THESIS OF DOCTORAL (PHD) DISSERTATION

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AUDIT QUALITY INERPRETATION AND A POTENTIAL MEASUREMENT MODEL

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1. INTRODUCTION

1.1. Topic and context

The topic of my dissertation is the interpretation, analysis and measurement of auditing activities. This study emphasises the identification of quality influencing factors, and the measuring options of auditing quality as a service. High-quality auditing is an important part of economic life today, and it benefits the profession as well. Quality control obligations have two regulatory levels: on the one hand, there is quality control by the chamber, and, on the other hand, there is public oversight. According to the Chamber of Hungarian Auditors, the aim of quality control is to ensure that auditors carry out their auditing activities in conformity with regulations. The present thesis does not focus on chamber or regulatory quality definitions; instead, I examine and interpret audit quality from the service management perspective. My aims include defining audit quality and answering the question whether there is an efficient method of measuring audit service quality, through research. If such a measuring method does not exist, I shall attempt to develop a measurement model.

The importance of audit activities is stressed by their proliferation due to economic development, the increased number of businesses, and corporate activities becoming more and more complex. Employing external knowledgeable professionals to replace company leaders, or the combination of both has become increasingly necessary over the years. Reviewing financial reports, and an objective consideration of the company's wealth and financial situation must precede decisions influencing its future in the long term. Issuing professionally reliable, independent expert opinions that are free from the owner's bias is indispensable, which is the auditors' task.

The auditors' situation, both in the national and international context, has changed over the past few years and is still continuously changing. These changes go back to the global economic recession, the lack of confidence surrounding the auditing profession. People's trust in the auditing profession has been shaken, that is why it is of importance that auditors pursue their activities under appropriate regulation, ensuring appropriate quality. Auditors play a vital role in reducing the black economy and tax evasion. For this reason, it is inevitable to ensure not only succession but also the quality of auditing. Audit quality control must be proportional to invertor risk and the scope of engagement. Low audit fees are a risk factor, which could also imply lower audit quality. In addition, superficial knowledge of international reporting standards and other international standards poses considerable risks. Beyond providing a situation report on domestic auditing, my dissertation summarises the results of relevant international research, and serves as the basis for my main research objectives: measuring audit quality and developing a new model.

1.2. Timeliness of the topic

The timeliness of the topic is shown by the fact that in the past few years the European Parliament, Council and Commission have often failed to reach an agreement during trilogues on the key issues of audit reform. The trilogues discussed the issue of audit rotation and in this context the issue of audit activity quality control, as well. Several international studies dealt with the need for audit activities and rotation in the past few years, but there has not been any national research on audit as service, audit rotation or the connection of their major input factors (quality, business success, etc.). In my research, I wish to answer the question, to what extent audit quality influences business success. In doing so, interpreting and defining audit quality and developing the related measuring and assessing system is a fundamental requirement.

The dissertation offers a presentation of the results of my systematic literature research, and the audit quality definition and measuring model I developed based on these results. This model examines audit quality along several topics and dimensions, which gives me the opportunity for a full-scale quality measurement. Thereby, it enables interpreting service quality gaps. The model helps identify audit areas that require further development in order to promote efficient and effective audit and consequently higher client satisfaction.

The novelty of my research lies in the following factors:

- The changes in the situation of audit induced the fact that audit quality has become objectively measurable, assessable. The newly developed audit quality definition and measurement model helps identify audit areas that require further development promoting efficient and effective audit.
- My research looks at several dimensions of service quality: from the perspective of the auditor, the company using the audit service and the assessment of the expected and perceived quality of service are also dealt with.
- My approach is novel because earlier publications on the topic did not focus on the newly developed model of service quality gap. Instead, they mostly drew their conclusions based on the results of empirical research of highlighted factors and their correlations.

1.3. Research objectives and hypotheses

Reviewing the theoretical background and literature helped formulate my research objectives. By looking at the conceptual system of audit quality definitions, I was able to develop my research objectives and related hypotheses. Based on the literature review and the results of the empirical research, the hypotheses could be assessed, and the new and novel findings summarised after analysing and assessing the results.

I developed the following research objectives:

Objective 1 (C1): Based on the available literature, looking at existing measurement models in search for one that measures audit quality among services, and uncovering whether such a measurement model can be developed based on national and international publications.

Objective 2 (C2): Comparing service expectations from the perspective of companies using audit services and service providers.

Objective 3 (C3): Analysing if there is a gap between the quality of expected and received services in companies demanded to undergo a statutory audit.

Objective 4 (C4): Analysing if there is a gap between the quality of expected and provided services by auditors.

After having reviewed and summarised literature, I formulated the following hypotheses with respect to my earlier objectives:

Hypothesis 1 (H1): There is no existing measurement model that measures audit – as a service – quality efficiently and objectively.

Hypothesis 2 (H2): The model developed based on literature is able to measure and interpret audit quality within the frameworks created.

Hypothesis 3 (H3): Companies using audit services and auditors have different expectations and experience in connection with the auditing service and its quality.

Hypothesis 4 (H4): Companies using audit services have high expectations with regards the quality of the audit activity, but the perceived quality is lower than expected, in other words, they get a different service quality from what they expect.

Hypothesis 5 (H5): Auditors expect the same quality of service and experience quality.

The relationship between the research objectives and the hypotheses is shown in Table 1.

Table 1. The hypothesis system of the research

Objectives	Hypotheses
C1: Based on the available literature, looking at existing measurement models in search for one that measures audit quality among services, and uncovering whether such a measurement model can be developed based on national and international publications.	**H1:** There is no existing measurement model that measures audit – as a service – quality efficiently and objectively.
	H2: The model developed based on literature is able to measure and interpret audit quality within the frameworks created.
C2: Comparing service expectations from the perspective of companies using audit services and service providers.	**H3:** Companies using audit services and auditors have different expectations and experience in connection with the auditing service and its quality.
C3: Analysing if there is a gap between the quality of expected and received services in companies demanded to undergo a statutory audit.	**H4:** Companies using audit services have high expectations with regards the quality of the audit activity, but the perceived quality is lower than expected, in other words, they get a different service quality from what they expect.
C4: Analysing if there is a gap between the quality of expected and provided services by auditors.	**H5:** Auditors expect the same quality of service and experience quality.

Source: Own compilation

In summary, I am going to deal with the issues of audit quality measurement and interpretation in their entirety, and define the criteria necessary for modelling. With the help of the reviewed national and international literature, and the questionnaire survey I carried out, a model can be developed, which examines audit quality along the lines of the predetermined topics and dimensions. This model helps identify audit areas that require further development promoting efficient and effective audit. As a result of the qualitative research, a best practices guide can be compiled, which may be used as a management decision-making support tool. The results of the qualitative research make the findings applicable in decision support, decision-making, in practice.

2. MATERIALS AND METHODS

2.1. Research data

My study examines audit service quality research using different methods, not only from the professional, but also from the scientific perspective. On the one hand, I looked into relevant (accounting, auditing) authoritative scientific journals (main databases: Sciencedirect, Ebesco, JSTOR, Scopus, Web of Science). On the other hand, I also carried out quantitative data collection and research. The quantitative research was done using questionnaires developed based on the literature research. While collecting literature and compiling the bibliography, I first determined and collected relevant primary and secondary sources, and previous studies and monographs on the topic. Primarily, I used library stocks (online and traditional catalogues), professional bibliographies, and the list of references I encountered while reviewing literature.

It can be said that from 1996 onwards, altogether, non-accounting journals included, there are around a thousand articles on audit performance and quality. What started out as a few articles per year, by 2014, the number multiplied, which shows the importance of the topic, and the trend is similar if we look at accounting journal articles only. I used this knowledge in developing my research, planning my empirical research. Typically, in audit services the different elements of the service process show different levels of transparency for the consumer and the service provider. Therefore, different factors are relevant to them. This has a significant impact on service quality perceptions, since providers have to convince customers to cooperate to smaller and greater extents in order to ensure an adequate quality of service provision.

The aim of the research is to measure and analyse the quality of audit activities, and to examine how audit service quality can be assessed. In my research, I put an emphasis on the analysis of audit activities of accounting reports; it does not include other services provided by auditors, which are treated as a subsection in the study. In audit activities, just like in any other service activity, two opposing parties, the service provider and the service user are involved; thus, it is inevitable that both the companies and professionals providing auditing services and audited companies are represented.

Due to the specificities of services, during the completion of the questionnaire, I asked respondents to rate the individual statements, to what degree they are characteristic of them at the moment and to what extent they should be characteristic of them. Based on this, the perceived state is revealed, in other words, the current state is how characteristic the statements are in their audit activities, in their opinion. After this, the expected, desired state is also outlined based on the questionnaire, which makes the comparative analysis of perceived and expected parameters possible. In addition, as mentioned earlier, the research involves the entire audit process, the audit service provider and the service user companies alike. Based on all these, using audit quality indicators proposed and

applied in national and international literature, I can examine audit service quality and quality gaps among auditing companies and auditors operating in Hungary in four dimensions.

The questionnaire used to develop the research database was sent to the subjects electronically. I used the SurveyMonkey platform. The data were retrieved between August 2018 and May 2019. First, companies were sent the questionnaires, and after retrieving the replies, auditors were sent their tailor-made questionnaire. During sampling, the selection of respondents was random, followed by a snowball method of respondents offering new research subjects. The completion of the questionnaires was voluntary for companies and auditors alike. The sampling yielded a total 361 complete questionnaires, 152 from companies (42.1%), and 209 from auditors (57.9%).

2.1.1. Corporate sample characteristics

152 companies completed the corporate questionnaire, in total. These were companies demanded to undergo a statutory audit. The questionnaire was filled out by those company leaders who are responsible for relations with the auditor, and had the greatest understanding of the auditor's activities. Preferably, this person was not the company's Accounting Officer, Chief Financial or Chief Executive Officer. There are no public-interest entities in the sample. Half of the research companies are registered in Budapest, 11% in Pest County, and 39% in the country. Based on turnover, the sample shows a roughly even distribution: the largest companies of turnover over 5 million HUF make up approximately a quarter of the sample, companies of 1-5 billion HUF amount to a similar proportion, while the remaining 50% is shared by three smaller groups. Based on company size, the majority of the sample is made up of companies employing 11-50 staff and over 100 employees, while both companies having less than 10 and 51-100 employees constitute about 20% of the sample. Based on this, it can be said that mostly companies legally demanded to undergo a statutory audit filled out the questionnaire; however, a few companies are not legally bound, but had their reports audited.

2.1.2. Auditor sample characteristics

209 respondents filled out the auditor questionnaire. Based on location, the distribution is similar to the corporate questionnaire: 47% of auditors have a registered office or place of business in Budapest, 19% in Pest County and 34% in the countryside. The vast majority of auditors, 92%, pursue their activities as a main job, while 8% temporarily ceased their activities. This rate is favourable, as comparing the proportion of active members to the total number, more than 9% of active members filled out the questionnaire. 60% of respondents have more than 10 audited partners, while less than 40% offer their services to less than 10 partners. Auditors having only one or more than one auditor qualifications are in varying proportion among the respondents.

2.2. Applied methods

The first step of developing the research topic was a comprehensive in-depth literature research. This required exploring all the relevant authoritative, influential journal articles and studies, then synthesising them using appropriate methods. The result is a preliminary research model, an influence map, which helps develop and finely tune the next phases of the research. However, literature review also aims at providing a detailed exploration of researchers currently dealing with the topic. The questionnaire survey is a quantitative research method, a standard way of data collection, during which researchers gain relevant information from respondents using a formal questionnaire, where the respondents are aware of the research aim. After having the questionnaires returned, the next step was the statistical analysis of the replies. Using the data gathered with questionnaires, I carried out statistical analyses: hypothesis testing, correlation and regression analysis and multivariate analysis among others. The statistical population is made up of all the items that are subject to the observation, in this study, all the respondent audited companies and auditors constitute the population.

Database analysis, and the applied analysis methods and techniques are primarily determined by the research model (AUQUAL-6P). I used the IBM SPSS Statistics 24 for my analyses.

The research methods are shown in Figure 1.

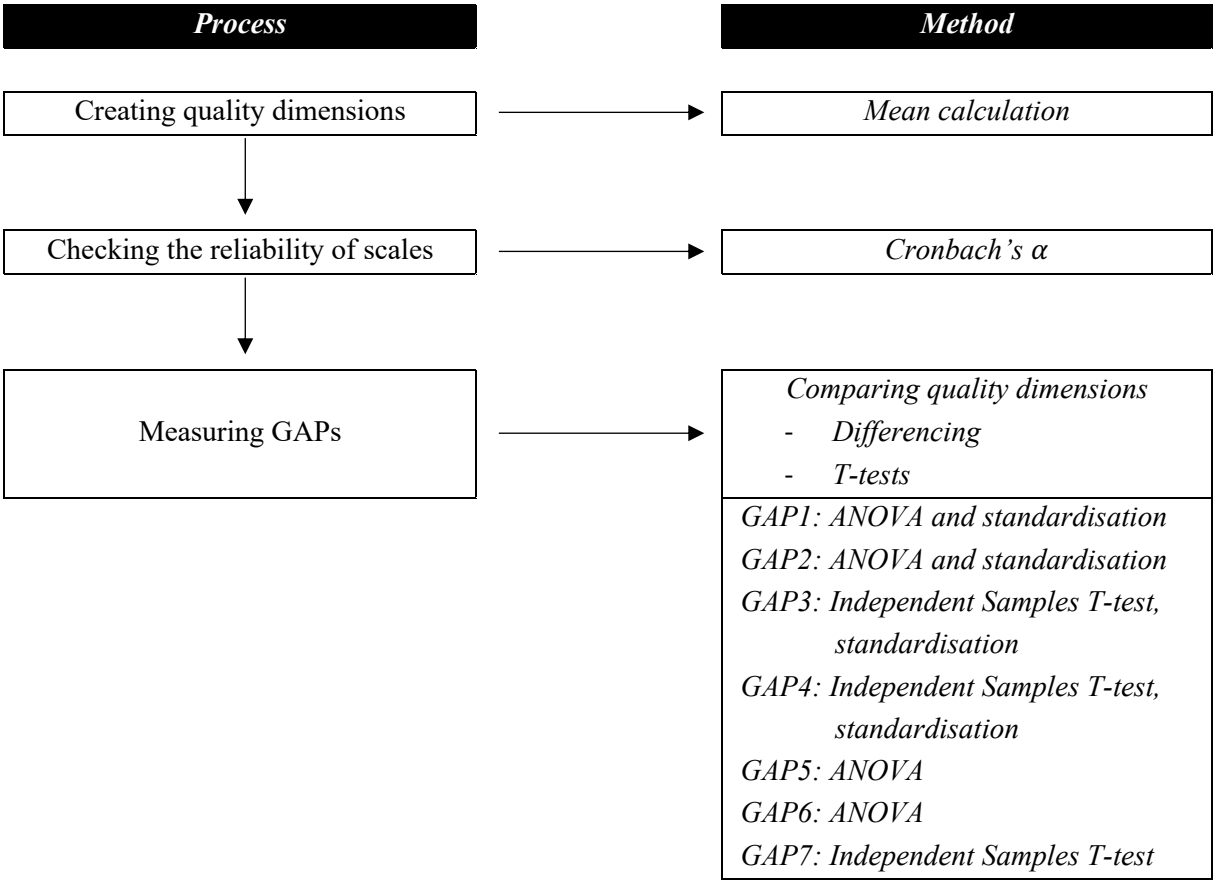

Figure 1. Research methods

Source: own compilation

2.2.1. Cronbach's Alpha

Within the frameworks of the test theory, there are several possible indicators to check the reliability of tests. In his 1951 work, Cronbach publicised his view that instead of the earlier split-half method an improved indicator should be used to assess test reliability. The method proposed by Cronbach – the alpha – is not based on the simple split-half technique; instead, it equals the means of all possible split-half coefficients. The split-half method may yield higher and lower results than this. Compared to the ideal case, which would measure a tools accuracy perfectly, Cronbach's Alpha approximates reliability at its lowest value (Münnich et al., 2006).

The Cronbach α indicator is appropriate for assessing the reliability of the quality dimensions, scales developed based on the 1-4 Likert-scale variables used in the questionnaire. Therefore, it is a reliability indicator calculated for aggregate scales, which expresses numerically the internal consistency of the test, between 0 and 1. The 0.70-0.85 value is accepted, below this value, the scale is not consistent enough, while above the value, it is redundant, that is, it contains excess elements. In practice, above 0.6 scale values are regarded acceptable (Cronbach, 1951; Freedman et al., 2005), therefore I used this value in my thesis.

2.2.2. Independent samples T-test

The two-sample T-test compares the means of a minimum interval variable in two independent groups. The test's zero hypothesis is that the averages are equal in the two groups.
Test assumptions:

- normal distribution – since the test is rather robust in this respect, the test is applicable even if the distribution does not deviate from the normal significantly. This can be checked with the Kolmogorov-Smirnov test.
- sphericity – I checked it using Levene's test (Freedman et al., 2005).

The independent samples T-test shows the significance of differences between two sample averages. The groups (companies, auditors) were determined in the research plan, and the grouping variable's given values belong to the two groups. In this case, the group-making variable is a dummy. I used the standard 95% level of significance known in tests (Maddala, 2004; Székelyi - Barna, 2004).

2.2.3. Analysis of variance, F-test, Levene's test

Analysis of variance is a method applicable to compare the means of several equal variance normal distribution groups. The means for the groups are contrasted using the components attributable to different sources of variation, through the standard deviation of subdivisions. It looks at the total variance of the entire dataset as a base set and tries to find the reason for the fluctuations.

Calculations and estimates of variances are based on the mathematical fact that the numerator of total variance, that is, the total sum of square deviations is the sum of individual elements, whereas the denominator, the degree of freedom is the sum of the degrees of freedom for the given components (Freedman et al., 2005).
In my research project, I use this method to examine the existence or lack of differences between the assessment of the expected and perceived situation. To check the conditions for the applicability of the method (equality of variance), I applied Levene's test. The threshold level of significance is 95%, as commonly used in research (Maddala, 2004; Székelyi - Barna, 2004).

2.2.4. Standardisation

Standardisation is a special case of data transformation, where data are made independent of their measurement units. The result of standardisation is the standardised variable, or in other words, the *Z-score*. The aim is to create an entire dataset that share the same feature. If we want to combine different variables in some way, often this transformation is used to avoid one variable with bigger values dominating the result of calculations. Not only theoretical distributions can be standardised, but also those variables which supposedly have normal (or close to normal) distribution.

Giving the value of a sample element does not tell a lot about its position in the distribution; thus, the relative position of an item has a greater information content than its absolute position. Standard values are calculated using the following formula:

$$z_i = \frac{\bar{x}_i - \bar{x}}{s_x}, \text{ where:}$$

z_i: standard value
$\bar{x}_i$: mean of time series containing individual scores
$\bar{x}$: main mean of sample
s_x: standard deviation of time series containing individual scores.

This way, by standardising variables for expected and perceived values, the individual variables (e.g. quality dimensions relevant to the research) can be presented well in two dimensions.

3. RESULTS

In my research, I first reviewed available national and international literature. Based on the literature research I developed a model (AUQUAL-6P model) which fundamentally determined the structure of qualitative and quantitative research questionnaires. Based on the literature review and the previously developed model, I established the questionnaire content. I treated the study of audit quality and course of business, rotation and business success, as well as rotation and audit quality connections as key issues. I also used primary sources in dealing with the topic: I examined audit quality in different dimensions by compiling and distributing questionnaires.

My literature review revealed that in the past twenty years there has been a major improvement regarding the focus of service quality models. Another conclusion is that today is the era of paradigm shift from product-based to service-based, both visible in terms of service models and the definition of service quality. The majority of models originates from the GAP model and SERVQUAL, which, despite the criticism, still have the greatest support in literature. It is clear that in recent years there is an emphasis on measuring and interpreting service quality, yet, there are only a few studies devoted to the quality of auditing as a service, or their focus was not on measuring and defining audit quality. Based on the researched literature, there is no existing measurement model, which can measure the quality of audit service efficiently and objectively. However, there are already existing structures attempting to measure quality by comparing service quality parameters. According to the result of the literature review H1 cannot be reliably proved.

The review of national and international literature reveal that there is no universally accepted auditing service quality concept; and neither is one for its efficient measurement. Most models attempt to measure service quality by comparing the expected and perceived service quality parameters.

In order to continue examining my further objectives, and to enable the objective measurability and quantifiability of audit service, using national and international literature, I developed a service quality measurement model, which is partly based on the methodology of the often-tested GAP and SERVQUAL models. The model measures audit quality (AUQUAL) in six categories (6P), among which altogether six GAPs can be defined. With the use of national and international publications, it is possible to create an auditing activity quality measurement model. Six types of quality gaps can be identified using the five topics. The model helps identifying those areas of auditing that require further improvement, promoting more efficient and effective audit activities and thus greater customer satisfaction.

The model is based on measuring six quality parameters, as follows:

- Q_m *market quality*: market/professional perception of the auditor.
- Q_p *process quality*: the quality of the auditing process, how professional and standard processes are.
- Q_r *result quality*: evaluation of the audit results, what direct benefits the audit brings.
- Q_d *direct/perceived quality*: the direct result of the auditing process, it refers to results incorporated at the operational level.
- Q_i *indirect quality*: the highest level, long-term indirect result, which might be incorporated at the strategic level.

According to the measured quality parameters, six service quality GAPs can be found:

1. PICTURE = Qp – Qm: image. The gap between process quality and market quality perceptions. It refers to partners' perception of the auditor in the auditing process in comparison with their market perception.
2. PROFICIENCY = Qr – Qp: it refers to the professionalism of auditing. It is the gap between the quality of the result and the process.
3. PLANTING = Qd – Qr: it measures the gap between the direct, short-term effects of the audit and the results. It refers to the direct usefulness of the audit process for the audited partner. In other words, it measures directly perceivable results.
4. PROMISE = Qi – Qm: it measures the gap between the market promise and actual long-term (indirect) effects: how typical it is that partners get what the auditor on the market promises them. Obviously, when talking about promise in this sense, both market and legal requirements have to be taken into consideration.
5. PROFIT = Qi – Qr: how much the company benefits from the results of the audit in the long term.
6. PERFORMANCE = Qi – Qd: it measures the gap between the direct and indirect results/effects.

My aim is to uncover how aware auditors are of the determining factors of their work, and how they evaluate these for themselves and in connection with the audited companies. In this light, I try to draw conclusions that may help serve as a guide in order to improve the quality of audit activities. The model may assist in outlining those areas of auditing activities that need further improvement. This could contribute to improved services, which in turn could increase client companies' satisfaction. Thus, by reviewing literature I managed to confirm H2 related to measuring and defining audit quality, that is, the model developed based on the literature is appropriate for audit quality measurement and definition, in the given structure.

Based on publications available in literature, using the results of my literature research, it is possible to create an audit quality interpretation and measurement model. The AUQUAL-6P model is able to measure and define audit quality in the given framework.

1. The AUQUAL-6P audit quality interpretation and measurement model has been set up, which is suitable for measuring and interpreting audit quality.

In the next phase of the research project, I carried out audit quality analysis using the quality parameters determined by the AUQUAL-6P model, both from the perspective of the service user companies and the service provider auditors. The aim of the questionnaire sent to companies and auditors was to assess and analyse the quality of auditing activities, and to examine the perception of auditor activity quality. The questionnaire concerns the analysis of audit activities related to the compulsory annual report; it does not apply to other services carried out by auditors. I measured the questions developed based on the model's quality dimensions on two scales simultaneously: the currently perceived situation was measured on a 4-point Likert scale, while the desired, expected state on another 4-point Likert scale. In line with the research objectives, I had to formulate each variable in two ways. Therefore, two different, but in terms of statistical variable content, equal questionnaires were developed; one for the companies and the other for auditors. The demographical questions in the questionnaires are adjusted to the target group.

Three out of the five quality dimensions examined do not have significant differences for the companies: they all assign medium importance to indirect quality, direct quality and result quality. The analysis of quality dimensions shows that process quality stands out among the dimensions: (taking their means and standard deviations into consideration) it is significantly higher both in perception and expectation values. This means that according to companies this quality dimension is the most important to improve. The process quality parameter refers to the auditing process, how efficiently partners can cooperate with each other, whether they discuss the problems uncovered by auditors, or to what extent and how auditors plan their activities. According to the investigations, it may be said that the perceived quality is lower than expected in almost every quality dimension in the company sample. In other words, companies view these as areas of further development.

Comparing auditor and corporate quality dimension evaluations, there are differences. It is clear that the position of process quality, indirect quality and result quality are close to each other in both subsamples. There are variables for which both parties scored high with regard to expectations and current experiences alike. These can be seen as positive factors as high expectations are accompanied by high-level perceptions. The comparison shows that such a parameter is process quality. In other words, both parties believe that the auditing process is appropriate; they can cooperate and communicate efficiently. The auditor spends time on planning, requests the documents, which is welcome by the companies. Those factors also reflect on service quality, where there is a gap between expected and perceived values with respect to companies and auditors as well. If companies have high expectations but perceive low quality, it means that the auditors' performance does not live up the expectations. Based on the research, the perceived quality of audit activity results can be highlighted as an area of further development, that is, audit should mean more to clients than mere compliance with legislation. Also, the comparison points out other factors for which low expectations are accompanied by high perceived values. These are areas, which get more attention than they require according to auditors. These factors appear among

market quality parameters. According to auditors, the perceived quality parameter is the most important area of development; here perceived values are lower than expected. On this basis, it also has to be emphasised that audit means more than complying with regulations, and that clients should recognise the benefits associated with auditing, such as cost savings, and that based on the recommendations and observations of the audit, business processes should be reorganised.

The statistical comparison of the results (independent samples T-test) reveals the gaps. A coherent perception of the reality is reflected by the fact that auditors and companies assess the situation similarly: there are no significant gaps in any quality dimension, except for process quality, which is valued higher by companies (the difference being 0.439). These differences constitute the third GAP group. With regard to expectations, the picture is the exact opposite: there are significant differences in every dimension, save for process quality. Auditors have significantly higher expectations for the development of the fourth quality dimension than companies do. Based on the tests H3 is confirmed: companies using audit services and auditors have different expectations and experiences with regard to the auditing service and its quality. The following novel research finding can be formulated:

2. Statistical methods (independent samples T-test and standardisation) have proven that in comparison companies using auditing services and auditors have different perceptions of audit service quality. Corporate quality perceptions are higher; they regard the auditing process and cooperation more efficient than auditors do.

3. The research has proven that recipient companies of the services and auditors have different expectations, and corporate quality expectations are lower in every single area, except for the process quality parameter.

The further tests have shown that five out of the six quality GAPs are significantly not zero in the case of companies. This means that companies do not exhibit the PLANTING GAP, in other words, companies do not perceive significant differences between the direct (short-term) effect and the result. The widest GAP was measured for PROFICIENCY. This indicates that there is a notable gap between the quality perception of audit results and the auditing process. The positive GAP value suggests that according to companies, the audit produces results and is professional, but regardless, the process quality does not amount to the results. The PICTURE GAP is also great, but its value is negative. This implies that the market perception of the auditing partner is considerably less than the perception of process quality. This means that companies' perceptions of the market quality of their auditor partners is lower than the perceived process quality. These differences make up the fifth group of GAPs. According to the research, H4 was proven: companies demanded to undergo a statutory audit have different expectations from the quality experience during service, in other words, they receive a different quality of service from what they expect. The following finding was formulated:

4. Analysis of variance has proven that the companies that have to undergo audit have high expectations in connection with the quality of audit service in the PROFICIENCY, PROMISE, PROFIT and PERFORMANCE" quality dimensions alike, but the perceived service quality does not live up to these expectations.

5. Statistical methods (analysis of variance) have confirmed that the quality perceived by companies is lower than expected, except for the PICTURE quality dimension.

According to auditors, audit quality expectations are different from the quality perceived during the service in most quality dimensions. Audit service provider expectations in connection with the auditing service are high in the PROFICIENCY, PLANTING, PROMISE, PROFIT and PERFORMANCE quality dimensions alike. In the same dimensions, the quality perceived by auditors is lower than expected. In contrast, in the PICTURE quality dimension, they provide higher quality service than they expect. Based on the results, H5 was not proven: auditors' audit service quality expectations are not the same as the quality perceived during service. In other words, they provide a different quality of service than they may wish.

The hypotheses of the research and the applied methods are illustrated in Table 2. The objectives and hypotheses of my research and their justification are presented in Table 3.

Table 2. Research hypotheses and research methods

Hypotheses	Methods
H1: There is no existing measurement model that measures audit – as a service – quality efficiently and objectively.	Literature research
H2: The model developed based on literature is able to measure and interpret audit quality within the frameworks created.	Literature research
H3: Companies using audit services and auditors have different expectations and experience in connection with the auditing service and its quality.	Independent samples T-test, standardisation
H4: Companies using audit services have high expectations with regards the quality of the audit activity, but the perceived quality is lower than expected, in other words, they get a different service quality from what they expect.	Analysis of variance
H5: Auditors expect the same quality of service and experience quality.	Analysis of variance

Source: own research

Table 2. New and novel research findings

Objectives	Hypotheses	Verification
C1: Based on the available literature, looking at existing measurement models in search for one that measures audit quality among services, and uncovering whether such a measurement model can be developed based on national and international publications.	**H1:** There is no existing measurement model that measures audit – as a service – quality efficiently and objectively.	Not verified
	H2: The model developed based on literature is able to measure and interpret audit quality within the frameworks created.	Verified
C2: Comparing service expectations from the perspective of companies using audit services and service providers.	**H3:** Companies using audit services and auditors have different expectations and experience in connection with the auditing service and its quality.	Verified
C3: Analysing if there is a gap between the quality of expected and received services in companies demanded to undergo a statutory audit.	**H4:** Companies using audit services have high expectations with regards the quality of the audit activity, but the perceived quality is lower than expected, in other words, they get a different service quality from what they expect.	Verified
C4: Analysing if there is a gap between the quality of expected and provided services by auditors.	**H5:** Auditors expect the same quality of service and experience quality.	Not verified

Source: own research

3.1. New and novel scientific results

1. The AUQUAL-6P audit quality definition model was developed, which is able to measure and interpret audit quality.
2. Using statistical methods (independent samples T-test and standardisation) it has been proven that in comparison, companies using audit services and auditors perceive audit service quality differently. Corporate quality perceptions are higher; they regard the auditing process and cooperation more efficient than auditors do.

3. The research has proven that companies that use audit services and auditors have different expectations, and companies have lower quality expectations in every area, except for the process quality parameter.
4. Analysis of variance has confirmed that companies demanded to undergo statutory audit have high expectations with regards audit service quality in the PROFICIENCY, PROMISE, PROFIT and PERFORMANCE quality dimensions alike, while the quality of services they perceive during service is lower. Using statistical methods (analysis of variance) is has been justified that the quality perceived by companies is lower than the expected quality, save for the PICTURE quality dimension.

In my research project, as a result of the investigations I carried out, several new and novel findings have been formulated, which are presented in accordance with the original hypotheses. Table 3. summarises the new and novel findings of my research with respect to the research objectives and hypotheses.

4. CONCLUSIONS, RECOMMENDATIONS

In my research, I examined the interpretation of audit service quality and its possible measurement approaches along different dimensions affecting the activity. In the past few years audit rotation and the related topic of audit quality have gained more and more attention both on the national and international level; therefore I believe it is an issue the needs to be dealt with. My research looked at the quality of audit as a service and its influencing factors, such as inputs, processes and procedures, the circumstances and outputs.

My thesis presented the classification of service quality models and their applicability in audit quality research. As a result of my research project, it can be stated that over the course of the past few decades, service quality models have undergone a major development, there has been a paradigm shift from product-based to service-based logic. The review of the international literature revealed that the new models related to service and service quality interpretations are a continuation of the previous models and build on their conclusions and recommendations as well. The review of national and international literature showed that there is not a single accepted concept that is able to measure audit service quality efficiently. Most models attempts to measure service quality by comparing expected and perceived service quality parameters.

In my dissertation, I approached the quality of audit as a service though the GAP model and the SERVQUAL model in order to make audit quality objectively measurable and quantifiable. By using the reviewed international and national publications, it is possible to develop a model that measures and defines audit activities. The AUQUAL-6P model enables the interpretation of five topics in six different quality gaps. The use of the model helps identify the areas of audit development, promoting efficient auditing and thus higher client satisfaction. The model helps identify five service quality parameters along which audit quality can be measured both from the perspective of the companies using audit services and auditors.

In my empirical research, I carried out the testing of the model, as well as clarified the factors affecting quality using a questionnaire survey. The questionnaire sent to companies and auditors aimed at measuring and analysing the quality of audit activities, as well as analysing how to assess the quality of auditor activities. The respondents of the questionnaire were asked to evaluate the statements belonging to certain areas from two perspectives. First, how characteristic these statements are of them, and how characteristic these statements should be. Based on these, the perceived, current state is outlined, in other words, how typical they believe the statement is during audit activities, In addition, I asked respondents, to what extent they think the same statements should be typical during auditing, that is, what their expectations are, what they view as a desired state. On this basis, those variables are outlined where there is a difference between perceived and expected values.
As a result of the investigation, the five quality dimensions of market quality, process quality, result quality, direct and indirect quality were created. The market quality parameter helps identify

the factors that play a role in choosing the audit service provider individual or company. The process quality parameter refers to the process of auditing, in other words, how efficiently the partners are able to cooperate, to discuss the potentially revealed errors. The result quality parameter refers to the direct quality of the audit activity. It concerns whether the auditor makes suggestions on how to improve accounting, financial or business processes, and whether the company incorporates these ideas in order to improve their processes. The direct quality parameter concerns beliefs about the finished audit, whether it is more than compliance with legal obligations. Whether the added benefits of auditing, such as cost savings, are identified and the business processes are reorganised based on the suggestions and observations of the audit. The indirect quality parameter determines the long-term benefits of the auditing activity, if the results of the activity have long-term measurable advantages; the company incorporates audit results in management and strategies in the long term, by means of restructuring, innovation or organisational development. Each of the five quality dimensions is measurable, in terms of both perceptions and expectations. Among the quality dimensions are the market perception of the auditor based on different factors; the professionalism of the service provided by the auditor; the utilisation of the audit results, their incorporation into the company's processes; the gap between the service offered and delivered by the auditor; the long-term benefits of the auditing activity; the gap between the direct and indirect results of the auditing activity.

As a result of the empirical research, by comparing the auditor and corporate quality dimension evaluations, the gaps become visible. There are variables for which both partners have high ratings with regard to expectations and current experiences alike. We can consider these favourable, as high expectations are paired with high-level perceptions. The comparison reveals that process quality is such a parameter: both partners view the audit process as appropriate, they can cooperate and communicate efficiently. The auditor spends time planning, requests the documents, which the companies evaluate positively. Factors that show differences for expected and perceived values are also important factors. When companies do not perceive high quality as opposed to high expectations, it means that auditors do not perform as expected. The research emphasises the direct quality of audit activities as an area of development, which means that the audit should be more for clients than a mere compliance with legislation. The comparison also shows factors, where low expectations are paired with high perceived values; these are the areas that receive more attention than required. Auditors see direct quality as an area of development; here the perceived values are lower in contrast with expectations. On this basis, it has to be highlighted that the audit is more than a simple conformity with legal requirements: clients should recognise the added advantages of auditing, such as cost savings, and they should reorganise their business processes based on the resulting suggestions and observations.

In summary, auditor and client assessment of audit quality are similar in their nature; however, companies often have more extreme views of the situation. It is also clear, based on the analyses that the auditor community (represented by the sample) is homogenous and have roughly similar perceptions of the quality of their services; there are no significant differences based on the demographical criteria. This shows that the market is strongly regulated, and the regulations are effective.

Based on the research findings I have the following recommendations:

- In many cases, the audit activity only means compliance with regulations for companies; therefore, it may be pointed out as an area of development. If both parties recognise the added advantages of auditing, it may contribute to service improvement. Another advantage could be process restructuring and improvement based on the identified errors and risks, such as potential cost savings. In addition, companies could reorganise their business processes using the suggestions and observations of the audit.
- It has appeared from the examinations carried out that according to companies there is too great emphasis on the market quality dimension (in other words, the circumstances of their selection and their market perception). I suggest that auditors should pay less attention to this dimension and use the extra resources for process improvement,
- Both auditors and companies think that process quality is of appropriate standard, they are satisfied with the relationship and communication. Auditors spend time with planning and performing activities. Based on the investigation, this is not an area of development; however, I recommend paying further attention to this dimension.
- The results show that auditors do not offer enough recommendations to companies on how to improve their accounting, financial and business processes. I suggest that auditors should pay attention to this area and help companies incorporate these observations in order to improve their processes.

A further are of research could be an in-depth interview among auditors and companies. On the one hand, in-depth interviews may help clarify further research questions and provide new objectives for my future research. On the other hand, in-depth interviews could help test the new model, the conclusions based on the results of the responses to the questionnaire and the GAPs among auditors and companies. Professional in-depth interviews would be targeted at auditors and companies using auditing services. I would carry out corporate in-depth interviews among companies that rotate audit service providers, and companies who use the same auditor as well. This could promote an extended and more in-depth exploration of the relationship between audit rotation and audit quality. My further future research aim is to create a kind of guide, which could be used as a manager decision support tool, and could help make the results applicable in decision support, preparation for decision-making and practice.

5. SUMMARY

My dissertation dealt with the interpretation and measurement of audit service quality. In addition to analysing the domestic auditing situation, my research summarises the results of related international studies and points the way to the fundamental aim of my research: measuring audit quality and developing my own model. I presented the results of my systematic literature research in connection with service quality measurement models, and based on the results, I developed an audit quality interpretation and measurement model. The AUQUAL-6P model analyses audit quality in five quality dimensions using six quality parameters, providing the frameworks for comprehensive measurement and the interpretation of service quality gaps. The model helps identify the areas of development in auditing, promoting a more efficient and effective auditing and thus higher client satisfaction.

In conclusion, in my thesis I dealt with the issue of audit quality measurement and interpretation, and defined the criteria required for modelling. My questionnaire helped identify the quality influencing factors from the perspective of the participants of auditing. Based on the reviewed national and international literature, as well as my questionnaire survey, I could develop a model, which measures audit quality within the determined topics and dimensions. The model helps identify the areas of development in auditing, promoting improved auditing. My research findings serve a double purpose. Based on the results of the qualitative research, a best practices guide can be developed, which may be used as a managerial decision support tool. In addition, the results of the quantitative research make the findings applicable in decision support, preparation for decision-making and practice.

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