, p. 8
27 Leffson, 1988, p. 6
28 Müßig, 2008, p. 173
29 Institute of Chartered Accountants in England & Wales, 2006, p. 3
and if the mistakes are cleared up fast. The public’s expectation for quality in financial audits is again to receive an audit which contains no mistakes and which they can trust.

Langenbucher, who defines quality of audits from the customer perspective, finds that a final audit deserves a very good or good quality judgment, once it meets the expectations of as many stakeholders as possible. He perceives an optimization problem, at the point (as outlined above), where the interests of the addressees of the final audit are divergent.

**Interim results**

These examples already show that there is no standard answer to the question what “quality” for financial audits means. There is no universal definition to be found in neither in the German speaking or in the English speaking area. Regardless of this, new laws, communiqués, and standards are decreed just to raise the quality in the financial audit. It has been worked out, that the different existing definition of quality can be divided into product- and customer-oriented approaches – similar to the distinction in service quality. The definitions that are solely product-oriented and regard quality as the fulfillment of the legal and professional expectations are too narrowly defined. That it is absolutely necessary, to include the recipient of the final audit in the evaluation of quality, is reflected by the recurrent expectation gap in the domain of audits. The term expectation gap means the falling short of public expectations of the audit and the actual professional conduct of the auditors.

**Theoretical and Empirical Papers on the Quality of Audits**

When further considering the term “quality” in auditing, the aim is not to find additional single definitions of different authors, but to offer an overview of the current status approaches of audit research (both theoretical and empirical) that examine in how far other factors, such as the size of the auditing office, the reputation, the specialization, the remuneration or the competitive context influence the quality. In the following, the selected research approaches will be outlined and critically evaluated according to the amount of their influence.

Within the scope of investigating the audit quality, one can differentiate between direct and indirect inquiry methods. For the indirect inquiry, factors such as the size of the audit company, the specialization, the remuneration or the balance policy are used for measuring the quality. The direct measurement of audit quality derives from such factors and tries to evaluate audit quality on the basis of predefined quality features. As already shown, it is possible that the audit quality can be evaluated in a product-oriented way as well as based on subjective perception. At that, the product-oriented perspective refers to the compliance with certain norms in the sense of an internal objective view on quality. When gauging audit quality on the basis of subjective perceptions, the focus is on the recipients. This takes into account the subjective, demand-oriented view of quality. It is all about the differentiation of actual and perceived quality. The actual quality is what the auditor achieves effectively; the perceived quality however denotes the perception of quality on behalf of the addressees.

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30 Langenbucher, 1997, p. 63  
31 Marten, 1999, p. 78  
32 Ruhnke, 1997, p. 332  
33 Ruhnke, 1997, p. 332  
34 Reban, 2012, p. 70  
35 Jany, 2011, p. 23
Direct Audit Quality Research

In the European area, the works of Marten (Germany 1999) 36, Leuchtmann (Switzerland, 2006) 37 and Rebhan (Austria, 2012) rank high among the direct audit quality research papers. In the following, all of those are outlined shortly.

The models of Marten, Leuchtmann and Rebhan

Marten further developed the GAP-Model by Parasuraman, Zeithaml and Berry, which they had developed for service quality, in order to find a concept for measuring and controlling the quality of financial audits. They additionally tested this model empirically for its practicability.39 The basis of Marten’s GAP-Model is a comprehensive understanding of quality which considers the compliance with all relevant norms of final audits as well as the expectations of the customers and thus connects the provider and the customer domain. The gaps he found in the symmetrical GAP-Model – 11 in total – were tested empirically by him, in order for him to prove that those GAPs consisted mainly of informational and communicational discrepancies between auditors and customers of audits.40

Leuchtmann’s work from 2006 is oriented towards the work of Marten. Leuchtmann developed 25 quality features and surveyed businesses officially listed at the Suisse Stock Exchange as well as their auditors. He came to a conclusion similar to that of Marten, but also determined significant differences in the attitude in which his subject group answered.41 As Marten’s work dates back to 1999 and the work of Leuchtmann (2005) only considers the Suisse market, disregarding the European guidelines, the findings of Rebhan’s research work (2012) will be outlined below.

Reban examined the Austrian auditing market, also building on Marten’s GAP-Model. On the basis of the aforementioned studies, he developed 26 quality features relevant for Austria and took both, providers and customers, into consideration in order to detect relevant gaps in the symmetrical GAP-Modell. Of special interest for Rebhan were those gaps referring to processes between provider and customer. Those gaps are the perception gap (GAP 8), the evaluation gap (GAP 10) and the expectation gap (GAP 11).42 In the summer of 2010, 1096 subjects from groups of auditors, executive boards, supervisory boards and financial analysts were surveyed with a response rate of 11%, 3%. In contrast to the results of the studies by Marten and Leuchtmann, Rebhan draws the conclusion, that there are distinctly fewer significant quality gaps in existence in Austria. Concerning the given quality features, the quality of audits in Austria was rated significantly higher.43

Evaluation of the research papers

The research papers of Leuchtmann and Rebhan draw on the GAP-Model, which had been developed by Marten in order to measure and control the quality of audits. Marten used the Servqual-approach by Parasuraman, Zeithaml and Berry for measuring, and the GAP-Model, which had been developed for services, by Parasuraman, Zeithaml and by Berry for control. The transfer and application of a chosen method is possible, as auditor services show similar characteristics of services. The assumptions Marten made on his symmetrical GAP-Model, were tested empirically. As the GAP also considers the expectations of the customers

36 Marten, 1999
37 Leuchtmann, 2006
38 Rebhan, 2012
39 Marten, 1999, p. 327
40 Marten, 1999, p. 328
41 Leuchtmann, 2006, pp. 137
42 Rebhan, 2012, p. 98
43 Rebhan, 2012, p. 197
in addition to all relevant quality norms of final audits, it postulates a comprehensive understanding of quality which the two other research papers adhere to as well. Through the identification of gaps, it is possible to measure the subjectively perceived audit quality. Thus guidance for raising audit quality can be derived. The model is therefore certainly suitable for revealing gaps and for offering guidance to auditors. However, it does not contain a forecast value.

Indirect Audit Quality Research

Within the indirect audit quality research, factors are used to make audit quality measurable. The size of the audit company, membership in the Big4, specialization, liability risk and remuneration are a few factors for measuring audit quality. In the following, because of the importance of DeAngelo’s work, the importance of the size of an audit, quality as a factor will be presented. In the following, only the current research papers by Linda Elizabeth DeAngelo will be more closely discussed. 44

The size of an auditing company as an indicator of quality – Linda Elizabeth DeAngelo’s theoretical contribution to research

DeAngelo’s paper of 1981 examines the influence of “the size of the auditing company“, measured in reference to the mandates carried out and, the quality of auditing performances. Marten regards DeAngelo’s paper as the most influential examination in respect of measuring the audit quality by the help of factors. 45 The main elements of DeAngelo’s quality definition are (a) the professional qualification of the auditor together with (b) his independent reporting: “The quality of audit services is defined as joint probability assessed by the market that a given auditor will both (a) discover a breach in the client’s accounting system, and (b) report the breach.” 46

DeAngelo sees a connection between the independence of an auditor and the size of the auditing company. She stated that a bigger auditing company with a higher number of mandates is potentially more independent than a smaller company with only a few mandates, though as far as remuneration is concerned are more important mandates. She therefore assumes that smaller offices are exposed to a higher pressure on the part of the managements of the audited companies, if those threaten with e.g. a change of auditors. 47 To support her view, she brings in her „quasi-rents-model“. The quasi-rents-model supposes that the remuneration of the final audits are in total competition in the auditing market and are higher in case of an original inspection, which means that the remuneration of the original inspection does not cover the expense of the audit. This pricing policy is also called “low balling“. 48 The auditor is able to compensate for this loss through the expected quasi-rents from follow-up audits in the succeeding years. 49 The basis for this model is that the auditor is concentrated for other audits as well, and that the remuneration rises with increasing duration of mandates (fee cutting). As a company has to pay transaction fees for a change of auditor, it will refrain from it, as long as the cash value of the audit fees of the current auditor does not exceed the cash value of the new auditor and the additional transaction cost for the company. 50 DeAngelo derives the conclusion from her quasi-rents-model that bigger auditing companies

44 A comprehensive presentation of the theoretical and empirical studies to evaluate research, the Annex to the work of Jany, 2011, pp. 207
45 Marten, 1999, p. 49
46 DeAngelo, 1981b, p. 186
47 DeAngelo, 1981b, p. 189
48 DeAngelo, 1981a, p. 113
49 Ballwieser, 2001, p. 106
50 Marten, 1999, p. 51
ceteris paribus have a higher incentive to report an error than auditors with a smaller mandate base: “This implies that, ceteris paribus, the larger the auditor as measured by the number of clients, the less incentive the auditor has to behave opportunistically and the higher the perceived quality of the audit.” It follows from the foregoing that dependence of an auditor is all the more at risk, the higher the remuneration to be lost is concerning one mandate by comparison to others.  

**Research**

With the introduction of external quality control the auditing profession is supposed to be supervised, to ensure quality through an inspection of the quality assurance systems established in the auditing companies. One goal of the introduction of quality control is to raise the quality of audits, even though there is no common definition of quality. As small and medium-sized auditing companies are especially affected by the number and scope of the constant new legal and professional restrictions, the authors research project will focus exclusively on their concerns.

Overall four research questions have been analyzed. In this research paper, only question 3 will be analyzed.

1. Is there a uniform understanding of quality in the profession of auditors?
2. Has the introduction of external quality control increased the quality of audits?
3. Does the size of an auditing company have an effect on the quality of audits?
4. Does external quality control have an effect on the continuance of small and medium-sized auditing companies?

In total 46 expert interviews in 4 different groups of accredited professionals have been conducted. These experts were asked, amongst others, about their understanding of quality, the importance of the implementation of an external quality control system and the influence of external quality control on the quality and on their company. In this article only a short abstract of the research project can be shown.

**Influence of the Company Size on the Quality**

The size of a company as a means of measuring quality was doubted by 85.3% of all interviewees. Spread across the individuals, 84.6% of the auditors interviewed doubt this statement. They stated that size does not automatically mean good quality.

It was however acknowledged, that the bigger companies have more resources for specialization, employee training, and internationalization. A better quality – solely due to size – was nevertheless not agreed upon.

The evaluation of this question was divided according to the company’s size, hints at whether or not the owners of big companies are more likely to be of the opinion that they have a better quality just because of their size.

It is evident that small companies without employees share the opinion, that bigger companies do not have a higher audit quality simply because of their size. This might be due to the fact, that in these companies, the auditor carries out all audits himself, is on site continually and thus guarantees a high audit quality through his performance. The answers of those companies with up to 10 or more than 10 employees are to the greatest possible extent similar. 85.7 per cent of the companies with up to 10 employees and 76.9 per cent of the companies with more than 10 employees doubt a better quality in big auditing companies simply because of the size of a company.

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51 DeAngelo, 1981b, p.
52 Bigus; Zimmermann, 2009, pp. 1283
53 Maccari-Peukert, 2011, p. 96
54 Marten, 2001, p. 24
The vote of the quality control reviewers is unambiguous on this question. All of them, i.e. 100%, are of the opinion that big auditing companies do not offer a better quality just because of their size and do not have a bigger interest in rendering a high-quality audit, as small companies would have. Rather the opposite of this is believed to be true. As for the reasons for this, it is stated that it is important especially for small and medium-sized auditing companies, which operate in regional surroundings, in which they are rooted privately and live with their families, to deliver high quality. Professional errors harm the reputation of small companies in such a way, that their whole existence is at risk and thus also the existence of the owners and their families. In addition, at small and medium-size auditing companies, it is the owner who is liable with his assets; insofar losses are not covered by liability insurance. Small and medium-sized auditing companies usually carry the name of the respective auditor in their company’s name, so that the name always represents the company / association and is always affected in case of errors, e.g. “wrong certificates”. The reputation of the auditor is thus lost for a long time not only in his professional, but also in his private surroundings.

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Table 1: Results question 10a

Conclusion

The complete research project found out that a rethinking is taking place in the profession; an effect of external quality control on the company’s quality has been affirmed by the majority of the interviewed companies. External quality control has, even though a slight overregulation is being lamented, definitely led to the fact, that a new understanding of quality has been created in many – especially medium-sized – auditing companies. Quality standards have been written down for the first time and audit processes have been standardized. External quality control has thus led to an increase in quality.

As this article only shows an abstract of the complete research it has to be said that the influence of the size of a company on its quality has been shown not to exist without equal clarity. The medium-sized companies remarked that bigger companies have greater reserves respective their specialization, internationalization, and employee training, but that this is not the single guarantee for quality.

A connection between quality and the size of an auditing company is clearly rejected. The majority of all interviewed companies doubt whether a better quality in big auditing companies is simply due to their size. This vote is unambiguous, as all, i.e. 100%, are of the opinion, that big auditing companies do not offer a better quality just because of their size and do not have a higher interest in providing a high audit quality as smaller companies would have. Rather the opposite of this is believed to be accurate. It is stated that it is
important especially for small and medium-sized auditing companies, which operate in regional surroundings, to provide a high quality. Professional errors harm their reputation in such a way, that their whole existence – both professional and private - is at risk. Furthermore, at small and medium-sized auditing companies, it is the owner who is personally liable with his assets; insofar losses are not covered by liability insurance. Small and medium-sized auditing companies usually carry the name of the respective auditor in their company’s logo, so that the name represents the company and is always affected in case of auditing errors.

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