

# Beoordelingen van processen : professional judgment of judgment van een professional

## Citation for published version (APA):

Verkruijssse, J. P. J. (2005). *Beoordelingen van processen : professional judgment of judgment van een professional*. Universitaire Pers Maastricht. <https://doi.org/10.26481/dis.20051118jv>

## Document status and date:

Published: 01/01/2005

## DOI:

[10.26481/dis.20051118jv](https://doi.org/10.26481/dis.20051118jv)

## Document Version:

Publisher's PDF, also known as Version of record

## Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

## General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

[www.umlib.nl/taverne-license](http://www.umlib.nl/taverne-license)

## Take down policy

If you believe that this document breaches copyright please contact us at:

[repository@maastrichtuniversity.nl](mailto:repository@maastrichtuniversity.nl)

providing details and we will investigate your claim.

# Summary

## S.1. Survey objectives

This thesis discusses the professional judgment applied by an auditor when reviewing internal control processes. In past decades, studies of auditors' professional judgment have regularly been carried out. The aim of this study is to contribute to international research.

Professional judgment can be viewed from two sides: firstly, from the perspective of the individual auditor and, secondly, from the perspective of the auditing profession. In the case of the individual auditor, we are dealing with the judgment of the professional, while in the case of the auditing profession; we are dealing with the judgment of the profession. It is not only the obvious differences that are important – i.e. the individual versus the group – a relationship also exists between these two perspectives. The quality of the professional opinion formed depends in general on a critical discussion between professional colleagues. While of course the judgment of a professional stems from the mind of that individual professional, the quality of that judgment, which is the subject of critical review by the public, is shaped by his fellow professionals and accumulated in the profession.

The need to understand this professional judgment is a response to society's demand for transparency in the process of forming an audit opinion, which in turn has been prompted in part by recent corporate failures and the discussion on Corporate Governance. On top of this, society can use the information to assess individual auditors and check the quality of the opinions they issue.

Understanding the professional judgment of auditors is equally important for both the auditing profession and the individual auditor. It can help the auditing profession to demonstrate its solid standing and, by implication, that an audit opinion, irrespective of the auditor performing the examination, will not be materially influenced by

subjective considerations. And when forming his opinion, the individual auditor can be guided by the professional judgment applying within the auditing profession.

Gaining an understanding of the professional judgment of auditors may make it necessary to adapt the educational curriculum for trainee auditors, in particular to focus more on the key elements influencing an auditor's professional judgment when reviewing the internal control structure.

Many studies have been carried out in past decades into how auditors reach their opinions, often drawing on research in the field of behavioral sciences relating to decision-making theories and the manner in which people assimilate information. Using the results of these studies into the auditor's opinion-forming process, Libby [1995] developed a generic model based on two functional relationships:

- The quality of an audit opinion is a function of the ability and knowledge of the auditor;
- Knowledge is a function of the ability and experience of the auditor.

The model is therefore based on four variables: ability, experience, knowledge and quality of the audit opinion. These variables should be identified for each specific task. In this survey, the variables are identified as the elements relating to an auditor's review of a specific internal control process.

## **S.2. The need for an internal control structure**

Regulation of the auditing profession, both nationally and internationally, took shape in the second half of the 20<sup>th</sup> century. These regulations encompass an enormous range of aspects. When performing his audit examination, the auditor in the Netherlands is committed to observing the auditing standards issued by Koninklijk NIVRA, the Royal Dutch Institute of *Registeraccountants* [2003]. From the start of his examination, the auditor has to decide on the basis of his findings what subsequent work has to be performed in order to form a sound basis for his opinion. In the risk assessment used for this purpose it is essential that the estimate of the various risk components is as accurate as possible. This is expressly recognized in the applicable auditing standards, which prescribe the following: *'The auditor should obtain an understanding of the accounting and internal control systems sufficient to plan the audit and develop an effective audit approach.'* The more effective the internal control structure in preventing or detecting and resolving material errors in time, the lower the remaining risk that has to be evaluated as part of the audit approach.

The fact that the quality of the internal control structure and procedures impacts the efficiency of the audit has long been recognised, as described by Mock and Turner

[1999] in their anthology. They refer back to the beginning of the 20<sup>th</sup> century, when in 1917 Robert H. Montgomery wrote that *'if the auditor has satisfied himself that the system of internal check is adequate, he will not attempt to duplicate work which has been properly performed by someone else'*. However, the importance of the internal control structure was not only voiced in 1917. The Sarbanes-Oxley Act that came into force in the US on 25 July 2002 also confirms the importance of *'an adequate internal control structure and procedures for financial reporting'*.

The significance attached to the internal control structure is also reflected in the expert knowledge requirement imposed on auditors by the IFAC and the recent standard on assurance engagements. The Internal Control Structure is a key subject in the Netherlands, with students following the professional auditing studies, as well as forming a central element in the audit methodologies adopted internationally. While each individual auditor in the Netherlands has the same theoretical background, the practical application of this theory is shaped by the audit methodology used by the audit firm concerned and training on the job. Given the emphasis placed on the review of the internal control structure in the standards issued by the audit profession, these various audit methodologies should not differ significantly. Moreover, it can be assumed that the training on the job regarding the review of the internal control structure received by each auditor is also similar.

Accordingly, the internal control structure as a technical field is considered one of the components of the 'common body of knowledge' of the auditing profession.

### **S.3. Previous research**

A number of theoretical ideas put forward in studies on professional judgment and on the cognitive styles of auditors have been considered. In the years from 1970 to 1990, research on professional judgment focused primarily on the technical aspects of the audit. After 1990, the emphasis shifted to the forming of the audit opinion and Libby [1995] developed his generic model. This model is used in this study to formulate a theoretical assertion on how the auditor reaches an opinion on the quality of a specific internal control process. The process selected for this purpose is the human resources process, which every auditor must review as part of the audit of financial statements.

Professional judgment, and by analogy the quality of the audit opinion based on Libby's model [1995], can be measured by means of effectiveness and efficiency criteria [Davis and Solomon, 1989]. The effectiveness criterion indicates how well an assigned procedure is carried out, while the efficiency criterion looks at the use of

resources. Much research into auditors' professional judgment in recent years concentrated on effectiveness. This research employed six evaluation criteria, the most common being 'consensus'. Consensus is seen as an alternative criterion for 'accuracy' and is considered a fundamental basis for justifying an opinion, enabling reference to be made to similar opinions given by other professionals. Accordingly, in this study consensus is seen as a proxy for professional judgment.

A large number of studies were also carried out during that period into the cognitive style of auditors. Jung's theory and the Myers-Briggs Type Indicator were used to categorize the personality characteristics of auditors: the practical completion of an impersonal analysis of observed facts on the basis of technical skills.

#### **S.4. Research questions and hypotheses**

Given the considerable attention devoted to the subject of the internal control structure, the auditor accumulates extensive knowledge in this area. The auditor will draw on this knowledge when forming an opinion on the quality of an internal control process. Uniformity in professional studies and training on the job should in practice lead to identical opinions for similar internal control situations, the so called professional judgment.

Three research questions have been formulated, directed at:

- The 'consensus' between auditors' opinions; as a proxy for professional judgment;
- The 'self-insight' of the auditor; as a proxy for the type of internal control procedure that contributes most to the mental prototypical model used as a norm by the audit of internal control procedures;
- Changes in the auditor's personality characteristics.

Professional judgment is more than just the judgment of an individual professional; it represents all opinions given by the total group of individual professionals forming part of a specific profession. This is the view taken in this study, in which professional judgment is described as: the consensus in the opinions formed by individual accountants. The term 'professional judgment' is further defined in the question: to what extent do individual auditors issue the same opinion when reviewing similar internal control processes? In other words, what is the degree of consensus in the opinions issued by the individual auditors? By measuring the consensus between these opinions, we can answer the following research question:

*(RQ1): When reviewing similar internal control processes, do auditors reach the same opinion?*

In order to answer this first research question, seven hypotheses have been formulated:

- The consensus between the opinions in terms of the adequacy of the internal control processes (H1);
- The influence of the number of years of professional audit experience on the consensus between the opinions (H2);
- The influence of the different types of internal control procedures on the consensus between the opinions (H3a);
- The influence of experience with a certain situation on the consensus between the opinions (H3b);
- The preferences of auditors for internal control procedures (H4);
- The influence of the cognitive style of the auditors on the consensus between the opinions (H5a);
- The influence of the auditors' degree of tolerance for ambiguity on the consensus between the opinions (H5b).

When designing the internal control structure, management makes a selection from a large number of possible accounting and internal control procedures. This selection is influenced not only by personal preference, but also by the nature of the company.

The auditor, too, develops his own preferred mix of accounting and internal control procedures. When reviewing internal control processes, the auditor systematically relies on his education, experience and instructions in this field. In this way, the auditor develops an understanding of the relative concept of importance and his preference for a particular mix of accounting and internal control procedures. This preference can then influence the auditor's opinion and therefore the consensus.

By classifying the auditors' reviews into various research groups, we can answer the following research question:

*(R.Q2): Does an auditor's preference for particular internal control procedures influence the consensus between opinions?*

In order to answer the second research question, one hypothesis have been formulated:

- The influence on the consensus between opinions of the presence of internal control procedures considered by the auditor to be the most important (H6).

Partly in response to public demand, the auditor is devoting increasingly more attention to understanding the operating and internal control processes. When auditing

the financial statements, he aims to rely on the proper functioning of these processes and the related internal control procedures; and in terms of corporate governance he relies on the quality of these processes. In this way, the auditor becomes an expert in the field of operating and internal control processes.

Based on the results of psychological tests, we can answer the following research question:

*(RQ3): Does the psychological profile of the auditors in this study differ from the psychological profile of auditors in other similar studies?*

One hypothesis has been formulated for the purpose of answering this third research question:

- The influence of current developments in accountancy on the personality characteristics of the auditor (H7).

## **S.5. The approach**

Three different research tools were used in this study: questionnaires, case studies and psychological tests. The questionnaires, designed to gather demographic and background data, and the case study were developed specifically for this study. The psychological tests were performed using standard questionnaires, in use for many years, based on the Myers-Briggs Type Indicator and the Tolerance for Ambiguity test.

When selecting the internal control process, the aim was to use a process that all auditors would regard as routine and one that is considered separately and in depth during the professional auditing studies. This process has also been used in earlier studies into professional judgment and is one that can be seen in a consistent context: the human resources process. As there is staff employed at all audited companies, every auditor has to review the human resources process during his audit.

The case study is based on a general model. The case studies presented to the auditors took the form of one of 32 variations, based on different combinations of five types of internal control procedures.

This study can be typified as an explanatory comparative survey performed at a single point in time. This entails analyzing a large volume of data gathered from individual auditors at one particular point in time to try to understand the two concepts: professional judgment and personality characteristics.

The following criteria were used for selecting the auditors included in the survey:

- Registered with Royal NIVRA as having successfully completed the Internal Control Structure study; and
- Working as a public auditor; and
- Working in the Netherlands.

A total of 784 auditors, representing 20% of the total population, were selected at random. In total, 199 auditors responded to the request to participate in the survey. Of this group, all 199 auditors took part in psychological tests; 187 auditors indicated their preference for a particular internal control procedure. 195 auditors assessed a total of 527 case studies, spread over the 32 variants. In each case, the auditor was asked to award a score on a seven-point scale from 'Excellent' to 'Very poor'.

Based on an initial analysis of the assessments of the case studies, it can be concluded that:

- At least three and at most six of the seven possible scores were awarded to each case study;
- For 23 of the 32 case studies, five or six different scores were awarded; this represents 367 of the 527 case study assessments;
- For 29 of the 32 case studies, scores of 'Very good', 'Good' and 'Sufficient' were given;
- At least one score of 'Good' was given for all case studies;
- 80% of all case study assessments was given a positive score;
- The highest score 'Excellent' was awarded to 19 of the 32 case studies; the lowest score 'Very poor' was only given on one case study.

## **S.6. Conclusion to research questions**

Of the nine hypotheses (including the sub-hypotheses), a positive result was established for two of the sub-hypotheses relating to the type of internal control procedure (H3a and H4). The type of internal control procedure included in an internal control process did not influence the consensus between the auditors' opinions (H3a). In addition, auditors do not have preferences for internal control procedures (H4).

No conclusive result was reached for the remaining (sub-) hypotheses. The results of the various assertions for each research question are set out in figure S.1.

The results of the separate assertions as set out in figure S.1, and in particular the diversity of opinions given, formed the basis for answering the research questions.



Hypothesis	Result
<b>RQ1: consensus between auditors' opinions</b>	
H1	There is consensus between auditors' opinions in terms of the adequacy of the internal control processes. No
H2	An increase in the number of years of professional audit experience has a positive influence on the consensus between auditors' opinions. No
H3a	Not the type of internal control procedure included in the internal control process reviewed but the number of different types has influence on the consensus between auditors' opinions. Yes
H3b	Auditors with an equal level of experience with a specific internal control procedure will have more consensus between their opinions. No
H4	Auditors do not have preferences for internal control procedures Yes
H5a	There will be more consensuses among auditors belonging to the same MBTI category. No
H5b	There will be more consensuses among auditors belonging to the same Tolerance for Ambiguity category. No
<b>RQ2: the auditor's 'self-insight'</b>	
H6	Auditors with an equal level of importance with respect to a specific internal control procedure will have more consensuses between their opinions. No
<b>RQ3: changes in the auditor's personality characteristics</b>	
H7	Current developments in accountancy have influenced the personality characteristics of auditors. No

Figure S.1: Hypotheses and results

The first research question (RQ1) could not be answered positively. The wide range of answers given meant that consensus between the auditors' opinions could not be proved.

The second research question (RQ2) could not be answered positively. It was shown that an auditor's preference for a set of internal control procedures had a positive influence on his opinion. However, the results did not show that this preference had an influence on the consensus between auditors' opinions.

The third research question (RQ3) could not be answered positively. Auditors seem to continue to fall into the same cognitive style category.

The answers to the research questions are set out in figure S.2.

Research question	Answer	
RQ1	When reviewing similar internal control processes, do auditors reach the same opinion?	No
RQ2	Does an auditor's preference for particular internal control procedures influence the consensus between opinions?	No
RQ3	Does the psychological profile of the auditors in this study differ from the psychological profile of auditors in other similar studies?	No

Figure S.2: Answers to research questions

Given the conclusion regarding the theoretical basis allowing the auditor to evolve into a professional, it is more appropriate to speak of the judgment of an individual professional than of professional judgment. This is not conducive to the intended transparency in the process of forming an audit opinion on the review of the control of operating processes. Moreover, the opportunity to develop and adopt an objective review framework geared towards the efficiency of the audit procedures of the individual auditor for auditing the financial statements has not been taken.

## S.7. Future research

The auditing profession, under pressure from social developments and the demand for more transparency, will profit from demonstrating its professional judgment. This professional judgment can be evidenced by the consensus of auditors' opinions in similar situations. Moreover, if this professional judgment is translated into prototype models, the public will be able to validate the auditors' opinions against the standards formed by these models. The auditors can then increase the transparency of their decision-making by applying these standard models, thereby providing society with a greater understanding of the reasons underlying the opinions given.

To this end, future research should be carried out directed at:

- The influence of the audit profession on the development of procedural knowledge;
- The influence of an opinion on an operating process on subsequent audit procedures;
- The manner in which the theoretical components of the auditor's study are translated into a practical approach to the problem;
- The extent to which partners of an audit firm are seen as role models for the more junior staff and the impact of this on their judgment and their decision-making;

- The auditor's 'preference' for operating processes and knowledge domains which he considers important;
- The correlation between the degree of 'preference' and the auditor's experience;
- Changes in the type of cognitive style during:
  - Studies to complete the theoretical part of the professional education;
  - The practical traineeship;
  - Permanent education;
- The influence of new audit methodologies on cognitive style;
- Change flexibility measured as the time-span between the implementation of a major change in the audit approach and the actual change in the auditor's personality characteristics.