Case study methodology

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1. Case study definition

1.1. What is a case study?

Cases studies are problem-centered narratives which provide a perfect opportunity for discussing theoretical constructs in the classroom.

A case study is a "published report about a person, group, or situation that has been studied over time." The "case" being studied may be an individual, organization, event, or action, existing in a specific time and place.

If the case study is about a group, it describes the behavior of the group as a whole, not behavior of each individual in the group. Case studies can be produced by following a formal research method.

Thomas (2011) determine case study as a social scientific method as follows:

"Case studies are analyses of persons, events, decisions, periods, projects, policies, institutions, or other systems that are studied holistically by one or more method. The case that is the *subject* of the inquiry will be an instance of a class of phenomena that provides an analytical frame — an *object* — within which the study is conducted and which the case illuminates and explicates."

Case studies normally include the following structural components:

- *Problem*: The case study should be centered around a clearly defined problem. This problem - in the sense of a question to be answered - provides the basic link between the case study and the theoretical body of knowledge. Selecting the right problem to deal with requires in-depth knowledge of the theoretical background. The problem should be relevant (in terms of teaching) and well structured.
- *Situation*: The second part of the case study should describe the actual situation of the object of the case study. Beside textual descriptions this should include data that illustrates the underlying problem and also provide necessary information to understand why a certain solution is right or false.

- *Solution(s)*: The case study aims at illustrating the theory in the given field. In order to prepare the participants for actual situations, it should outline a solution of managing the situation and solving the problem. There are various ways of presenting the solution. There may be a single line of reasoning unfolding one solution, but the case study may also involve two or more alternative solutions, of which the participants have to select the right one.

The case studies can be distinguished by various ways. Three types identified by the different focus points:

1) Key case: the case is interesting in itself as it discusses a special, unique, not typical situation.
2) Outlier case: the case well demonstrate the problem and helps to understand it and/or helps to set up a theory.
3) Collective: investigating several, individual cases and highlighting the similarities and differences of those.

The case studies can be exploratory (to identify key problems and issues) or descriptive (to provide detailed description of a situation) or explanatory (to set up new theories and examine new ones).

Case studies may be classified in multiple ways. One approach to this is that of the University of Buffalo's National Center for Case Study Teaching in Science that identified the following types of case studies:

- *Analysis Cases*: These cases aim at the analysis of the underlying problem. The case study involves a wide array of data describing both the business environment and the complex situation of the actor involved.
- *Dilemma/Decision Cases*: Such cases involve the presentation of two/multiple solutions. Participants are encouraged to compare these and highlight advantages and disadvantages of the solutions in order to come up with a well-founded decision.
- *Directed Cases*: Such cases focus on the elaboration of certain basic notions/theories. In order to achieve a high level focus the case study includes a set of targeted questions that guide the participant to deal with the theoretical issues in question.

- *Interrupted Cases*: Cases of this type are centered on the basic problem and include no solutions (and often also no detailed description of the situation). Participants thus have more freedom to discuss and solve the case study, but they also have to invest more effort into developing the solution and researching the situation. Such a case study should be used with more advanced participants only who are already able to perform individually/in workgroups.
- *Clicker Cases*: These cases are meant for classroom work. Parts of the case are presented as a series of slides with questions asked after each slide. Participants thus have to work along a pre-designed, step-by-step path when developing the solution.
- *Laboratory Cases*: Such cases include some sort of experiment (be in a real laboratory or in everyday life) to make the problem and/or the situation more evident and attractive. Participants thus gain insight into real-life issues and may link the case study to their own experiences more easily.
- *Problem-Based Learning (PBL) Cases*: With this type, first the problem is presented to the participants working in small groups. Second a complex set of information is provided and the participants have to select the relevant ones enabling them to develop the solution to the case study.
- *Discussion/debate*: This is more a method of working with cases. It is especially useful if there are two controversial solutions present in the case. The underlying idea is to let participants/workgroups point out key issues and work with argument for or against each solutions presented. In order to keep the task on track an instructor asks a series of questions. The instructor may be active or passive. An active instructor acts like a strong leader, asking questions and providing comments. A more passive instructor may stay in the background for most of the time and intervene only if the discussion goes into a bad direction.
- *Public Hearings*: Here, participants work in groups and present their findings and solution to a jury/public (these bodies also set up of participants). Members of the panel/public may ask questions. Normally there are certain rules the workgroups have to follow when presenting (e.g. timeframe, presentation method, number of presenters, when and how questions and comments may be added).
- *Trials*: This a special version of the public hearing method. Each workgroups is represented by an attorney. Witnesses supporting competing solutions will be involved. At the end

attorneys conclude their client's solution. One option to involve a larger number of participants is to let them write a position paper supporting one of the competing solutions.

- *Jig-Saw Cases*: This applicable to teaching cases where there are more viewpoints involved. The instructor assigns each of these viewpoints to a participant in the group. This participant will read the text for details of that viewpoint and present it to the group. This will enable the group to discuss different – and often opposing – viewpoints and thus highlight various interests involved in the situation. Based on this better solutions can be developed.
- *Role Plays*: Similar to Jig-Saw, this method involves participants taking roles (viewpoints), however they do not only discuss a given actor's role and interests but actually play it out. This will result in a dramatized version of that case that enables the presentation of arguments as well, as emotions.

1.2. The objectives of using case studies

One should always note that the aim of working with case studies is not to replace theory but to underline, illustrate and elaborate them in more details.

Case studies enhances learning and engaging participants in various ways. It combines to focus on process and also includes data and the most important information. The participants must apply text-based theory to analyze complicated, real life events and business situations. Teaching with case studies addresses various levels of building knowledge, competences and skills and may thus involve the following aims and objectives:

- *Understanding details*: A case study involves a range of data describing the problem situation. Thus, case studies enable the reader not only to understand and solve typical problems but also to learn about the situation in question.
- *Gaining experience*: Good case studies provide insight into industry relations and workflows. Reading, discussing and solving case studies can thus be considered a kind of practical experience – as close to real-life as much as it is possible within the classroom.
- *Linking theory with practice*: Theories provide the basis of any learning process. Any theory is a generalized classification, structure or process description. In most cases however

learning a theory is not the ultimate goal of studying. Rather, theories should provide in-depth understanding of the given field. Well-funded theoretical knowledge enables handling a range of similar, but not equal situations in a given field. Linking generalized theory to actual practice – or, in other words: applying theory – is a key competence. This competence needs to be developed with appropriate practical exercises. A well elaborated case study is the most complex but also the most suitable such exercise.

- *Fostering discussion*: As opposed to frontal instruction and individual learning, solving a case study often occurs on the group level. Thinking analytically, working in groups, solving intra-group conflicts and the like are but a few practical competences that working with case studies develops. When working in groups, these competences develop through discussions, that is, the expression of opinions and positions reflection and the mutual reflection on these. Discussions enable participant to gain insight into multiple aspects and interests.
- *Developing representation skills*: Cases study discussion involves presenting viewpoints and solutions. Logical reasoning, emotional influence, rhetoric, controlled body language and handling up-to-date technical presentation tools are key skills of presentation – but also of any communication. Solving cases thus provide the opportunity to develop this set of presentation-related skills highly necessary in later professional career.

Using case studies is a contemporary approach to teaching. It provides the opportunity to enhance participant activity and constructive reasoning. Cases require participants to go beyond mere lexical learning and *apply* theories and concepts introduced in course lectures or readings, or sometimes in the case itself. Incorporating case studies into the curriculum will engage participants actively in their own study process, increase their understanding of theories and develop appropriate competences and skills.

2. Characteristics of case studies

The length of the case study should be limited. In teaching case studies are used in frame of lectures and seminars, thus the time available to read and understand them is limited. Texts which are too long may require too much effort from the participants working and may not be suitable for in-depth discussion.

High quality cases enable participants to master logical argumentation, based on the underlying moral, social and professional frameworks when analysing the situation and developing the solution.

Case-based learning requires the combination of wider, everyday knowledge of the social and economic relations and a thorough examination of the specific field. Case studies help participants develop responsibility, and also more general competences, e.g. communication, sensitivity, conflict management and a proven capacity to utilize knowledge and competences in practical situations.

Specific competences case studies help to develop include:

- Identifying core problems and alternative solutions;
- Understanding the use of evidence in applied research;
- Making use of various problem solving approaches involving the necessary steps of problem identification, to analysis of causes, to the development of alternative solutions and evaluation of its impacts;
- Applying a well-founded problem solving approach;
- Understanding the structure and functioning of highly complex systems, such as a company or a social group;
- Incorporate ethical considerations into the case solving process.

As far as possible, cases should be built on real settings and problems. More often than not, cases also involve some fictional elements in order to make them more attractive, straightforward and theory-linked. These should be enabled as far as they enhance teaching value. Also, cases may involve simplifications in order to better highlight core causal factors.

Furthermore, good case studies also include an underlying theoretical construct, which provide the logical framework for the practical information and also links the case to the learning material.

3. Factual and fictional case studies

Case studies may be factual and fictional. The first type is based on actual observations and other forms of data gathering on real-life firms, work processes and events. The second type is based on a constructed situation (of which the core may be loosely connected to a real situation).

3.1. Factual case studies' advantages

- *Detailed*: As factual case studies involve real-world situations, it is easy to collect detailed information. Thus there is no limit to draw up the situation.
- *Credible*: Real-world case studies are coherent and thus credible. When reading and elaborating the case study, participants have the feeling of doing something realistic and gain insight into real issues.
- *Provide real outcomes*: The solutions involved in factual case studies are easily transferable to working conditions. Participants thus not only learn about real situations but also gain easy-to-follow outcomes that they can apply when confronting a similar problem.

3.2. Factual case studies' disadvantages

- *Theory mismatch*: As theory is a generalization it may be hard to identify theoretical categories in a real-world scenario. This will hamper participants in identifying key points of the case study with lessons learnt during theoretical studies.
- *Getting lost in details*: one of the advantages – detailed insight into real world situations – may become a disadvantage when that insight become too detailed. Often, cases study writers are obsessed with providing as much details as possible as they may be insecure in selecting the minimally necessary range of data. Thus it needs to be considered how much detail is really needed to underpin the case solution.
- *More creativity and flexibility needed when teaching*: Because the case study is not full in line with the theoretical background, more efforts on the side of the instructor are needed. When working with factual case studies teachers have to provide the less obvious link between the theoretical background and the factual situation presented.

- *Quick outdating*: The main advantage of the data presented in the case study being up-to-date. This becomes however outdated soon with changing market conditions, technological solutions, price structures, etc. Factual case studies need to be updated frequently if long-term usage is envisaged.

3.3. Fictional case studies advantages

- *Easy match with theory*: A fictional case study is fully developed by its author, thus – if the logic of the underlying theory is rigorously followed – it is easy to achieve coherency of theory and case. This enables participants to follow the case study more easily and to truly see the case as an illustration of the theories learnt.
- *More problem centered*: A problem to be discussed can be highlighted explicitly in a fictional case study. Thus, it is not only theory driven, but also closely related to the earning material used in the course. Fictional case studies can be embedded into workbooks and integrated with text and other types of exercises.
- *Longer relevancy*: Fictional case studies do become obsolete slower than factual ones as the case's main advantage is its link to the theoretical framework as opposed to actual real-life practices.

3.4. Fictional case studies disadvantages

- *More creativity and flexibility needed when writing*: Because data is not readily available the situation needs to be constructed. This requires considerable efforts in developing a coherent data framework that is suitable to support the argumentation and create a link between the problem and the solution presented.
- *Solution never tested*: Fictional case studies provide fictional solutions. As opposed to factual case studies these solutions has not been tested and thus never proved to be successful. Thus, fictional solutions are harder to apply in everyday life and there is no guarantee that it will be successful.

- *Less credible*: As the situation is fictional and the data set supporting the problem is constructed coherency is harder to achieve. Even minor discrepancies – which are really hard to avoid – will damage credibility. One way to overcome this problem is to let the document proofread by a third person.

4. Developing the case study

4.1. Selecting the theoretical background

Contemporary learning is a process that is structured along a set of theories. A theory, a generalized piece of knowledge may be hard to apply to real life situations. The aim of using case studies is to create the link between theories and everyday practice. This is important to motivate participants and make learning more effective.

Therefore the first step in any case study development is the selection of the right theoretical background. Often, authors look for appropriate illustration of a given theoretical construct they have to explain. In this case, the right theory is pre-given, authors only have to make sure that case fits it well. In a range of other situations however, the author is faced with a typical/characteristic or innovative practical case and has to find the right theoretical construct to structure the study. In the latter case it is key to well identify the following elements:

- *Problems*: What is the case about? Any situation involves a range of problems – not in the sense of "difficulties" but as "decisions". The problems – how to decide in a certain situation – will be the heart of the case study. On the first level, this problem will provide the link to the appropriate theory.
- *Processes*: Based on the underlying problem, one or more business processes can be identified, the case study has to deal with. These may involve procedures, market relations, consumer behavior, workflow, etc. The careful identification of the process into which the problem is embedded is the key second step in developing the case study.
- *Models*: Processes are influenced by a range of factors. Such interrelations are described in theoretical models – and in order to effectively draw up the situation, the author has to have

a clear understanding of the relevant model(s). Only this will enable the presentation of just the right range of background information.

- *Actors*: Any situation involves a range of actors (such as managers, employees, customers). Their competences, viewpoints, decisions, etc. will determine how a given situation will evolve.
- *Roles*: Actors are not mere personalities with general characteristics but they play special roles in any situation. To understand these roles will help to develop realistic case studies.

4.2. Selecting the appropriate case

Real world offers unlimited topics for cases. The two most important considerations when selecting should be:

- It should be possible to clearly link the case to the theoretical issues to be discussed in frame of the course. Using the case is an end in itself, but a vehicle that enables better and easier understanding of the complex and often abstract theories involved.
- The case should be attractive in the sense that both instructors and participants should find working with the case attractive and challenging. This should involve attractivity of the topic itself, the way it is presented in the study and the opportunities it offers for group discussion.

The best case studies do not only fit one course but include reference to other aspects/elements of the teaching program. As such, cases enable more complex thinking and the realization of topical linkages across course boundaries. On the other hand, developing such complex cases requires in-depth understanding of the curriculum and the professional field the course is part of. Having personal professional experience in the field or doing extensive research on the topic is certainly required to be able to develop such a complex case. Writing the case certainly provides learning opportunities for the developer.

Of course, more actual topics are more attractive with participants. This is not say that certain topics and cases prove could not be "evergreen" and thus could not be used timeless. This depends on the course teaching aims.

The development of the case involves some considerations:

1. All data included in the case should be considered and checked carefully;
2. The description of the situation should reflect a structure that is inherent to the underlying problem and reflects a logic that is easy to follow;
3. Optimally the case should be linked to keywords of the theoretical learning material.
4. The outlined solution(s) should follow the logic of the situation, clearly address core aspects of the problem.
5. If more than one alternative solutions are presented, they should be comparable using aspects of the underlying problem presented.
6. Beside professional development working with the case also should enable the enhancement of the following general social skills and competences:
   - argumentation skills
   - acceptance
   - openness for cultural diversity
   - social and environmental responsibility

4.3. Data gathering

The underlying problem of the case study is only understandable if the situation is well detailed. This requires in-depth data gathering often applying multiple methods. At first level we distinguish between two approaches:

- *Desk* (or secondary) *research*: this involves the collection of data that is already available from a range of "secondary" sources (that is, these are already published in one form or another). Such sources include
  - *Statistical publications*:
  - *Annual company reports*:
  - *Other company publications*: such as advertising brochure
  - *Journal and magazine articles*:
  - *Pictures and videos*:
  - etc.

- *Field* (or primary) *research*: involves the collection of information from original sources for the shake of writing the case study. This may include
    - *Questionnaires*: asking questions to company employees, customers or other stakeholders
    - *Observations*: observing stakeholders acting in their original setting
    - *Social laboratory*: creating artificial situations as experiments

4.4. Formulating the case

As we discussed earlier, the case study consists of three main parts:

1) problem
2) situation
3) solution

When formulating the case the author has to keep in mind a series of issues:

- *Care for attractiveness*: A good case study is attractive to the readers. Thus the text itself will have to be interesting enough to raise the interest of the participants and to motivate them to read it and think about it. This can be achieved if the topic is challenging, and the text itself is amusing or astounding.
- *Ensure professionalism*: The best way to raise interest is to be professional. The case topic should strongly relate to the topics of the learning material, it should reflect actual, up-to-date issues, relations, conditions. All in all, working with the case will have to provide the reader with the sense of personal professional development. For well-motivated participants this is the most attractive feature of the case.
- *Require analysis*: Presenting a well-established and documented situation, including a set of data that underpins the textual presentation allows participants to analyze the situation and develop their point of view. The model applied to create the case will determine the range of data to be presented. The datasets annexed to the textual part of the case (charts, tables, etc.) has to be up-to-date and in an easy-to-handle format.

- *Develop solutions*: The final part of the case study includes the solution to the problem. This can be done in multiple ways, with
    - single solution to discuss or
    - multiple solutions to choose from
    - questions to answer and develop the own solution.

  Either way is chosen the author has to make sure that participants will have the opportunity to develop, critically deal with, discuss and debate the solution.

All these will ensure that applying the case leads to participants' active participation in learning.

Participant cases will typically range from 2000 to 6000 words and should be written in past tense. Cases, while differing widely in style, often share these common elements. Note that the bolded sections (Introduction, Background and Context/Situation Analysis, and Key Questions) make up the central narrative of the Participant Case.

- Learning Objectives
    - Describe the expected participant learning outcomes ("Through their participation in this case study, participants should be able to: . . ."). Make sure your learning objectives are measureable by using action verbs describing what the participant will be able to do. (Search on "Bloom's taxonomy action verbs" for numerous examples.)
    - You may have learning objectives in mind from the beginning, or they may evolve as you write your case.
    - If the module is divided into multiple sections, include learning objectives for each.
- Preparatory Materials
    - Identify materials that participants should read, view, or listen to in preparation for the case study.
- Introduction
    - The introduction should set the stage to introduce the critical challenges or problems that will need to be overcome. This compelling introduction should incorporate the question(s) facing the protagonist or decision-makers, if they are present in the case.
- Background and Context/Situation Analysis

- Provide information about the concept/program/problem/policy question/etc. that participants will need to address the case questions.
- Expand on the context of the problem. Characterize the business, the community, scientific or economic landscape, cultural context, political context, etc.
- What information did the decision-makers or others have? What information is still needed? What are the issues? What are the options? (or may leave to participants to identify options)

- Optional: Key Questions
  - These should relate to the learning objectives. You may decide to ask these along the way as the case evolves, or to ask them at the end. Don't answer the question(s)! Rather, leave it to the participants to figure them out.
  - Sometimes it will be useful to give participants questions in advance for class discussion, further research, and/or written assignment. Alternatively, Key Questions might be included only in the Facilitator's Guide because sometimes classroom discussions/activities are most effective if participants are not given questions in advance.
- About the Authors
  - Include a short paragraph about each author; also comment on each author's role in the events the case study describes (if relevant).
- Optional: Exhibits and Supplemental Materials
  - Include relevant data, tables, charts, maps, or other supplemental materials if relevant for class activities. These might be in the body of the case, or they might be in an appendix. If at all possible please use only materials that are not subject to copyright protection. However, if any permissions are needed, please note.

5. The structure of the Insight's case studies

The topic of the case study – the story itself

What is the focus of the case study? Please describe the topic and explain the story in 4-5 sentences. (As an example: a reservation of group of German tourists consists of 40 travelers or organizing an event for a multigenerational family)

Situational analysis – the most important data and environmental issues

Please think it over what type of data and information you need to outline the chosen topic. The following examples may give a base to start on.

- international visitors data (the availability of data's type (nationality, individual vs organized travelers etc.)
- national visitors data
- type of rooms and bed capacity data
- utilization of bed capacity

Further information and data to collect from each area of the examined hotel

Each participant had to choose one area of the hotel.

1. Wellness

✓ The services and the description of them (availability)
✓ The frequency of the used wellness services
✓ The time and period of the used services
✓ Characteristics of the visitors
✓ Satisfaction and feedback forms and contents

2. Marketing/Communication

- ✓ the message content (examples and former adds)
- ✓ message style
- ✓ language and pictures
- ✓ cost structure
- ✓ used communication channels (printed, DM, social media etc.)
- ✓ examples and samples

3. Sales and price calculation

- ✓ Hotel output indicators
- ✓ predictions and trends
- ✓ Whose responsibility is to make the calculations and trend measurements?

4. Optional programs

- ✓ The number of organized programs and excursions
- ✓ types and descriptions
- ✓ capacity and demand
- ✓ prices
- ✓ satisfactions if that is measured
- ✓ users profiles

5. Overall satisfaction

- ✓ used methods
- ✓ response rates
- ✓ preparing and analyzing the data
- ✓ further use of the results

6. F&B

- ✓ kitchen capacity
- ✓ menu setting

- ✓ Thematic offers (eg. Hungarian folk evening) – how often and who decides
- ✓ menu in various languages (whose responsibility)
- ✓ guest satisfaction

7. Front office

- ✓ visitors data (registration data needs)
- ✓ process of registration
- ✓ guest relations from the arrival till leaving the hotel
- ✓ most common problems and difficulties
- ✓ conflict handling

6. Key success factors of a good case study

The case study should clearly present the underlying problem. It should consider the following:

- should be theory-linked
- should be clearly formulated
- one way of presenting the problem as a conflict (of resources, between competitors, departments, employees, guest relations, etc.)
- at the end of this section clearly formulate the problem is a short form or ask a question like "what is the employee's challenge?"

Always keep solution in mind and consider the followings:

- case story should evolve towards solution
- data background should be suitable to understand why solution(s) applied are the right ones
- possibility of presenting alternative solutions, but do not make clear too early, which solution is preferred
- at the end the right one should be highlighted and clearly why this was successful

Always keep audience in mind and consider the followings:

- the theoretical background of the reader - who will use the case study
- are they able to debate?
- do they understand the terms?
- do they understand the jargon?
- did they ever experienced the background of the case study?

Some hints about the way of writing and the writing style:

- easy to imagine situation
- real-world like characters
- present as a narrative, use dialogues

As a summary, the most common problems of developing case study are the followings:

- The problem definition is not appropriate and the situational analysis is very short or too detailed, too much data and information outlined (whose problem is examined? From what point?)
- The target group is not well-defined
- The possible solutions are not fully described
- The suggested solutions are unrealistics and hardly manageable
- The suggested solution is not supported by the theory or the practical experiences