Skeleton of an Empirical Master Thesis

This document describes a skeleton for an empirical master thesis. It's not intended for PhDs or scholars. I did this a couple of years back to help my **master students** who were a bit lost to structure their work. I didn't want to give them a long book (of which there are many) and did a short version. I realize it is a bit Mickey Mouse for a scholar, but my students found it useful.

I'm sure many of you have better ideas for how to do this. **Feel free to edit this document.** I kept the original version if someone starts to write silly things. If this works and you help me improve this document, I offer to synthesize this in an easy way and make it **publicly available**. I can be reached at linus.dahlander@esmt.org.

Thank you.
Linus

1. Introduction or motivation

1.1. Relevance

This is one of the most important sections of the master thesis. It needs to set the stage of the whole master thesis. It needs to answer a few questions:

- What is the background to the master thesis?
- What is that motivates the master thesis?
- What is the practical phenomenon, and why do we need to find an explanation to it?
- Why is this an important research area today?
- Why should we care?
- What is it that we know and don't know? This helps you think about a gap in the literature that you can fill.

1.2. Research question

After the introduction, you need to spell out the research question that you seek to address. This is the question that will structure the whole master thesis (the literature you need to gather, the methods you need to use, the analyses you will do, and in the end the types of conclusions you can draw). In other words, think carefully and be specific about the research question that you address. Ask research questions that...

- are dealing with "how" and "why", and not questions that can be answered with "yes" and "no."
- are specific enough so you can actually answer it
- lead to a specific aim of the master thesis that you address by answering the research question
- are motivated by the introduction

If you want, you can also divide the overarching research question to more focused sub-research questions that provide further guidance for the reader.There are different philosophies here. Some professors like the "structure" of having sub-questions, and others like myself prefer when there is ONE research question that focus your thesis.

2. Literature review

The ambition with the literature review is to illustrate what earlier work has said on the topic in a structured way. It will lead to a synthesis where you summarize the main streams of what we do know, and what we don't know. It also sets the stage for substantiating why you have chosen a particular method (e.g., quantitative surveys or qualitative observations).

2.1. Prior work

There are many ways to find out what prior work has said on the topic. There are many different ways in which you can write a literature review. It is important to note, however, that barely summarizing what other people have said without any reflection, synthesis, or coherent argument does not suffice as a project. You need to take this a step further by providing more intellectual contribution. This can be done in several different ways, but the literature review needs to tackle these aspects:

- What main streams of literatures have dealt with this research question in the past? Think about a way to succinctly summarize these literatures. You can also use tables and figures where you compare and contrast the main streams of literatures.
- What are the main things that we already know from these literatures?

The literature review needs to be systematic in gathering what scholars have said on the topic. There are many sources to find the relevant literature. You can find information in the Information Center by using the databases available. Google Scholar is also a very useful resource. One key function that is useful is to look at who's citing the classical work that you are drawing upon. That can help you identify the most important pieces of work (papers and books with more citations are more impactful). Be aware that there are differences between different journals and articles. There are journals that are for more of a managerial audience (such as

Harvard Business Review or Sloan Management Review) that are not seen as the most rigorous journals by serious academics. Most other journals are for an academic audience, but also be aware that that they differ in the quality of the papers that they publish. There are multiple kinds of rankings that rank journals based on the perception of academic peers, how many citations journals receive, etc. A good overview of the different rankings and to help you judge the quality of the journals in management can be found here: http://www.harzing.com/jql.htm. But there are obviously good work published in journals that are not considered "top" journals, and not all top journal publications are worth reading.

When doing a literature review, it makes sense to think broadly in the beginning to find relevant literatures. There are tons of buzz words floating around in management, many which are simple fads that recycle what we already know. For instance, a literature review on "guerilla marketing" that only search for this term is likely to miss out on tons of academic work in marketing. In the beginning of the search for relevant literature you should thus cast a wide net to find as much as possible of the relevant literature before you have a sense of how you can focus. It often makes sense to write down the search words and the process you went through to define the scope of the literature search. The next step is to cull the pool of papers and focus on the relevant ones.

2.2. Synthesis

The goal of the literature review is not only to read and summarize a lot of different papers, but to do a critical analysis and synthesis of what this literature says. In other words:

- What is it that we don't know?
- What is it that prior work may miss in answering your research question that your master thesis can address?
- Comparing and contrasting different streams of literatures with regards to the research question.
- Are there any underlying differences in the assumptions in the different literatures?
- What is that earlier work has overlooked? For instance, has it been imbalanced in only considering either cost or benefits?
- Can you think of framework or model that summarize the literature? Are there any moderating effects (those that suggest under what conditions a strategy makes sense).

3. Methods

The ambition of this section is to explain the research methods you have used to answer your research question. You need to provide the reader with a basic understanding about the research context you study, and how you went about to collect data that was necessary to answer the research question.

3.1. Research context

Your research question will be answered in a specific research context - the industry or organization that you will analyze.

- Why do you study this research context? What is it that we can learn from studying it?
- What is specific about this research context?
- What are the main trends in the industry?

After reading this section, the reader needs to know the specifics about your research context, and what we can learn from studying it. This is something many people who study their own company will know a great deal about, but the reader will be less familiar.

3.2. Data collection

This section needs to provide information about your data collection efforts. It needs to explain in it in enough detail for the reader to show that you have collected relevant information to answer your research question. For instance,

- How did you find the interviews or survey respondents? Are they representative of a greater population (if so, of what?)
- How many people did you interview or survey? How many were not interested in participating, or were non-respondents?
- What kinds of questions did you ask people during interviews (add interview protocols to an Appendix), what did the survey instrument look like, or what kinds of secondary data did you use.

It often makes sense to provide more details than you think, as you know the data collection a lot better than the reader and may take many things for granted.

3.3. Data analysis

The next step is to explain how you analyzed the data you collected.

- If you have done interviews, then you need to explain the steps you took to go from unstructured data to the findings you present. How did you come up with common themes?
- If you have done a survey, then you need to explain how you went about to analyze the research questions, and why the chosen approach is suitable to do this. In other words, explain why you have

4. Results

This section describes the findings that stems from your work. The goal is obviously to provide answers to the research question. There are obviously different ways to write this section depending on what you try to do in your thesis. If it is a quantitative thesis driven by a deductive logic, you will first describe your descriptive statistics, and then move into testing one hypotheses at the time. If it is more of an inductive thesis driven by qualitative data, the goal is through the results come up with a convincing way to think about the problem. I personally think the best qualitative work use interview quotes to illustrate their ideas, and have some tables where higher-order concepts are illustrated, and data compared and contrasted. The best work usually shows (1) you collect data that can answer your RQ, (2) you use a way to describe your results that matches how your theory section is written, and (3) the reader understands how your data has been generated and analyzed and what the results are.

5. Discussion

Chapter 2, 3 and 4 are sections that are narrow i.e. closely tied to your work. Think about it as a time glass: the introduction is broad and end with a very specific research question. Section 2 reviews what people have done in the past, and hopefully illustrate that you've done something new. Section 3 is again very specific, and so is the results. Section 5 makes it broad again by discussion what we can learn from your exercise and how it links to other kinds of situations.The ambition of the last chapter is to connect your work back to more general literature and practice. In other words, what is it that we can learn from your master thesis that we previously didn't know?

5.1. Theoretical implications

Chapter 2 discussed the literature review and what the prior literature had to say about the research question you posed. The ambition of this section is to connect your results back to this literature by specifying what we have learned from this exercise.

- What works the way the theory predicts?
- What does *not* work the way the theory predicts? Why?

5.2. Managerial implications

Your findings are likely having implications for managers. In other words, connect your findings to practice by considering these questions:

- What can a well-informed manager learn from your work?

- What can managers do differently as a response to what you have found?
- Is there any practice that you have observed that may not be in the best interest of the managers? Why?

5.3. Limitations, future research and scope conditions

Your time is limited and there are obviously limits to what you can achieve during this time period. Be honest about that by describing the main limitations that you see from the work you have done. This is also a good segue to discuss possibilities for future research you believe would be fruitful. Some master thesis can also provide clear scope conditions – those conditions that need to be fulfilled for the theory or the framework to hold.