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King of Cases

A practical and theoretical guide to solving management cases and winning case competitions

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Preface

> *Looking out from the window of the airplane, the Helsinki Team was admiring the gradually vanishing landscape of Brussels. After a tough week of competition at the TIMES 2006 finals, they felt it's a time to relax. Looking back at the past days, each was wondering, what were the key elements to their success? How does one successfully understand, solve and present cases? How to win a case competition?*

This manual builds on the years of continuing success of Prodeko's TIMES teams. The purpose is to preserve and spread the knowledge gained during the years. Helsinki University of Technology has been among the most successful participants in the annual competition since it was started in 1994. Every year the Prodeko team has won its semi-finals and made it to the final competition.

The case solving advice contained in this document can be used for enhancing one's general analytical thinking and problem solving skills, but more specifically it is targeted to teams pursuing success in various case-based courses and competitions.

There are three major sources of data backing up the recommendations and guidelines of this guide. Firstly, written material by competition participants and scholars, such as Niklas Kari's guide Ace your Case (from this the name of this guide is also derived), is used. Secondly, an empirical study on presentations' effect on performance has been specifically conducted for this report. Thirdly and perhaps most importantly, the tacit knowledge gathered by previous teams has been extensively collected with interviews and less formal discussions.

Cases are an advanced teaching tool. They combine general problem solving skills with more specific applications, and often also give insight to different industries and different companies. Doing experiments and hands-on work in the area of social sciences in general and also in management studies is often impossible, and here cases help by placing the students in the position of the management in a simulated setting. The setting tries to mimic the real life decision making process to a high enough degree.

Solving a business case efficiently requires and develops analytical abilities, creativity, know-how of analytical tools, presentation skills and a basic understanding of doing business in various settings.

Solving cases is both art and science. While the science part can be learned through studying strategy, management, presentation skills and related disciplines, the craftsmanship can only be learnt through practice. I hope that after reading this guide you and your team is able to speed up your learning process and become masters in the field.

If you have any questions relating to this guide or solving cases, I'm always ready to help. You can contact me via email at olli@ollisalo.net.

Espoo, March 1, 2007

Olli Salo

Acknowledgements

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1. Introduction

The first chapter first presents an overview of what to expect from a case and what to do with them. The purpose is to establish the standard case solving principles and terminology that are then expanded in later chapters. While the concrete skills required to solve cases are not presented yet, after reading this chapter you should possess the necessary background knowledge to enjoy being in the audience of a case competition.

1.1. What is a case

A typical management case is simply a description of a real or imaginary firm and its surroundings in a certain point in time. This description might be augmented with questions or tasks that point the solver towards focusing on some issues of the situation and giving less attention to others. Often, however, the case description is stand-alone, and the reader must herself determine what is relevant in the situation at hand. If there are no explicitly formulated questions, it is implicit that the question to tackle is "what should be done in the described situation?" (Bonoma 1989)

Cases were originally used in disciplines such as law and medicine to teach students. They were first used in the teaching of management and business administration in the early 1920s at Harvard Graduate School of Business Administration, and have since gained worldwide support as a learning tool. (Roberts 1983)

Quite often the firms are facing one or more difficulties to tackle or choices to make. However, this is not always the case and sometimes it might seem that all is going well and there are no clear new paths that the company might follow.

The case usually consists of both written text and supporting exhibits in the forms of tables, diagrams, charts etc. While most of the data can often be used in some way or the other, the case may also contain data that clearly has no relevance to the problem at hand.

Cases are prepared by various institutes of learning, such as the Harvard Business School, INSEAD, ICFAI and others. The topics of the cases used for teaching managements vary a lot. Typical issues are major strategy decisions, restructuring and organizational issues and problems relating to operations, marketing, competition, market entry, investment decisions and other fields. While the focal unit of analysis is usually a single firm, the scope of analysis can vary a lot: individual people, teams, departments, SBU's, companies, alliances, networks, industries and even whole nations are sometimes the subject of the case. (ECCH 2006)

There are some underlying assumptions, or rules of the game behind case texts:

- Numerical data, projections and clearly stated facts can be assumed to be correct or at least to the best understanding of the people involved. Naturally they can also be challenged to some degree, especially in the dimension of relevance.

- Opinions, statements and other personal comments usually represent only the reality of the person expressing them and can be challenged

- While explicit questions might be included in the case, there might also be some underlying issues that are not explicitly formulated but still must be tackled. Also the relevance of the questions can be challenged.

- The decision to be done is located in the present day of the case reality, meaning that one should focus on what to do next and not on how the company could have performed differently in the past.

Cases are delivered typically as a written report of about 5 to 50 pages with the appendices in the end giving more specific data. Sometimes the format can vary and some of the information might be given for example during an oral briefing session before the case, on a multimedia presentation CD-ROM, in a database accessible with a computer or other means. Quite often the use of additional data sources not explicitly given, including course books, is not allowed in case competitions.

1.2.　What is a solved case

It is important to notice that cases are typically not solved in competitions, but in classroom discussions. Hence many of the guides available on this topic are more focused on preparing for and participating in classroom discussions than giving stand-alone case presentations. However, this case guide is aimed at case competition participants and tailored towards solving cases in a team.

The format of a case solution varies from a short paper report to a presentation delivered by a case solving team. This guide focuses on oral presentations presented to a jury and supported by presentation material in the format of slides - however the general frameworks and solution methods presented later also lend themselves to solutions delivered in other formats.

To solve the case, the team is given a set amount of time. This can range from the plenteous weeks or even months given in some school courses to the strict 3-4 hours typical for TIMES competitions. When a longer time period is given the team has more flexibility as to where to meet and how to split up for work, as well as to decide how many hours it will put to the case altogether.

Cases in competitions are typically solved in "war rooms", which are meeting rooms reserved exclusively for the case team for the duration of the preparation time. Depending on the setting, they should have thinking aids like flipcharts, scrap paper, pens and so on. The team is given the case together with the material needed for preparing the solution, such as transparencies and pens.

After the preparation time is over, it's time to enter the presentation room. The jury, audience and possibly also competing teams are sitting and eagerly waiting for the teams presentation. After introducing the team members, it is time to start the presentation.

The case solution presentation typically first gives an overview of the situation, proceeds with analyzing different aspects of it, and based on the analysis gives a recommendation of what the decision makers of the focal unit should do about the issues identified. This presentation is delivered to a jury and possible general audience. Depending on the

situation, the duration of the presentation, number of slides, number of speakers and other aspects of the situation might be controlled.

Typically a case presentation is followed by a questioning session from the jury or the general audience. In this session the analyses, arguments and given recommendation are explored in more detail in those areas that the jury feels deserve more attention. The case team is also usually allowed to present new ideas and maybe even show support slides not shown during the presentation, however the main argument should be delivered before the questioning session begins.

A case solution in a competition or class room setting is then evaluated by the jury. Often the jury makes notes and preliminary grading right after the presentation. After all the teams are done the jury members gather together and hold a meeting where they compare their notes and give the final points and rankings.

1.3. What is a successfully solved case

The information above sets the framework in which all teams operate and give a general idea of what the jury expects to see from each team. Sometimes teams come to case competitions unprepared and do not even know what to expect, so by having a clear idea of what to do one is already ahead of some competitors. However, just possessing these threshold competencies is only enough to ensure you will not make a complete fool out of yourselves, it is not enough for a successful case solution.

There are typically no right solutions to a case study, but usually there are some really wrong answers and some really good answers. Unlike in for example mathematics, the grading of case solutions can not be based on some kind of "correctness" metric (Hammond 1987). Rather, the solution has to be assessed from a number of directions.

To determine the criteria for a successful case solution, the marking sheets of the jury can be used as a guideline. Appendix A contains the actual grading sheet used in the finals of the TIMES competition 2006 by the jury members. Appendix B displays the evaluation form used 2006 by the Helsinki University of Technology course TU-91.2015 Advanced Case-Seminar in Strategy.

Based on this material, the elements of a successful case solution can be roughly summarized according to Figure 1. The area of each element corresponds to their relative importance as loosely determined by the percentages in Appendix A and the amount of grading elements allotted to each section in Appendix B.
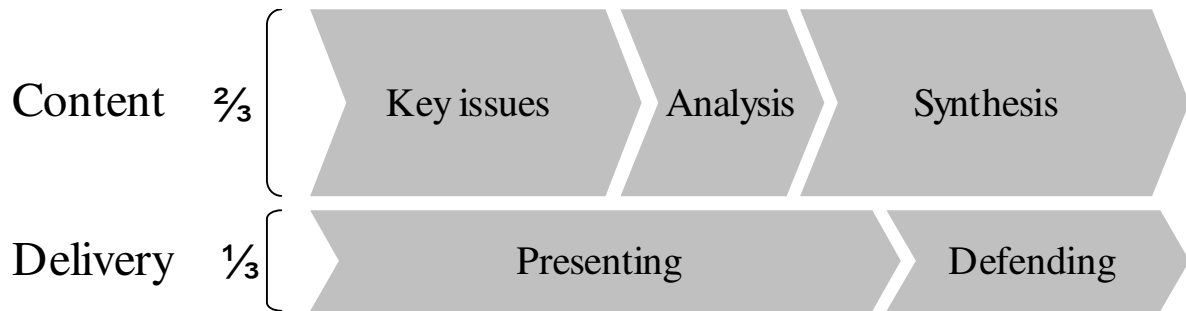
Figure 1. Value bringing elements of a case solution

To elaborate further, based on the marking sheets in the Appendices, a case solution will be appreciated by the judges when

- The **key issues**, meaning the important aspects of the situation, are properly identified and presented. This means that the case team demonstrates that they understand what parts of the situation are critical and which problems are less important.

- The identified problems are then further **analyzed** using appropriate tools and frameworks in a correct way. The tools can be either standard textbook frameworks such as the BCG matrix, GE/McKinsey matrix, five forces, VRIOS etc., or they can be invented and explained by the case team. What is important to notice is that while many presentations are focusing heavily on the analysis part, it's only a very small fraction of the total points.

- The analysis is not just done for the sake of analyzing, but rather points out certain decisions that should be made. The **synthesis** part consists of the teams recommendations and action plan for the focal company. A good synthesis is relevant, feasible, addresses the identified problems and takes into account alternatives and risks.

- The whole solution must be **presented** in a professional way so that the jury understands the solution. Clarity, use of visuals and control of voice and body language are valued.

- **Defending**, or being able to answer questions given by the jury so that they are convinced of the logic behind the recommendations and can feel confident that the team has understood the situation.

This is how the grading officially looks. However, the clinical analysis above gives a somewhat wrong perspective on how to actually win a case competition. Next we will go beyond the grading sheet and look at what really makes a winning case solution.

1.4. What is a winning case solution

It is most essential that the jury understands the solution. Most teams do not understand that the quality per se does not matter, but the quality as perceived by the jury is essential. Especially when teams get more experienced, they are able to do much more analysis in 4 hours that they can present in 20 minutes. - Juror (jury survey)

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To answer the simple question of what makes a winning case solution; let's start with a somewhat complex visual metaphor. Figure 2 depicts a typical case solution and presentation for a typical team.

Preparation phase   Presentation   Jury's understanding
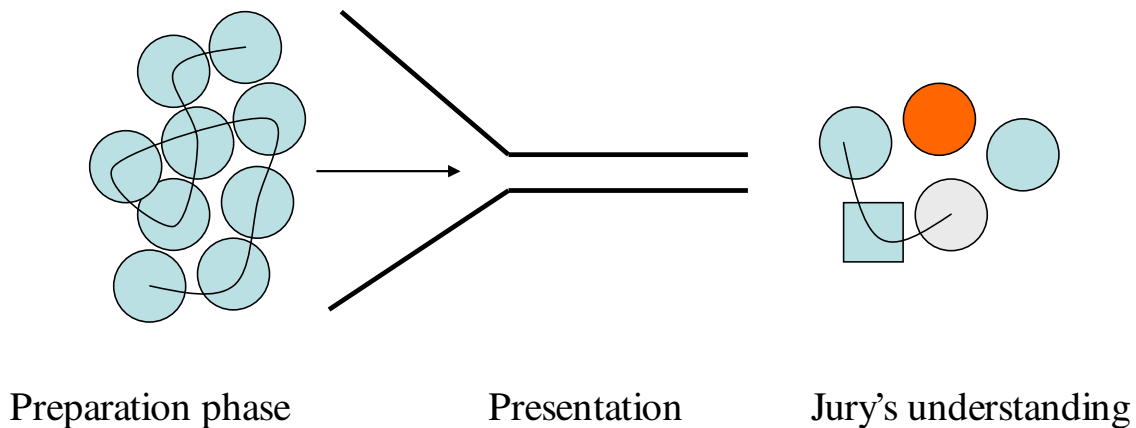
Figure 2. Case solution funnel

During from the preparation phase, the team has a bunch of ideas that are somewhat related to the problem at hand. The ideas are often analyses, observations about what to recommend and so on. They emerge during the preparation time at random moments, and typically are then forced together into some kind of a sequential structure.

The case team has been intensively involved in the solution process for hours, and the solution seems excellent to them. Some analyses are so great that they are carried out very deeply, while those ideas appearing later maybe receive less attention. Suddenly somebody from the team realizes there is only little time left, and so its time to plan the presentation. All the great ideas are grouped together somehow under the heading of key issues, analyses and recommendations, and the team is ready to present.

The presentation, however, is like a bottleneck or a funnel. Not all ideas can be communicated during the short time allotted for the team to present. In the end, the jury gets a rather distorted picture of what the great ideas of the preparation time were. They only hear the presentation; they can not know anything left out or the implicit connections behind the issues.

Great ideas are spheres, the logical connections between them are strings and the funnel represents the constraints of the presentation setting, such as the team's skills in presenting the ideas and the jury's capability of absorbing them. Some spheres are deformed in their way through.

The question of how to deliver a winning case can be reformulated: "What different ways are there to make the collection of spheres received by the jury as value-adding as possible?"

You might want to take a minute or two to think about the problem before going further. Here are some possibilities and their connections with the problem at hand identified by the author of this guide:

- Make the funnel bigger

- o by improving your presentation skills
- o by making it easier for the jury to understand your ideas
- Put more valuable spheres through the funnel
  - o by having more relevant analyses
  - o by letting go of ideas that are nice but not critical yet still take up time
  - o by knowing what kinds of ideas the jury wants to hear
- Make the jury understand and remember the value of the your spheres
  - o by stating the "so what" of each analysis and other part of presentation
  - o by clarifying all apparent misunderstandings in the questions phase
  - o by having special tricks or other dissimilarities with other teams
- Polish the spheres so that they fit the funnel better
  - o favor ideas that are communicable and clear over messy ones
  - o rehearse delivering the content in an effective way
- Put your most valuable spheres down the funnel more than once to ensure they get through
  - o by summarizing, synthesizing and using agendas
- By delivering them in a logical order so the strings do not get tangled
  - o proceed in a logical order
- By making the jury help you by pulling the spheres
  - o have an atmosphere of professionalism
  - o create a sense of excitement
  - o make the logical string connecting them easy to follow

The collection above reads a bit like a shopping list of tricks rather than an analytical answer to the question of how to make a winning case solution. However, a clear theme emerges from the funnel metaphor: the presentation is the only element really graded by the jury. Only things mentioned and showed during the presentation can affect the grading. This does not mean that content is irrelevant, just that only content delivered has any value. Put in other words, the team which has the best thinking, greatest ideas and most brilliant solutions can loose to a group which has simpler ideas but is able to get them through.

Figure 3 below shows the relationship between content and delivery. The grey shaded area in the top left half of the diagram represent the area where content is lost due to lacking competencies in delivery. The white area in bottom right half is where there is sufficient skills in delivery, but they are not harnessed to their fullest potential. The 45 degree line is where the two skills create a perfect match. This diagram is derived from the answers of the jury survey explained in section 2.4.

Content

Team types
1: Content overkill
2: Stageshow
3: Balanced

1

3

2
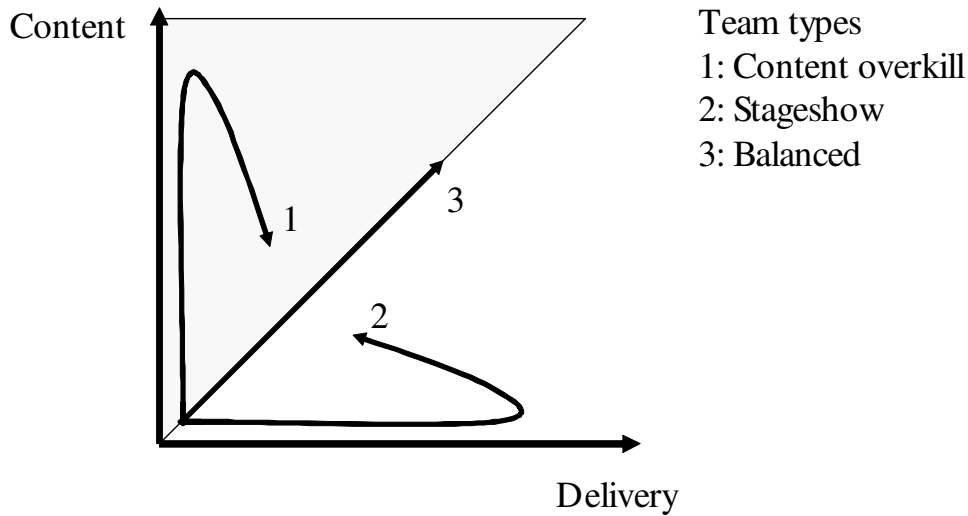
Delivery

Figure 3. Content/Delivery relationship

The diagram also has three different types of team evolution paths. Team 1 is a typical engineer approach, where the focus is heavily on content but not much is delivered through. Unconnected brilliant ideas are wasted because the jury does not understand them. "We are just too smart for these people" could be their internal explanation for failure. To cope, they result in reducing the amount of content.

Team 2 is more of a traveling stageshow than an analytical think tank. They have clear structure, logical approach and charisma, but the actual content is lacking. "These people just are so boring academic" could be their mindset when accepting critique. To improve they tune down the show a bit.

The balanced team 3 is constantly striving towards higher quality content that they are able to present in a coherent and easily understandable way. This is what this guide tries to teach.

1.5.   And what's behind a winning solution

So a winning case solution is one where the jury effortlessly follows an impeccable and eloquent presentation covering the key issues with relevant analyses and feasible recommendations. How to put one together? The rest of this guide tries to answer this question. This report is structured according to Figure 4.

1. Introduction

2. Empirical study

3. Preparing the case solution

4. A winning case solution

5. Effective presentations

6. General tips and tricks

7. Synthesis

Figure 4. The structure of this report

After this primer to good case solutions, the next chapter presents the empirical studies done to determine the drivers of good case solutions. This chapter contains valuable insights and the empirical study is the source of most of the recommendations presented later. However, if you are in a hurry and just wish to see the concrete recommendations and tips, you can jump to the later chapters where the results of the empirical study are analyzed.

Chapters three to five go over a case competition presentation from preparation to content to how to present in as effectively as possible. Chapter six contains general tips and tricks that teams can use to improve their presentations. Lastly a synthesis of the key ideas is presented in chapter seven.

2. Empirical study

The second presents the empirical studies conducted to discover the recipes for success. A layered approach was used, where different smaller studies follow each other in an attempt to uncover the best practices in different case solving areas. The findings of this empirical study form the backbone of later chapters, and the results from each study are elaborated in the later chapters. A reader in haste might wish to jump over this chapter directly to the recommendations.

The purpose of the empirical study was to introduce rigor into the recommendations given in this report. Instead of relying on the experience of a single individual or team, the advice given in this report is gathered from a broad range of sources.

When planning this study, the initial idea was to determine the best study method to tackle the problem. However, since the subject matter is so large, no single tool can be used to cover all the relevant aspects. To alleviate this problem, a layered approach was used. In this approach, the problem is tackled with a series of separate studies building atop the findings from previous ones.

Figure 5 gives an overview of how and when each element of case solutions was studied.
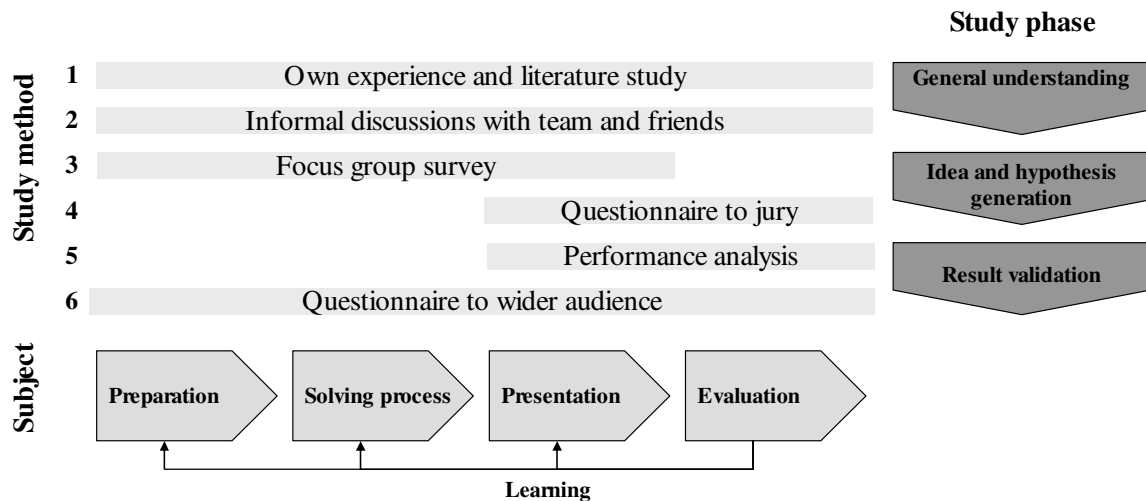
Figure 5. Empirical study methods and subjects studied

Starting from the bottom of the diagram, case solving can be split into four phases. Preparation deals with the training and discussions of the team conducted before the actual case start. The solving process is what happens inside the case solving room during the allotted time, and the presentation is what the audience and jury members see. The presentation is then evaluated by the jury. Ideally the feedback received is then fed back to each of the stages of the case solving. This process was studied using six different approaches.

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Before any problem can be approached in a clear and rational way, it must be understood by the researchers. At this stage the results are more ideas, opinions and bits of wisdom than actual verifiable facts.

Firstly, my own experience in solving and judging cases as well as previous material covering the area was used to determine how the problem should be approached. Also some general ideas and hypotheses were created that were later tested in subsequent stages. Second a series of informal discussions with team members in different case solving competitions as well as people on other teams or in the jury were used to widen my own perspective on case solving.

Moving to the idea and hypothesis generation phase, a more diverse set of opinions was collected using surveys. In this I used two study methods.

A survey was sent to a focus group of students who have performed well in case solving competitions. The purpose of this questionnaire was to gather a larger variety of opinions. Also a questionnaire was sent to a selected group of eight active jury members, who have been in the jury of a case competition two or more times. This survey was done to include the point of view of the people judging the cases so that one knows what the listeners expect.

As the results obtained from a large set of interviews and own experiences are still qualitative in nature, the final phase of analysis involved quantifying them.

A quantitative analysis was performed on the quantifiable aspects of case solution slides to determine if there are any statistically significant determinants of success based on the slides. Finally, a questionnaire was sent to a larger audience of those who had participated either as contestants or audience members in one or more case solving events. The purpose of this final questionnaire was to validate the quantitative results obtained earlier with qualitative data.

Each of the separate layers of inquiry is covered in the following sections in terms of research questions, data, methods and results. The nuggets of information discovered are collected together, analyzed and presented in later chapters.

Learning from feedback is a topic that was not explicitly studied in the scope of this report. Some remarks on learning based on my own experience are given, but they are in no means comprehensive. Learning from cases is a complicated topic on its own right. See Shapiro's (1988) or Bonoma's (1989) guides for primers in learning from case solving.

2.1. Own experience and literature study

2.1.1. Own experience

The starting point for this study was reflecting back on my own experience with case solving. I have partaken in the following case-related activities:

- Case training evening with McKinsey & Company, participant, 2003

- TKK course Advanced Case-Seminar in Strategy, participant, 2004

- TKK course Advanced Case-Seminar in Strategy, course assistant, 2005
- Business Masters case competition, competitor, 2005
- BCG Masters case competition, competitor, 2006
- TIMES case competition, competitor, 2006
- HSE Corporate Credit International Case Competition, competitor, 2006
- TKK course Advanced Case-Seminar in Strategy, guest lecturer, 2006
- TIMES case competition, local qualifications, assistant to the jury, 2006

Altogether I have participated in the solving process in approximately 30 cases, of which most were related to competing in and preparing for the TIMES 2006 competition. I have also been in the jury in 6 different case sessions, grading altogether about 30 case presentations.

While this experience is valuable in writing this report, it also introduces a bias. The opinions and findings based on my own experience are likely to reflect the style of solving cases used by myself and those teams I have been a part of. Other teams have other preferred ways of working and presenting that might be equally good. The teams in which I have had an influence will most likely have experienced lock-in: instead of being truly open to good ideas, we have mainly conducted local search, meaning that we have focused on streamlining and incrementally improving our process rather than being open to completely different, and maybe better, ways of doing things.

In analyzing my own bias, I have tried to compare my view on solving cases with those presented both in the literature and by other case competition participants. From these discussions I would deduct that I tend to place more importance on structure, clarity and flow of solution than others. In extreme cases, this would mean favoring solutions that are easy to present over ones that are complicated, in such cases where the superiority of either can not be clearly seen.

In addition to these idea-level biases, one naturally becomes attached to one's practical ways of doing things. In terms of structuring the solution process and presentation, I prefer the BPARS-framework explained later in chapter 3.6.2. I feel it is one of the cornerstone's of our team's success in TIMES, but at the same time understand that there must exist equally good, if not better, ways of structuring case solutions.

Two steps have been taken to combat the bias stemming from personal opinion. Firstly, the later phases of this study draw from a larger set of individuals and attempt to do that in a transparent and value-free fashion. Secondly, I have attempted to clearly mark those results and recommendations that are solely based on my own experience and not validated by the study by including the text "(own experience)" after the claim as an indicator of source.

2.1.2. Literature study

This is not the first attempt to write a case competition guide. Instead of building it solely on own research, a set of earlier reports was used in constructing the findings.

Case solving can be seen as a small stream mingled with the larger schools of though such as the industrial organization school, resource based view and dynamic capabilities view. The most successful frameworks and tools from the literature are usually applied in case solving, and the changes in the popularity of different schools of strategy are reflected in the different analyses used.

On the other hand, case solving itself is part of the subject matter of management cognition studies, which tries to understand managers think and act. The studies of the effect of top management team composition on performance also are somewhat related to the group dynamics and group formation problems potential case competition participants face. Social psychology, cognitive psychology and even sociology are also related to the problem solving processes that the team has to conduct.

However, the theoretical literature was not used as a starting point for the literature study of this report. Firstly, the literature on tools and strategy in general should be covered by the previous studies the participants have completed. While some suggestions on the applicability of different frameworks are given in this report, the basics of strategic management are assumed to be known. Secondly, the studies on problem solving and cognitive issues is general are too broad to be usable in a very practical guide such as this.

Instead, the literature study is focused on guides and instructions specific to solving cases. The literature research was done using ECCH's database of case solving literature. From this database one is able to extract a large collection of notes and guides written by experienced case solving teachers. Another source for information was the earlier guides prepared at TKK for case solving.

The insight given by the different sources is presented in later chapters in the relevant context and is identified with the author and year of the report. Full bibliographical references are included in the end of the report.

The following materials, presented below in the order of publication, have been used

- Note on Case Analysis (Haywood-Farmer 1979)
    - A prescriptive guide offering a 12 step method for preparing a case solution. Very academic and rationality based approach, little emphasis on the role of the solver.

- Notes for the Guidance of Students in the use of Case Studies and the Case Study Method in Teaching and Learning (Roberts 1983)
    - Presents a set of questions and analysis areas developed by the author to ensure solution completeness and aid in its development.

- How to Avoid Getting Lost in the Numbers (Maister 1985)
    - A quick guide to the calculations done in typical business case solutions, together with advice on what to calculate and what mistakes to avoid.

- Learning by the Case Method (Hammond 1987)
    - An introduction to cases in general, and a presentation of a very loose structure to solve them based on immersion.

- An Introduction to Cases (Shapiro 1988)
  - How to learn from cases, and a set of questions with which to begin tackling a case.

- Learning with Cases (Bonoma 1989)
  - An overview of how cases are used as a learning tool, how case performance is assessed and some guidelines for solving cases.

- Analysis of Financial Data in Case Studies: A guide for Management and Business Studies Students (Pallett 1992)
  - An overview of financial analysis in the case solving process, including guidelines on the selection of appropriate analysis methods and how to execute the analyses.

- A Note on Case Learning (Corey 1999)
  - A walkthrough of an example case to explain the steps and analyses used in typical case solutions.

- Working with Cases (Backholm 2000)
  - A prescriptive guide for preparing a case presentation and the structure of a good case solution

- Ace Your Case (Kari 2001)
  - A large guidebook prepared at the Helsinki University of Technology (TKK). Detailed approaches to presenting and solving cases as well as practical tips derived from the author's own case competition experience.

- Note to the student: How to discuss and study cases (Bruner 2001)
  - Focusing on the individual case solver, presents advice on attitude, working habits and case solving in general.

- A Note on Financial Ratio Analysis (Srikanth 2004)
  - A good overview of useful financial ratios, includes formulas and explanations on what each ratio measures.

In evaluating the literature study, one must note that the same biases inherent in the personal experience section are also present. Most of the case solving guides are written with a strong personal bias, and are usually grounded more on the personal opinion of the author than actual verifiable facts.

Also the validity of some of the advice might be questionable, as it is aimed more towards a classroom discussion setting than a case solving competition. However, the basic steps in approaching a case should be similar, except for the additional time and presentation format constraints included in a case solving competition, and the presence of a team. The fact that case solving in competitions is usually done with the help of a team rather than alone is an issue that requires further attention by other ways of study.

Quite many case solving manuals give advice that is generally very similar. This is expected as it is quite reasonable to expect that there is some kind of established way that has proven successful. However, it might also reflect the fact that many of the guides rely on previous guides for the advice they give. Hence the same original ideas, even though they might be flawed, propagate through the literature and gradually become accepted mainstreams facts. This study should partly be able to alleviate this problem by combining the findings from literature with findings from actual case solving experience.

A further bias in the literature study is introduced by the fact that ECCH was used as the main source for literature. The case collection contains a large set of guides, but is in no way comprehensive. The bias of the updater of the collection is reflected in the selection of available materials. There might well be a body of literature not included in the mainstream of case solving, but which would still be able to give valuable suggestions.

2.2. Informal discussions with team and friends

2.2.1. Overview and research questions

Own experience and literature studies are an insufficient platform for valuable research. Before undertaking the more formal empirical studies reported in the later sections of this guide, it was necessary to determine the answer to the following two questions:

- What kind of a case solving guide is needed?

- What are the areas with most confusion and where direction is most needed?

By answering these questions, one ensures that the research is relevant to the topic under study. If the problem is approached from a wrong perspective, or if the real problem is missed, the resulting analyses and recommendations do not offer value to the intended readership of the report.

It would also be a waste to ignore the insights that friends involved in case solving are able to provide. Hence the third research question for this part of the research is:

- What general advice on case solving can my team and friends provide?

2.2.2. Discussions

The idea to write a guide on solving cases materialized in January 2006 while our team was attending the TIMES semi-finals in Cambridge. We had developed some original ideas and approaches to case solving, and I felt that it would be valuable to collect the learning done by both our team and others into a guidebook.

After this, I have discussed and debated issues relating to case solving with different people, with the aim of shaping the concept of the guidebook. Most of this was highly informal, and regrettably little notes have survived during this process.

Rather than disguising this phase of the study as empirically sound and rationally planned series of steps, I will try to document it as it has occurred - as a mess of ideas flowing from different sources.

Below the following sources of ideas and what I consider the most important feedback and ideas from each are listed.

- Case course instructor

    o Encouragement to write a guidebook, and advice to focus more on the general principles of solving cases than precise descriptions of different models or what type of pens to use in each slide area.

- ESTIEM active with a role in planning TIMES

    o Confirmation that an international need for such a guide exists, also advice to include beginner-level advice for teams not having a background in case solving.

- Teammates in TIMES team 2006

    o Developing the BPARS-framework during the competition and training, tips and tricks in presentations, the shortcomings of previous case solving guides, division of jury's between academic and business focus, encouragement to write this guide.

- Other teams in TIMES 2006 competitions

    o Need for advice on solution structure and basics of case solving, the importance of a clear yet flexible approach in solving cases. Tips for presenting effectively and different models that can be used.

- Participants of TIMES 2007 local qualifications

    o Idea of solution postponement, verification of the three important areas where solutions and jury needs mismatch: analysis of alternatives, financial analysis and type of analyses (textbook vs. custom).

2.2.3.   Emerging themes

A multitude of valuable ideas has emerged from these discussions. The practical ideas related to actual case solving are explained in later chapters in the appropriate places, whereas here the following topics related to the research itself are explained.

- Three topics of confusion

    o Based on the discussions there are three main areas where the participants of different case solving competitions are unclear as to what practices are the best. These are the analysis of alternatives, financial analysis and whether to favor textbook analyses (for example SWOT-analysis) or custom analyses. Special emphasis is places on these topics, especially in the jury questionnaire.

- Division between business and academic jury's judgment

    o This theme is explored by Kari (2001), and is still seen as an important aspect when planning case solutions. It is widely believed that the composition of the jury is an important aspect in determining what types of presentations are valued. Academic jurors are to thought to favor analysis of alternatives and analyses in general, while jurors with a

business background are considered to favor presentations giving tangible recommendations in the beginning and backing them up with data.

2.2.4. Evaluation

As unrecorded informal discussions are one of the worst empirical methods in terms of reliability, a formal analysis of the shortcomings of this phase of the research is not even included as will be done for later, better documented research methods. The reason for including this part is more to acknowledge and differentiate the different sources of ideas that this report builds on. In the following chapters, results that are based on informal discussions with friends are labeled with a description of the individual, for example as "(Teammate in TIMES team 2006)".

2.3. Focus group survey

2.3.1. Overview and research questions

To broaden and structure the findings based on the experience accrued by personal experience and informal discussions, a more formal survey was conducted to selected members of successful past teams. The questions in the survey attempted to tackle the first three parts of the subject in the empirical framework presented earlier: preparation, solving process and the presentation.

The data was collected with survey consisting of 24 open questions. It was sent via electronic mail to 11 participants of past case solving competitions that each competed in different teams. Nine replies (82%) where received. The questionnaire is included in Appendix C. The answers were collected, grouped as a tree and analyzed.

The third study method set out to discover and codify the tacit knowledge created by past teams. The purpose was to gather both current practices and insights into improvements that could be made. The task can be broken down into the following questions:

- How have teams organized their working processes?

- How do teams perform the solving process and create the presentations?

- What types of presentations do the teams prepare?

- How do teams train for case solving competitions?

- What advice can the teams give to others based on their experience?

2.3.2. Data and methods

The data was collected by sending a survey with 24 open questions to 11 potential respondents, of which 9 replied in the time frame given. The questions were delivered with electronic mail as in-body text to allow for easy replying for the participants. The total time allotted for answering was one week, and two reminder messages were sent: one when half of the time was remaining and the other with only one day remaining.

The sample was selected using the following principles

- Each person had participated in at least one of the following events. Numbers in brackets indicate responses received from each area. It should be noted that a single person can have competed in different settings.
  - TIMES (5)
  - Business Masters (2)
  - BCG Masters (4)
  - Advanced Case-Seminar in Strategy (6)
- Only one person per team was selected to allow for maximum diversity of scope.

- Electronic mail addresses and participant lists were collected from competition organizers, course participant lists and through common contacts for those whose addresses were unknown.

The questionnaire was constructed in a roughly chronological or sequential fashion, where the different aspects in the case solving process were enquired in about the same order as they are encountered by competing teams. As the different methods employed by the teams might differ a lot, the questions were kept as open ended as possible so that they would not limit or direct the answers.

After the questions were received, they were collected together in a tree structure according to topic. This tree was then used in two different ways. Firstly, the ideas discovered during the analyses are incorporated in the later chapters of this guide together with supporting quotes and remarks from the raw data. Secondly, a condensed version of the tree is reported in the following sections.

Three trees were built based on the empirical research framework outlined in Figure 5, which divides the topic as the solving process, presentation and preparation. For each tree the answers provided by the focus group on that topic where analyzed. Similar ideas were grouped together, and a number next to the comment or idea indicates the number of respondents mentioning each that particular issue.

In the condensed trees, answers are paraphrased from the raw text comments to maximize readability and to separate each individual idea mentioned by the respondents as a separate item. These trees are shown in the following sections.

2.3.3. Results

These results are presented here uncommented, and are further elaborated in the following chapters under the corresponding topics. The evaluation of the results in terms of validity and reliability is done in chapter 2.4.4 together with the results from the jury questionnaire, as the research methods between these two studies are rather similar.

The resulting condensed analyses are presented in the following pages. Figure 6 shows the participant opinions on the solving process. Figure 7 (two pages) contains the opinions on the actual presentations. Lastly, Figure 8 contains advice on training as well as general tips on case solving.

Work division

└ Leadership

    └ 1 Clear dictator with decision power and controlling function. Used to prevent lengthy unproductive discussion and guarantee completeness of solution

    2 Ad hoc leadership, the one with the best understanding of the particular case was selected as a leader

    2 Did not employ a leader, but considered it a good idea

    3 One person was responsible for keeping time and controlling the process, but with no content authority

    2 No leadership or central time control

└ Task division: roles

    └ 1 Based on personal interest, each took the analysis or task that he or she was most interested in

    4 Based on know-how in the areas of the case, decided during case solving

    1 Three different preset roles: background, analyses, recommendations, but only used in slide preparation, all discussions done together except background person focusing on slide drawing

    1 Would like to divide according to skills, but no significant variance in skill profiles of members

└ Task division: time

    └ 5 Preset schedule for each phase of the work

    4 Flexible usage of time

└ Rehearsing the presentation

    └ 3 Presentations usually not rehearsed due to lack of time

    2 Presentations tried to be rehearsed

    1 Individual "meditation" on own slides, no group rehearsals

└ Advice on work division

    └ 2 Case does not have to be read by everyone completely, team can start earlier

    1 Remember to set enough time for slide preparation, as slide finishing really ads value to presentation

Analysis methods during case solving

└ Deciding the solution

    └ 2 Bottom-up: Individual analyses and key issue analysis distributed to individuals, solution and recommendation done together in the end

    5 Top-down: Group discussion and agreement of solution first, individual supporting analyses in the end

    1 Mixed: Analyses conducted verbally in the team as the solution was formulated

└ Structuring the solving process

    └ 1 Use a storyboard method, make empty mock slides and arrange them

    1 Use a clear framework: BPARS (background, problem definition, analysis, results, summary) to structure thinking

    3 Free flowing idea generation

    1 Try to settle on the solution as late as possible

    1 Three phases: Overall story, analyses and recommendations & financials

└ Idea creation

    └ 3 Structured through analyses and checklists

    6 Free thinking and brainstorming

└ Ensuring completeness of solution

    └ 2 Writing all upcoming issues down and checking in the end that all are adressed

    2 Using premade checklists or frameworks

    3 Not used, 1 thinks that it is important

    2 Through concluding discussion "Is everything now covered?"

Slides

└ Slide preparation

    └ 3 Done by a single individual to ensure consistency

    5 Done by the maker of the analysis

    1 Ready templates used

└ Slide contents

    └ 5 Keep simple, include only key elements. Explain all content during presentation

    5 Prefer pictures

    1 Use backup slides very sparingly as they are a potential way to waste time

    2 Minimise slide count and content per slide, maximise pictures

    1 Use implication in all slides

    3 Have a fixed formatting for all slides

Figure 6. Focus group comments on the solving process

Presentation
└ Rehearsing presentation
   └ 3 Tried to do if time permitted
      4 Not considered time well spent
└ Structure
   └ 1 From easy to understand to complicated
      3 Flow of presentation is very important. No gaps in logic, jumps or "Why is this slide here"-situations
      1 a) Problem statement b) Background and key issues c) Analysis d) Solution and recommendation
      4 Key issues, Problem definition, (Options), Analysis, Solution, recommendation and risks.
      1 Use TRAIN-framework
      1 Prefer decision trees, but develop visual ad hoc models or other custom frameworks if tree not possible. Always have some connecting framework
      1 Use RBV as basic structure
      1 Repeat agenda between sections
      1 Use hypothesis driven approach where possible
      1 Intro - agenda - brief analysis - key issues - problem statement - presentation of the analysis - recommendations - risks - conclusion

Models and frameworks
└ Preferred models
   └ 3 SWOT
      1 Software provider - Hardware provider - Customer base -cycle
      1 Porter Five Forces
      1 Decision tree
      1 Custom matrix showing the position of alternatives in some space
      1 Correlation of variables
      1 RBV
      1 BCG matrix
      1 Skill/ will matrix
      1 Cash flow analysis
      1 Folding matrices analysis
      1 Alternative comparison
└ Model selection
   └ 2 Prefer simple, well-known frameworks so that team and jury are familiar with them
      4 Avoid text-book frameworks unless they really suit the situation well
      2 Avoid using complicated or "sexy" frameworks unless they are exceptionally well suited for the problem at hand
      1 Models should jusut bring the important issues together, not be overcomplicated
      1 Numerical analysis instead of qualitative
      1 Use combination where possible
      1 Consider jury composition when selecting how complicated models to use
└ Model reporting
   └ 1 Always report all analyses
      3 Do not show those analyses that do not fit the presentation
      1 Do not state the name of the models used unless it is relevant to the issue
      1 Show assumptions and remember to keep them reasonable
└ Comparison of alternatives
   └ 2 Done during preparation, but not reported
      3 Rarely done, which reduced performance of our team
      2 Try to include as often as possibke
      1 Two methods, either show first and analyse, or quickly select one and develop that alternative
      2 Use simple +/ - comparison
      1 Use rough NPV calculations of different alternatives
      2 Depends a lot on case, typically not relevant
└ Financial analysis
   └ 2 Use graphical format
      1 Permit to the degree allowed by the case material
      1 Show cost and sales
      4 Show only profit-level data
      1 Use also in analyses, not just in the end recommendation
      3 Show results only, not calculations
      1 Do a reality check on all numbers
      1 Show sensitivity to assumptions
      2 When some numbers not available, use assumptions and report them
      2 Calculations included in backup slides

Recommendations
└ Charasteristics
    └ 2 Must answer the questions and be relevant
    2 Link to analyses and problem statement
└ Presenting recommendations
    └ 2 Justify all recommendations and show why better than alternatives
    2 Present with confidence, do not give "maybe this, maybe that"-recommendations
    2 Show risks together with the presentation
    2 Use division between short and long term actions
    2 Let the most convincing person present this part
    1 Avoid having to make the recommendations in a haste due to ending of allotted time

Risk analysis
└ Presentation format
    └ 1 Show in connection with alternatives to demonstrate why some are not feasible
    4 Use 2D matrix impact x likelihood
    2 List ways to reduce risks
    1 Show ways to reduce both impact and likelihood separately
    2 Last slide, as an obligatory slide with little real valua
└ Observations
    └ 3 The more assumptions made, the more risks related to them should be assessed
    1 Often detached part that is only included in the end as a "must have" item. Should be more tightly integrated with the solution

Answering questions
└ Division between group
    └ 3 The person who has presented the area under questions answers
    1 If nobody else answers, the leader does
    1 In our group one person was too dominant in answering, and this reduced performance
    2 Try to balance so that everyone looks smart
└ Answering strategy
    └ 1 Have backup slides ready for difficult areas such as financials
    1 In case of tight pressure by the jury, try to relax and focus on basic principles of your solution
    1 Do not rush, use time to think
    1 Short answers that are to the point
    1 You can ask for clarification; this gives you time to think
    1 Avoid answering same question by multiple team members

Figure 7. Focus group opinions on presentations

General tips

└ Preparation

    └ 3 Practice all aspects

      1 Trust and equality among team

      1 Use experienced teams for benchmarking and as a source of advice

      1 Prepare well before the case, for example by developing checklists

      1 Every team member needs to know that the other members can do what they are expected to do

      2 Do not waste time on small issues or arguments

      1 When forming a good team, try to think in terms of competences rather than friendship ties

└ Ways of working

    └ 1 Open but very focused discussion

      1 Use a common structure each time so no time is wasted in developing one

      1 Solutions are developed best by leveraging the intuition and understanding of the group members in brainstorming discussion. The analytical tools are actually only tools for presenting your rationale.

      1 The team members must leave their egos outside the room when solving a case.

      1 Try to specialize in some roles if possible

└ Solution

    └ 1 The internal consistency or the flow of thought is the most important aspect of the solution.

      1 A crucial thing is not to start looking for the perfect solution. The case solving time is very limited, and wasting more than 10 minutes of it in debating on whether this alternative is marginally better than that is a big mistake.

      1 Always include numerical estimates and check that the solution makes financially sense

└ Presentation

    └ 1 Practice makes perfect! Group dynamics is also of great importance.

      2 Do not blabber, there is not enough time. The jury will ask for clarification if needed

      1 Never have non-critical slides

      1 Focus your presentations on the key issues, not general stuff relating to the case situation

      1 The happier you look and seem about your own solution, the better you are likely to do.

      1 Practicing presenting a few times beforehand helps a lot.

      1 All presentations are virtually the same, only the content varies so general training helps.

      1 Talk slow, be relaxed

└ Comments

    └ 1 It is surprising how useful case solving skills are also in working life.

      1 I genuinely think that the cases, case competitions and practicing for them are probably the most valuable part of a DIEM degree

      1 Solving cases in fun, I definitely recommend taking place in case competitions!

Training

└ Methods

    └ 2 Discussions about group dynamics and working habits

      1 Training cases with "real" jurys from faculty and consulting companies

      3 Train by solving cases from past competitions

      1 Benchmark other teams you have been a part of

      1 Allotting task division

      1 Going over possible frameworks

      1 Designing the working method to be used in cases

      1 Try to discover the strengths and weaknesses of each team member

└ Tips

    └ 3 Train in a holistic way, always have time limit + jury

      1 Record presentation on video

      3 Focus on second-order learning, what went wrong in the process that caused the bad solution or vice versa

      1 Remember to keep up good team spirit

      1 ACS course staff can provide training cases

      1 Focus on presentations skills and try to get as much experience as possible

      1 First focus on working methods and team dynamics, then try to cut the slack and aim at 3 to 4 hours solving times

Figure 8. Focus group opinions on preparation

2.4. Questionnaire to jury

2.4.1. Overview and research questions

Simply looking at what current teams are doing does not give a complete picture on case solving, as teams typically have a limited view on how the presentations are actually valued by the jury. To better understand the elements of a winning case solution, a questionnaire was also sent to active jury members. This was done to shed light on the grading of case solutions and to collect valuable insight from the experts on case solutions.

A questionnaire with 20 questions was sent via electronic mail to 7 active jury members, of which 5 responded (71%). The questionnaire is included as Appendix D.

This part of the research attempts to answer the following questions:

- What does the jury see as most important when grading teams?

- What types of analyses are liked and disliked by the jury?

- Specifically, what is the jury's opinion on the three hot topics identified earlier with discussions with team members and friends?

- How does the jury wish to see the recommendations?

- What types of structures are seen as most efficient by the jury?

- What types of presentation characteristics are favored by the jury?

- What specific tips can the jury give on solving cases?

2.4.2. Data and methods

The data from the jury was collected with the help of questionnaire due to the nature of the respondents. The persons acting in a jury are typically busy professionals, and reaching them is most easily done in a manner most convenient to them. An electronic mail survey allows the participants to answer at a time most suitable for them, and with the depth they have time for. A questionnaire also enables the easy analysis and grouping of data not possible with a more freeform interview.

The sample was selected by following the steps outlined below:

- A set of seven active jury members was selected based on their involvement with case competitions. To ensure a broad selection of views, the sample was chosen so that different occupations and backgrounds would be included. This was done because of the disparity of these perspectives identified by discussions done in the second study. In the end, the five respondents represent the following backgrounds:
  - o Business perspective:
    - Consultant at a consulting company (2)
    - Company representative (1)

- o Academic perspective:
    - ▪ Course instructor (1)
    - ▪ Course assistant and competition participant (1)
- • The sample was chosen so that each jury member would have plenteous experience from acting as a jury member. For this study, the minimum of case presentations graded by the juror was set at ten.

An electronic mail was sent to each member of the sample, and an answering time of one week was given to allow sufficient time to answer while preventing the issue fading from the active task list of the potential respondents. Two reminding emails were sent, one when half of the time was left and one when one day was remaining.

The answers are reported in their original format, with very minor typographical corrections, to preserve the richness of the answers. The jury member's opinions on a good case solution are more divergent than those found in the focus group study, and hence a similar grouping is not possible. They also contain more argumentation and hence any truncation would possible destroy the underlying logic.

2.4.3. Results

The answers by the jury members were collected by question and are reported in Figure 9Figure 15. Following the structure of earlier studies in this report, the analysis and synthesis of these findings is done in later chapters together with the other analyses.

The raw text included here is meant to enable the readers of this report to form an own appreciation of the scope of opinions expressed by the jury, and to act as a source of raw material for insights into developing good solutions.

Each comment is preceded with a letter. In the figures, "B" stands for the comment originating from a jury member representing the business perspective, and "A" for jury's with an academic background.

Grading

└ Most important elements of a solution when grading

    └ B Team not just build around one star but has a consistent quality of team members and a good interaction between its members.

    └ A Feasibility and robustness. The solution might not be perfect, but if it is logical and well argumented, it is a much better solution than any less robust with better conclusions. In other words, I would stress the importance of being clear about your solution and the rationale for it.

    └ A Typically - at the end of the day - the final decision is made between the two best teams. Often one team has a more insightful solution that takes into account all the major issues that one should consider in the case and is able to develop an innovative, but realistic solution. In contrast, the other team may have a much better presentation, the flow of logic of the analysis, and a more extensive use of methods, but is not getting the solution to be quite as good as the other team. – Sometimes, the first wins, sometimes the second depending on how well they cover the other missing aspect, but it is really impossible to say which style would win more often. What is possible to say, however, is that in those cases when the first kind of team has won, they have almost always also done well also in the European TIMES case competition. The second team type has often not done so well.

    └ B Coherence of storyline and logic behind solution and feasibility of recommendations combined with the ability to convince the audience through the presentation skills (incl. verbal, non-verbal presentation capabilities and quality of slideware)

    └ B Key idea behind the recommendation (key issues, analysis, recommendation) and the structure of the presentation

└ How winning teams typically outperform others

    └ B The presentation is typically more consistent across team members, and there typically is at least one distinctively good presenter in a winning team.

    └ A Winning team is usually one with most clearest presentation and best logical flow of the solution. I would stress here the importance of making the jury understand what you are talking and how it relates to the overall solution.

    └ A They typically have better grasped the overall situation, its key issues, and are able to go deeper in developing their recommendations + the numerical support for it. Often this is supported with a well-honed presentation and a well-structured overall package.

    └ B Good structure of the presentation and analysis is key as it facilitates the rest (easy to present, follow, answer questions)

    └ B Winning teams seem to outperform in all areas but usually they have the best numerical information backing up their solution.

Figure 9. Jury views on grading

Analyses

└ Good frameworks and analyses

    └ B Overall, the frameworks used shouldn't be too complex in a case competition meaning that they should be rather self-explanatory when put on a slide. Therefore, it's not a bad idea to use recognizable basic frameworks like SWOT, Porter, GE/ McKinsey matrix - depending of course on the type of problem at hand. Keep it relatively simple. The best thing is if a team comes up with a creative analysis of their own that is relevant and specific to the problem at hand and is easy to explain (so called killer analysis).

    └ A I personally like decision trees or matrices because they structure both analysis and presentation. One framework which is used too seldomly is heatmap, which is a good way to capture a lot of information in a simple presentation.

    └ A An understanding of the numbers provides the best basis for judging where the biggest money lies and then concentrating with different tools to analyze issues surrounding that could produce the best results.

    └ B 4P good to consider while crafting solution,and VRIO is also a good one, "what is really what makes the company stand from the pack". SWOT also simple and good

    └ B Situation, Complication, Resolution model is a general model used to structure the presentation. Free cash flow analysis for valuation purposes. Porter's 5 force model to reiterate the 5 key areas to explore during case solving. In many cases the problems are so unique in nature that it is not feasible to forcefully utilize any specific model . Overall I would suggest that persons use their imagination to come up with innovative yet logical solutions.

└ Often overused or misapplied

    └ B The basic analysis frameworks are tricky if you try to use them in every problem and do not take into account their shortcomings.

    └ A Most frameworks presented in PRISMA or the Tuta-POJ course (Basic strategy courses). Some teams think that they should include a lot of these frameworks even if they do not fit the problem or solution.

    └ A SWOT analyses and forced Porter industry analyses in situations where they really do not fit. When teams get more experienced they tend to use less frameworks (except for structuring presentations), and use a broader collection of tools.

    └ B I would rather be careful on the way the frameworks are used. In my opinion they should be only used to convey messages and not as something that must be done for the sake of it

    └ B SWOT model is often misused and it does not add any value to the storyline

Figure 10. Jury views on analyses

Special issues in analyses

└ Financial analysis

    └ B I agree that calculation of basic financials is required in most cases. In order for the recommendations to be relevant, I need to understand the implications - and as a member of the jury in a case competition, I need to see that the team has considered and understood the implications of their recommendation. I would expect to see some kind of forecasted future cash flows or at least P&L, and this should be weighted against the possible investments required so that the ROI is also feasible.

    └ A This can be sometimes a bias on the jury side. Some calculations are "mandatory". The team should always show the costs or revenues of their solution and be prepared to answer where the money to cover the cost will come from. The problem with financial analysis is that in many cases there is insufficient data to solve the case purely by numbers. Also, when you are unable to use spreadsheet, the time that the calculations take is sometimes better used in other analyses. A good use of numbers would be for example the following: -when identifying key issues, show a few financial ratios describing the firm (make sure that these support your story) -show some analysis of the numbers when presenting conclusions -at the end of the solution, show a graph of financial impact. (when money is going to be gained and when spent) ECCH has a few good teaching notes explaining financial analysis (included as attachement) *[included in literature study]*.

    └ A Yes, it is too often neglected. One should at the minimum have an understanding of where the biggest money in the industry is, how much do the actions that are proposed cost, and what are their value creation implications in terms of sales and profitability when compared to the investments required. If there are no figures given, realistic rules of thumb may do well.

    └ B Change in KPI's or financials, meaning what benefits does the solution bring and how does it help to achieve ojectives. In certain jurys it is essential to do the figures

    └ B Financial aspects form the crucial backbone of a coherent solution. Financial implications explain the "so what" of the proposed solution.

└ Analysis of alternatives

    └ B I really want the team to stand behind their recommendation and not water it down with too many ifs and buts. That being said, a smart team would present their underlying assumptions clearly and - again depending on the case - could bring up alternative solutions for different scenarios. So to me this a case-specific thing, the most important is to see the assumptions - sometimes they are not so sensitive that they would require the different alternatives to be analyzed.

    └ A Should be a part of the presentation. At least in text books, developing alternatives is virtually always presented as a part of strategy process. Also, developing alternatives is most likely going to lead to a better solution. Showing the alternatives and some reasons for rejecting them to the jury increases the robustness of the solution, since it is perhaps one of the best ways to present why the team chose their proposal.

    └ A Should be included. There should be an analysis of alternative strategies and their implications before one concludes with the recommended strategy.

    └ B In my opinion alternatives may not be needed if the selected track is good one. However, in some cases the "other alternatives" need to be proved to be less good than the selected one.

    └ B Analysis of feasible next best alternatives illustrates that the team has truly explored other possible solutions and have thus come up with the best solution that exists in the solution space. Alternatives can be analysed in terms of their financial impact to the firm, the competitive or customer reactions to making the specific actions and in addition, it could be reviewed as to how the proposal fits with the strategy of the firm.

└ Textbook vs. custom analyses

    └ B The best thing really is if a team cracks the case with an approach that is really specific to the problem at hand. This can feel - and often is - somewhat of a risk-taking, but in a competition where most rely to safer textbook solutions, this approach can make the team stand out.

    └ A Generally no difference. I do not care much how the analysis was done or presented, as long as I can uderstand it. The advantage of the text book models is that they give a common frame of reference and hence can enable the jury to better understand the solution. Also, having a tested framework to use speeds up the analysis. The problem with analysis frameworks are that some teams think of them more as a solution than a tool. This leads to presenting frameworks which are not essential for the solution. I would discourage any slides where the presenter could start "And in this slide we see framework X..."

    └ A I would prefer to have the analyses invented by the team to fit the particular case, but it would be good that these inventions have their background in textbook analyses.

    └ B Best analysis that is one that fits the case, understanding of the textbook analyses is important, but does not need to be on the presentation

    └ B Innovation and applicability of framework to the problem at hand is key.

Figure 11. Jury views on special issues in analysis

Solutions and recommendations

└ Good recommendations

    └ B A recommendation is good when you can trace it back to assumptions and analyses made, and can then justify that all of them make sense. Also, the recommendation should be a synthesis with some creativity and not just a summary of the analyses done.

    └ A It is most essential that the jury understands the solution. If there is ambiguity in the presentation or it arises to many questions, then the solution is probably not a good one. Most teams do not understand that the quality per se does not matter, but the quality as perceived by the jury is essential. Especially when teams get more experienced, they are able to do much more analysis in 4 hours that they can present in 20 minutes. Because of this, the solution which is most defendable in 20 minutes presentation is usually the best one. Also, I give a lot of weight for not having mistakes in the solution. For example if the solution is brilliant, but based on a false assumption, it is not a really good solution at all.

    └ A Ability to take all issues into account that all the other teams and the jury can come up with and then develop a solution that best optimizes the company's response under all these diverse issues and circumstances identified.

    └ B Implementable, relevant, well argumented, strategically sound

    └ B Practical, actionable, logically derived, backed by facts and numbers, takes into consideration the external environment (competitive actions, customer reactions, legislation, etc.)

└ Good ways to present recommendations

    └ B I would first link the recommendations back to the problem that the team was trying to solve, and then take it to a concrete level with an action plan. Timeline is good, because it makes the recommendation more concrete.

    └ A A combination of different methods. First present the how the solution addresses the key issues and then show actions tied to timeline. Alternatively, these can be in other order if there is a summary slide in the end.

    └ A Timeline is useful to have, because it makes recommendations concrete also in terms of timing. Often, however, also timelines are used in a somewhat too abstract manner.

    └ B As long as the points make sense and hep getting towards the objectives it does not really matter how they are presented

    └ B Linking the proposed recommendations to the initially identified key issues so there is a logical bridge between them. In addition, the proposed actions should be presented in a timeline illustrating the order of steps and the interlinkages between the actions (i.e., one action can only be commenced when another activity has finished). This conveys the fact that the plans are well thought out.

└ Good ways to present risks

    └ B At least two good ways: do a sensitivity analysis around your assumptions and/ or have a page after the recommendation that pictures the risks in terms of probability and size (matrix works really well here)

    └ A This is something that should be done, but do not spend too much time here. I appreaciate if the team can present impacts and counteractions for each risk that they have identified. Table is probably the best form to present these, but also other alternatives exist.

    └ A The uncertainty matrix is sometimes slightly mechanistic. Uncertainties should be somehow understood in terms of the financial implications and their potential range.

    └ B Key risks of the solution should be identified and a mean to mitigate them defined

    └ B Risks can be expressed in matrix format whereby one axis shows the magnitude of impact and the other axis the probability of occurrence. Numbered bubbles are placed into the matrix and these numbers are explained on the right-hand side by depicting the risk and the contingency measures. Best practice is to have appr. 4 risks identified and placed in different quadrants.

Figure 12. Jury views on solutions and recommendations

Structure

└ Opinion on different structures: a) Intro - Analysis - Recommendation b) Intro - Alternatives - Analysis - Recommendation c) Intro - Analysis - Alternatives - Recommendation d) Intro - Recommendation - Analysis/ Backing up.

    └ B (a) This is a safe bet. Can be used in all cases, especially if you are unsure about your audience. (b) I would imagine could work if the case clearly outlines more than two alternative paths. (c) I would use instead of (a) if the case - after analyzing - warrants this (d) Typical consultant approach to start with recommendation, and then back it up. Doesn't work if the recommendation is very controversial, as then you typically would have to build the case first. Also some audiences may not be used to this kind of straight-to-the-point presentation style, so it is a bit risky. However, can be very powerful if the recommendation is solid.

    └ A The last one is in most cases the best. The reason for this is that if the jury knows in advance where the analysis is leading to, it is much easier to understand the team. Also, when you know the solution, it is easier to stay focused. I would replace the intro with intro/ alternatives.

    └ A Alternatives two and three are the best from my perspectives depending on the case and the problem solving style of the team.

    └ B - Hard to choose from these - generally I prefer to give background and identify key issues/ options and then tell on summary what is recommended and why. Then I would go through the relevant analysis that lead to the solution (including alternatives if needed), followed by recos and action plan

    └ B - In many cases the posed case questions dictate the structure of the solution - Alternative: * Intro - Alternatives - Analysis – Recommendation * has worked in many previous case solutions due to fact that it basically leaves "no stones unturned"

└ Advice on structure

    └ B I have not really seen any teams to overdo the structure, so rather err on the "too much" side of structure than "too little". The more explicit the structure, the easier for the jury to understand the presentation. Also, explain upfront which structure you are going to use.

    └ A You should study TRAIN-framework. It does a really good job in presenting how you get your point through. It is important to always make sure that the Jury knows what you are doing and how it relates to your higher level solution.

    └ A Alternatives should be followed by additional analyses of them, but sufficient key issue analyses should also be carried out in order to end up with the alternatives.

    └ B Think about the structure. Most of the cases can be made to fit a standard structure, it makes solving cases very efficient and presentations powerfull

    └ B Do not rigidly stick to one structure but innovatively approach the problem at hand

└ Ensuring the flow of presentation

    └ B Be explicit on your structure and storyline. Also, make sure the slides shown are linked with a good logic. This shouldn't be a detective novel where you keep the jury guessing for what is coming next. Include support on the slides for the structure (e.g., trackers, numbering chapters).

    └ A Reserve roughly 20% of your presentation time (and slides) for summarizing, describing the structure of your solution, making transitions of spekers, etc. Some good rules of thumb: -One slide tells one main point. If you have two main points, make two slides. Also make sure that the jury understands what your mainpoint is. If a slide does not have a clear main point, you should reconsider including the slide. -It is a good ideaa to structure the presentation as a tree. For example if you have internal and external analysis, these form two branches. When you travel to a branch, first introduce the structure of this branch and describe how it relates to your overall solution. Again, when leaving a branch, tell briefly what the content of the branch was and how it related to your solution. -Each slide should contribute to your solution. There is no point in showing something just to show that you did some kind of analysis (does not apply to the mandatory financials, risks and timeline slides at the end)

    └ A I do not see the flow typically problematic. The case should start with understanding the situations and the key issues related to it. Based on that one should understand the alternatives that the organization if facing. These alternatives should be analyzed and then eventually based on the analyses recommendations given.

    └ B Tell recommendation at the beginning (before going to analysis). This gives a good mindset to follow the rest of presentation and enables jury to follow analysis better from your recommendation point of view

    └ B Use tracker on slide - Explain clearly at beginning structure of presentation - before each section Explain what is to be told next - at end of each section summarize key findings - Allow audience to read each slide before speaking

Figure 13. Jury views on structure

Presentations
└ Slide design
    └ B Illustrations work wonders. Too much text only gets the jury to read the slides and distracts from listening to what the presenter has to say. Titles should be action-oriented or at least contain some insights. Finally, I appreciate if teams use some kind of master template, be that only a simple borderline or whatever, but it makes the presentation look much more "professional"
    └ A The less text you have, generally the better. One main message for each slide. There should be somekind of logical transition between slides. Practice making nice looking slides. If you use powerpoint, make slide templates before hand.
    └ A No specific comments here. Good looking slides do improve the impression that the team gives, but the content is in these case contests much more important.
    └ B Tell a story with titles: reading the titles only should be your executive summary! Focus on relevant stuff on the slides, put something on the slides only if you want to communicate something with it (i.e. your solution)
    └ B - Use limited number of words - Use frameworks, graphs, tables, colours, arrows, force diagrams, flow diagrams, pie charts and other visual enhancements to improve visual appeal
└ Improving presentation skills
    └ B Have somebody make a videotape of your team's presentation and analyze that.
    └ A Practice timign. There are two kinds of people, thos who speak too fast to be understood and those who spend overtime. If you are not able to present some sliedes that you intended because you run overtime is an easy way to ruin your solution. Some people tend to get nervous when they have to present in English, but I cannot give any solution for this.
    └ A The skills of the presenters vary quite a lot. In teams, one should consider positioning each team member to that kind of position where they fit best. Presentation skills can and should also be developed constantly. Presenting basic stuff very slowly can sometimes be slightly disturbing.
    └ B Argument clearly, repeat key messages - Retain eye contact to audience and speak clearly
    └ B Be confident, speak slowly and clearly and have eye contact to audience
└ Answering questions by the jury
    └ B Agree that questions are answered by the person that presented around the topic of the question. Agree in the team that there is somebody who picks up the ball in case of odd questions. On one or two questions, have another member of the team to build on what was first answered (not for all questions!). Avoid saying things like "that is a good question". Have all of the team give subtle physical support (e.g., nodding) to the one that is giving the response.
    └ A Before the presentation (or before the case competition), have a meeting and discuss how you are going to show other people in your team that you want to answer the question. Also, make sure that you understand what your strenghts and weaknesses within the team are, so that you can divide the questions better. Remember that there is no rush in answering. Some common mistakes include: -Not answering the question or telling too much things that are irrelevant to the question and answer. Some people seem to love their voice so much that they just need to spend several minutes on an answer that could be given in 10 seconds. Rememer that the jury can ask further questions. Also, at the end of the answer you can encourage the jury to ask moree questions of the topic if they feel interested. -Having too many people answering a question. This causes the jury to think that not everyone in the team backs the answer. Every new person to answer should give at least 50% better answer to the question.
    └ A Answer to the question and keep it relatively short.
    └ B Make sure each group member answers questions
    └ B Allow different persons to answer questions - Keep answer short and crisp - Only in limited number cases is another person allowed to further continue answering question (when person has clearly missed the essence of posed question). In such cases use transition wording such as "further building on this...", "furthermore...", "in addition..."

Figure 14. Jury views on presentations

General advice
└ Most common mistakes
   └ B Not understanding the financial implications of their recommendations, not sanity-checking the numbers (e.g., a cinema that requires 10,000 spectators per day), having somebody take a too controlling role in the presentation
   └ A Structure of the presentation is the biggest problem. The second biggest is identifying the key issues. The third is not considering important points that should be always considered (e.g. where does to money come from)
   └ A Development of the quantitative understanding of the overall situation and, thus, the strategically most important key issues. Developing a numerical understanding of the solution and what would it mean in practice.
   └ B Solution relevancy often poor, be carefull when identifying the key issues and after that focus on solving them
   └ B Lack of self-confidence and lack of clarity of speech
└ General tips and tricks
   └ A Case solving is something that you can practice. You should also study presentations by other people to learn new ways of presenting and analysing. As a last tip, make sure that your solution answers all the questions explicitly presented in the case.
   └ B Have a large digital clock in-front of team whilst presenting presentation so as to not run out of time
   └ A Practice, practice, practice
   └ B Have someone lead the case solving process - person is responsible for making decisions - Assign specific roles and responsibilities prior to case solving and also during case solving

Figure 15. General advice by the jury members

2.4.4. Evaluation of the results

The research methods employed in both the focus group and jury surveys were fairly similar, and hence the evaluation of both stages of the study was done together. The most potential sources of bias to the results are highlighted below.

- Sample
    - Sample selection
        - The selected sample involves jurors and competition participants that are somehow connected to the case activities of the Helsinki University of Technology. It might well be that the opinions expressed by this group come from a fairly homogenous cluster of people, and the same truths are repeated over and over again by different people. Having a more diverse set of respondents would have alleviated this problem. However, in the context of case competitions held at TKK, these opinions are very relevant. The success enjoyed by TKK teams in various international case competitions also suggests that the ideas are not completely irrelevant in other settings.
    - Sample size
        - Nine case competition participants and five jury members is too small a sample for quantitative analysis and the construction of statistics. Hence the results should be viewed more as examples of the diversity of opinions and rough indicators of potential consensus in some areas than indicators of how opinions are divided in the population. This problem is partly alleviated by later studies on competition participants and audience, but a larger scale quantitative jury member study is not within the scope of this report.

- Questionnaire study limitations and biases
  - Question inclusion
    - The selection of questions naturally limits the scope of answers received. The selection of questions was done based on the results of the previous phases of the research, but it is still highly subjective. It is possible that important findings could have been received with different questions. This problem was attempted to be alleviated by including different "General" sections in the questionnaires, but it is still likely that interesting data was left uncollected.
  - Question formulation
    - The way in which a question is asked has an effect on the way people answer it. While attempts were made to keep the questions as unbiased as possible, it is still likely that they reflect the biases of the researcher.
  - Scope of answers
    - It is likely that the respondents have not answered exhaustively to each of the questions as they are likely to limit the amount of time and energy invested to the study. A larger sample would alleviate this problem to some degree, currently the reader of this report has to accept that some information related to the questions is lacking.
  - Lack of possibility to clarify
    - Because a questionnaire is static by nature, it is not possible to deepen the answers as could be done in an interview session. This creates the possibility for both leaving out important data as well as some answers being unclear or misunderstood. This can create problems for example in the grouping of answers in the focus group survey.
- Analysis of results
  - Paraphrasing answers
    - In the competitor survey, the answers exhibited reasonable similarity so that they could be grouped together and paraphrased. This process is prone to classification errors, so it is possible that some views are lost in the process.
  - Surface vs. underlying view
    - The questions attempt to arrive at the underlying reasoning and opinions of the competitors and the jury members. However, it is likely that only the surface level is met. In practice this means for example that even though the jury member thinks that he values A over B, in reality his grading might show the opposite to be true. Or a team stating that rigorous analysis is the key might rely more

on intuition in a competition setting. The statements of what the jury and competitors feel important should hence be taken with a grain of salt, as in true situations they might behave differently.

- o Dependent on context and observations

    - ▪ The results obtained depend on the experience accumulated by the respondents, together with all the biases of observing the experience that the respondent has. Individual events and irrational beliefs might hence influence the results to a large degree. Comparing the opinions of different people might help in alleviating this bias.

In the following chapters, the recommendations that are based on the focus group survey are labeled as "(focus group)" and those based on the opinions obtained from the jury as "(jury survey)".

2.5. Performance analysis

2.5.1. Overview and research questions

The fifth study method was to study actual presentations delivered by case solving teams. The sample for this part of the study was presentations that were conducted during the TKK course Advanced Case-Seminar in Strategy in 2005 and 2006. As the original presentations are not recorded in any direct way, the presentation slides and points received by the jury were used.

The data collected was summarized and analyzed using different statistical tools: calculating the properties of an average presentation, comparing the best and worst presentations, calculating pairwise correlations between the variables and analyzing the relationships between the different graded items.

The purpose of this study was to discover the answers to the following questions:

- What are the conventions in case solution presentations?

- What are the differences between good and bad case solution presentations?

- What are the value drivers of a presentation?

2.5.2. Data collection

The source for data was all available presentations from the 2005 and 2006 sessions of Advanced Case-Seminar in Strategy, altogether 42 sets of slides. While the set was complete for the 2005 session, not all presentations from the latter year were accessible.

This sample was selected for a variety of reasons.

Firstly, it was easily available and reliably organized, unlike data from case competitions. After many case competitions the slides are dispersed among the participants or completely lost. The ordering of slide sets in competitions is not readily deducted, because often the hand made slides are disorganized after the presentation. Also the

grading is usually done in a more ad hoc than systematic way due to the time pressure on the jury.

Secondly, the setting for the case course is relatively stable for a large number of case presentations. The basic format, the instructions given to the jury and the presenting teams remain constant between the sessions. There are some differences between years, but not too dramatic ones.

Thirdly, a case course provides a fairly authentic simulation of a case competition in many ways. In both instances, the groups are in a competitive setting with the aim of performing as well as possible. The cases used are drawn from the same pool of cases and are similar. The output is an oral presentation aided with slides. Of course some individual details, for example the type of slides (PowerPoint versus overhead transparencies), are somewhat different between the two types of case events.

A better alternative would have been recorded presentations, or detailed transcripts of verbal presentations. Unfortunately these do not exist as the presentations in general are not recorded. A larger set of data would also have been desirable, but was not available as the grading information and slides from previous years were not available.

Data was collected following these steps:

- First five presentations were studied in detail to determine a broad set of variables. The variables included had to be simple enough so that their recording process would be reliable, and at the same time contain meaningful information about the presentation.

- These variables were calculated for the ten first presentations. Variables that had no variance or that were too hard to unambiguously collect were dropped, and new variables which were possible to collect were added. The collected variables were verified with the help of a second classifier. In the case on differing results, the data collection guidelines were made clearer. Remaining data was collected.

- Simple transformations were done on the original raw data set to make the variables more meaningful. For example, counts of items were transformed to fractions of all slides and some variables were combined.

- The presentation data was linked with performance data collected from the jury grading forms used during the courses. To ensure that researcher bias was not introduced in the results, points given by course assistants were not included as I was assisting on the course in 2005.

- To overcome possible yearly variations in performance due to different course format, different cases and different competing teams, the results from 2006 were normalized by scaling each point category with the ratio of the averages. The scaling was between 0 to 5 % depending on the category.

In the end each row of data contained measurable observations from a single set of slides together with the resulting points in different categories. The raw data set had 92 observations from 42 presentations resulting in altogether 3864 data points. Table 1 contains the 47 final variables based on the raw data that are used in the study together with clarifying notes.

Table 1. Sample descriptive statistics

Variable	Mean	Std. Dev.	Min	Max	Notes
Points: Overall point average	3.72	0.53	2.41	4.67	Points are calculated from
Points: Structure	3.82	0.56	2.94	5.00	those given by the course
Points: Identification of key issues	3.82	0.75	1.58	5.00	lecturer and visiting staff,
Points: Robustness of analyses	3.50	0.75	2.00	5.00	course assistants are not
Points: Quality of end recommendation	3.46	0.80	1.98	5.00	included.
Points: Presentation skills and clarity	3.88	0.78	2.00	5.00	
Points: Response to questions	3.80	0.50	2.51	5.02	
Number of content slides	16.52	3.02	6.00	21.00	Each slide is counted into
Number of background slides	1.79	1.91	0.00	6.00	one of these categories or
Number of analysis slides	8.62	2.58	4.00	14.00	as a structuring slide which
Number of problem statement slides	1.05	0.49	0.00	3.00	is not shown.
Number of recommendation slides	3.45	1.84	1.00	9.00	
Number of financial impact slides	0.74	0.77	0.00	3.00	
Number of risk assessment slides	0.88	0.71	0.00	3.00	
Number of backup slides	0.79	1.85	0.00	10.00	
Analysis slides per one recommendation slide	3.63	3.06	0.63	14.00	
Fraction of slides containing implications	0.26	0.19	0.00	0.65	Fractions calculated from
Fraction of slides containing data	0.26	0.14	0.00	0.50	content slides only.
Fraction of slides making recommendations	0.32	0.17	0.11	0.94	
Fraction of slides having a claim title	0.13	0.18	0.00	0.70	
Fraction of slides having a question title	0.04	0.07	0.00	0.20	
Fraction of slides having a basic title	0.88	0.23	0.20	1.40	
Total count of analysis models used	7.21	2.17	3.00	11.00	A model is defined as any
Fraction of standard models	0.43	0.23	0.00	0.86	structuring of data.
Fraction of own models	0.46	0.24	0.00	1.00	Standard models are typical
Fraction of alternative comparison models	0.11	0.18	0.00	0.86	strategy models found from
Number of standard models	3.10	1.81	0.00	8.00	textbooks, own models are
Number of own models	3.36	1.96	0.00	8.00	unique and comparison
Number of alternative comparison models	0.76	1.28	0.00	6.00	models compare options.
Competitor analysis included	0.57	0.50	0.00	1.00	Inclusion of analyis based
Internal analysis included	0.76	0.43	0.00	1.00	on whole presentation.
Visual financials	0.21	0.42	0.00	1.00	Visual is defined as graphing
Numerical financials	0.17	0.38	0.00	1.00	the results as a function of
Visual and numerical financials	0.17	0.38	0.00	1.00	time. Numerical financials
Qualititative financials	0.02	0.15	0.00	1.00	include figures and
Financials contain profit estimations	0.48	0.51	0.00	1.00	calculations.
Financials contain sales estimations	0.36	0.48	0.00	1.00	
Financials contain cost estimations	0.24	0.43	0.00	1.00	
Recommendations have short and long term division	0.38	0.49	0.00	1.00	
Recommendations are divided into programs	0.45	0.50	0.00	1.00	
Recommendations include a timeline of actions	0.52	0.51	0.00	1.00	
Flow of analysis: standard model	0.14	0.35	0.00	1.00	Flow of analysis refers to the
Flow of analysis: unconnected analyses	0.79	0.42	0.00	1.00	connection between
Flow of analysis: own model	0.07	0.26	0.00	1.00	individual analyses.
Risks are shown in impact x probability matrix	0.55	0.50	0.00	1.00	
Risks are listed	0.19	0.40	0.00	1.00	
Risks have also counter-actions specified	0.55	0.50	0.00	1.00	

Sample size 42 presentations

2.5.3. Typical presentations

The results are first analyzed in terms of descriptive statistics to present a typical case solution. The purpose of this analysis is to give teams completely unfamiliar with case solution structures an overview of what case solutions are made of, as well as act as a basis for further analyses that attempt to discover the relationship between each characteristic and performance.

The analysis consists of two parts, individual slide analysis and presentation level characteristics. Figure 16 shows statistics of average slides.
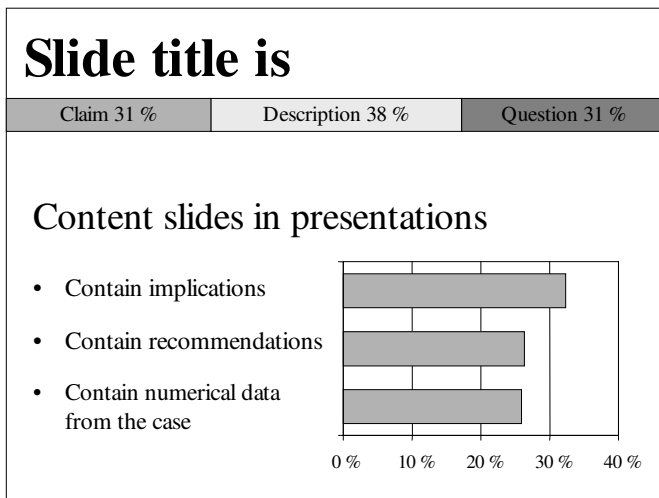
Figure 16. Typical slide properties

From these numbers one can note that there isn't a standard way for using slide titles. Instead, three primary different styles are used:

- Claim titles make a claim or assertion that the slide attempts to prove true.
    - "Sales have increased rapidly"
- Descriptive titles provide an overview of what the slide contents are about.
    - "Sales between 1990 and 2006"
- Question titles pose a question that the content of the slides answers.
    - "How have the sales developed?"

Implications refer to the explicit stating of what the contents of the slide suggest, they answer the "so what?" question. Recommendations are statements about what should be done by the company, and can either be together with the analyses or separately. Numerical data from case, usually in the form of exhibits is also found from about 25% of the slides.

Presentation level properties are summarized in Figure 17.
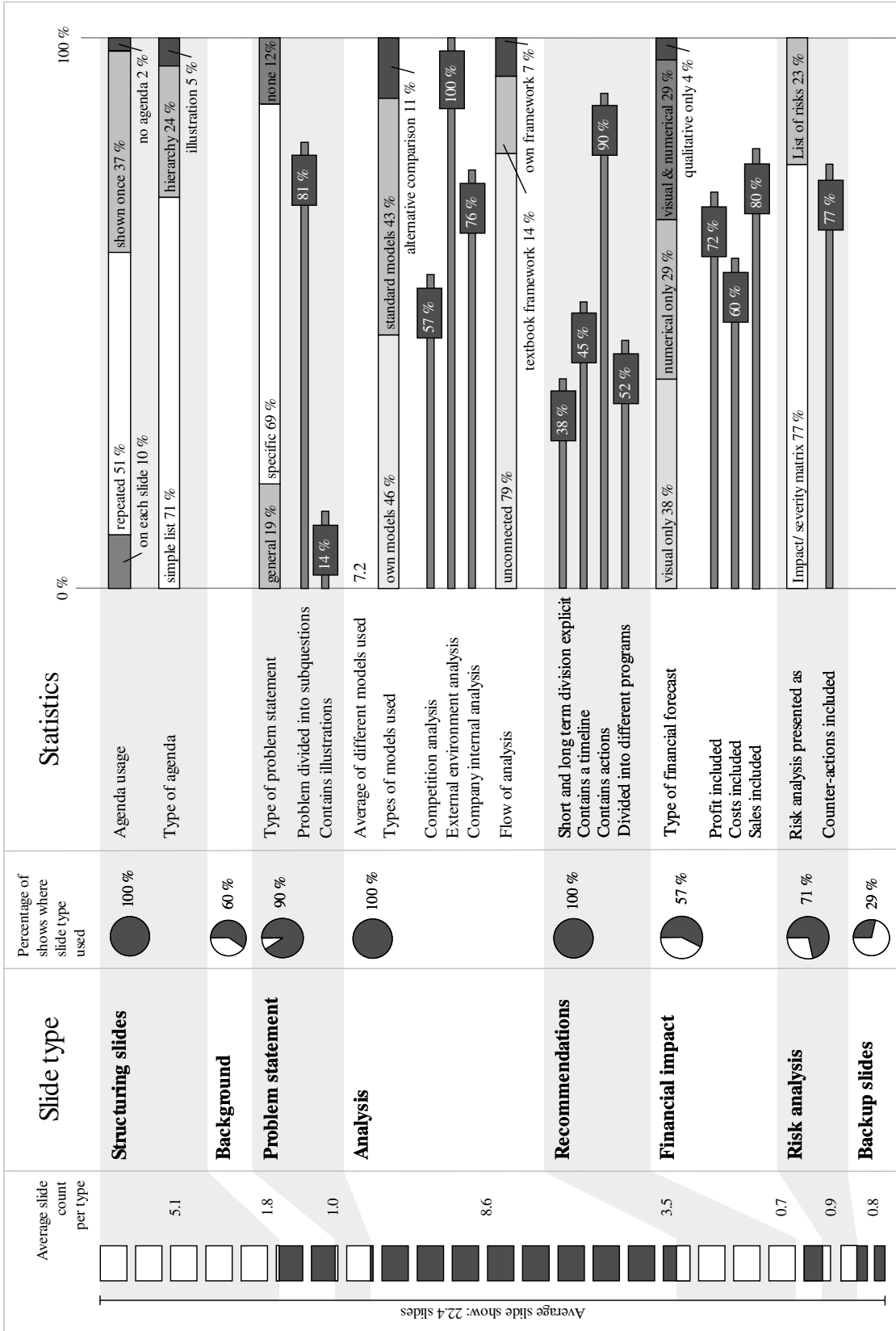
Figure 17. Typical presentation properties

2.5.4. Subsample analysis

The average properties of presentations are not useful when attempting to determine the properties of a winning presentation. Hence the next step of analysis was to seek the differences between the best and worst presentations.

First the sample was divided into three groups based on the average total score received by the presentation as shown by Figure 18. As the average for the 13th and 14th best happened to be exactly the same, the sample size for the best was reduced to 13. The same occurred with the worst presentations, and thus the final groups both contained 13 presentations.
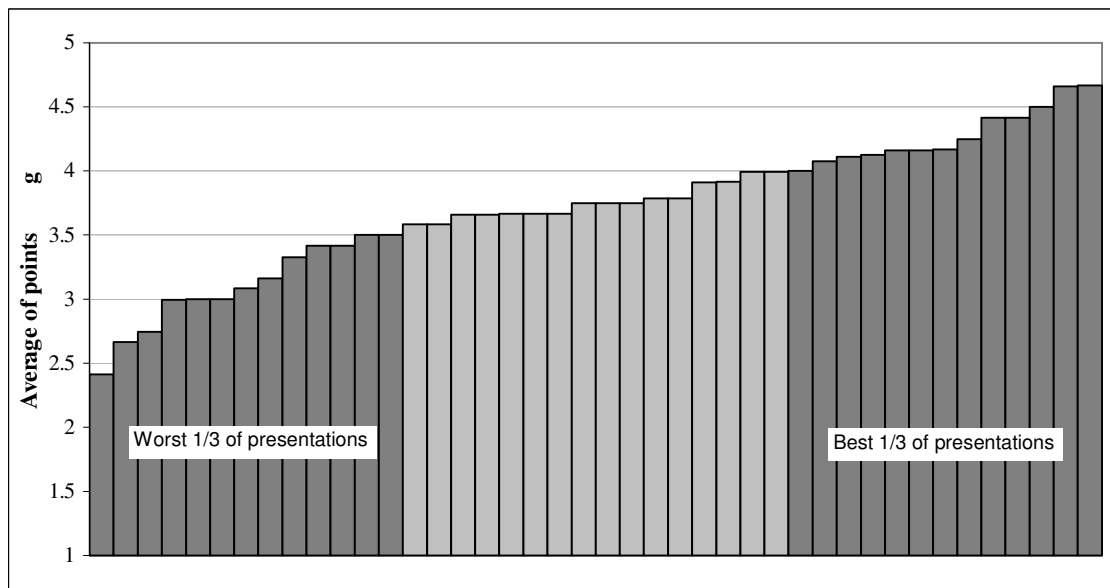
Figure 18. Best and worst performers

In terms of grading, the worst presentations had an average exactly or below 3.5 and the best had an average above 4. To determine how they differed in other aspects, the statistical properties of the variables were examined for both subgroups. To compare the groups, a standard t-test was used with a 95% confidence interval. This analysis is reported in Table 2.

Table 2. Comparison of the best and worst presentations.

Variable	Best 1/ 3 of presentations				Worst 1/ 3 of presentations			
	Mean	**Std. Dev.**	**Min**	**Max**	**Mean**	**Std. Dev.**	**Min**	**Max**
Points: Overall point average	**4.29**	0.22	4.00	4.67	3.09	0.34	2.41	3.50
Points: Structure	**4.31**	0.52	3.43	5.00	3.47	0.54	2.94	4.50
Points: Identification of key issues	**4.40**	0.40	3.68	5.00	3.05	0.61	1.58	4.20
Points: Robustness of analyses	**4.11**	0.62	3.00	5.00	2.75	0.43	2.00	3.50
Points: Quality of end recommendation	**4.28**	0.55	3.29	5.00	2.73	0.47	1.98	3.50
Points: Presentation skills and clarity	**4.46**	0.58	3.00	5.00	3.25	0.70	2.00	4.75
Points: Response to questions	**4.14**	0.34	3.75	5.02	3.30	0.46	2.51	4.00
Number of content slides	16.54	2.03	13.00	19.00	16.69	3.88	6.00	21.00
Number of background slides	1.23	1.36	0.00	4.00	**2.15**	2.23	0.00	6.00
Number of analysis slides	**9.54**	2.67	6.00	14.00	7.77	2.52	4.00	12.00
Number of problem statement slides	1.08	0.64	0.00	3.00	0.92	0.49	0.00	2.00
Number of recommendation slides	3.00	1.00	1.00	5.00	**4.08**	2.78	1.00	9.00
Number of financial impact slides	0.92	1.04	0.00	3.00	0.69	0.63	0.00	2.00
Number of risk assessment slides	0.77	0.73	0.00	2.00	**1.08**	0.76	0.00	3.00
Number of backup slides	0.69	1.03	0.00	3.00	0.77	2.77	0.00	10.00
Analysis slides per one recommendation slide	3.52	1.46	1.40	7.00	3.71	3.78	0.63	12.00
Fraction of slides containing implications	**0.35**	0.17	0.06	0.65	0.19	0.16	0.00	0.45
Fraction of slides containing data	**0.29**	0.16	0.00	0.50	0.20	0.12	0.05	0.50
Fraction of slides making recommendations	0.27	0.13	0.11	0.50	**0.36**	0.15	0.17	0.65
Fraction of slides having a claim title	0.11	0.13	0.00	0.30	0.11	0.17	0.00	0.50
Fraction of slides having a question title	0.02	0.06	0.00	0.20	**0.05**	0.07	0.00	0.20
Fraction of slides having a basic title	0.92	0.15	0.60	1.10	0.89	0.21	0.40	1.20
Total count of analysis models used	7.31	1.93	4.00	11.00	7.23	2.74	3.00	10.00
Fraction of standard models	0.37	0.26	0.00	0.86	**0.48**	0.12	0.30	0.67
Fraction of own models	0.46	0.31	0.00	1.00	0.41	0.14	0.14	0.67
Fraction of alternative comparison models	0.16	0.26	0.00	0.86	0.12	0.13	0.00	0.43
Number of standard models	2.62	1.71	0.00	6.00	3.31	1.11	1.00	5.00
Number of own models	3.54	2.50	0.00	7.00	3.00	1.63	1.00	6.00
Number of alternative comparison models	1.15	1.95	0.00	6.00	0.92	1.04	0.00	3.00
Competitor analysis included	**0.69**	0.48	0.00	1.00	0.38	0.51	0.00	1.00
Internal analysis included	0.85	0.38	0.00	1.00	0.77	0.44	0.00	1.00
Visual financials	0.31	0.48	0.00	1.00	0.15	0.38	0.00	1.00
Numerical financials	0.31	0.48	0.00	1.00	0.15	0.38	0.00	1.00
Visual and numerical financials	0.00	0.00	0.00	0.00	**0.15**	0.38	0.00	1.00
Qualititative financials	0.00	0.00	0.00	0.00	**0.08**	0.28	0.00	1.00
Financials contain profit estimations	**0.62**	0.51	0.00	1.00	0.38	0.51	0.00	1.00
Financials contain sales estimations	0.23	0.44	0.00	1.00	**0.46**	0.52	0.00	1.00
Financials contain cost estimations	0.08	0.28	0.00	1.00	**0.31**	0.48	0.00	1.00
Recommendations have short and long term division	0.46	0.52	0.00	1.00	0.38	0.51	0.00	1.00
Recommendations are divided into programs	0.38	0.51	0.00	1.00	0.31	0.48	0.00	1.00
Recommendations include a timeline of actions	0.54	0.52	0.00	1.00	0.54	0.52	0.00	1.00
Flow of analysis: standard model	0.15	0.38	0.00	1.00	0.15	0.38	0.00	1.00
Flow of analysis: unconnected analyses	0.69	0.48	0.00	1.00	0.77	0.44	0.00	1.00
Flow of analysis: own model	0.15	0.38	0.00	1.00	0.08	0.28	0.00	1.00
Risks are shown in impact x probability matrix	0.38	0.51	0.00	1.00	0.69	0.48	0.00	1.00
Risks are listed	0.23	0.44	0.00	1.00	0.23	0.44	0.00	1.00
Risks have also counter-actions specified	0.46	0.52	0.00	1.00	0.62	0.51	0.00	1.00

Figures in boldface indicate higher mean with 95% probability

The results indicate that the best presentations have statistically significantly less background slides, more analysis slides, less recommendation slides and less risk assessment slides. They tend to use implications and data more, and have fewer slides making recommendations and with question titles. They rely less on standard models and include competitor analysis more often. The financial analysis of the best presentations is more focused on profit calculations.

These results are drawn upon and further analyzed in later chapters.

2.5.5. Value drivers in presentations

As the comparison between the best and worst presentations ignores data from the average presentations and might only serve as an indicator of what types of mistakes to avoid in order for not to deliver a bad presentations, a final third analysis was performed on the collected presentation data.

This analysis has two parts. Firstly, the interrelationships between the different grading elements were studied with cross-correlation. Next, the pairwise correlations between the presentation variables and the different grading elements were calculated.

The results are tabulated in Table 3. First the interrelationships between the grading elements are shown, and the elements are listed in decreasing order of effect on the total points. Below this, the different presentation variables and their effect on each grading element are listed in decreasing effect on the overall point average. The most important elements are emphasized.

Table 3. Relationships between presentations characteristics and grading, and interrelationships between different grading items.

#	Grading element	Correlation with each point category						
		1	2	3	4	5	6	7
1	Points: Overall point average	**1.00**						
2	Points: Quality of end recommendation	**0.82**	**1.00**					
3	Points: Robustness of analyses	**0.81**	**0.58**	**1.00**				
4	Points: Identification of key issues	**0.78**	**0.65**	**0.53**	**1.00**			
5	Points: Structure	**0.78**	**0.60**	**0.59**	**0.46**	**1.00**		
6	Points: Response to questions	**0.73**	**0.54**	**0.55**	**0.60**	**0.41**	**1.00**	
7	Points: Presentation skills and clarity	**0.69**	**0.37**	**0.48**	**0.33**	**0.57**	**0.37**	**1.00**

Rank	Presentation variable							
1	Fraction of slides containing implications	**0.38**	**0.36**	0.18	**0.23**	**0.42**	0.17	**0.39**
2	Number of analysis slides	**0.32**	**0.39**	**0.20**	0.18	0.12	**0.30**	**0.26**
3	Number of problem statement slides	**0.28**	**0.22**	**0.23**	**0.24**	**0.36**	0.13	0.12
4	Fraction of slides containing data	**0.24**	0.10	**0.38**	0.07	-0.02	**0.25**	**0.30**
5	Financials contain profit estimations	**0.21**	**0.21**	**0.23**	0.11	**0.23**	0.12	0.08
6	Flow of analysis: own model	**0.20**	0.19	0.13	0.07	0.17	0.02	**0.28**
7	Fraction of alternative comparison models	0.17	0.19	0.09	-0.04	**0.35**	0.01	0.19
8	Visual financials	0.16	**0.26**	0.04	0.14	**0.24**	-0.06	0.08
9	Internal analysis included	0.13	0.14	**0.23**	-0.01	**0.23**	-0.01	0.01
10	Analysis slides per one recommendation slide	0.12	0.13	-0.02	-0.06	0.06	0.17	**0.26**
11	Number of alternative comparison models	0.12	0.13	0.06	-0.07	**0.31**	0.00	0.16
12	Competitor analysis included	0.12	**0.22**	0.18	0.18	0.03	0.01	-0.12
13	Numerical financials	0.12	0.13	0.13	0.10	0.09	**0.25**	-0.09
14	Fraction of slides having a claim title	0.10	0.13	0.16	-0.04	-0.04	0.18	0.08
15	Recommendations have short and long term division	0.07	0.11	0.11	0.13	0.15	-0.18	-0.06
16	Number of financial impact slides	0.04	0.08	0.11	0.01	-0.03	0.09	-0.07
17	Number of own models	0.04	-0.07	0.11	0.18	-0.11	0.06	0.00
18	Fraction of own models	0.03	-0.08	0.04	0.16	-0.11	0.09	0.02
19	Recommendations are divided into programs	0.03	-0.06	-0.01	0.01	0.01	0.08	0.15
20	Recommendations include a timeline of actions	0.01	0.08	0.00	-0.07	0.17	-0.09	-0.03
21	Fraction of slides having a basic title	0.00	-0.08	-0.05	0.06	0.08	-0.03	0.02
22	Total count of analysis models used	0.00	-0.01	0.12	0.05	-0.11	0.04	-0.10
23	Flow of analysis: unconnected analyses	0.00	*-0.24*	0.12	0.09	-0.05	0.06	0.06
24	Number of backup slides	-0.01	-0.03	0.13	-0.02	-0.16	0.17	-0.08
25	Risks are listed	-0.06	0.01	0.00	-0.13	-0.03	-0.10	-0.02
26	Fraction of slides having a question title	-0.07	-0.05	0.06	-0.1	-0.14	0.01	-0.09
27	Number of content slides	-0.08	-0.02	0.00	-0.12	-0.15	-0.12	0.01
28	Risks have also counter-actions specified	-0.12	*-0.20*	0.07	*-0.27*	-0.07	-0.18	0.07
29	Number of standard models	-0.13	-0.03	-0.01	-0.08	*-0.23*	-0.01	*-0.23*
30	Number of risk assessment slides	-0.14	-0.11	-0.04	*-0.28*	-0.09	-0.18	0.02
31	Fraction of slides making recommendations	-0.14	-0.13	-0.12	*-0.20*	-0.13	*-0.20*	0.10
32	Risks are shown in impact x probability matrix	-0.14	-0.14	-0.13	-0.17	-0.07	-0.09	-0.02
33	Flow of analysis: standard model	-0.15	0.14	*-0.23*	-0.15	-0.07	-0.08	*-0.28*
34	Fraction of standard models	-0.16	-0.06	-0.12	-0.14	-0.15	-0.10	-0.17
35	Financials contain sales estimations	-0.16	-0.16	0.04	-0.19	-0.02	-0.16	*-0.23*
36	Visual and numerical financials	-0.17	*-0.29*	0.04	*-0.23*	*-0.22*	0.02	-0.05
37	Financials contain cost estimations	-0.19	-0.19	-0.07	-0.19	-0.15	-0.06	-0.18
38	Number of background slides	*-0.21*	*-0.28*	-0.09	-0.18	-0.13	-0.19	-0.07
39	Qualititative financials	*-0.22*	-0.16	-0.11	-0.14	*-0.25*	-0.14	*-0.20*
40	Number of recommendation slides	*-0.40*	*-0.34*	*-0.26*	*-0.23*	*-0.34*	*-0.44*	*-0.29*

Figures in boldface indicate correlation coefficient over 0.20, and are in italics if the effect is negative

The analysis results are partly similar to those discovered in the subsample analysis. Use of implications, number of analysis and problem statements slides, fraction of slides containing data and the use of profit in financials are linked to increasing points.

Additionally the usage of own models as a tool to structure the overall flow is linked to performance. Background slides, qualitative financials and the number of recommendations slides are negatively related to performance.

Also the relationships between variables and individual grading items are interesting. For example, using alternatives seems to be rewarded in terms of more points from the presentation structure.

Table 4 presents a closer analysis of the different grading elements in terms of statistical properties and importance in determining the final score.

Table 4. Statistical properties and importance of different grading elements.

		Overall point average	Structure	Identification of key issues	Robustness of analyses	Quality of end recommendation	Presentation skills and clarity	Response to questions
Statistical properties	Mean	3.72	3.82	3.82	3.50	3.46	3.88	3.81
	Median	3.75	3.92	4.00	3.50	3.46	3.87	4.00
	Min	2.41	2.94	1.58	2.00	1.98	2.00	2.51
	Max	4.67	5.00	5.00	5.00	5.00	5.00	5.02[1]
	Standard deviation	0.53	0.55	0.75	0.75	0.80	0.78	0.50
Correlation with total points	R^2 value		0.60	0.60	0.66	0.67	0.48	0.53
	Correlation coefficient		0.77	0.78	0.81	0.82	0.69	0.73
	Implied weight		17.0 %	17.0 %	18.7 %	19.0 %	13.4 %	14.9 %

[1] Figure being over 5.00 explained by the scaling of 2006 scores

Particularly interesting is the last row, which calculates the implied weight of each element. The implied weight means the percentage of the final score explained by the particular grading element. If there would not be any correlations between the elements, each item would have a weight of one sixth (16.7%). However, some items seem to influence others more that others, and consequently exert a larger influence on the total score.

Based on the analysis, the quality of end recommendations and the robustness of analyses are the best predictors of overall score. A presentation scoring well on these dimensions is likely to do well in also the others, and vice versa. These results are further elaborated in later chapters.

2.5.6. Evaluation of results

The numerical analyses presented here and their underlying assumptions are subject to various potential flaws and shortcomings explained below.

- Variable inclusion
  - Presentations vs. slides
    - Although ideally one would wish to study the characteristics of presentations as a whole, in this case the scope of analysis was limited to slides. This omits the potential clarifying remarks given by speakers, and also reduces the potential variables that can be included.
  - Variables constructed
    - Because this phase of the study remained strictly in the quantitative realm, the variables derived from the presentations remained rather superficial. For example, studying the application of individual models might reveal valuable insights. However, because the specific models used vary so much, it was not feasible to dive into the level of models more deeply than the simple own vs. textbook vs. alternative comparison division used.
- Variable construction and measurement
  - Reliability
    - Even though steps were taken to ensure the consistent measurement of the variables in all slide steps, it is possible that the measurements are not completely accurate and comparable between one presentation and another.
  - Validity
    - The constructed variables might not be the most effective ones to for one to discover the intended differences between presentations. For example, the style of pointing out implications might be verbal for some teams, and hence would not be recorded in this study.
- Analysis methods
  - Direction of relationship
    - In the value driver analysis, the direction of causality is not clear. This is a common problem for all correlation-based analyses. Although the hypothesis is that the value drivers cause good or bad performance, it might well be that good or bad teams just use them more often.
  - Cross-correlation issues
    - In the analyses, each individual item was correlated against the performance metrics individually. This introduces the possibility that some items that are not so important by themselves receive higher correlation coefficients simply because they correlate with some of the more valuable drivers.
  - Choice of method

- o Correlation studies are typically able only to detect simple linear relationships between the variables, or relationships that have been transformed to be linear with some transformation. More advanced methods such as qualitative comparative analysis (QCA) could be used to uncover relationships that are not found with traditional analysis. However, they were not used as the variables formulated from the presentations sets were on such a general level that it is unlikely that QCA or other heavier methods would have been able to reveal any significant findings.

- Analysis results
  - Generalizability
    - o The findings draw from two consecutive years of Advanced Case-Seminar in Strategy, and their applicability to case solving competitions outside this setting is questionable. I might well be that different presentation styles are favored in different contexts. Also the time allotted for solving cases is more flexible in case courses than case competitions. On the other hand, the composition of the jury and the cases used during the course are almost identical to those typically found in TIMES qualifications.

  - Strength of discovered relationships
    - o Especially in the analysis concerning the value drivers of presentations, one should note the overall low values for correlation. They are expected, as the grading is a sum of many included and not included variables of which most are likely not even included in the variables used. A higher coefficient for some item would mean that it is overvalued in the awarding of points. Nonetheless, correlation coefficients of around 0.20 discovered in the analysis are typically labeled as "Small" in the methodology literature (for example Cohen 1998)

The findings from the performance analysis are used later in this guide, and to show that a particular piece of evidence is drawn from this study, the notation "(performance analysis)" will be used next to the particular claim. Hence while evaluating the validity of a certain recommendation stemming from this analysis, the potential sources of bias identified above should be kept in mind.

2.6. Questionnaire to wider audience

2.6.1. Overview

The last study sought to gather a wider perspective on the findings of the previous phases, as well as to explore the current state-of-the-art in case team preparation and presentations. The study consisted of a two-part questionnaire. The first part was meant for both audience members and participants of case solving competitions, and the latter was for participants only.

The audience was questioned on what they value in a presentation, and how easy each element of a presentation is to understand. The participants were additionally surveyed on their team's working methods and their perceptions of the relative importance of different grading elements.

The questionnaires were conducted as online surveys. A link to the questions was sent to the students of Industrial Engineering and Management. A total of 26 audience members and 13 competition participants answered. The total number of potential responders can not be known exactly, but is in the order of 100 for the audience survey and about 50 for the competitor survey. Based on this estimate, the response rate was around 25% for both surveys.

This part of the research attempts to answer the following questions:

- What types of presentations are valued by the audience?

- What analyses and models are most effective?

- How do case solving teams currently organize their work?

- What are the differences between team perception of the importance of different grading elements and the true importance?

2.6.2. Method

The data was collected using an online survey delivered to potential respondents, second year and later students, via electronic mail hyperlinks. This method was chosen as it allows one to reach a wide audience with relative ease, and provides a reliable way to collect qualitative data. An alternative to this method would have been to conduct exit surveys during case competitions and related events; however this was not done as no suitable events took place during the period of the research.

The students of Industrial Engineering and Management are divided by year of starting studies, and each year can be targeted individually. Because first year students have not yet had the opportunity to learn the concepts behind the cases or to participate in case solving competitions, they were excluded from the sample.

An electronic mail was sent to the selected students, urging them to access the online surveys. The participants were given 4 days to answer. The response time was a trade-off between too short time leading to sample members not becoming aware of the questionnaire on time, and too long time enabling the potential respondents to push the issue to the undetermined future and consequently forget it. It is expected that students read their electronic mail more frequently than every four days so that the message arriving too late should not be an issue for most potential respondents.

To encourage participation, a nominal prize of a 40 EUR gift certificate was raffled among the respondents. Email addresses not linked to the answers to the questions were collected to make it possible to deliver the prize.

The questionnaire was coded with the OPINIONS-Online platform. This software allows the user to create simple questionnaires by inputting the questions and answer options through the program's interface. Answers are collected and accessible to the author of the survey. The system has been used by the Department of Industrial Engineering and

Management for a wide range of studies including course feedback, and has proven itself as reliable.

After the response period was over the answers were collected from the server and analyzed. The questions and answers are presented in the following chapters based on the research questions identified above.

2.6.3. Audience valuation of presentations

Although the general audience is generally different than a jury, it is still valuable to study the opinions of the audience on how a case solution should look like. Firstly, in some instances the audience has an effect on the final score, for example in the course Advanced Case-Seminar in Strategy where a portion of the participants act as a jury each time. Secondly, the opinions of the audience indicate how good presentations typically are constructed and what the audience expects, and this likely correlates with the opinions of the jury to some degree.

The first analysis of the survey was to present a range of claims derived from the results of the previous studies. For each claim the respondents had to indicate from 1 (Strongly disagree) to 5 (Strongly agree) what they think about it. An answer of 3 is labeled Neutral. The results and claims are displayed in Figure 19..
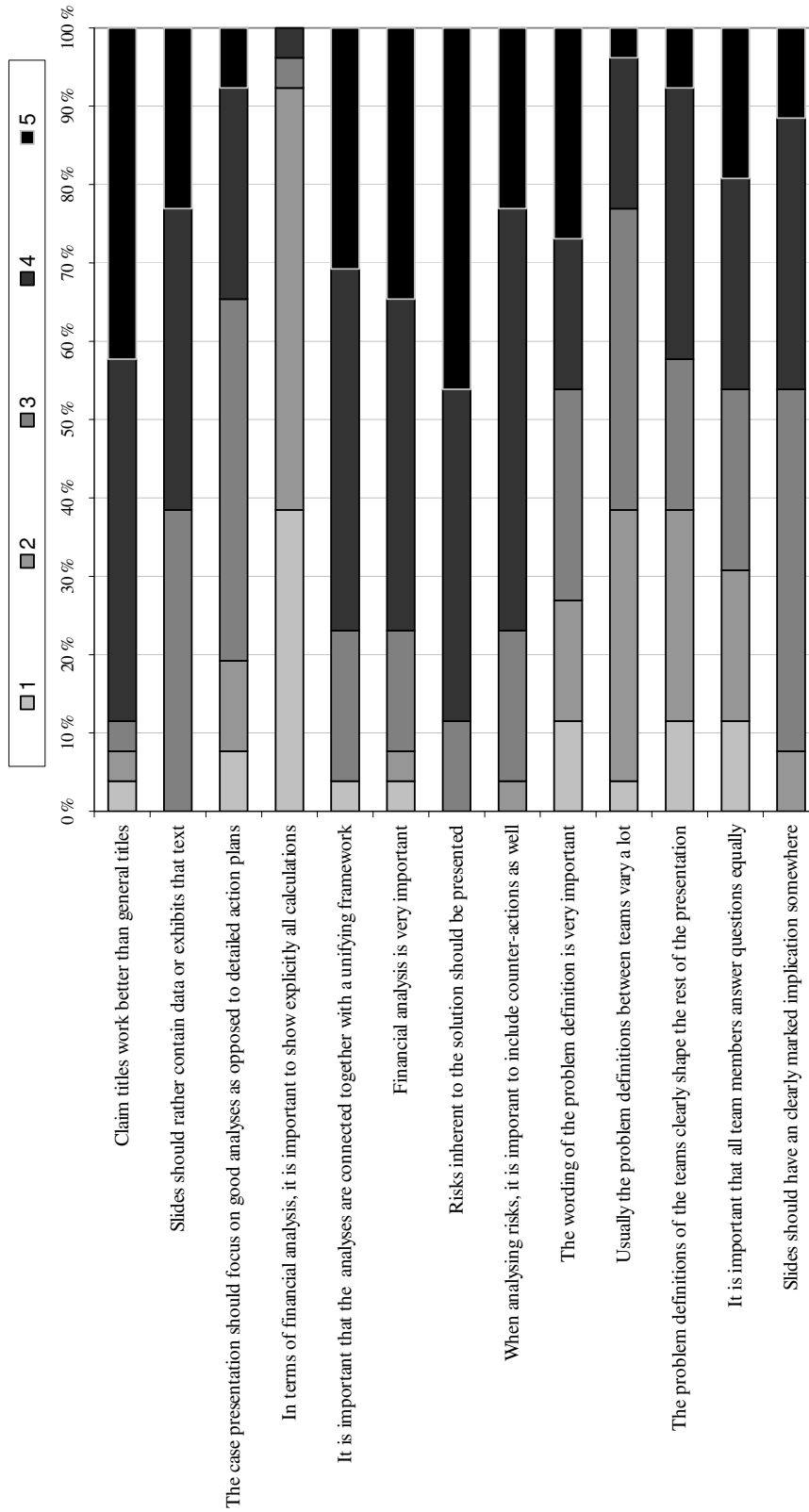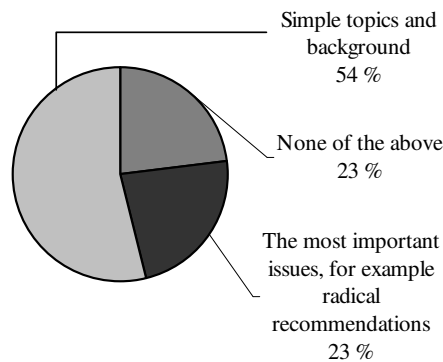
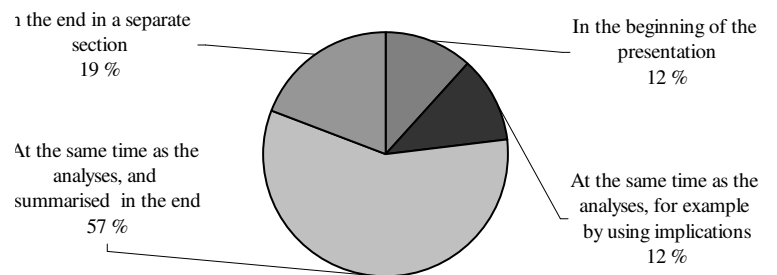**Figure 19.** Audience opinions on claims relating to presentations

Based on the survey, there is a fairly broad consensus that claim titles work better than general titles, an unifying framework should be used, financial and risk analysis should be included and risks should be met with counter-actions. Explicit calculations are not important in financial analysis, and the problem definitions of different teams are fairly similar. On other issues the answers are more heterogeneous.

The audience members were also asked to state their preferences on the structure of the presentation on two issues found to be important dividers of opinion in the focus group survey. The results are displayed in Figure 20.

The presentation content part should begin with

Simple topics and background
54 %

None of the above
23 %

The most important issues, for example radical recommendations
23 %

The recommendations should be given

ı the end in a separate section
19 %

At the same time as the analyses, and summarised in the end
57 %

In the beginning of the presentation
12 %

At the same time as the analyses, for example by using implications
12 %

Figure 20. Audience opinions on structure

These results indicate that there is not a clear expectation of presentation structure in these areas. The majority favors presentations starting with simple topics and background and which give recommendations both along the way and summarized in the end. However, there is flexibility in this issue as there does not exist a clear standard on this issue.

2.6.4.   Suitability of different models

Moving from the general level to more specific content analysis, the second part of the audience survey focused on different models and frameworks typically used in case solving presentations. The respondents were given a list of 17 models and asked to "rank the five best models you consider the best suited for a typical case solution in order of preference." The models listed were collected from the presentations analyzed in the performance analysis study and from those identified in the focus group study answers.

The participants could rank the top five models freely from the list. In the analysis, each ranking was given points from 5 (ranked first) to 1 (ranked fifth) and the points given were counted together and indexed to 100. The results are shown in Figure 21.
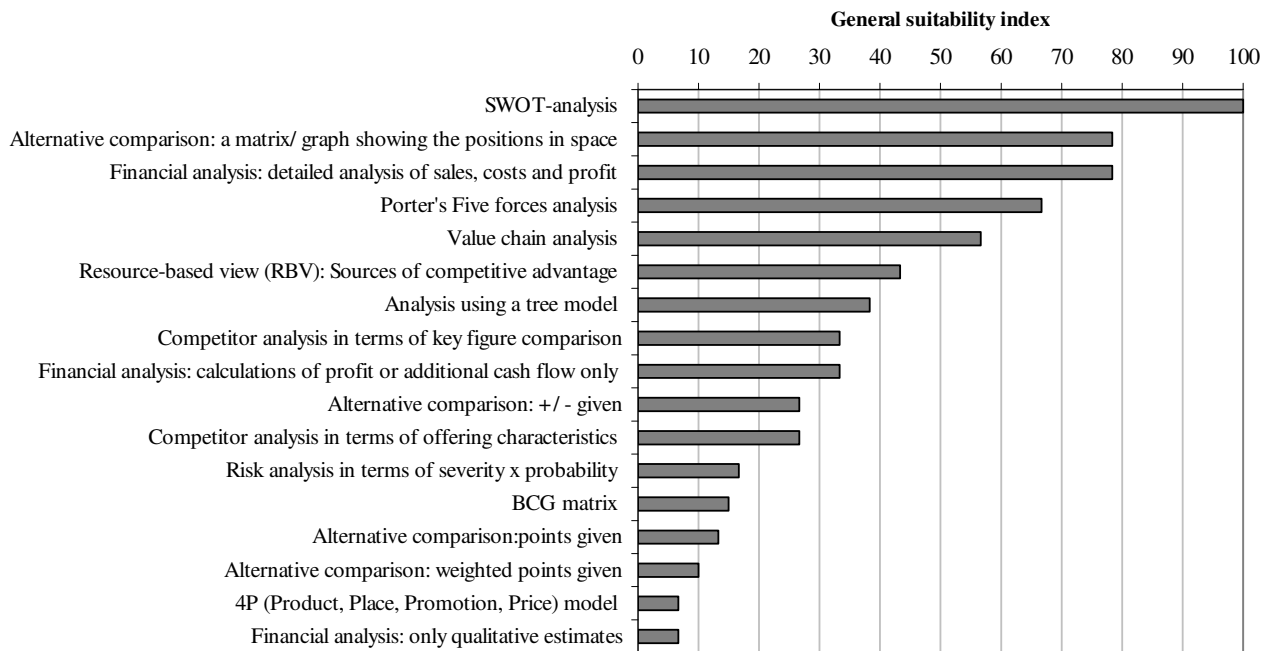
Figure 21. Audience opinion of best suited models

Based on the results, SWOT-analysis, custom made alternative comparisons, detailed financial analysis, Porter's Five Forces analysis and value chain analysis are seen to generally be the best models.

This general suitability score however does not give a deep enough understanding of the nature of the different models. To get a better picture, respondents were asked to indicate whether they knew each model, how easy the model is to understand from 1 (very hard) to 5 (very easy), how useful they consider the model to be in a typical case solution from 1 (destroys a lot of value) to 5 (adds a lot of value) and how often they have seen the model used in a case presentation from 1 (never) to 5 (almost always).

The score's on usefulness and ease of understanding for each model were calculated as averages from those who were familiar with it. Next, the models were plotted in a graph for comparison. The results of this analysis are shown in Figure 22.
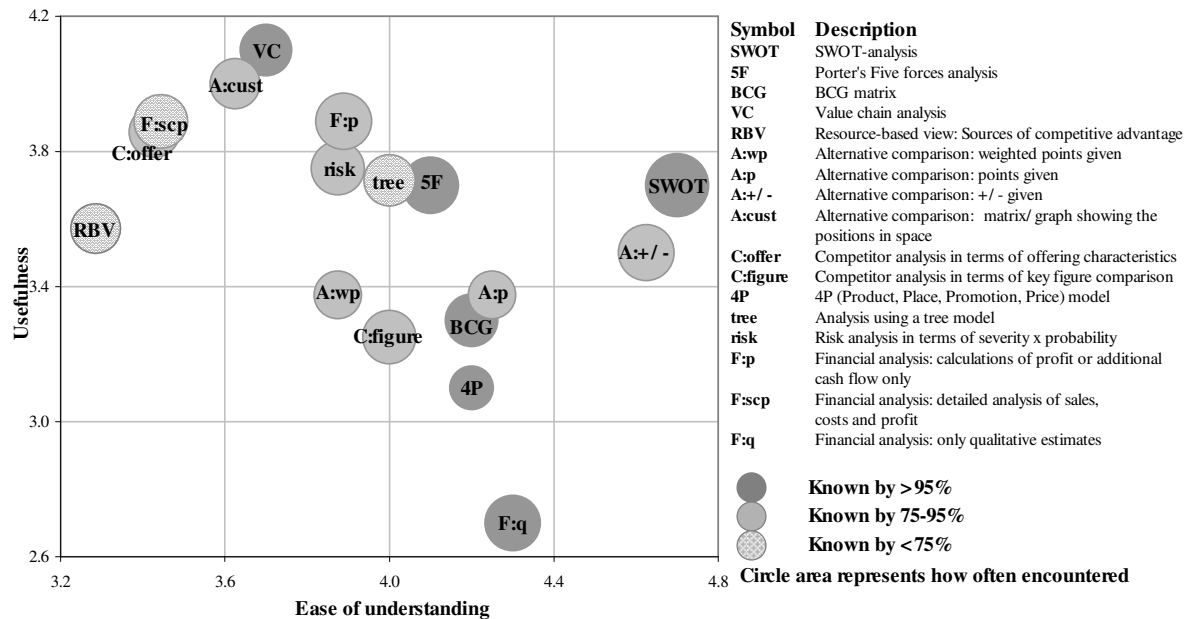
Figure 22. Usefulness, ease of understanding and familiarity of different models

Firstly one should notice that the axes of the matrix are scaled to maximize the separation of the different models in space to enhance readability. Yet, considerable differences exist between the models.

This matrix is central in developing ideas on models further in chapter 4. The results will be elaborated and the matrix repeated in that chapter.

2.6.5. Participant preparation

The purpose of the participant questionnaire was to answer the third research question relating to the work organization of case teams. Insight into this area was gained from the focus group survey, but a wider and more quantifiable set of data was needed to verify the findings.

In the first part of the participant questionnaire the respondents were presented with a series of claims relating to how their team organized their work. For each claim, the options ranging from 1 (Strongly disagree) to 5 (Strongly agree) were presented, with 3 meaning Neutral. The claims and results are presented in Figure 23, with "I do not know"-answers being left out.
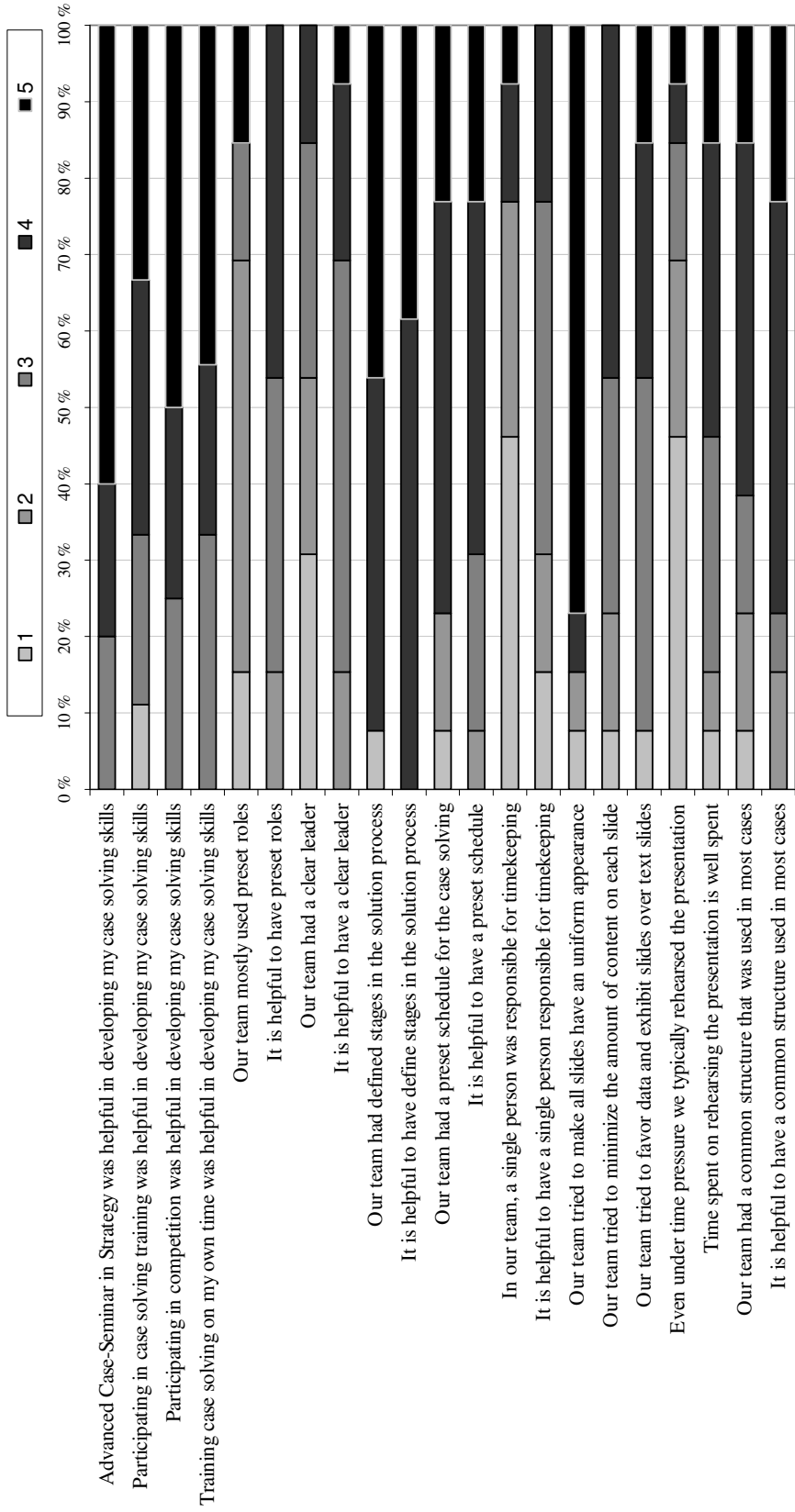
Figure 23. Participant views on preparation

49

The results show that Advanced Case-Seminar in Strategy is the most useful way to prepare for case solving, teams use defined stages and schedules in their solution process and find it useful, strive to make their slides have an uniform appearance and a to use a similar structure in all cases. A similar structure is also found helpful. Preset roles, such as that of a timekeeper, are typically not used, and presentations are not rehearsed when there is time pressure. On other issues the opinions are more widespread.

The questionnaire also included seven multiple choice questions on task division and idea generations. The answers to these questions are presented in Figure 24. For each question the respondents also had the option of "None of the above", but in instances where it was not selected by any respondent it is left out.

In our team, initial ideas were mostly developed

Individually
31 %

As a team
46 %

In subgroups
23 %
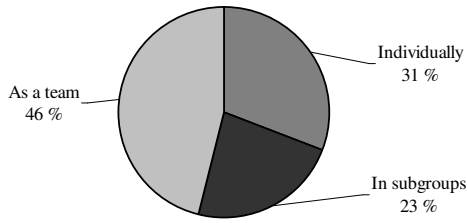
In our team, analyses were mostly developed

As a team
23 %

Individually
39 %

In subgroups
38 %
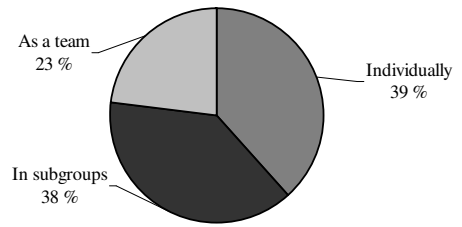
In our team, detailed slide contents were mostly developed

As a team
15 %

In subgroups
8 %

Individually
77 %
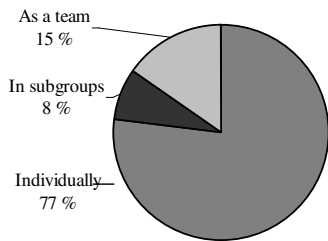
In our team, key issues and the problem statement were typically decided

During the same time
as analyses were made,
or between analysing
15 %

Right after reading the
case
8 %

After a short discussion
77 %

After all the analyses
were made
0 %
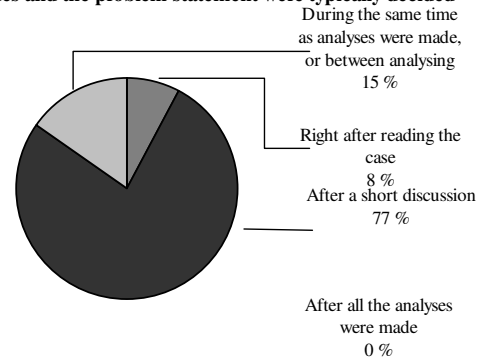
In our team, the ideas originated mostly from

Structured analyses on
case data performed as
a team
8 %

Structured analyses on
case data performed
individually
8 %

Free flowing individual
thinking
8 %

Free thinking and
discussions with the
team
76 %
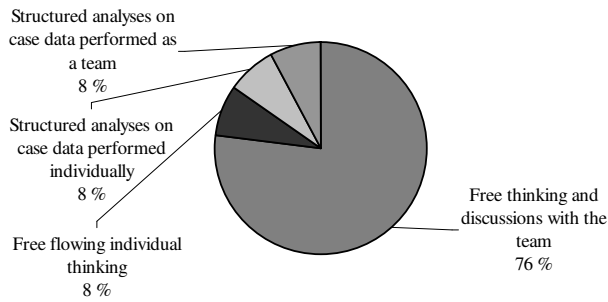
In case of a conflict between opinions, the conflict was usually solved

None of the these
methods
15 %

By the team leader's
decision
15 %

With a vote
15 %

Through reaching
concensus by
discussion
55 %
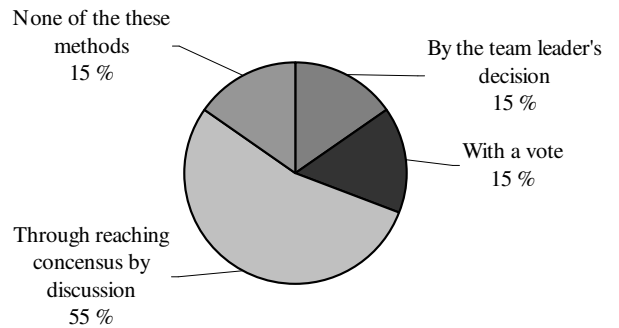
In our team, the slides were usually prepared

Made by the performer
of the analysis
47 %

Completely by one
member
15 %

Sketched by the
performer of the analysis,
finished by a single
person
38 %
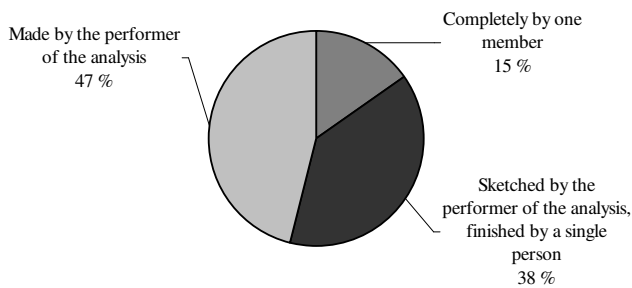
Figure 24. Multiple choice answers in participant survey

The results show a wide variety of methods used by different teams. In terms of work organization, individuals working alone, subgroups and whole team participation are all used, with a slight tendency for teams to begin by working together and end in individual work as the big picture is complete. Conflicts are solved typically through discussion, and free discussion is also main the source of ideas for most teams. Slide preparation methods are widespread.

2.6.6. Importance of different grading elements

The last research question was "What are the differences between team perception of the importance of different grading elements and the true importance?" This is relevant, as it might well be that teams are optimizing their preparation and presentation time for issues that are not critically important.

To discover the opinions of teams, each respondent was asked to rank each grading element in terms of importance. The ranks were assigned points from 6 (most important) to 1 (least important) and the total points for each element were counted, and normalized so that the maximum would be 100.

From the jury's questionnaire the answers to the question concerning weighting were also normalized to reveal how important the jury members see each element. Finally also the results from the performance analysis study were normalized. Each is plotted in Figure 25.

Figure 25. Perceptions of importance of the grading elements

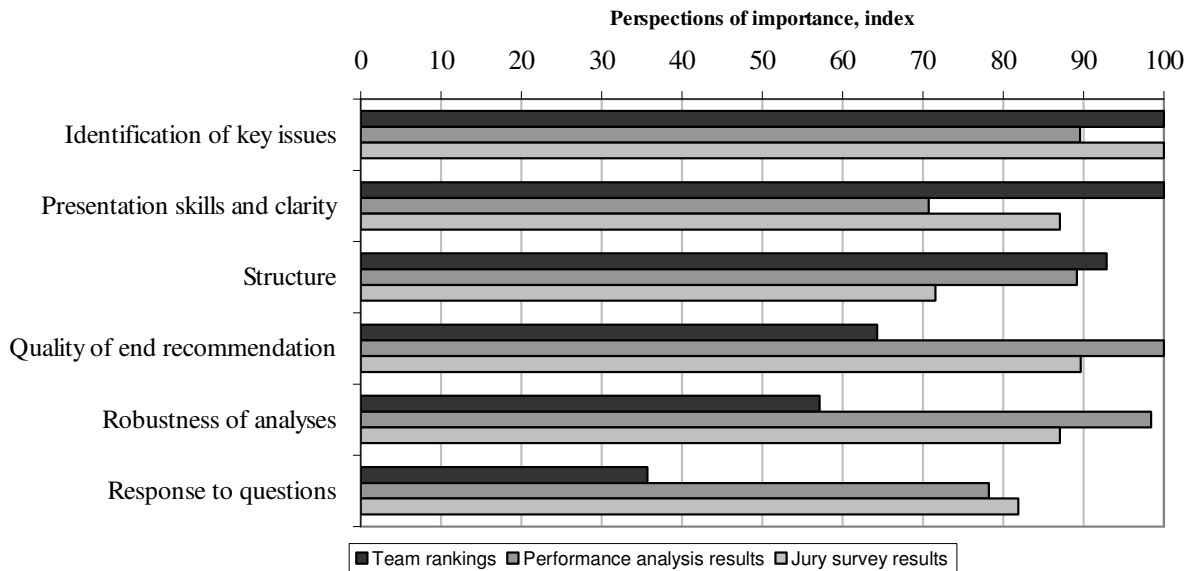The results suggest that the ratings of importance between the elements are not perfectly aligned. Naturally the different calculating schemes yield different distributions of scores, so the differences in the graphs in Figure 25 should be treated as only giving rough estimates of magnitude. Figure 26 shows the difference between the participants weighting and the average of the jury's opinion and actual scoring correlation data.
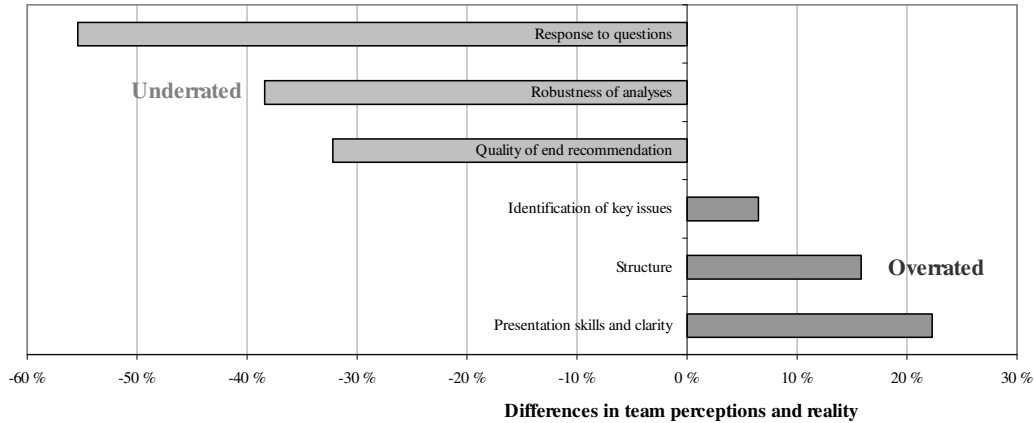
Figure 26. Over- and underrated value drivers in presentations

This analysis suggests that responses to questions, robustness of analysis and quality of end recommendations are areas where the participants do not typically allocate enough attention to. Presentation skills, structure and identification of key issues are considered more important by the competitors than the jurors.

2.6.7. Evaluation of results

The results obtained by analyzing the questionnaire deserve scrutiny before being accepted as facts. Some of the important sources causing potential bias in the results are identified below.

- Sample
    - Original sample selection
        - The sample was selected as students of industrial engineering and management at the Helsinki University of Technology. This is a rather limited sample in comparison to the thousands of students of participating TIMES schools for example. The selection was done to enable assuming a common base knowledge of all respondents and for accessibility reasons. A larger sample would have allowed for cross-school comparisons and more generalizability in the results.
    - Respondents compared to sample
        - The rate of response was average, everyone did not participate. There is a possibility that those responding differ from those not responding, and this introduces a potential for bias. One method of checking for this is comparing late and early responders' answers, and hypothesizing that late responders are more similar to non-responders. However, in this case the sample size was too small for this kind of a comparison. It is likely that the people responding are more interested in case solving and helping in developing case solving guidelines. It is not evident how this biases the results.

- Questionnaire
  - Question inclusion
    - The selection of questions determines the limits of what can be found. It is possible that many relevant issues were left untouched by the questionnaire's questions. There was also no possibility for free answers given in this questionnaire to make it as simple as possible. This kind of bias is reduced by the fact that earlier studies on the focus group and literature were used to aid in constructing the questionnaire.
  - Question formulation
    - The wording of the questions and answering alternatives can have an effect on the answers given. Effort was made to keep the questionnaire as neutral as possible, and the questions are reported in order for the reader to gain an understanding on what exactly was asked.
- Analysis
  - Strength of discovered effects
    - The size of the sample was rather small, and this prevented subsample comparison and more detailed statistical analysis. The reported averages and other variables should be treated with caution and only as indications of general trends as the variance in answers has the potential for biasing the results.
  - Variable construction
    - The general suitability index, model categorization and other analyses are attempted to be made transparent by explaining the method of construction. The way in which they were calculated should be kept in mind when considering their implications.

Later in this report results based on the questionnaire to wider audience are marked with the label "(wider audience questionnaire)".

2.7. Closing remarks on the empirical research

The empirical research conducted for this report consisted of six different parts: own experience and literature survey, informal discussions with team and friends, a focus group survey, a jury survey, performance analysis on old presentations and a questionnaire to case competition participants and audience members.

The preceding sections have focused on the presentation of the raw data discovered during different phases of the empirical research process without deeper analysis and without providing explicit implications for case competition teams. This is done in the following chapters, where the results from the six different empirical studies are interwoven together to present recommendations on the preparation, content and presenting of case solutions.

While attempts are being made to keep the given suggestions free from the personal bias of the author and transparent in terms of their source, they should still be read in light of the identified weaknesses of each empirical study method.

3. Preparing the case solution

This chapter begins the utilization of the empirical results reported in the previous chapter. The focus is on how to use the allotted preparation time in the best possible way in terms of time and role division, working methods and practical issues. The purpose is to give you insight into different work structuring methods and enable you and your team to select and fine-tune the best method for you.

3.1. Time allocation

Three hours is an extremely short time to read a case and develop a sound recommendation for a set of critical judges. While a normal group assignment typically has plenteous time for working, a case solving team does typically not have this luxury. The tight schedule forces teams to devise ways of using the time as efficiently as possible.

Based on the wider audience questionnaire and the focus group survey, a staged approach is typically used. In this approach, the team has devised a rough schedule for each phase of the work, and attempts to follow it. This means for example that even if the analyses are not completely fine-tuned at a certain point in time, the team still moves forward to the next phase.

Some teams, however, use a more flexible method of allocating time. This means that while the general time constraint is kept in mind, the time spent for different issues is allowed to vary. In some cases the teams use an otherwise flexible timing system, but have a set latest time when slide preparation must be started in any case. (focus group)

In any case, it is important to make sure that no time is wasted. A scheduled approach ensures that the whole team knows the whole time what they should be doing, and very little time is spent on coordination during the case solving. If a more flexible approach is used, there will inevitably be discussions on what should be done and when. If this discussion goes well, the time allotting can be optimized for the particular case with very little time spent on coordination. On the other hand, a lot of time can be wasted on useless time allotting discussion. (own experience)

The flexible approach can be better suited for some teams and cases, but often leads to trouble if the scheduling of the team fails and there is no time to prepare the actual presentation (own experience). Hence the decision to use flexible timing should be made consciously rather than out of neglect, and the consequences of it must be kept in mind.

3.2. Role division

The team in a case solving competition is typically treated by the organizers as consisting of equals, but internally it is allowed to use any kind of role division seen fit by the team. In the focus group survey, some of the respondent replied that their team uses preset roles and has a clear leader, and other teams thought it would be a good idea.

In the survey conducted on case competition participants, however, mixed support for having preset roles and a clear leader was found. Some teams do not see that they add value, while others strongly think so. Again, it seems that the decision on whether to use preset roles in the process or not depends on the team.

To give an idea of different process roles, Table 5 collects the different roles encountered in the focus group survey and in other settings.

Table 5. Different roles in case solving

Role	Description	Usage
Leader	A person responsible for coordination, the overall solution and the performance of the team.	2 of 9 teams in focus group study, additional 3 teams consider as a good idea
Dictator	A person having the final and unquestionable say on all arguments so that they can be ended quickly	1 of 9 teams
Timekeeper	A person responsible for keeping the preset schedule and controlling time	3 of 9 teams
Slide maker	A person specializing in creating the final slides, often alongside doing other work as well.	3 of 9 teams
Presenter	A person or persons responsible for the presentation part and doing all the public speaking	Rarely used at TKK, sometimes by foreign teams (own experience)
Sanity checker	A person responsible for checking the sanity of the proposed solutions at all times, especially the financial sanity. Ensures that wrong paths are not followed too long.	Rarely used at TKK, but could be a valuable role in light of focus group and jury survey.

In addition to simple roles, case solving teams can also employ more complicated roles related to the case solving process. Table 6 shows one such process with different roles for each participant. Further examples will be given in later sections.

Table 6. Process specialization by the TIMES 2001 team (from Kari 2001)

1. Everyone reads the case and discusses about the key issue and the problem definition. When these issues are agreed upon, the person specializing in this phase (the key issue and problem definition phase) drops off from the case solving and starts making the first slides about key issues.
2. The remaining three persons discuss how the problem can be structured and analyzed and what the main thesis or the best alternative is. Again, when this is agreed upon, the person specializing in this phase (the problem structuring and main thesis phase) drops off from the solving and starts making slides.

3. The last two members discuss the major recommendations and how to synthesize the presentation. Then both of them prepare the slides of the phase (developing recommendations or synthesizing) they are specialized in.
4. The different parts have to be combined for the presentation. This phase starts when the first slides are ready and it requires interaction of all the team members.

A similar role division was used by the TIMES 2006 team, which followed the division outlined in Table 7. The key difference is that the roles of the Analysis and Recommendation persons are enacted only in the final phase of preparation, and most of the preparation is done in a subgroup of three people with everyone being equal. The process is explained in more detail later.

Table 7. TIMES 2006 role division (based on own experience)

Role	Description
Background & Slides (B&S)	A person responsible for drawing the final slides based on sketches and instructions from other people, and finalizing the background analyses based on team discussion.
Analysis (2 people)	After the sensemaking phase (where also Recommendation-person is present), finalize the analyzes decided by the team.
Recommendation	Collecting the recommendations of the sensemaking phase and preparing the action plan, financials, risk assessments and summary slides.

In addition to process role division, teams can also divide the case preparation process based on responsibilities on different areas. For example, the different potential areas where to look for problems in the company, which are presented later in Table 18, can be divided among the team so that each member has a responsibility for ensuring that they are covered in the solution, if appropriate.

Based on the focus group study, the division of content is typically done during the case solving process rather than being preset. Many teams feel that the team members do not differ substantially in the skills and background knowledge they have, and hence any functional division would not be beneficial. To overcome this limitation, it might be useful to either build the team so that it has a wide variety of backgrounds, or develop competencies in different areas while preparing for the competition. The latter option is naturally extremely demanding, but might be something ambitions teams could consider.

3.3. Group division and work coordination

Related to the division of roles is the decision on how to work as a group in terms of individual and teamwork balance. A three hour case with a four person teams has altogether 12 work hours, the problem is how to make the most of them. Based on the wider audience questionnaire, there is no uniform way of approaching this problem. Some teams prefer to use the whole team the whole time, while others opt for more work

as a group. The questionnaire shows that there is a trend towards more individuality as the solution proceeds. Initial ideas and the rough solution are more typically done as a team, while later phases are often done individually or in subgroups.

A lack of a uniform approach suggests that deciding how to work is a complicated tradeoff decision. It is true that working alone can be said to quadruple the effective time, but on the other hand it demands careful coordination so that time is not wasted and the individual work supports the overall group goals. To aid in developing a good process for your team, Table 8 lists some potential value destroying situations that you might encounter while solving a case.

Table 8. Value-destroying activities in individual and group work (based on informal discussions with team members and own experience)

	Problem	Description
Individual work	**Full Stop**	Team stops individual work as someone asks a question addressed to everyone.
	Useless work	For example, a slide is prepared by one person which later is determined not relevant by the group opinion.
	Duplicated work	Two team members unknowingly perform the same analysis or do other duplicate work.
	Unemployed person	One person in the group has nothing to do and waits for others to finish.
	Underemployed person	A person has run out of meaningful work, and starts to do work which does not add value.
	Bottleneck waiting	Occurs when some resource (for example slide pens or team leader attention) is in short supply and a person has to wait.
Group work	**Repetition of facts**	Whole team listens while one person explains issues that everyone already knows and agrees with.
	One does, others wait	One person has captured the attention of others and does something taking time (often calculations) while whole group waits.
	Too specific issues discussed	Whole group time is taken by very detailed issues that could be easily decided by a single person
	Unverified assumptions	To avoid the "One does, others wait" situation, analyses are left undone and the discussion proceeds by assuming the results of analyses and calculations never done. Later the solution proves suboptimal.
	Groupthink	Group forgets to do basic sanity checks and to voice concerns about feasibility as individual members do not wish to disagree with the majority. Discussion proceeds to unfruitful end.

The table above can be used when analyzing your workflow. How often does each situation result, and why? Could the issue be solved by improving the working methods in that stage, or should the degree of group division be completely changed in that situation, for example by moving from individual work into subgroups?

Because each group is different, no advice to suit all can be given. The TIMES 2006 team had a preference for group work over individual work except for the very end, where the detailed slide contents were developed individually. Other successful teams like TIMES 2001 combine interleaving phases of individual and group work. Whatever your team chooses, it is important to do an informed decision and keep in mind the potential problems with each approach.

3.4. The solving atmosphere

"To decide the best solution, we have an argument, a fight even. Others try to smash the idea, and if it survives it must be good" –Focus group member

"The atmosphere should be full of trust, the discussion should be kept open and peaceful and everyone should be treated as an equal." –Focus group member

What happens behind the closed doors of the preparation room varies a lot from team to team. When the focus group members were asked about the atmosphere that the teams consider the optimal, the following tips and advice were given:

- Open, but focused discussion. Everyone should participate, but all comments should add value and be relevant. Do not spend valuable time on marginal issues

- Leave egos outside the solving room. Everyone should focus on the team's performance rather than their own.

- Trust and equality must be developed among the team.

This kind of trusting and open atmosphere is considered good by most teams; however it can lead to lack of critical thinking and questioning. Because of this, some teams prefer to have elements of adversary in their atmosphere, at least in some phases. For example, the discussions on what alternative to choose can be very heated, with people defending their own ideas fiercely. Yet the overall spirit of the argument remains healthy, and the people do not have negative feelings afterwards.

It is of utmost importance that interpersonal conflicts do not take up valuable time or otherwise result in low performance. The best way to solve such conflicts is to recognize them early, and discuss them openly. Some focus group members dedicate training time to discussing and improving group dynamics, and this can be very valuable.

These kinds of soft issues might seem secondary in importance to the more clear areas such as improving the recognition of key issues and performing analyses, but in the end they are very important. A team that does not have a good case solving atmosphere will likely operate at lower performance levels, end up training less and be prone to dysfunction as the pressure increases towards the end. (own experience)

3.5. Top-down, bottom-up and mixed methods

The previous sections have focused on the organization of work and people, and mostly ignored the content of the work being done. The following sections will examine the different ways in which the solution can be developed.

First we take a look at the three fundamental ways of developing the solution. The top-down, bottom-up and mixed methods are presented in Table 9.

Table 9. Comparison of solution methods

	Bottom-up	**Top-down**	**Mixed**
Overview	Analysis → Solution	Solution → Analysis	Analysis ↔ Solution
Description	First prepare analyses of the different issues, then based on these develop a recommendation.	Start with devising a solution and continue by proving its worth with analyses.	Free discussion where analyses are done informally and the solution is kept flexible as long as possible.
Caveats	Too much focus on analyzing every aspect of the solution. In the end the presentation does not have a clear focused solution.	Initial intuitive solution can be wrong, and this is discovered too late. Even the team knows they are proposing a bad strategy.	Discussion must be kept focused and value-adding, or else whole time is spent to useless talking and no solution is formed in the end.
Strengths	All issues are likely taken into account.	All analyses are relevant and there is a clear structure.	When executed properly, combines best from top-down and bottom-up.

The different methods tackle the problem of developing the presentation in fundamentally different ways. A bottom-up method can be seen as intellectually honest, because the recommendation is truly the result of a comprehensive analysis. The top-down approach relies more on experience and intuition. A mixed method can easily become no method at all, but when executed properly the idea is to keep the solution flexible and modular, and identify the relevant analyses that must be done to decide on the final structure of the solution.

Examples of working methods that exhibit the characteristics of the different archetypes are given in Table 10Table 11.

Table 10. Time division by the TIMES 2001 team (Adapted from Kari 2001): Bottom-up structure

Phase	Time allotted (min)
Leaf through the case and questions, quick analyses	5
Reading the case	25-35
Brief discussion	5
Analyses	15-25
Structure problem, generate main thesis	10-30
In subgroups: • Analyze problem, produce solid proof • Develop recommendation • Synthesize	65-90
Practice presentation	20

Table 11. Time division by a TIMES 2007 Helsinki local qualifications team: Top-down structure

| Phase	Time allotted (min)
Browsing through the case: identification of the type (cost reduction, acquisition etc.), industry, are there any questions in the end	5
Reading the case and making notes in the case or on separate papers on the way	30
Deciding the rough solution: based on gut feeling and very rough analysis	10-30
Drawing the blank slides (i.e. the skeleton of the presentation)	5-15
Performing analyses: The aim of the analysis is to support the solution. Feasibility checks of the solution are usually done in the previous phase. The slides are prepared along the way while performing analysis	100-130

Table 12. Time division by the TIMES 2006 team: Mixed structure

Phase	Time allotted (min)
Read the case	25
Sensemaking phase with BPARS	120
Individual slide preparation	35

While the solution method does not have to correlate with the presentation itself, in practice it often does. What this means is that teams performing a bottom-up solution process typically focus on presenting the detailed analyses (after all, this is what they spent their time doing), while top-down teams typically focus on developing their solutions during the presentation.

3.5.1. Evaluation of different methods

Which then is the best method? Before answering this question, Figure 2 should be studied. It visualizes the observations of an experienced case course instructor related to the presentations given by case solving teams.
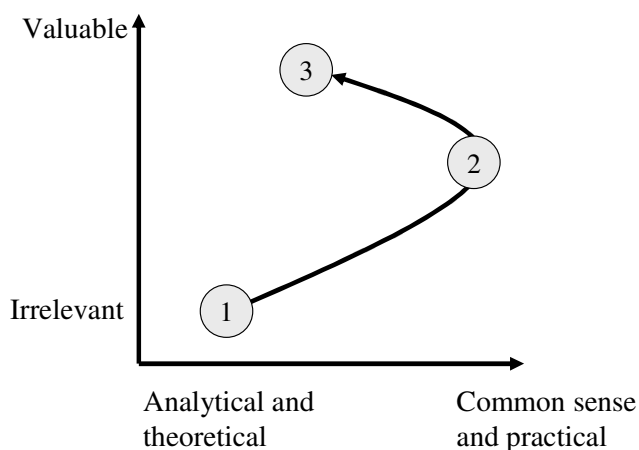
Figure 27. Team evolution (based on discussions with a case course instructor)

According to the observations, teams typically follow a similar trajectory. Beginners focus on analytical frameworks and theoretical considerations, as they have not yet developed experience in solving cases. Next the solutions improve with more practice, and the teams tend to move towards more freely structured, less rigorous solutions. In the final phase the teams move back towards a more analytical approach, but use the tools and frameworks in a more value-focused way rather than ends in themselves.

If this observation is correct, and the presentations correlate with the preparation method, this would suggest that teams also change their solution methods as time proceeds: first a bottom-up analysis focused method is used, then a top-down solution focused method, and finally a mixed method combining both. An alternative explanation would be that teams stick to their preferred solving method, but develop that in a way that masks the underlying method while increasing the relevancy of the solution.

This analysis is much based on guesswork, but is also supported by my own experience. In the end, the structure used by the TIMES 2006 team converged to a mixed method, which was coined the BPARS-framework during one of the training sessions. A bottom-up method was used by my ACS team in the beginning, and a top-down method towards the end of the course. (own experience)

The mixed method is, however, not without caveats. Special care must be taken in ensuring that it remains a method, not just a mixed up and confused way of approaching

case solving. Hence one of the other methods might be a better starting point when familiarizing the team with solving cases.

3.6. Ways of working

Next we move from the general top-down and bottom-up approaches to more concrete ways of working. While each case will require different steps in solving it, a number of different general frameworks have been presented by different approaches. Before reviewing the results of this study and giving my own recommendations, I would like to start by presenting different frameworks presented by earlier guides.

3.6.1. Ways of working based on earlier guides

Table 13 shows the suggested case solution steps given by Hayward-Farmer (1979) for solving management cases.

Table 13. Example steps in a case solution (Based on Hayward-Farmer 1979)

Phase name	Description
Reading	Read through all the material
Problem definition	Formulate a statement about what problems the company is facing
Information summary	Collect key issues and important pieces of data
Information analysis	Analyze information to draw conclusions to be used later in assessing alternatives
Problem re-examination	Check that original problem definition was good enough
Formulation of alternatives	Create a set (2-5) of clearly different alternative courses of action
Listing advantages and disadvantages	Go through the alternatives and analyze them
Evaluation of alternatives	Based on the analysis, choose the best alternative
Implementation of chosen alternative	Prepare a timed sequence of moves which reaches the target as well as possible and avoids potential disadvantages discovered
Control	Create a set of controls for the management with which to evaluate implementation
Re-examination	Check previous stages work for consistency and completeness
Report preparations	Based on previous stages, prepare the formal presentation

This method of solving is very throughout and rigorous, and rather similar to a typical strategy preparation process recommended by strategy textbooks. Special attention is

paid to ensuring that the solution is complete: first the problem definition is checked and later each alternative solution is evaluated.

The potential shortcomings of this framework is that is demands a lot of time. The steps are primarily designed to be undertaken when preparing a case solution for class discussion rather than for a case competition. The final phase, "Report preparations" is also very generic and the framework doesn't give explicit recommendation on how to actually synthesize the discussion into a concise presentation.

An alternative approach for solving cases is given by Roberts (1983), which is also supported by Shapiro (1988). It is shown in Table 13.

Table 14. Management focused case solving process. (Adapted from Roberts 1983 and Shapiro 1988)

Question	Focus
What is going on in the organization	Analysis
What is management trying to do	Objective
What did the management actually do	Performance
What could management have done	Alternatives
What will management do	Predictive
What should management do	Judgment
What would you do	Personal choice

The key of this framework is the focus on management. This is done to ensure that the solution is action-oriented and relevant. Alternatives are also considered in this framework. While it might be useful as a generator of ideas, it is not very specific in terms of what the team should do and when.

A third framework is developed in the Ace Your Case guide by Niklas Kari (2001). The framework forms the core of the guide, and Table 15 presents only a brief summary of the approach.

Table 15. Case solving steps of TIMES 2001 team (from Kari 2001)

Phase name	Description
Read and analyze	Collect key issues from the case, understand what is happening in the company and the industry
Define the problem	Develop a specific, actionable, focused and though-provoking problem statement. Identify the symptoms and causes of potential problems and the aspirations of the company.
Structure the problem	Select one of the following structures: (1) the deductive approach, (2) the minimum criterion approach, (3) the hypothesis driven approach, and (4) the comparison approach.
Perform analyses	Depending on the structure, perform different kinds of analyses

Develop recommendations	Based on the analyses, develop actionable recommendations.
Combine parts and synthesize the solution	Prepare the presentation to the structure: Background, Problem statement, Analysis, Recommendation and Synthesis.

As the Ace Your Case guide is focused on TIMES competition cases, the framework is also very tightly tailored to this particular case solving setting, taking into account the time pressures and the experience accrued by the author regarding different case solving methods. It is very tightly bottom-up, as identified earlier while presenting the related solving process (Table 10). Many of the ideas presented in the guidebook are also quoted in this report, but for a more through review on the process, please consult the original guide.

Departing from the tradition of phase-oriented rigid frameworks, Hammond (1987) proposes a more flexible solving method where the key is to allow thinking to flow freely and to immerse to the role of the management as deeply as possible. Through seeing the case world reality through the lenses of the management the team is then to develop and record solution ideas, which are then combined into a solution.

3.6.2. BPARS-framework

The final way to work is presented in Table 16 is the BPARS framework used by the TIMES 2006 team. This framework was developed by the team between the semi-finals and the finals based on experience from solving a multitude of different cases.

Table 16. BPARS-framework (based on discussions with team members and own experience)

Phase	Description
Reading	Read the case through and skim through the appendices. When waiting for the slowest reader, perform quick analyses and individual informal idea generation.
B	Decide the key issues of the case: what is happening or has happened, and what are the implications of this? After this phase, one person (B&S) starts to finalize the background slides and prepare rest of the common slideware (agenda, title slides etc).
Sensemaking (PARS)	Determine the problem statement, different areas demanding analyses, the recommendations and the overall synthesis of the solution in a flexible way. Develop an analysis framework that encapsulates the analyses. Use the BPARS-board to structure thinking (explained later). Give B&S analysis tasks to complete in the background if necessary.
Finalize analyses	Divide analyses and recommendations between team members, sketch the slides on a piece of paper and give to B&S for finalization.

As the framework is very loose, having few definite phases and involving a mixed structure, it requires other sources of rigidness than the phase approach used by other methods. The framework utilizes the BPARS board (typically drawn on a flipchart) to

structure the analyses. An explanation of the chart together with example content is given in Table 17.

Table 17. Elements of the BPARS board

Item	Description	Examples
Background	Collect important key issues and implications here. Each issue will later become an individual slide, or included in a collection of indicators, or dropped.	Sales down → Trouble in current marketing mix Low R&D compared to competitors → Long-term position in danger
Problem Statement	Devise and revise the problem statement here. Ensure that it follows the guidelines for a good problem statement, and reflects the current understanding of the problem.	"What steps can company X do to a) improve sales in the short term and b) ensure long-term competitiveness
Analysis	Collect different analyses here. Format is always Message → Evidence → Implications. At some point, devise a unifying framework to connect the analyses. Check that all relevant areas are included here in the end of discussion.	Overly scattered sales force hurts sales → Sales force / area graph → Reduce target market areas geographically
Recommendation	Collect the implications here, and group them into strategic initiatives. Plan the sequence and present an action plan. No new issues here, all must follow from analysis.	Market mix improvement: Redistribute sales force, change product positioning and increase price level.
Synthesis	Final message developed here, top three issues of the solution, maybe some kind of a final visualization. This is something the jury should remember and set our solution apart from others.	Capture easy money Defend market position Reshape offering

The key philosophy of the BPARS framework is a tight connection between preparation and presentation, and an emphasis on the clarity of the structure of the presentation. More specifically, the BPARS framework attempts to address the following issues:

- Tight connection between preparation and presentation
  - Each item on the BPARS board corresponds to a slide in the presentation, so no wasted work can be done
- Ensuring the flow of the presentation
  - Story is developed on the BPARS board in a flexible way.
  - The analyses are united with a common framework tailored to the particular case (for example decision tree or 4P framework)
  - When possible, the unifying framework is emphasized between all analyses with a framework slide shown between the analyses
- Relevancy of analyses
  - Each analysis and background exhibit must follow the Message, Evidence, Implication structure, no analysis for analysis sake.
  - Analyses can be dropped and added freely during the sensemaking phase with little lost effort.
- No claims without evidence
  - B&S person can do the heavy number crunching or other tedious analyses on the background while the rest of the team focuses on other areas
  - Each recommendation and implication must be backed up with data, and forcing the Message, Evidence, Implication structure on the board keeps this transparent
- Extremely tight coordination and coherence of solution
  - No need for a combination phase as all persons except B&S are involved in the whole development of the solution
  - Structure of the solution is usually 1-to-1 with the BPARS board.
- Professional slides and presentation
  - Final slides are prepared by the B&S person, which results into a uniform look between the slides.
  - B&S also acts as quality control, ensuring that slides fit together, use the same terms and are understandable to an outsider (as the B&S person has not participated in the detailed analysis)
  - Each person presents only those slides he or she has prepared, and hence has a good understanding of the content.

The BPARS framework is not without its problems. During the training and competitions, the TIMES 2006 team noted that the following areas can sometimes be problematic:

- Background analysis not entirely in sync with rest of the presentation

- o This problem arises from the fact that the B&S person prepares the background slides in a very early phase of the solution process, and the understanding of the key issues can evolve during later phases. The way to avoid this is first to keep the B&S person informed about possible radical changes in understanding, and secondly to keep the background slide contents rather simple so that no clear commitment is made in them.

- B&S person not completely knowledgeable of the final recommendations

  - o As the B&S person has not participated in the sensemaking phase, he or she can feel at bit unsure about what actually is the plan. Sometimes this can be seen in the initial presentation, where by accident a statement not coherent with the rest of the presentation is given. These situations can be avoided again by making the beginning very simple.

- Not perfectly suitable for cases requiring heavy data crunching

  - o As the sensemaking phase is done in a group, it tends to be more qualitative than quantitative in nature. Cases requiring heavy analysis of figures are not well suited for free flowing discussions. In these cases the B&S person can be used to provide analytical services, for example by performing calculations defined by the rest of the team. If this is not enough, the sensemaking phase could be interrupted with quantitative individual work after the direction is clear.

  - o Typically lighter number crunching is done while discussing. Usually order-of-magnitude estimations are enough to determine a good enough solution to some problem and the more precise calculations are then done in the final phase individually.

The BPARS analysis framework was considered a success also by my teammates in the debriefing after the TIMES 2006 victory. As a war story, one could mention the final case of the TIMES 2006 finals that was completely unrelated to business: the task was to provide recommendations for improving the economy of Brazil. As none of us was deeply familiar with macroeconomics or developing countries, the only asset our team had was the BPARS framework for solving cases. We followed the same structure as for other cases, and the result was a success – we won the case with the biggest margin.

There is no way to guarantee that any individual solving framework would provide superior results to a given team. Hence the most important issue is to make the solving process decision explicitly, and to be informed about the ramifications each decision can have. Based on my own experience, the solving process is one of the most important assets a team has.

3.7. Idea creation

Now that the task division and process aspects of solving cases have been covered, the next question is how to create and refine the great ideas during each phase of the process. The jury survey indicated that it is important to ensure that the solution process focuses

on the right issues. Beyond that, it is up to the team creative capacities to determine how those issues should be addressed.

> *"We almost never came up with ideas that were not resulting from analysis. In part this ensured that the ideas were quite feasible, but also meant that there weren't many ideas floating around."* –Focus group member

> *"We had methods for three different types of cases. Each method contained a series of steps and a checklist."* –Focus group member

> *"Our case solving was mostly brainstorming and free flowing thinking. Usually the results of the analyses were developed before the analyses were actually carried out."* –Focus group member

There are three fundamental ways to create ideas: free flowing thinking, analyses and checklists. Free flowing thinking refers to methods like brainstorming, where the ideas are developed without a rigid structure and mostly based on the intuition and experience of the team. Analyses are structured methods of ensuring that all areas and options are covered in creating ideas. For example, Porter's Five Forces framework ensures that suppliers, customers, substitutes, new entrants and industry rivalry are all taken into account. Checklists are similar to analyses, but instead of attempting to create a framework to connect the areas they rely on separate, and often more specific questions or topics to ensure that all relevant ideas are taken into account. (focus group)

3.7.1. Tools for free thinking

Free flowing thinking is next to impossible to teach in a case solving primer such as this. However, some methods that have been useful in my experience should be outlined:

- Analogies, reframing
    - When thinking in terms of an analogy, the case situation is transferred to something more familiar, or something more abstract. For example, one can think of the case solving and presentation process in terms of pearls and a bottleneck as was done earlier.
    - The same analogy can be used in the presentation, if it proves value-adding and is easy to communicate. However, it should be kept in mind that an analogy is never proof.
- Brainstorming
    - Brainstorming refers to the free and uninhibited creation of ideas, which is then followed by an evaluation phase. The idea is to first focus on the creation of ideas and only later be concerned about their suitability and feasibility.
- A case bank
    - A more experienced team with a long list of solved cases can usually find similarities to previously solved cases. By focusing on the similar aspects and the solutions given in the previous case the team can generate some ideas that can be used later.

- Thinking from scratch

    o Instead of focusing on the current reality the company is facing, take a look at how the issue would be handled if the solution could be developed without the historical burden. What would be the ideal way to organize the situation? For example, in a logistics case, what would be the optimal logistics network configuration if the current network could be ignored?

    o From this vision, work backwards to develop a reasonable solution that is somewhere between the current reality and the ideal vision and is possible to implement.

In terms of analyses as a source of ideas, this topic will be developed further in the next chapter when different analyses are introduced. Commonly an analysis driven idea creation process would start by general models such as the value chain model, Porter's Five Forces analysis, the resource-based view analysis or SWOT. From there, the issues discovered would lead to more specific analyses.

3.7.2. Checklist for solving cases

Checklists can be found from a variety of sources, including text books. To help the teams develop their own checklists and to provide a rough checklist, Table 18 contains an checklist derived from Kari 2001, Shapiro 1988, own experience and discussions with teams and friends. It splits the case situation into internal, external and interface related issues. While long, it is still nowhere comprehensive.

Table 18. Checklist for potential issues in cases

Internal	
Financial situation	**Human resources management**
• Cash reserves, is there risk of bankruptcy? • Cash generated by operations, profit margins • ROA, ROS, NOPLAT, inventory turnover and other metrics to determine relative efficiency • Company valuation by stock market, could it be more valuable without some elements or with some elements added? • Trends in financial indicators and comparison to competition	• Quality of workforce in terms of skills and motivation • Labor costs • Labor relations, union relations • Labor turnover as indicator of problems with HR management • Sales / employee and other related metrics • Organizational structure, does it suit the operations?
Operations	**Strategy**
• Capacity, capacity utilization rate, need for modernization? • Cost structure of operations • Differences between units, factories etc • Working capital tied, delivery times,	• Competitive advantage of company • Lacking competencies • Assets that could be used better? • Visions, plans and future prospects • Positioning in the market

slack in operations	• Potential for mergers, buyouts, divestment, joint ventures, alliances, networks or other large scope moves?
• Quality management systems	• Strategy making process
• Logistics, delivery channel	• Management competency, management bias, management perception of the situation?
• Value creating and value destroying operations	
• R&D activities	
• Economies of scale and scope	

External

Competitors	**Marketplace**
• Competitor strategies	• Market growth or decline
• New entrants, exits, shifts in competitor focus	• Price evolution
• Alliance, acquisition, joint venture potential?	• Market share of company
• Company performance vs. competiors	• Different markets the company is operating in and their relative sizes
	• Oligopoly, monopoly, perfect competition?

Customers	**Macro level issues**
• Who are the customers, end users and gatekeepers?	• Demographics and trends in them
• How does the value net look like?	• Global trends
• What substitutes and complements exists?	• Legal environment, regulation
• What value does our offering bring to the customer?	
• Consumption pattern changes	
• Customer segmentation	

Interface

Products and services	**Pricing**
• Positioning of products	• In what price level are the products?
• Relative attractiveness of products compared to competition?	• Pricing mechanism used
• Product portfolio, does it fit the demand? Are there gaps?	• Trends in pricing
• Key product characteristics in terms of order qualifiers and order winners	
• Cannibalization of own products?	

Relationships	**External image**
• Relationships with suppliers, potential conflicts	• Brand value
	• Advertisement campaigns used, their

	effectiveness
• Supply security • Price paid to suppliers • Potential to expand or contract in value chain • Position in alliances and networks • Customer relationship management • Stakeholder management • Incentives and benefits offered to partners	• Sources of threat for external image • Pressure from outside groups on external image

When using checklists, one should keep in mind that typically it is not allowed to bring any own material to the case solving room in case competitions. Hence all checklists must be memorized by the team members if they are to be used. Also, just going through all the questions in a mechanistic way is not only extremely time consuming, but also does not typically lead into creative solutions. (own experience)

3.7.3. Idea retention

Almost as important as idea creation is preventing from loosing ideas once they are created. In the case solving setting, it is possible that a key issue is discovered, briefly discussed and then forgotten as other important issues surface.

Based on the focus group survey, different methods can be used to ensure that ideas discovered are retained. Writing all ideas down on a flipchart is the most common method. Some teams also use checklists again in the end to ensure that all items of the checklist are included. Also concluding discussions can be used, where the team goes over the presentation to make sure that all relevant points are really covered in the presentation.

TIMES 2006 team used the flipchart approach. Alongside the BPARS board on a separate flipchart was the sketching board, where all ideas were developed. The working arrangement was such that all three people involved in the analyses were typically standing next to the flipchart, so that a very small size could be used for the drawings and text. This enabled the team to keep all items on the same piece of paper, which helped to prevent any ideas being lost among clutter. There was also a culture of writing down and visualizing all presented ideas if they were evens somewhat relevant. Of these ideas, not all entered the BPARS board, but were nonetheless visible during the whole time and hence were not forgotten.

4. A winning case solution

Moving on from the preparation process, this chapter examines the output of the preparation phase. The elements of a winning case solution are covered in sequential order, and the possibilities with each are explored. The purpose of this chapter is to give you the tools for cracking the different cases you will encounter. After reading this you should be able to select and apply the correct tools as well as develop your own.

4.1. Elements of a case solution

The elements of a case solution seem to be rather uniform when examining the slides of the Advanced Case-Seminar in Strategy course (performance analysis) and when interviewing past competition participants (focus group). The proportions of each element vary between presentations so that some are for example rich on analyses while the others focus of recommendations. And some presentations leave out some elements.

Table 19 shows the basic elements of a case together with a description of what is typically included in that element. The items in brackets are typically less frequently encountered.

Table 19. Typical case solution elements (performance analysis)

Element	Description
Background	Quick overview of the situation and key issues
Problem statement	A definition of what the team sees as the critical problems that must be addressed
Analysis	Longest part of the presentation. Consists of analyzing the situation the company is facing in different ways. Can involve comparison of alternative paths to follow.
Recommendations	The teams opinion on what should be done in terms of strategy, operations and timing. Can contain timelines.
Financial impact	Calculations of how the company will earn money in the future with the recommended actions.
Risk analysis	Evaluation of the risks and assumptions of the given solution.
(Backup slides)	Slides the team is not planning to show during the presentation, but which can be used in the questioning session to prove points.
(Synthesis)	A ending slide which summarizes the key points of the presentation.

The following sections explain the findings and recommendations relating to each individual element and the total structure. When reading those, the results of the jury and

audience surveys relating to value creation should be kept in mind: the primary determinants of a good case solution are the quality of recommendations and the robustness of analyses. Other elements add value, but are not as crucial. (wider audience questionnaire)

4.2. Structure of a case solution

Be explicit on your structure and storyline. Also, make sure the slides shown are linked with a good logic. This shouldn't be a detective novel where you keep the jury guessing for what is coming next. -Juror (jury survey)

The quote above makes an important point about structure: first and foremost it should be clear. The jury had not been present while you prepared your solution, so the only way they can determine what and how you analyzed is through the presentation. If the structure is unconnected and unclear, they might be compelled to think that the same holds true for the presentation as well. The importance of a good structure is also recognized by the focus group.

In structure, there are two important dimensions: the structure as seen by the jury, and the structure as something familiar to the team. A clear structure seen by the jury enables higher points for the particular solution, and a structure clear to the team helps to ensure good solutions across cases.

4.2.1. Structure within a case

Generally speaking, most structures used seem to follow the Situation-Complication-Resolution framework to some degree. With this framework the idea is to start by explaining the basics of the situation and the background, then explain the challenges faced by the company, and proceeding by explaining how those challenges can be tackled. This is a very high level framework, and the ways it is applied to case solving differ. The majority of differences occur in the Resolution phase.

Some different structures together with comments from the jury on their suitability are given below. Each solution structure begins with the introduction, which is typically a recount of the important case issues. There is a preference by the audience for the presentation to start with simple rather than complicated topics (wider audience questionnaire).

- Intro - Analysis - Recommendation
    - Traditional approach to solving cases. This is recommended by one jury as a safe bet fitting all cases and audiences
- Intro - Alternatives - Analysis – Recommendation
    - This is suitable when the case clearly indicates two or more different alternatives that do not have to be developed by the case team and do not merit being challenged.
- Intro - Analysis - Alternatives – Recommendation

- A very throughout analysis method, which according to one jury "leaves no stones unturned. The alternatives are developed after the relevant issues are analyzed to ensure that they are relevant.
  - This is the stereotypical "academic approach" kind of solution.
- Intro - Recommendation - Analysis/Backing up recommendation
  - A presentation with an inverse structure. Recommended by most academic and business background judges.
  - *"Typical consultant approach to start with recommendation, and then back it up. Doesn't work if the recommendation is very controversial, as then you typically would have to build the case first. Also some audiences may not be used to this kind of straight-to-the-point presentation style, so it is a bit risky. However, can be very powerful if the recommendation is solid."* –Jury survey respondent

From the above structures, it is evident that there are two important choices to make: whether to include extensive analysis of alternatives and whether to start with the recommendation or the analyses. Both are issues that depend on the case as well as the solution style of the team.

The TIMES 2006 team would typically consider alternatives only in individual analyses and not on the solution level. The rationale for this is that since a typical case recommendation has many different degrees of freedom, it is almost impossible to capture them all with alternatives as the number of alternatives quickly becomes unmanageable. On the other hand, it is intellectual not honest to show just some alternatives from the set of possibilities, as this decision would have to be backed up by analyzing all the unpicked alternatives. Hence the consideration of alternatives was typically done only in individual analyses.

A variation of this is the "sloppy tree" analysis framework invented by the team in one of the case solving sessions. In this analysis framework, the degrees of freedom (in this case plant type, plant location and plant operating style) were ordered in a sequential fashion, and the choice in each dimension was done independently and only the chosen strategic option was then investigated in more depth.

Having the recommendations in the beginning is something that the TIMES 2006 team never tried. It was felt that providing them in the start without justification would cause too much chaos as the jury would feel them coming out of the blue. Also by saving them later the connection between analyses and recommendations could be made more explicit, so that is was evident that the solution was based on the facts instead of the fats being twisted to fit the solution.

4.2.2. Structure across cases

Next we move from single-case structure to the consistency of structure across cases. Based on the focus group survey, five of the nine groups had a consistent structure across cases. The degree of rigidness varies somewhat, but typically the structure defines the ordering of the main elements. The structures used by different teams also tend to be rather similar, as there are some de facto standards in solving cases that have emerged.

Having a consistent structure across cases helps the team in streamlining their case solving process. This is for several reasons:

- Each team member knows what will be included and where, no time is spent arguing these issues

- The visual style of each element can be optimized

- The presentation flow is similar, making transitions and other presenting easier

- Feedback received can be linked to the structure, so that the structure can be improved across cases: "We could have done this" vs. "Our structure can be improved like this".

On the other hand, a too strong structure can damage the team's performance if it does not suit a particular case.

4.3. Background analysis

The purpose of a background analysis is to establish the situation the firm is experiencing. This is accomplished by performing quick analyses to different aspects and from them identifying the most important. The output of this element is recognition of a set of key issues that can then be formulated problem statement.

Typically a background analysis is carried out in about two or three slides, and consequently lasts no more than 20% of the presentation time. It is used to show what it is that your team understands the case is about and to prove that your point of view and hence the whole later presentation is relevant and addresses the right issues.

Based on the performance analysis, it is best to keep the background slide count at 1 or 2 slides. More slides seem to cause lower points, most likely as they take time away from more important issues. Only the most important issues should be included (Backholm 2000).

A good background analysis has to balance between being comprehensive and to the point; and between focusing too much on the case facts and going too deep into analysis.

The first tradeoff means that one should keep in mind and also present the total picture – all the challenges and issues in the internal situation and the external environment – while at the same time recognizing that only some of them are actually crucial.

To balance, a good case solution should not ignore any of the areas while at the same time boldly focus on the ones that actually are important. This means that while your team is internally analyzing and discussing each aspect of the case, your actual presentation focuses on just the important ones.

The second tradeoff is between presenting case facts and analysis. As a good guideline, one should never repeat the facts in the case – you can assume that the jury already knows them. However, repetition is possible and even beneficial when the facts are grouped, visualized or analyzed in an interesting new way. However, if the first content slide you present already has a full-fledged complicated numerical analysis, the audience will most likely feel a bit overwhelmed. The more hardcore analyses are best saved for later slides.

Background analysis slides typically end with the problem statement slide that should somehow show the connection between the key issues found and the problem statement. For example, the identified issues could be shown with arrows connecting them to the problem statement.

4.4. Problem statement

The purpose of the problem statement is to formulate what you consider to be the key problem of the case, and consequently what your case solution will focus on. Based on the performance analysis, a problem statement is almost always included in a presentation.

How then is a problem statement formulated? Taking a look at the literature one can find a variety of checklists or characteristics used to determine how a good problem solution should look like.

Firstly, McKinsey & Company uses the following characteristics to determine a good problem statement (Kari 2001):

1. It is a thought-provoking question, not a fact or assertion
2. It is specific, not general
3. It is actionable, not academic
4. It is focused

A similar definition is given by Hayward-Farmer (1979), who states that the problem statement should be

1. Written explicitly
2. Clear, concise, specific and unambiguous
3. Broad enough to not unduly limit following analyses
4. Updated as your analysis progresses
5. Include all problems faced and not just focus on one

Corey (1999) emphasizes that a problem statement should be used, updated and relevant, not just an empty statement. It is important as it determines the direction taken by the solution process. Ideally they define where the problem really is, and prevent from doing analyses for analyses sake (Hammond 1987).

Even though the literature places much emphasis on the precise wording of the problem statement, the wider audience questionnaire results present a different picture. According to the audience members, the exact wording of the problem statement is not very important. Additionally they consider that the teams do not greatly differ on this dimension, which suggests that a problem statement is not a large value driver.

My own experience supports these conclusions. I think a problem statement is more a hygiene factor than a truly value adding element. If it is completely wrong, for example ignores the most important issue of the case which is also ignored later in the solution,

then the error is likely to cause a lot of damage. However, if it is somewhat relevant, the exact wording is not too relevant to the judges.

To conclude, I would assert that problem definitions are important to the internal guidance of the team, but effort should not be wasted to excessively polish them.

4.4.1. Thesis in place of a problem statement

Sometimes a problem statement could be replaced by a thesis, claim or recommendation in the beginning. For example, instead of writing "What can company X do in terms of marketing and R&D to increase sales" the beginning could have the thesis "Company X should move o direct sales and outsource R&D in order to increase sales". This suits the recommendation-first structure the best. It is also in line with the TRAIN-framework presented later in connection with slide design.

The problem with this approach is that the audience might wish to challenge to thesis, and since no data or analysis is presented previously, they might feel that it is far fetched or wrong, and consequently not listen objectively to the arguments.

4.5. Analysis frameworks

An analysis framework is the flow of your presentation, the connecting logic between the individual analyses. The purpose of an analysis framework is to organize the different messages into a coherent storyline that is easy for the audience to follow. Based on the performance analysis and own experience, analysis frameworks are typically not used. For example, in the ACS course 2005 and 2006, only 21% of the presentations used an identifiable framework (performance analysis).

However, the value of analysis frameworks is supported by the performance analysis, where the best third of presentation are twice as likely to contain a custom analysis framework as the worst third. Textbook analysis frameworks, such as using 4P across the whole presentation, do not seem to add value based on the performance analysis. This could be due to the limited nature of textbook analyses, as based on the study the best results come when the analyses are comprehensive and include internal, external and competitor analysis.

The value of an analysis framework is also supported by the wider audience questionnaire, where respondents consider it an important aspect of a presentation. Also three of the five the jury members surveyed consider an analysis framework to be a key requirement for a winning solution.

Based on the lack of usage in general audiences and the value associated with it by the jury, an analysis framework seems as a potent way to increase the value of the presentation. Hence your team should consider investing solving time into devising a suitable analysis framework for each case.

4.5.1. Different analysis frameworks

Table 20 lists some analysis frameworks identified from different sources. The purpose of this table is to give an overview of possibilities to use for structuring your presentation.

Table 20. Selected analysis frameworks

Name	Description
Textbook models (performance analysis)	Textbook models mean models such as 4P, SWOT, Value chain and so on. Using these as an analysis framework means that the whole solution consists of detailed analyses on each issue. For example, using 4P as an analysis framework means that the analyses are structured around product, place, price and promotion. **Beware:** Textbook analyses are usually too general, and it can be hard to find a suitable one. Do not seem to add value based on performance analysis.
RBV/VRIOS (performance analysis)	Using RBV as the analysis framework means sequentially analyzing the resources that the company possesses and then seeking out how they could best be utilized. **Beware:** It is a rather rigid and very theoretical framework, so it might not be best suited for case solutions.
Decision tree (focus group, jury survey)	Using a decision tree as an overall framework means first presenting the different options in a summary slide, and analyzing each branch or leaf in a separate analysis. Very effective, but some problems can no be organized as trees.
Sloppy tree (focus group, own experience)	A decision tree where the tree is deepened only for those branches that seem feasible based on previous analysis, and consequently the tree is expanded only partially. This structure supports problems in which choices in one degree of freedom affect others.
Hypothesis driven (focus group, Kari 2001)	A hypothesis driven approach starts with presenting a solution claim such as "An upmarket strategy is the most viable option" and then outlining all the things that must be proved to prove the claim: alternative segments are less attractive, strategy can be implemented, company can capture the segment, segment is sustainable, positioning aligns with corporate level goals and so on. Each claim is analyzed and proven true, from which follows that the claim should be true.
Alternative comparison Kari 2001, jury survey)	An alternative comparison analysis framework first creates the alternatives, then the relevant dimensions of analysis and finally analyses each alternative on each dimension. A visual tool to use for this is the folding matrix structure (Kari 2001).

Analogy	Using an analogy as an overall framework means developing some metaphor of the situation. For example, one could present the company as a sail ship on the ocean, and represent positioning as the direction for the ship, strategic actions as sails, and the HR issues as the crew and so on. **Comment.** "SS Strategy" sail ship analogy was prepared, but never used by the TIMES 2006 team.
Custom	A custom framework can be almost anything. At its simplest, it could be a visual depiction of the different problem areas similar to an analogy. It could also be an illustration of the activities of the company or something else. **Comment:** Quite often the analysis framework used by the TIMES 2006 teams ended up being custom as none of the others would fit. In any case, some framework was always attempted to be included.

The analogies and custom frameworks in the table above ended up being used most by the TIMES 2006 team. When using them, it is important to communicate to the jury how the framework works and how it will be explained. A good way to communicate frameworks is to use structuring slides in the analysis section. Quite often the TIMES 2006 team would show the same framework slide between each analysis to ensure that the jury knows what is being discussed. Often a separate slide was superimposed on top of the basic framework slide. The separate slide could contain a circle highlighting the area of the framework being analyzed next.

4.6.   Analyses

While the structuring of the overall solution is important, also the robustness of individual analyses plays a great role. What then is an analysis in a case competition?

Given the time limits for case solving in TIMES, there really is not room for formal analysis or use of analytical tools. The problems are identified and solutions developed best by leveraging the intuition and understanding of the group members in brainstorming discussion. The analytical tools are actually only tools for presenting your rationale. Significantly longer competitions are another story and require different kind of preparation. –Focus group member

The quote above reflects, in my opinion, the essence of what an analysis is. It is a way to bring together information in a new way that provides insight. It is not an exercise in higher mathematics or complicated logic, or something complicated done just for the sake of appearing complex (focus group). An analysis should never be done just for the sake of analyses (jury survey).

From this it follows that rarely an analysis provides an answer. Even when a prescriptive framework is used, such as the BCG matrix that gives recommendations on what to do with different SBUs, the actual source of insight is the performer of the analysis rather than the framework itself. The selection of axes and the selection to use the framework

are done by the analyzer, not by the framework. Descriptive frameworks such as SWOT are even more just tools to synthesize thinking.

An analysis is thus not a pure instrument of rational thought - the value of an analysis lays in the following (own experience):

- Ensures completeness
    - All issues relating to the question are considered. For example Porter's Five Forces framework ensures that all important issues relating to the market attractiveness are considered.

- Ensures relevance
    - Only ideas related to the issue are considered in that particular setting. Helps to extract important issues from the sea of facts.

- Brings structure
    - Shows how the elements are related to each other. For example, ideally a SWOT analysis would enable to see how the Threats of the environment are related to the Weaknesses of the organization for example.

- Enables communication
    - Using a framework enables the presenter to show the logic of his or her story in a way that is easy for the jury to understand.

The items above can be used as a checklist against which to judge a particular analysis devised by the team.

4.6.1. Textbook and custom analyses

A frequently occurring debate is whether to prefer textbook analyses or custom made analyses. Both have their merits and problems.

Based on the performance analysis, better teams tend to use less textbook analyses and more custom ones. The jurors surveyed also agree with this view, stating that textbook analyses should not be unnecessarily used when they do not help to solve a particular problem. The value of textbook analyses is that they are easy to understand and grasp quickly. Since the jury must understand each message, an analysis must be easily comprehendible (focus group).

Overall, the frameworks used shouldn't be too complex in a case competition meaning that they should be rather self-explanatory when put on a slide. Therefore, it's not a bad idea to use recognizable basic frameworks like SWOT, Porter, GE/McKinsey matrix - depending of course on the type of problem at hand. Keep it relatively simple. The best thing is if a team comes up with a creative analysis of their own that is relevant and specific to the problem at hand and is easy to explain (so called killer analysis). -Juror (jury survey)

4.6.2. Examples of analyses

Table 21 shows a quick list of selected analyses compiled from the performance analysis, literature review, own experience and focus group survey. Its purpose is to present a quick alphabetical list of analyses one will typically encounter in case solutions.

Table 21. Selected analysis models and explanations (based on own experience).[1]

Name	Brief description
4P	Product, Price, Place, Promotion. A tool for analyzing the marketing mix of a product or service. Used in planning new products marketing or analyzing existing marketing. **Good:** Widely known, easy to understand. **Beware:** Ignores some key areas of marketing and is very simplistic. Does often not really offer insight.
5 Forces	The entry of competitors, the threat of substitutes, the bargaining power of buyers, the bargaining power of suppliers and the rivalry among the existing players. Used to analyze the characteristics and especially profit potential of an industry. Can be used in conjunction with SCP to analyze the S-component. **Good:** Very widely known way to analyze the industry. **Beware:** Do not make this a laundry list of important aspect. Also keep in mind that it is an industry, not a company level analysis.
Alternative comparison	Different ways to do: • Benefits and disadvantages of each alternatives • Points given to each alternative on a set of dimensions • Points given, and then weighted to get a total score • Positioning of alternatives on some matrix or graph, for example feasibility and impact of a strategic option **Good:** Shows different alternatives have been considered and relevant aspects have been taken into account. **Beware:** Keep relatively simple and only include relevant alternatives and dimensions. **Comment:** TIMES 2006 team used the "as simple as possible" approach in comparison. +/- analyses and matrices were preferred over more complicated point allocation schemes.
BCG Matrix	Analyzing strategic business units (SBU) in terms of the growth of the industry and their market share. **Good:** Immediately recognized and easy to understand. **Beware:** Theoretical basis questionable. Often misapplied to products or other items. Ignores connections between SBUs.

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[1] For a comprehensive and insightful overview of different usable models, visit the http://www.valuebasedmanagement.net website.
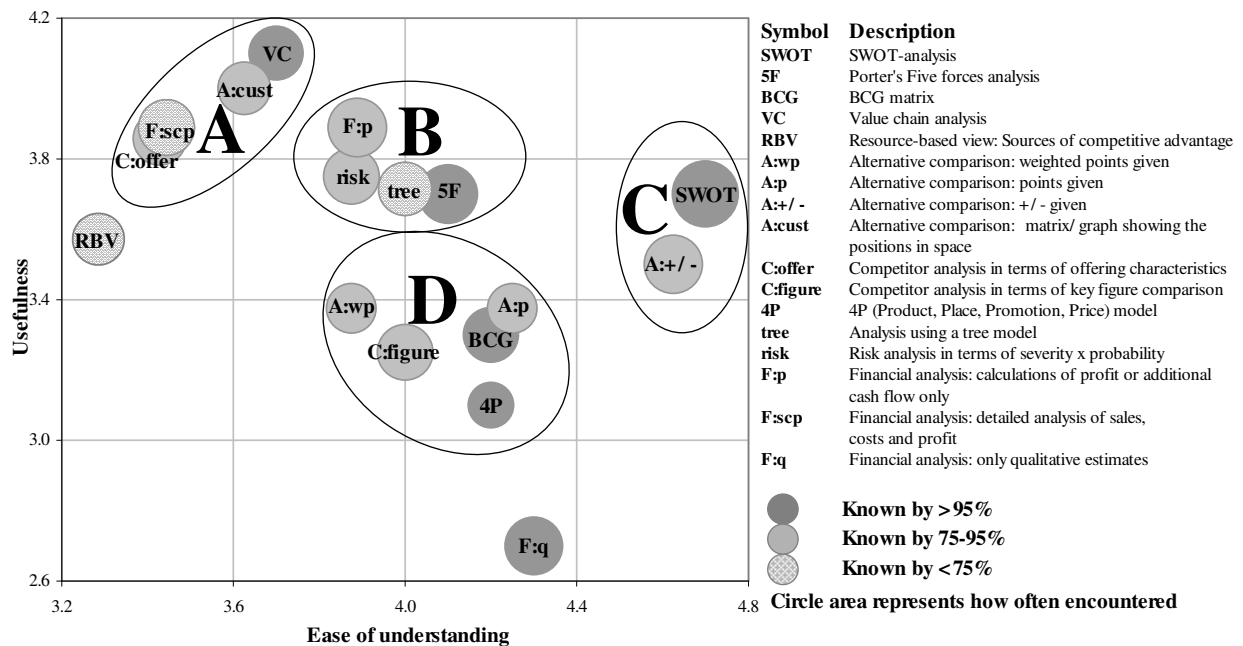
Causal network	Mapping of different issues in terms of what causes them and what they cause, with the aim of discovering root causes as well as self-reinforcing loops (virtuous / vicious cycles). **Good:** A good way to synthesize a lot of issues in a way which adds value. **Beware:** Can be hard to draw and explain if too detailed. **Comment:** Used by the TIMES 2006 team in some cases as background analysis.
Game Theory	Studying industry situation in terms of a sequence of competitive moves done by the competitors. Analyses how the situation will turn out in terms of payoff for each participant. **Good:** Works in uncertain situations and takes into account competition reactions, which are often forgotten. **Beware:** Can be complicated and add only little value once explained. Also requires expertise by the performer of the analysis.
Logic tree	A tree where the issues are divided further in a treelike fashion. Each subtree ideally consists of items that are mutually exclusive and collectively exhaustive (MECE). Identified issues can then be tackled in an orderly way. **Good:** Shows that solution is complete and allows for the creation of alternatives. **Beware:** Can grow extremely large and confusing. Focus on important issues. **Comment:** Used and favored by some consulting companies.
PESTEL	Political, Economic, Socio-cultural, Technological, Environmental and Legal. This framework is used to understand the different environment forces (both current and trends) affecting the focal industry. **Good:** A comprehensive list of environmental forces. **Beware:** Not widely known. User must focus on including only relevant issues relating to each item. **Comments:** Can be a viable option when looking for a way to summarize changes in the environment.
RBV – VRIOS	Resource-based view strategic analysis. Value, Rareness, Inimitability, Organization, Sustainability. Look at the resources of the company and how they are able to create value. **Good:** In touch with current leading-edge strategy theory. **Beware:** Highly theoretical, and often hard to carry out in practice. **Comments:** Used as an analysis framework in all cases solved by one ACS 2005 team with varying success.
Real options/decision tree	Consideration of payoff in a tree with different probabilities of and choices done at each branch. Used to calculate the NPV of different options in situations with uncertainty. **Good:** Theoretically sound and visually appealing. Can be used to evaluate alternatives. **Beware:** Do not make numbers and calculations too complicated so that a clear message is communicated.

S-C-P	Structure-Conduct-Performance, a model for looking at how changes in the industry structure cause changes in the typical fir conduct, and how these are reflected in performance. Can be used to predict how external shocks affecting structure will affect the performance of companies. **Good:** A clear way to organize historical changes as well as future events. **Beware:** Remember to show implications as well, not just illustrate theoretical issues. Non-visual and heavy, so maybe not suitable for background analysis.
SWOT	Strengths, Weaknesses, Opportunities and Threats. Analysis of the internal and external situation. **Good:** Typically well-known by the audience and simple to construct. **Beware:** Three out of five jury members caution against relying on this framework. Often too simplistic and does not give clear implications, used only as a list of issues rather than a value-adding analysis. **Comments:** Never used by the TIMES 2006 team due to the perceived lack of relevance and the fact that it is too general.
Value chain (company)	A company level value chain analyses primary activities and support activities of a firm to see where value is created and where lost. **Good:** Gives a good understanding of the operations of the company. **Beware:** Often mixed with the industry level value chain, so be explicit what is being analyzed.
Value chain (industry)	Mapping out the creation of value as a series of steps conducted by the same company or its suppliers and customers. Can be used to analyze the structure of the value creation to the customer. **Good:** Provides a good look at the potential to change the value creating system. Well known. **Beware:** Often used in a way that does not add value. **Comment:** Creative misapplication of this framework was applied numerous times, for example in analyzing the position of the Brazilian economy in the TIMES 2006 finals.

4.6.3. Analysis of different models

To move one step further from simply listing analyses and giving advice based on own feelings, the wider audience survey attempted to study how each type of analysis is received by the audience.

The original findings on ease of understanding and usefulness were given in Figure 22. Figure 28 contains the same data with a cluster analysis.

Figure 28 scatter plot with axes "Usefulness" (y-axis, 2.6 to 4.2) and "Ease of understanding" (x-axis, 3.2 to 4.8).

Data points labeled: VC, A:cust, F:scp, C:offer, RBV (cluster A); F:p, risk, tree, 5F (cluster B); SWOT, A:+/- (cluster C); A:wp, C:figure, A:p, BCG, 4P (cluster D); F:q.

Symbol	Description
SWOT	SWOT-analysis
5F	Porter's Five forces analysis
BCG	BCG matrix
VC	Value chain analysis
RBV	Resource-based view: Sources of competitive advantage
A:wp	Alternative comparison: weighted points given
A:p	Alternative comparison: points given
A:+/ -	Alternative comparison: +/ - given
A:cust	Alternative comparison: matrix/ graph showing the positions in space
C:offer	Competitor analysis in terms of offering characteristics
C:figure	Competitor analysis in terms of key figure comparison
4P	4P (Product, Place, Promotion, Price) model
tree	Analysis using a tree model
risk	Risk analysis in terms of severity x probability
F:p	Financial analysis: calculations of profit or additional cash flow only
F:scp	Financial analysis: detailed analysis of sales, costs and profit
F:q	Financial analysis: only qualitative estimates

Known by >95%
Known by 75-95%
Known by <75%
Circle area represents how often encountered

Figure 28. Grouping of different models

The clustering of the analyses supports a rough division of the different analyses into four clusters:

- A – Advanced analysis
    - Advanced analysis is hard to present, but at its best can deliver lots of value. An alternative analysis with a matrix showing the position of alternatives in space (an example is the figure above!) is typically hard to present, but when properly done proves to the jury that the team has an deep understanding of the situation.
    - This kind of analyses should be limited in number, as there is limited time and understanding capacity of the jury. Only most critical areas deserve throughout explanations.

- B – Basic analysis
    - These are the average analyses that likely form the backbone of a solution. Cover moderately complicated topics with sufficient depth. Basic financial analysis and risk analysis are often considered a must to have, but can be explained rather easily.
    - Typically forms the backbone of a presentation, and should be the default style for most issues unless they deserve more deep treatment.

- C – Cursory analysis
    - This kind of analysis is easy and fast to grasp, but does no really add lots of value to the solution.

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- You could find this kind of analysis in the beginning of the presentation. For example, a + / - analysis of alternatives could be done in the beginning to determine which alternative deserves the attention of the latter part of the presentation.

- D – Value destroyers

  - These analyses are Pareto-inefficient to other types of analyses. They are average in complexity, but after explaining the message to the jury the end result is not that value adding.

  - A comparison of competitors in terms of financial ratios is a typical analysis not adding value: "competitor X had more sales last year than we" rarely merits its own slide as the information is directly from the case.

The clustering above is based on visual comparison and the opinion of the general crowd rather than jurors, so it should be treated with caution. Nonetheless, the basic idea of value versus complexity should be kept in mind when creating the analyses needed to support each idea.

The general suitability index given in Figure 21 should be treated with caution. It is more a metric of familiarity to the general audience than a good guide for scoring different models.

The design of an effective analysis is explored in more depth later, but the key finding based on the performance analysis is that the implications of the analysis should be made explicit on the same slide as the analysis results rather than later as separate recommendation slides.

4.6.4. Numerical analysis

Meister (1985) has provided advice on how to perform numerical analysis. The key idea is to proceed in a systematical way, and remember the following issues:

- When calculating, write down all steps so that the calculation can be later checked and you remember the logic of the analysis and the meaning of each number

- Check that units match in the end

- Perform feasibility checks in the end.

  - This point is supported by the jury survey, where one juror pointed out the fact that the end financial recommendations should always be checked for implications. For example, how many customers per day would be needed to fill the sales goal?

- Remember the difference between stocks and flows.

When presenting numerical analysis, it is important to keep in mind the following issues:

- Make sure your numbers tell a story or give a message. No numbers for numbers sake.

- Analyze what the results mean. Is 10% ROI good, bad or average?

- Show only important steps

4.6.5. Analysis of alternatives

Among with financial analysis, the need for explicitly analyse alternative solutions is something debated quite a lot, as identified in discussions with team and friends. The analysis of alternatives seems to something considered very important by some jurors, but very hard to implement in a good story flow by the teams.

Analysing the evidence, comparing alternatives brings slighlty higher score (performance analysis). It is also recommended by some members of the focus group and jury. Based on this, one should thrive to include alternative comparison, if it is feasible given the case.

4.7. Recommendation

The quality of the end recommendation is the most important determinant of the overall points given to the solution. The number of recommendation slides correlates the most negatively with the overall score. There is a clear paradox here: how can recommendations be valued so highly if their amount correlates negatively?

The answer is that a lenghty recommendation section in the end is a symptom of lacking connection between analyses and recommendations. The wider audience survey confirms this: based on the results about 70% the audience wishes to see recommendations given along the way as implications. A separate recommendation section as the sole place for recommendations is only preferred by 19% of respondents.

4.7.1. Charasteristics of a good recommendation

How then should the recommendation section look like? Let us start by defining this charasteristics of a good recommendation. When the jurors were asked to define a good recommendation, the following key words were encountered: takes into account all issues, implementable, relevant, well argumented, strategically sound, practical, actionable, logically derived, backed by facts and numbers, takes into consideration the external environment (jury survey).

To make a more clear list of requirement, the summary given by Kari (2001) was enhanced with findings from other literature sources and this study, and presented in Table 22.

Table 22. Basic requirements of a good case solution (adapted from Kari 2001 and enhanced with study findings)

Requirement	Explanation
Solid and understandable reasoning	Facts or reasonable assumptions used. A logic chain with no gaps and no overlaps, good structure and presented clearly and understandably. All recommended actions are traceable to analysis and do not come out of the blue (focus group, jury survey).
Compact form	Little repetition of known facts unless reworked. No over-proving, focus on key issues only.
Identification of all key issues	Demonstrated awareness of all key issues and their importance, unimportant issues not focused on in the recommendation (focus group).
Considering in which point of time the case is situated	Recommendation is feasible to implement in the era of the case. No hindsight is used either: for example "Sell company's investments in high-tech companies on March 9, 2000" (1 day before dot-com bubble burst).
One final solution instead of many alternatives	Tangible clear recommendation on what to do instead of leaving the solution at a "maybe this, maybe that" level. The need for a single answer is also emphasized by Backholm (2000).
Feasible	It is possible for the company to do the recommended actions considering for example its resources and time compression diseconomies. Sanity check is important (jury survey)
Actionable and implementable	The recommendation can be acted on and provides at least some guidance on how to implement it. For example, the recommendation to "improve operations" does not provide clear guidance on how exactly to do this. Another common recommendation to "partner with X" usually also lacks clear advice on how exactly the partnering should be done, and why would X accept it. Timelines can be a valuable tool, but they are often used without thinking deeply enough (jury survey)
Sustainable	The recommended actions make sense in the long term beyond just addressing the immediate short term concerns.
Quantified	The recommendation is backed up with supporting numbers showing that implementing it makes financial sense. Also the measurement of success could be included, for example financial milestones set (Backholm 2000)

4.7.2. Presenting a recommendation

The presentation of a recommendation is very important. As explained before, the best practice in this area seems to be to first develop the recommendations through the implications of the analyses, and then collect it together in the end.

How can the end summary then best add value? Several tools can be used to achieve this:

- Action timelines

  o The idea here is to show how each of the recommended actions should be paced out in space. How long each will take and what will be the order of actions. Typically structured as a Gantt chart with an approximate timeline below in months or years.

  o According to one jury member, very valuable tool that is often applied too shallowly, without thinking and explaining the individual actions. (jury survey)

- Short-term and long-term division

  o Separating the proposed actions into short term immediate actions and more long-term strategic moves. Can be useful when case is set in a crisis situation, where the immediate threat must be clearly addressed without forgetting the longer term wellbeing of the company.

- Combining actions into initiatives

  o Instead of listing all actions to be done as separate items, the team can group them as strategic initiatives or programs. For example, the different ways to increase marketing can be called "Customer oriented marketing initiative" and later broken down to components. The value of this is that it structures the solution and allows the jury to see the big picture.

- Showing the problem definition or key issues together with recommendation

  o This visual method allows you to make sure that all identified issues are tackled and the jury can see this in a clear way.

What ever methods are used, it is important that the jury can understand clearly what the recommendation is and is not left guessing. The recommendations should focus on implementation as well as overall strategic direction. It is hard to strike a balance between being too specific and too broad.

4.8. Risks

After the recommendation is shown, teams typically address the risks inherent in their solution. Based on the performance analysis, an ideal risk analysis is brief and relevant rather than long and comprehensive. The wider audience questionnaire indicates that at least some kind of risk analysis should be present. Surprisingly, the best third of teams seem to use less and more simple risk analysis (performance analysis).

The basic format for a risk analysis is a matrix where one dimension shows the likelihood and the other dimension the impact of each risk factor. This is used in 77% of the ACS

2005 and ACS 2006 presentations, and also preferred by the teams (performance analysis, wider audience questionnaire, focus group).

Showing counter-actions to risks is somewhat controversial. The focus group survey shows that this is preferred by the teams, and my own experience would also tend to agree with this. However when looking at the performance analysis results, it seems that the best teams use somewhat less counter-action specification and overall the specification of risks correlates negatively with the grade received.

The jury members interviewed suggest that the risk analysis should be linked to the assumptions done while preparing the solution, and show how sensitive the solution is to these assumptions. At their current state (likelihood x impact, simple counter actions) they have plenty of room for improvement: they are often mechanistic and do not show real impact on financials (jury survey).

All in all this seems to indicate that there is some room for improvement in showing risks. The current method of showing likelihood, impact and counter actions seems to be merely used to show that the risks were considered, but doesn't really add value to the solution. What would be a better way to do this – that question is left for your team to answer!

4.9.   Financial implications

Financial aspects form the crucial backbone of a coherent solution. Financial implications explain the "so what" of the proposed solution. (jury survey)

Financial implications are another source of debate. Some teams consider the inclusion of numbers which are not 100% accurate and based on heavy assumptions to be almost pointless, and consequently either do not include the financial implications at all, or include only simple qualitative analysis that is made more to satisfy the requirement to have financials than to actually analyze the impact of the recommendation.

However, as the quote above and other comments by the jury show, they are valued by the jury. Sometimes the solution proposed makes no sense in light of the numbers, for example the ROI of the proposed actions is extremely low or even negative. Spotting the financial implications can separate the winning team from the rest.

Also the wider audience questionnaire indicated a need for including financial analysis, as long as it is not too complicated or too simple. The need to avoid too complicated analysis is also emphasized by some respondents of the focus group. Based on these comments and the performance analysis, the best financial analyses seem to be focused on profit calculations as opposed to both simple qualitative or complex cost and sales estimations.

4.9.1.   Performing financial analysis

The first advice is to not to keep the financials as a separate end section with no interlocks to the recommendations or analyses. Ideally, the profit potential should be an important factor in determining how the problems are addressed by the recommendation, and hence financial considerations should be considered also in earlier analyses to find where the money can be made (jury survey).

When calculating, it is OK to make assumptions as long as they are visible and reasonable (focus group, jury survey, Corey 1999). The assumptions help in determining the magnitude of the financial implications, which is more important than getting the exact decimals correct. Pallet (1992) also recommends screening the case throughout for figures that could help, for example numbers from comparable industries.

4.10. Synthesis

A synthesis is something rarely seen in case solutions, but something that one juror recommends. It is ideally a creative summary of the findings (jury survey). The TIMES 2006 team tried to include a synthesis in each presentation, which typically included the three most important strategic initiatives proposed. The synthesis was visual and kept as simple as possible.

The reason for having this as the last slide was to create a lasting impression to the jury. It is important that the jury remembers the key points of the solution so that it can differentiate from the others shown on the same day.

4.11. Backup slides

Backup slides are slides that the team thinks should not be included in the actual presentation, but rather kept as backup in case the jury asks questions related to a particular area. A typical example of a backup slide is detailed financial calculations, as the focus group members felt that this is a good place to include them (focus group).

On the other hand, creating slides that do not have an important enough message to be included in the presentation seems like a waste of time and effort (focus group). Based on my own experience, I agree with this view.

5. Effective presentations

The ideas created in the previous sections will not take you far unless the presentation of them is clear. This chapter covers the basics of effective case solution presentations in terms of slide design and delivering the presentation.

5.1. Slide design

5.1.1. Appearance

Based on the wider audience questionnaire, a uniform appearance of all slides is a desired quality. To achieve this, some of the teams interviewed used a single person responsible for drawing all slides. However, as this imposes demands for the solution process, some teams opt for leaving the slide design to the performer of the analysis.

In this case, uniformity of appearance can be achieved by standardizing the elements of the slide via agreement. For example, the teams can use the template slide method presented by Kari (2001), where a single slide is taped to the overhead projector in the beginning. The template slide contains all the stable elements of the slides, such as borders, tickers and decorations. Actual content slides are then superimposed on this template slide. Another method is to agree among the team on strict design guidelines.

When doing slides, some points should be kept in mind:

- Landscape seems to be the de facto standard in preparing slides (Kari 2001). This is likely a product of computer assisted presentations. When preparing a landscape slide, ensure that the width is not too large for the particular overhead projector being used – when this happens it has the potential to destroy the whole flow of the presentation (Kari 2001).

- Remember to use a large font in all exhibits. The jury often sits far from the projection surface and any text not seen is lost.

- Sketch first, prepare slides later. Usually the slides are done with permanent markers, so any mistakes must be crossed out rather than erased. A large number of mistakes gives a very unprofessional impression.

5.1.2. Titles

Titles of slides are one area where the current practices are widespread yet the jury opinion is clear. What this means is that there is lots of potential value to be created in this area.

The jury and audience have a preference for claim titles. The performance analysis does not show a clear connection between claim titles and points, but does indicate that question titles should not be used.

The effectiveness of claim titles is that they make the people focus on the right issues. When you present a slide with sales data and title it "Sales 1990-2000" the people will look at the data and agree that it is about the sales, and then look at whatever issue they first notice about the data. Then they look at the second issue they can think of and so own, while at the same time listening half-heartedly to your presentation.

When a claim title is used, for example "Sales fluctuate with time of year" the audience will focus on judging if the claim is supported by the evidence. This way they will be inclined to follow your presentation.

The TIMES 2006 team used claim titles for all slides were it was feasible. Some slides, such as the agenda slide or action plan slide, do not present claims or contain implications, and thus a claim title is unnecessary. A claim title also has an effect of

5.1.3. Content

Based on the competing teams' opinions, the ideal in content should be to minimize the amount of content per slide (wider audience questionnaire, focus group). The jury members agree with this, recommending that one point per slide should be the guiding principle (jury survey).

The content on the slides should be predominantly data to score high points (performance analysis), and text should be avoided (wider audience questionnaire). In practice this means that and ideal slide contains a simple exhibit with supporting title and implications, and little more.

Slides containing bullet points typically distract from the presentation. Since the presentation is oral, any bullet point text can just as easily be delivered orally, and the slideware used to present supporting evidence.

5.1.4. Implications

The biggest value driver for presentations is the fraction of slides containing implications (performance analysis), and their use is also recommended by the general audience (wider audience questionnaire). An implication means that the slide has a point answering to the question "so what?" somewhere in the slide, typically in the bottom.

The implication can also be thought to conform to the pattern "Since [slide title] as proven by [content], it follows that [implication]." For example "Since sales fluctuate with time of year as proven by the sales data graph, it follows that the resources of the company should be made flexible to accommodate this". This pattern is identical to the one used in the BPARS method.

5.1.5. TRAIN-principle

The TRAIN-principle is a method known with many different names: target-based presentations, persuasive argumentation and so on. The basic idea of the framework is to provide a tool for communicating ideas in a way that strikes a balance between being too informative and too argumentative. It encapsulates the ideas of slide content, slide title and implications brought forward above.

A TRAIN-based presentation is based on a fractal structure, where the main structure is repeated in the individual sections and slides.

- Main statement
- Main evidence
    - Sub-statement 1
        - Evidence
            - Sub-sub-statement if necessary
        - Sub-implications
    - Sub-statement 2
        - …
    - Sub statement N
        - …
- Main implications

A quick summary of the phases of the TRAIN-method is presented by Table 23.

Table 23. TRAIN-phases

Name	Description	Examples
Statement	Make a logical and non-aggressive statement in this phase. Vocabulary	"Current strategy misses the profitable high-end segment"
Evidence	Provide evidence to support the statement. Evidence can be data, logical argumentation, quotes and so on.	-Segment is profitable -Segment needs are not met -Targeting segment would not harm sales in other segments
Implications	What follows from the statement if it is true? This is usually action-oriented and contains words such as "should" and "must".	"Company X should launch a high-end strategy"

The idea is to think in terms of persuasive logical arguments. They begin with a statement that can be proven as true on untrue, but does not make claims about what should be done or not done. In this way the jury (or company board of directors in a real setting) know what is about to be shown next, but are not prone to listen in a challenging way as the statement is more in the intellectual domain than political domain. The problem statement or main thesis in a presentation typically fills this role.

The purpose of the evidence is to provide all necessary proof to prove the statement true. In a case solution, this proof would typically be the individual analyses done.

Since the statement was supported by evidence, the next step of showing the implications to the audience can take the message from the intellectual zone to the action-oriented zone. In a case solution, this phase is typically the concrete end recommendations.

The fractal nature of the framework means that the structure is repeated in the level of individual slides. The title is the statement, the exhibits and data is the evidence, and the implications follow in the end. Sometimes a single message will be broken across slides, and the actual slides will contain sub-sub-statements.

5.2. Presenting

"Winning team is usually the one with clearest presentation and best logical flow of the solution. I would stress here the importance of making the jury understand what you are talking and how it relates to the overall solution." –Juror (jury survey)

Presenting the solution is important in two ways. Firstly it is graded per se, meaning that the jury will be watching closely how well your team is able to perform. This part, however, seems to have a low influence on the average score that the presentation gets (performance analysis).

Secondly and more importantly, it determines how well your team's message will go through. The good preparation and nice slides are not enough if the team is unable to deliver a convincing presentation.

General presentation skills are beyond the scope of this report. However, some general points can be made about presenting:

- Do not read the slides
    - The most common mistake by presenters is to read the slides aloud instead of presenting. A good way to avoid this is to leave out any lengthy passages from the slides so that there is no way to just read them. (own experience)
- Maintain eye contact to the jury
    - The jury is the most important audience to your presentation, so remember to target your presentation to them. (Kari 2001). Try to avoid talking to the slides, your notes, your shoes or other secondary audiences.
- Too fast or too slow?
    - Under stressful presentation situations, people commonly either start talking really fast, or too slow. Try to recognize and avoid this. (jury survey)
- Be happy and confident
    - Make an impression that you know what you are saying and are relaxed. When presenting or waiting to present, maintain a happy face and use open body language. The TIMES 2006 team was often criticized on this, as we tended to look very serious, "as like someone had eaten our lunch".

5.2.1. Rehearsal

The most common answer on how to prepare a good presentation is typically to rehearse it a lot. However, in the case solving setting there is typically no time for this. Based on the focus group survey, some teams try to rehearse a presentation, but most do not. This is confirmed by the wider audience questionnaire: teams generally do not see time spent rehearsing as adding enough value.

The problem with rehearsing a presentation is that it takes a full 20 minutes of team time just to go over the presentation simply. Any comments or improvements take an additional toll on team time, typically at least the same time as the delivery if they are to add any value. As a result, rehearsing the presentation takes about 30% of the preparation time not spent on reading the case.

The TIMES 2006 team typically did not rehearse presentations, save for one time in the final competition where it was thought that the preparation time would be 3 hours when in reality it was 3 hours 30 minutes. As a result, there was 30 minutes extra time, and this was spent going over the presentation. In the end this was not felt to add value significantly, and rehearsing was not used in later cases.

Instead of preparing as a team, it is possible to save some time in the end to cover one's own part individually if necessary. This focusing on one's own part, which is typically only about five minutes long, will take less time. Of course the others will then not have time to comment, which can lead into problems.

One of the sources of need for rehearsal is the perceived need to make sure that the story in coherent and has a logical flow. In my opinion, doing that in the end is more quality control than productive time. The flow of the presentation and the arguments presented should be clear before preparing the individual slides. (own experience)

5.2.2. Entrance

First impression matter, and thus entrance to the solving room is something to think carefully about. The team should voice confidence, friendliness, energy and all other imaginable positive attributes. This can be very hard given that the last three hours have been spent in intensive and consuming preparation. (own experience)

The best way to make a good entrance is to remember to focus on this aspect of the presentation as well. The TIMES 2006 team would typically think of different rapport building jokes or gimmicks to use before the presentations. For example, shaking the hands of the jury before giving the presentation is something that most teams do not do, and which consequently sets the team apart from the pack in an early phase.

5.2.3. Beginning

The beginning of a presentation is typically done while the title slide is shown. The title slide should at its minimum contain the name of the team and the name of the case solution. While often teams use simple titles, such as the case name or the case company name, it is worth trying to use more fancy titles. The TIMES 2006 team tried to make the title catchy, so that it would summarize the solution or problem in an original way.

The first presented usually presents the team members and the team. Kari (2001) also recommends delivering an executive summary at the very beginning, but this is often not done.

5.2.4. Transitions

Transitions between slides and between presenters have a potential to disrupt the flow of the presentation. For example, if the presenter just stops and waits for another presenter to start the jury might feel that the team has not prepared well enough.

There are two main identified ways to make transitions smoother. Firstly, one can use a host person, a person whose task is to introduce each speaker and then perform the transition. For example "Thank you X for your market analysis, next Y will take the floor and introduce the marketing mix." This works well if one person is gifted in presenting, but might cause a too artificial feeling to the presentation. (Kari 2001)

Another way that was used also by the TIMES 2006 team is to use flagging. This means that the person ending his or her part signals clearly that a transition is about to happen using expressions such as "This concludes the analysis on the market. I will now hand over the floor to Y, who will take a look at the marketing mix." This technique is widely recommended by the different sources, for example Kari 2001 and the jury survey.

5.2.5. Roles

Not everyone is equally gifted in presenting. And in addition to differences in overall presentation skills, the personal presentation styles of different persons vary so that they are better suited for different types of material. (focus group, jury survey)

What this means in case solving competitions is that the team should think who should present which part. And since often the presentation is done by the person preparing the slides, the differences in presentation skills can reflect to the preparation phase as well. According to one juror interviewed, the team should identify "star presenters" and let the present the key parts of the solution to maximize the team's performance.

The TIMES 2006 team had identified among itself three different types of presenting personalities: convincing, friendly and analytic. The particularly friendly person would start the presentation to make the jury feel positive towards the team. The people seeming the most analytic would present the analyses, and finally the most convincing personality wrapped up the recommendations so that the overall solution would seem credible. Different teams will most likely consist of different personalities, but it is worth it to think how the personalities work in different parts of the presentation.

5.2.6. Answering questions by the jury

The focus group and jury surveys revealed five principles of answering questions:

- The person presenting the issue related to the question answers
- Try to balance so no single group member dominates
- All members of the team should answer questions if possible

- Answer in short, precise answers to what has been asked
- Avoid multiple team members adding and adding

6. General tips and tricks

As the name implies, this chapter is about the different general tips and tricks that a team can use to improve its performance. The tips are drawn from different sources: the empirical studies done earlier as well as own experience. Most are related to case solving competitions, but can also be adapted to different settings.

6.1. Forming a team

Team composition is likely the most important determinant of the team's latter performance. Of course participant skills can be trained, the group dynamics can be studied and improved and different tricks and tips can be adopted to make the group perform better, but these improvements can be minor in comparison to the differences in the starting point. (own experience)

Team performance is a function of individual skill profiles and team dynamics. If I would have to choose which is more important, I would suggest the latter based on observing the various groups I have been a part of. In some instances the skills and talents of the individual members have been good, but the group dynamics so poor that little value was produced by the team. Thus when forming your team, make sure that you get along with all of the team members and your group works efficiently. If this is not the case, I would almost suggest trying to form a new team before the competition.

There is a wide debate around team heterogeneity, team homogeneity and team performance. The question is whether teams formed with people sharing a similar background and personalities are able to outperform teams with a more diverse composition. The consensus in this area seems to be currently that it depends on the complexity of the problem: for simple tasks, homogenous teams perform more efficiently, whereas solving more complex tasks is best done with a more heterogeneous team.

The question then is that under which category does a case solution fall? I would tend to answer that the situation demands some creativity and diversity of point of view, but overall rewards a team that can perform the most effectively under the time pressure. Hence a rather homogenous team, if it can ensure sufficient idea creation, is likely best suited for the competition.

Since the time to solve the case is very short, very rarely can a team afford to have people not contributing. Thus when building the teams it is good to ensure that everyone is about the same level in terms of knowledge of the subject matter and ability to solve cases. A team just built around one star faces a disadvantage. Not only will the single star have to perform most of the work, but also his unequal contribution will be noted as a disadvantage by the jury. (jury survey)

6.2. Training

Training for the competition is voluntary, but quite common at least in the TKK setting, where even the local qualifications are a though. How then to best to train? Based on the wider audience questionnaire, taking the course Advanced Case-Seminar in Strategy and participating in earlier case competitions are the two best ways to get general case solving skills.

In addition to this larger scale effort, the team can improve their performance in a variety of ways collected from the empirical study:

- Use earlier teams as source of advice (focus group)

    o It is possible to interview people from past competitions to gain insight into how they solved cases.

- Copy good ideas from others (jury survey)

    o When you see a good presentation gimmick, a nice structure or a valuable analysis, copy it to your own case solving toolkit.

- Focus on second order learning (focus group)

    o This means that whenever you receive feedback on your case solution, try to think what in your case solving process caused the good or bad results, rather than focusing on the particular mistake or good thing. This way you can use the feedback to steadily improve your process rather than as a collection of things not to do again.

- Use videotapes of presentations (jury survey)

    o The can be painful to watch, but they really reveal how your presentation looks from the viewpoint of the jury. Try to spot any consistent presentation errors as well as unclear structure. It is sometimes good to watch the tapes a couple of weeks after the solution so that you are more able to take the role of the audience.

- Train dynamics of team (focus group)

    o Have discussions on how the team dynamics work so that you can improve them. Open and honest discussion and feedback can make the solving atmosphere better.

- Make situations real by having an actual jury (focus group)

    o Whenever possible, try to recruit people to listen to your presentation and give feedback. Having a jury forces the team to take the training seriously and makes the situation more real. For example course staff, previous teams, friends and different company representatives can be used as training juries.

- Alternate training (focus group)
    - The TIMES 2006 team would typically train all phases of the case solution process at the same time, but it is also possible to concentrate on some issues while omitting others. For example if the initial structuring of the solution is the most difficult part, the team can do multiple cases that are stopped to that phase.

6.3. The jury

When meeting the jury, it is good to think of them as friendly people and not as enemies. Sometimes this seems to be forgotten by teams who just want to appear extremely smart, professional and to prove that their solution is the absolute best. So instead of trying to give a really tight impression, try to build rapport with the jury. This can be done for example by shaking hands with the jury, commenting something funny about the case before starting the presentation or doing other normal people-to-people interaction. You do not have to appear as case-solving robots! (own experience)

Some kind of background check can also be beneficial regarding the composition of the jury. Kari (2001) recommends studying whether the jury is mainly from a company background or academic, and adjusting the solution and presentation in accordance with this. The background check can also be done to predict the cases that will be used. For example, company representatives often are allowed to pick the case they want, and consequently the case is likely to have something to do with their area of expertise. How valuable this kind of information is a bit questionable, as there are too many cases to be able to study each beforehand, and also the case usually has all the information needed to solve it without studying the topic area separately.

6.4. TIMES specific advice

Based on the experience gathered by previous TKK TIMES teams, here is a final list off odds and ends that might come in handy when preparing for a case competition, especially TIMES:

- Have own writing equipment
    - In addition to the recommended calculator, it is often possible to bring additional own equipment to the case solving room if this is cleared with the organizers. Extra overhead slide pens, transparencies, flipcharts, pens, tape and such can come in handy if they are in short supply. Also the own pens can be of a thin variety, which helps to improve the legibility of the slides.
- Have own timekeeping equipment
    - The time limit of 20 minutes presentation time is often strict, and at the same time the case presentation room has no devices to check time. To alleviate this problem, you can bring along your own clock and keep time with that. Or as an alternative, you can ask the organizers to show the

remaining time with papers on 5 min and 1 min for example. Often this is done automatically, but it's a good idea to make sure that this is the case.

7. Synthesis

As a synthesis of the key ideas of this report, I would like to point out the three key ideas:

- Importance of structure
  - Having a clear and understandable structure for the case solving process and the presentation itself is critically important. The team must know what they are doing while preparing the solution and the jury must understand what they are seeing and why. A clear structure also enables second-order learning, as the feedback can be translated to improvement in the structure rather than remaining on the level of individual items.

- Importance of teamwork
  - No team can be successful unless it functions properly. Devote attention to teamwork in the team formation phase as well as later. Make sure that no conflicts are hindering the solving process, and remember to give honest, open feedback as often as possible. The goal should be that everyone has enough trust to openly criticize any aspect of others work at all times, yet still the atmosphere remains friendly and constructive.

- Importance of presentation
  - The only element seen by the jury is the final slides and the accompanying presentation. All phases of the solution process should focus on this aspect, and the communication of the ideas should be the key priority. A good idea is worth nothing if it is not understood.

8. Terms and explanations

ACS — Advanced Case-Seminar in Strategy, an optional course for students of Strategy and International Business at the Helsinki University of Technology, consists of solving Harvard-type cases in groups and receiving feedback on the solutions.

ESTIEM — European Students of Industrial Engineering and Management, an organization with 45000 student members from 23 countries across Europe. Organizer of TIMES.

Final Week — Final round of TIMES, with teams from the six semi-finals and from the organizing university competing for the victory.

LQ — Local Qualifications of TIMES, held in most member schools of ESTIEM. Winner is qualified to attend the one of the semi finals.

SF — Semi-Finals of TIMES. Altogether six SF's are organized across Europe. The winner is sent to the Final Week.

TIMES — Tournament in Management and Engineering Skills, an annual competition for all ESTIEM students.

TKK — Helsinki University of Technology

TRAIN — A method for delivering persuasive presentations, originally developed for the International Business Linkage Program at TKK

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Appendix A –   Grading Sheet from TIMES Finals 2006

AREA TO BE MARKED	Lund	Helsinki	Eindhoven	Karlsruhe	Linköping	Novi Sad	Brussels
Judge:				**Case:**			
Presentation (20%)							
Use of Visual Aids							
Voice (clarity, volume, etc.)							
Professionalism							
Body language							
Hand-over							
Structure							
Time management							
TOTAL							
Application of tools (15%)							
Appropriate selection of tools							
Appropriate use of tools							
TOTAL							
Problem analysis (25%)							
Extracting relevant information							
Indentifying underlying problem							
Identifying future perspective							
Structured thinking							
TOTAL							
Solution (30%)							
Feasible							
Clear							
Approriate							
Effectiveness							
Consideration of alternatives							
Answer the Question							
TOTAL							
Questions from jury (10%)							
Relevance of case							
Quality of answers							
Personal confidence							
Precise and clear answeres							
Answer the question							
Participation of team members							
TOTAL							

Please give scores out of 6:   6 Excellent   5 Very Good   4 Good

3 Satisfactory   2 Acceptable   1 Poor

Appendix B – Grading Sheet from ACS 2005 and 2006

HELSINKI UNIVERSITY OF TECHNOLOGY
DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT
INSTITUTE OF STRATEGY AND INTERNATIONAL BUSINESS

TU-91.2015 Advanced Case-Seminar in Strategy
3 or 5 ECTS

Evaluation Form, Fall 2005

Please note that the evaluation of the case group is applied to all individual group members!

Name of the evaluator:	

Name of the case:	Number of the presenting group: _____

Evaluation for the case presentation   **Comments**

Structure of solution:	0 1 2 3 4 5	
Identification of key issues:	0 1 2 3 4 5	
Robustness of analyses:	0 1 2 3 4 5	
Quality of end recommendations:	0 1 2 3 4 5	
Presentation skills and clarity:	0 1 2 3 4 5	
Responses to questions:	0 1 2 3 4 5	

Notes, comments and general feedback:

Appendix C – Questionnaire for Case Competition Participants

This questionnaire has three parts. Part one deals with the process of making the case solution: the analyses, work division and so on. Part two deals with the output - the slides, presentation and question answering. Part three focuses on the preparation phase.

Answer based on the experience of you and your group. Each question consists of a part focusing on actual experience and a part focusing on hindsight - what could be done better.

Part One: Process

1 - Did you use some kind of preset roles during case solving? If yes, how did you divide the work? Based on your experience, what would you recommend in terms of task division?

2 - How did you divide time during your preparation? Assuming the total solving time is 3 hours, what phases could you list and how much did each take in terms of time? What would you recommend in terms of time division?

3 - How and when did you decide on the key issues of the case? What would you recommend on key issue generation?

4 - What methods did your team use for idea creation (e.g. brainstorming, analogies, free flowing thinking, checklists, analysis driven idea creation etc.)? What would you recommend as a good way to create ideas?

5 - How and when did your team decide on the solution? If there was an argument between team members on what to recommend, how did you solve it? What would you recommend in terms of solution selection?

6 - Did your team have a procedure for ensuring that the solution was complete and no issues remained unsolved? What would you recommend as a good way to ensure completeness?
7 - Did you employ some kind of roles related to controlling the process, for example a leader of the team or a controller of time during the preparation? What would you recommend in terms of process control?

8 - How did you prepare the slides for the presentation? For example, did each do his or her own slides on the transparencies, and how did you plan the content and ordering of the slides? What advice could you give on slide preparation?

9 - Did you typically rehearse the presentation during the preparation time? If yes, how did you do it? If not, why not? What advise on rehearsing could you give?

10 - Based on your experience, what general advice on the case solving process would you give to future TIMES competition teams?

Part Two: Output

11 - What different structures did you use in your presentations? Which did you find the most and least effective? What advise would you give on presentation structure?

12 - What types of slides did you use in terms of amount of text, slide titles, slide text and so on? Did you have a certain format for all slides? Did you use backup slides? What advice could you give on slide content?

13 - What content did you typically start your presentations with (after introductions and agenda and other practicalities)? What advise would you give on this issue?

14 - What types of analyses did you find most useful? Did you favor "textbook" analyses or own frameworks? What analyses generally resulted in bad results? Did you report all the analyses you performed, or only the key ones? What advise would you give on analyses? This is one of the most important questions, so please answer with care.

15 - Did you typically perform a comparison of alternatives? If yes, how was it structured? Do you have any advice of analyzing alternatives?

16 - Did you typically include financial analysis in your presentation? If yes, what kinds of analyses did you typically perform? Can you give any advise on performing and presenting financial analyses?

17 - How did you deliver the recommendations for your case? Do you have any advice for the recommendations part?

18 - How did you tackle possible contingencies, unknown issues and risks in your recommendation? Would you have any advice on presenting these?

19 - How did you answer questions from the jury? What would you recommend as a good question answering strategy?

20 - Would you have any general advice on the presentation of case solutions?

Part Three: Preparation

21 - Did you train together as a team beyond the compulsory exercises (ACS) or competitions?
22 - If you did train, in what different ways did you train case solving?

23 - Would you have any advice on training for future teams?

General comments

24 - Would you have any general comments related to solving cases, presenting, preparing for case competitions, this survey, or other issues?

Thank you for your time and effort!

Appendix D – Questionnaire for Jury Members

Grading priorities

1 - When acting as a jury member, what do you consider the most important element of the team's solution and presentation when deciding which team is the winner? Naturally the sum of the points on the marking paper are important, but is there also some kind of a "gut feeling", and what do you think it is based on?

2 - How much importance in percentages would you attach to the following graded elements, if no weighting scheme was provided by the organizer?

- Identification of key issues

- Quality of analyses

- Quality of recommendations

- Structure of solution

- Presentation

- Answering questions by the jury

3 - Based on your experience, do you see that winning teams typically outperform other teams in a particular area of grading? (For example, that winning teams are usually the ones answering the questions from the jury best.)

Analysis

4 - Which analysis frameworks you would recommend to fit well to case solving in general?

5 - Which analysis frameworks do you see as overused or applied to the wrong problems?

6 - Some jury members complain that financial analysis is often neglected. Do you agree that there should be more focus on financial issues? What type of financial analysis would be the best for a typical case solution?

7 - Often the teams do not explicitly present alternatives to their proposed solution. Do you consider that analysis of alternatives should receive focus? Which ways of analyzing alternatives would you recommend?

8 - In general, do you favor "textbook analyses" (direct application of well-known tools) or analyses invented by the team to fit the particular case?

Solutions and recommendations

9 - Since there are no right answers to cases, it requires expertise to determine which recommendation is the best. Based on your view, what aspects make a recommendation good?

10 - Which methods of presenting recommendations do you consider the most efficient? (For example: presenting a precise timeline, presenting a list of short and long term actions, showing how each key issue is addresses etc.)

11 - Do you have any advice for presenting uncertainty, contingencies and risks in the solution?

Structure

12 - Please comment on the suitability of each of these structures to a case solution. Which do you prefer in general? If the best structure depends on the case, can you give guidelines to how to select the structure?

- Intro - Analysis - Recommendation
- Intro - Alternatives - Analysis - Recommendation
- Intro - Analysis - Alternatives - Recommendation
- Intro - Recommendation - Analysis/Backing up

13 - What additional advice would you wish to give on structure?

14 - "Flow of presentation" is considered to be critical by many. How would you advise teams to ensure that the jury can understand the flow?

Presentation

15 - What general advice would you give on slide design (titles, exhibits, text, bullet points, action points etc)?

16 - What general advice would you give on presentation skills? What are the most critical areas of improvement for typical presenters?

17 - What advice would you give on answering questions presented by the jury?

General advice

18 - What do you see as the most common mistakes or critical areas of improvement for case teams?

19 - Do you have any good general tips or tricks for solving cases not covered in the questions above?

Thank you for answering the questions!

20 - Now, would you like to give any other feedback or advice in the general area of solving cases, or to this particular survey?