A structured approach to presenting graduate research theses

Basic pattern of a thesis

Body of knowledge

2 Research issues

5 Conclusions and implications

1 Introduction

3 Methodology

4 Analysis of data

This research
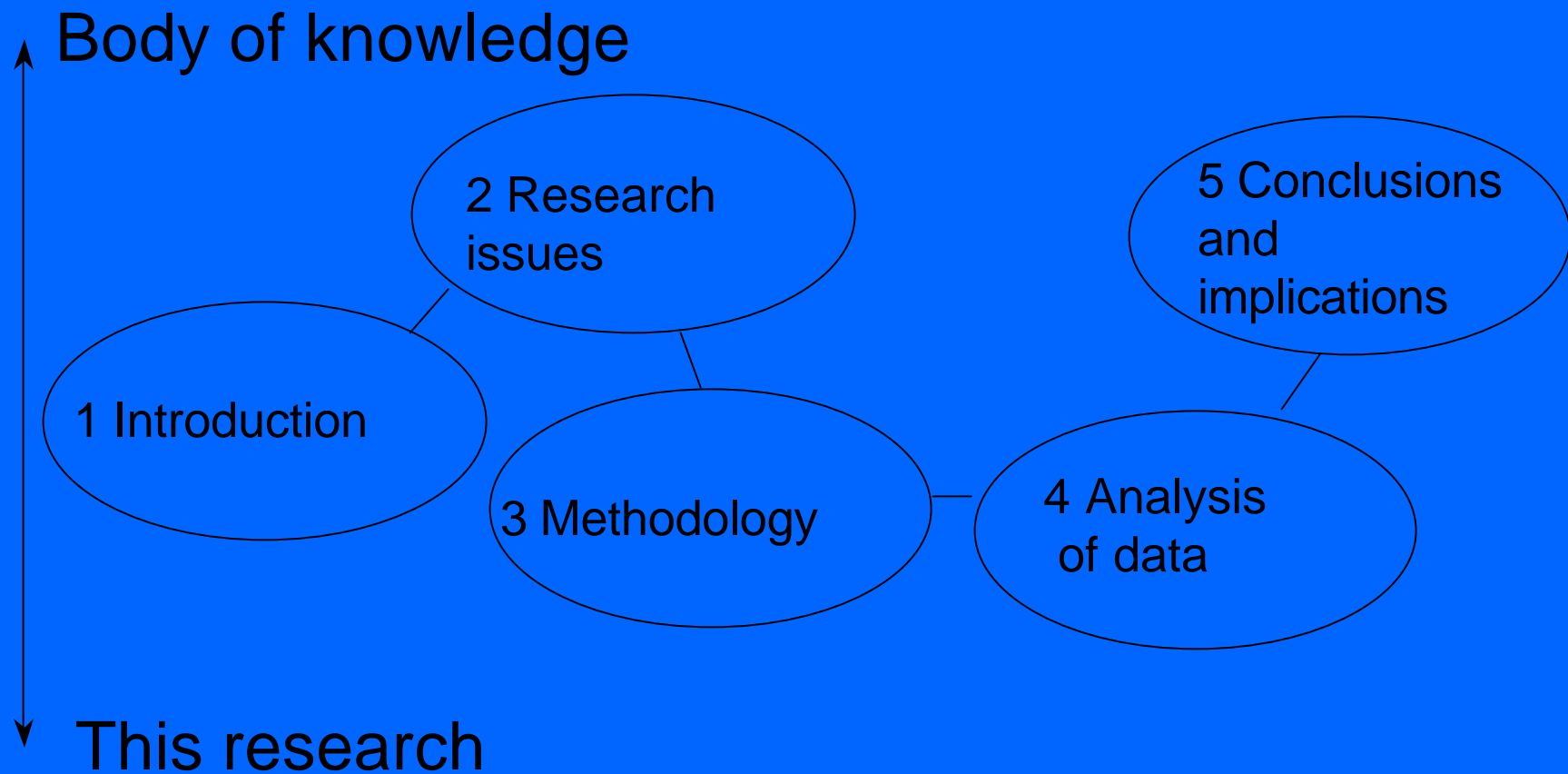
Sections of chapters are known before you start to write, for example...

1.1 Background to the research

1.2 Research problem, hypotheses and contributions

1.3 Justification for the research

1.4 Methodology

1.5 Outline of the thesis

1.6 Definitions

1.7 Delimitations and key assumptions

1.8 Conclusion

Examples of the planning it provides

✝ An approximate plan for a 50 000 or so word thesis done in 12 months

Chapter	Topic	%	Pages	Months
1	Introduction	6	10	1.5
2	Lit review	34	55	3
3	Methodology	18	30	2
4	Data analysis	22	35	2.5
5	Conclusions	20	30	3
	Total	100	160	12

'Thesis of my thesis'

- *How should a graduate student in telecommunications present their thesis?*
- **By using:**
  - » **a structured approach is efficient and effective**
  - » **a thesis is a *coherent report* rather than a consecutive one**
    - – **the *opening night* of a film, not details of its many scripts and re-shoots of scenes, some of which were shot out of order and some of which ended up on the cutting floor**
  - » **the thesis is a final *project* report that matches the expectations of your thesis advisors**
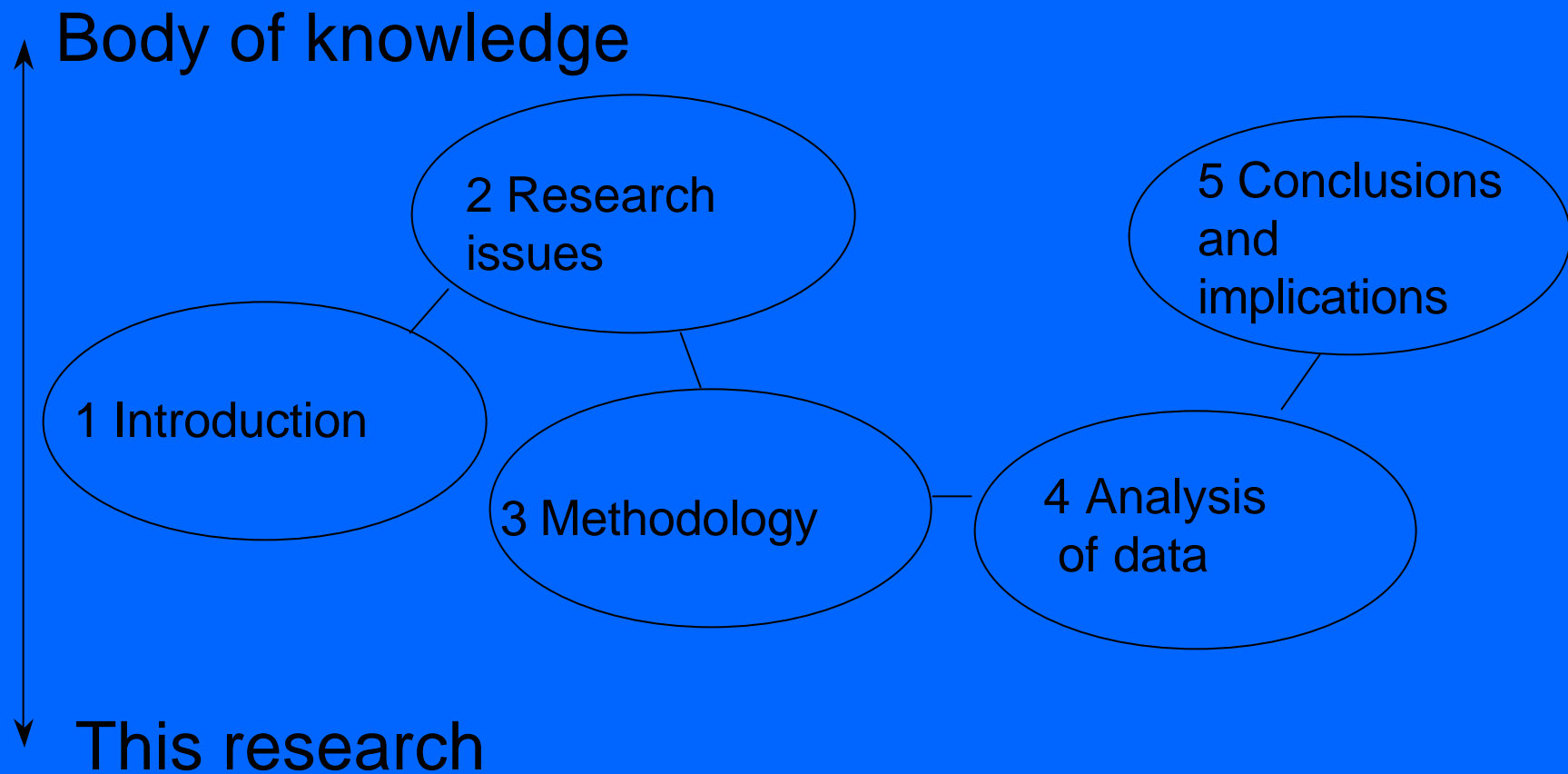 - » **the structure is a foundation for your later, more important research career**

What sort of research do you do in a thesis?

✝ *Exploratory research* where the research idea cannot be known at the beginning of data collection

✝ *Testing research* finding the limits of previously proposed generalizations... does the theory work for other telecommunications services? (This can be *either* qual/theory building *or* quant/theory testing research)

✝ *Problem solving research* about a specific, real world, multidisciplinary problem

6

In brief, we address what thesis *advisors* want to see:

- **relevant literature** (immediate discipline about the research problem)
- **broader framework literature/theoretical context** (parent disciplines)
- clear **contributions**
- **research training** - methodology (justified, described, referenced)
- what was done by co-researchers
- **well-written** (five chapter paper, APA *Style Manual*?)

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Chapter 1 Introduction

- ✝ sets the scene

- ✝ present tense (cf next three chapters)

- ✝ research problem to be solved, hypotheses/ research issues and contributions

- ✝ justification for research problem, starting with gaps in *theory*, then have industry size, management concerns, etc

- ✝ methodology

- ✝ delimitations of scope, with justifications

- ✝ definitions

- ✝ outline of thesis

Thesis of a thesis I

'A review of 139 studies revealed that rarely were these theses criticized for 'bad writing' ... sentence structure, paragraphing, spelling, grammar, etc ... What frequently was criticized was the students' failure to take a philosophic stance or to reach a conclusion... there should be one 'thesis' to which everything in the document contributes' (Nightingale 1984)

Thesis of a thesis II

- 'A "thesis" …is something you wish to argue, a position you wish to maintain. Your thesis.. must argue a position…

- In effect, students must ask themselves: "What exactly is my contribution to knowledge in this area?" and then write a thesis that clearly presents the answer.' (Nightingale 1984)
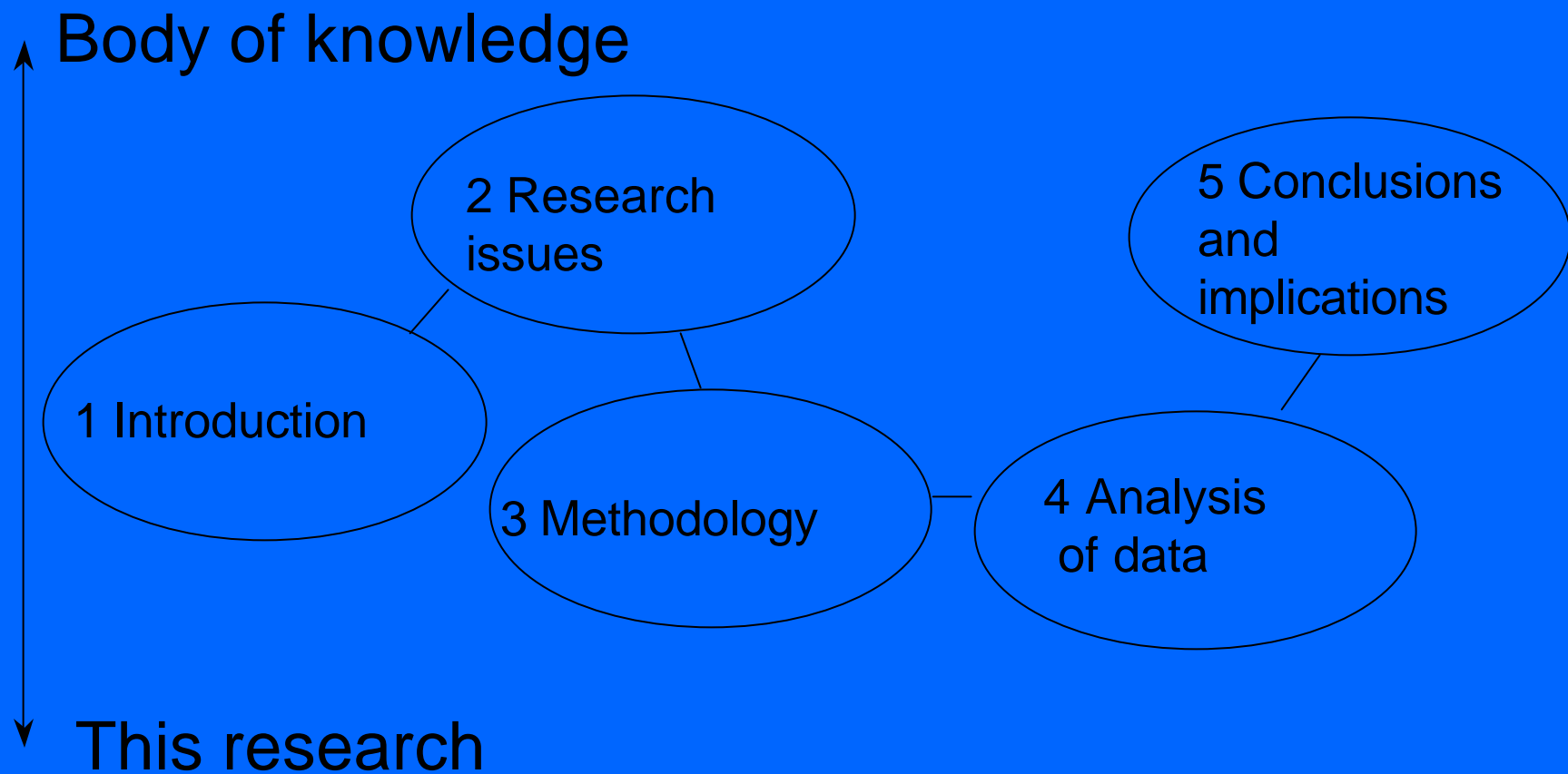
In more detail, the research problem is...

+ important to the researcher

+ 25 words or less

+ together with the delimitations of scope it answers who, what, where, why, when (eg, consumers or managers, industry, country)?

+ is gradually narrowed as researher proceeds

Other example research problems -note *some* delimitations and *some* jargon...

✝ How and why are telecommunications policies implemented in a deregulated industry?

✝ How and why does the telecommunications infrastructure of a particular country impact on the GNP of that country?

✝ How and why do high value-added ISP's develop market entry modes in a particular market?

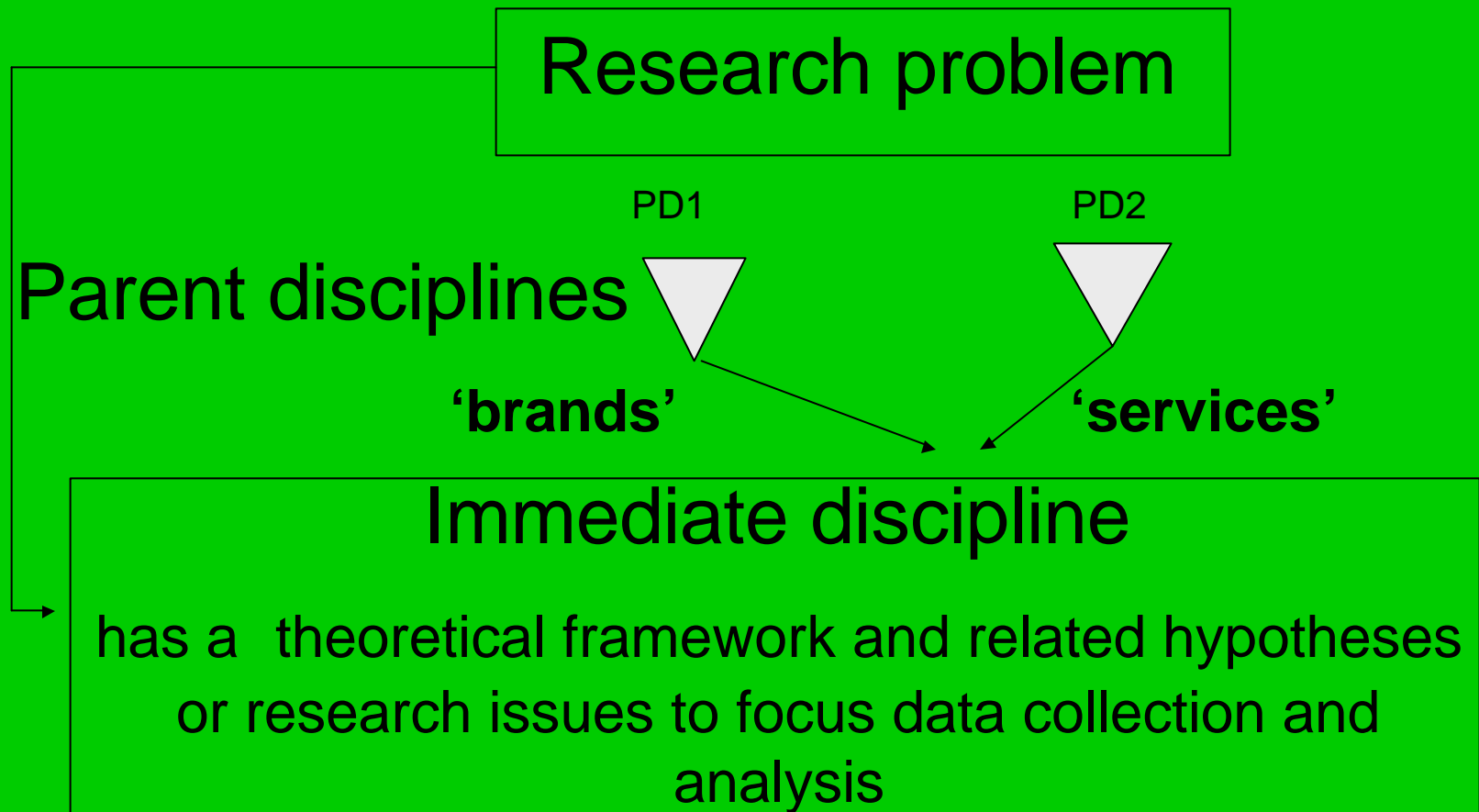✝ What factors influence customer satisfaction in the Malaysian telecommunications industry?

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Chapter 2   Research issues / literature review

✝ means to an end, not an end in itself (ie theoretical framework and related RIs/hypotheses is the end)

✝ parent and immediate disciplines eg brands and services marketing on the next slide

✝ be analytical, not descriptive like a textbook: create expectations of position in a debate and then fulfil them

✝ a theoretical framework and its hypotheses/research issues 'grow' in controversial and/or unresearched areas

✝ drafts are crystallized before data is collected

Overall idea of chapter 2's structure

Research problem

PD1   PD2

Parent disciplines

'brands'   'services'

Immediate discipline

has a theoretical framework and related hypotheses or research issues to focus data collection and analysis

Foundations for the chapter's section numbers

✝ 2.1 Introduction – objectives, outline

✝ 2.2 Definitions of core term(s)

✝ 2.3 going from general to narrow themes about it, in sections 2.4.1, 2.4.2…. (the narrow theme is usually a gap in the literature)

✝ 2.4 Immediate discipline - development of theoretical framework and related hypotheses (quant)/research issues(qual)

✝ 2.5 Conclusion (no new material - just a brief summary and a final tying of everything together)

Essentially, the chapter is maps of known and unknown territory

✝ *Known territory* with rivers and mountains that end at the coast, plus some outlying islands we know about
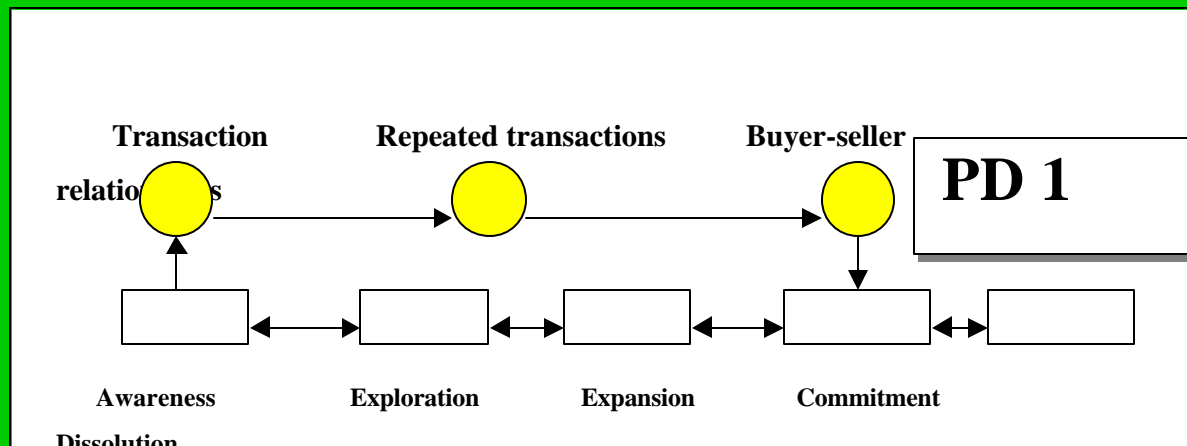
A *conjectured* map of the **unknown** that is *based* on the maps of the known territory above, showing how to set sail from here out to other conjectured islands and lands (with sailing directions out to them and between them), in the form of a theoretical framework and its related hypotheses/research issues. In effect, this could be considered to be a *reasoned* proposal for funding from a prince or princess for an expedition into the unknown.

Literature review

- plan with an outline and chapter figure/table of contents/sections
- develop *classification* models for the parent disciplines that chunk it appropriately for this research, usually narrowing to gaps
- develop a new *analytical* theoretical framework/model for the immediate discipline that ties relevant constructs together
- RIs/hypotheses 'grow' from that framework and so are related together and cover the framework
- write *first* drafts *second* (after 'the table of contents') - good writing is rewriting
- there is a difference between first and second+ drafts

Example of lit review framework

RELATIONSHIP MARKETING

Transaction
relationships   Repeated transactions   Buyer-seller

PD 1

Awareness   Exploration   Expansion   Commitment

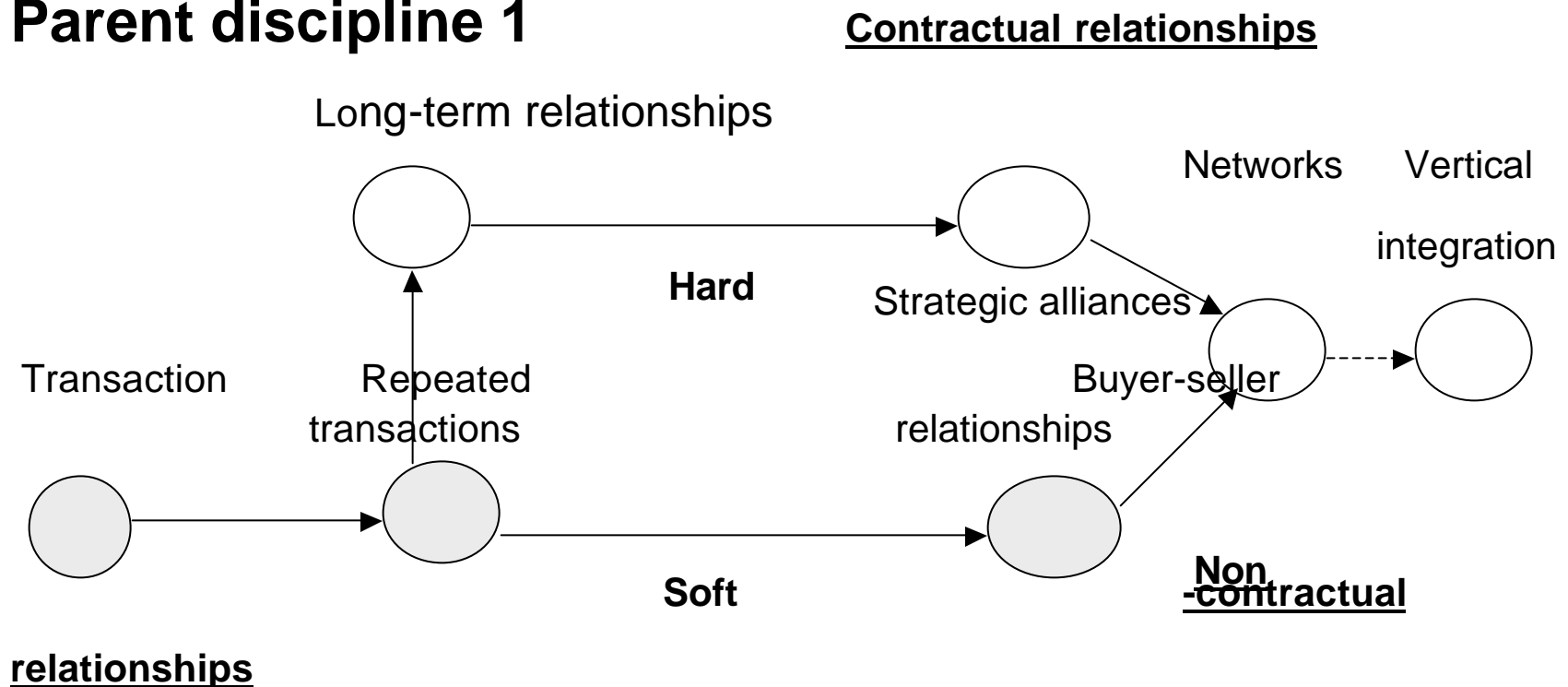Dissolution

RESEARCH PROBLEM

ID

Service quality evaluation

PD 2

SERVICE QUALITY

Example: Relationship marketing: *classification* framework of range of relationships

✝ **Parent discipline 1**

Contractual relationships
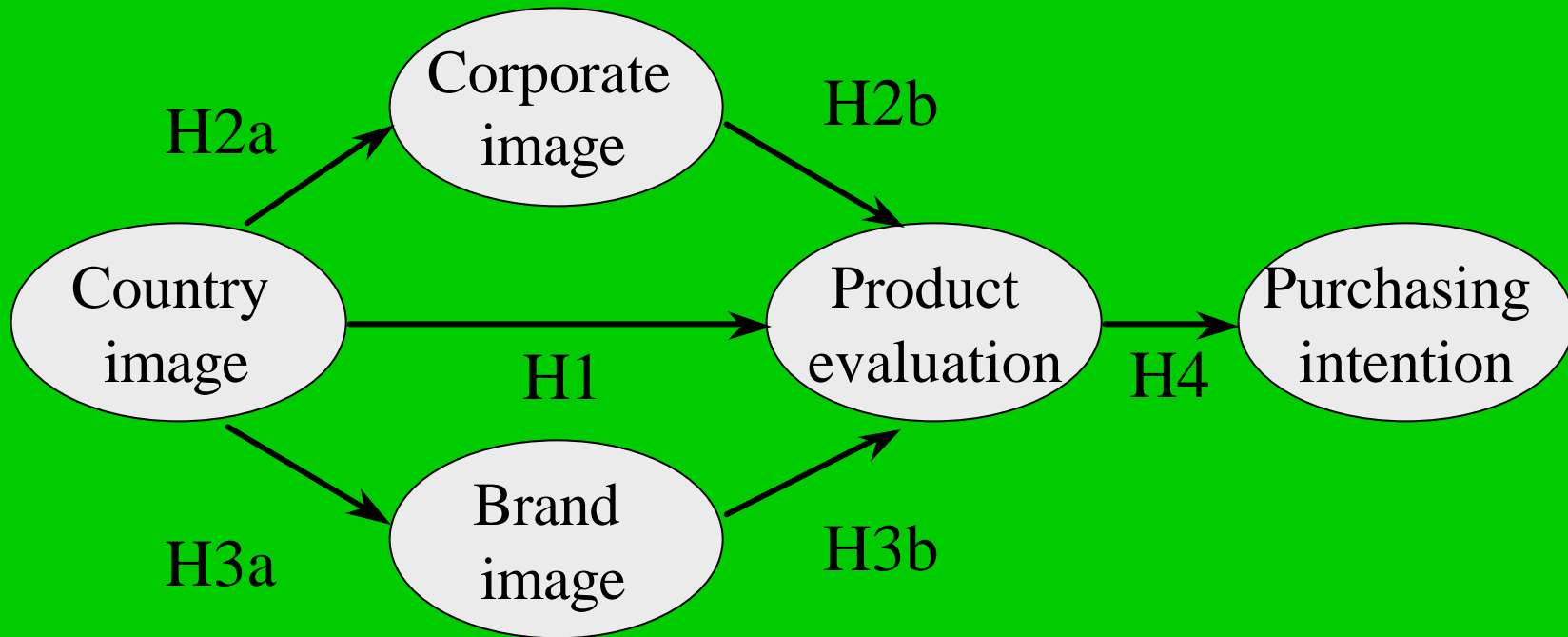
Long-term relationships

Networks   Vertical

integration

Hard

Strategic alliances

Transaction   Repeated
transactions

Buyer-seller
relationships

Soft

**Non
-contractual**

relationships

Source: based on Webster (1992)

Example: Theoretical (*analytical*) framework for ID that fills gaps

Input sources
- internal
- external

1

Standardized **customer service**

2

Continuous feedback

Data processing
- database marketing

3

4

Individual communication
- database marketing
- customer contact service

Strategic outputs
- *tailored* customer contact service

5

6
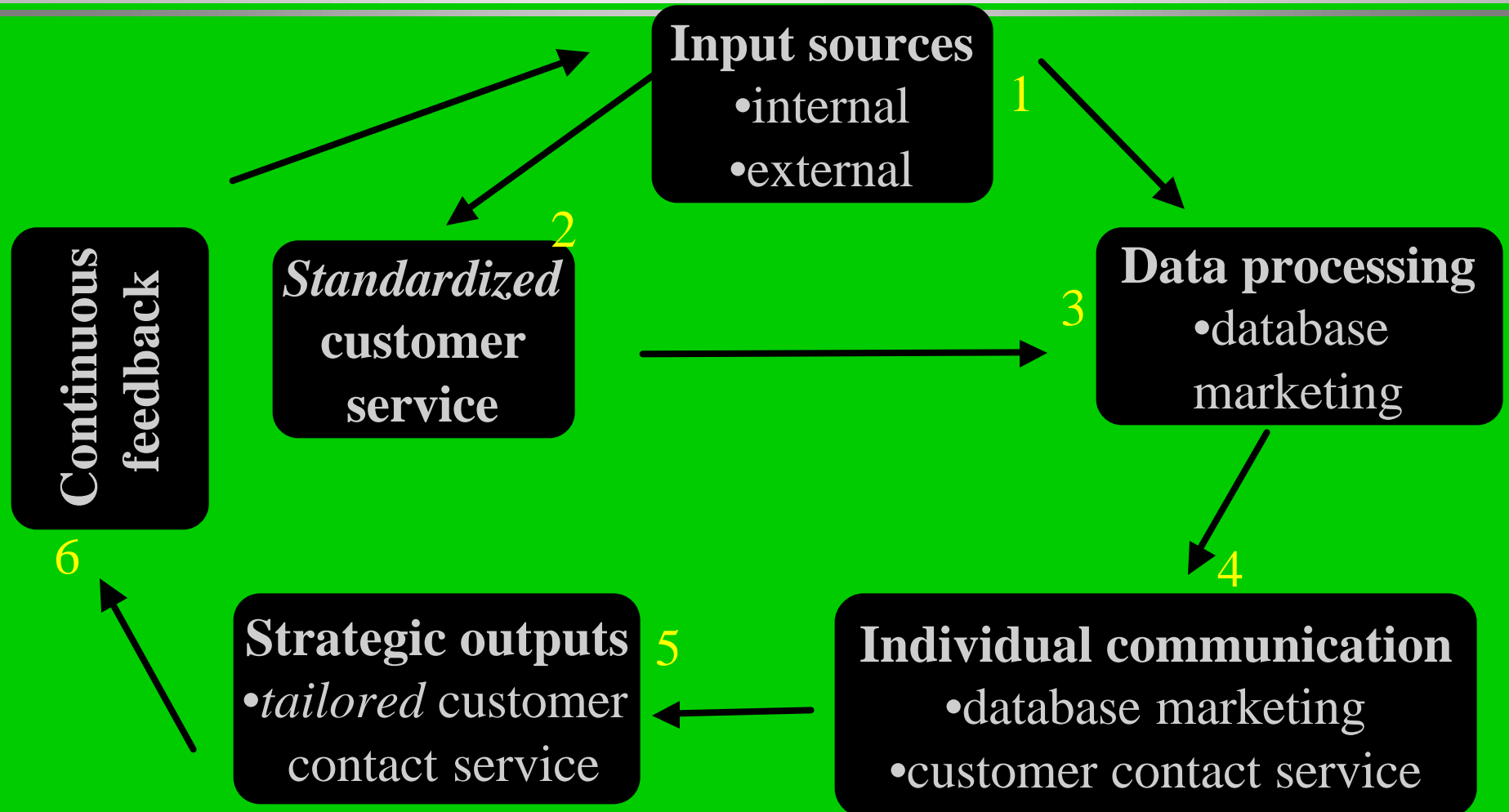
Leads into **research issues about the *whole* theoretical framework that will *guide* data collection and analysis**

- RI 1 What are the information inputs for database marketing relevant for customer contact service, and why?
- RI 2 What are the information inputs for standardised customer service, and why?
- RI 3 What information from customer service transactions and/or interaction can be integrated into the database, and why?
- RI 4 What opportunities for individual communication are provided from database processes, and why?
- RI 5 How can this individualised communication be incorporated into the total customer contact service?
- RI 6 How and why can feedback be incorporated into integrated database marketing?

Another, quantitative, example with its hypotheses for *each* arrow

Corporate image

H2a

H2b

Country image

H1

Product evaluation

H4

Purchasing intention

H3a

Brand image

H3b

Fishbein Model: **beliefs** ➡ **attitudes** ➡ **intentions**

Typical deficiencies of a literature review

✝ exclusion of landmark studies

✝ out-of-date material

✝ adopting a parochial perspective, eg, no parent discipines, only one nations' literature

✝ not 'critical' ,ie, it is just an annotated bibliography (so you must *synthesise* the literature into chunks, not just reproduce it)

✝ not discriminating between material relevant and irrelevant to the project, eg has 'aunty' disciplines
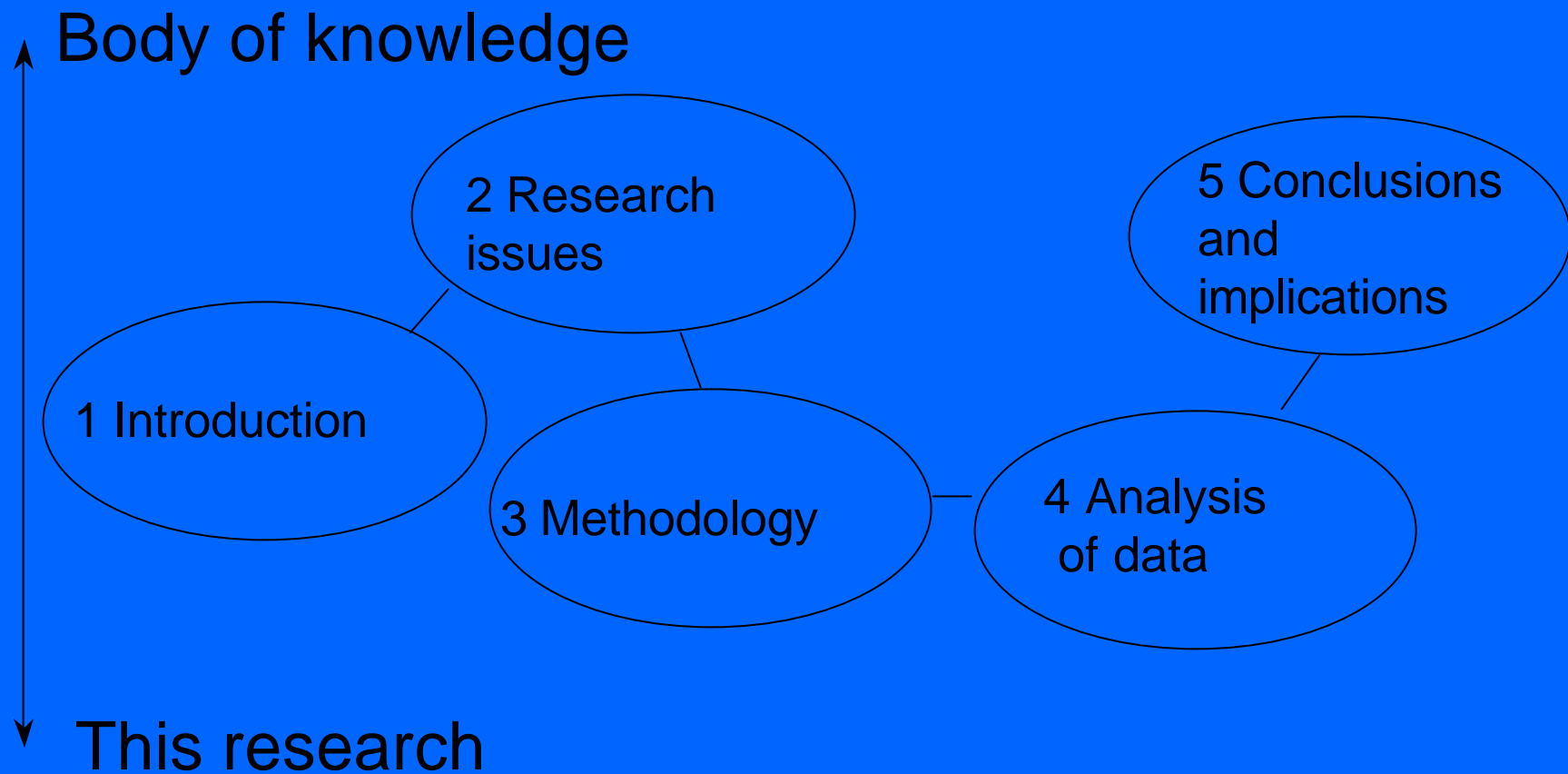
✝ lacking synthesis (Bruce)

Remember: end chapter with hypotheses/research issues about the theoretical framework

✝ If the **research problem** in chapter 1 is: How can Malayasian Telecom become more profitable?

✝ Then the **research issues** derived from the thoretical framework might be:

  » RI1 How and why should prices be altered?

  » RI2 Are there other ways to increase sales revenue?

  » RI3 How can costs be reduced?...

Conclusion: summary points about a literature review

✝ Keep the right psychological orientation - it is a discussion with a *knowledgeable colleague* [not a student] about what others have written in relation to your research problem

✝ Have a *plan*: start comprehensive and end specific

✝ Emphasize relationships with your research problem]

✝ Use a skeleton outline about these relationships

✝ *Review* the literature; don't reproduce it!

✝ End each section with a summary that gathers up what has been said and sets forth its significance in terms of the research problem

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```
                        ( 2 Research                  ( 5 Conclusions
                          issues )                      and
                                                        implications )

   ( 1 Introduction )
                              ( 3 Methodology )    ( 4 Analysis
                                                      of data )
```

This research

Chapter 3 Methodology

- ✝ justification of methodology
- ✝ mastery of body of knowledge about the methodology (but it is not a textbook) - see enxt slide
- ✝ what steps followed and why, with *some evidence* that they were followed
- ✝ links between RIs/hypotheses and instrument questions (see next slide+1)
- ✝ validity and reliability
- ✝ ethical considerations

Show research training without writing a textbook. Note references and tense

✝ The fourth issue about this research design concerned sample design. Sample design involved the selection of a technique to choose elements from the population of interest and involved the choice of either probability or non-probability design (Emory & Cooper 1991; Frazer & Lawley 2000). Determination of sample design followed five steps synthesised from the literature that are discussed next (Malhotra et al. 1996; Smith 2000; Rubin 1996)
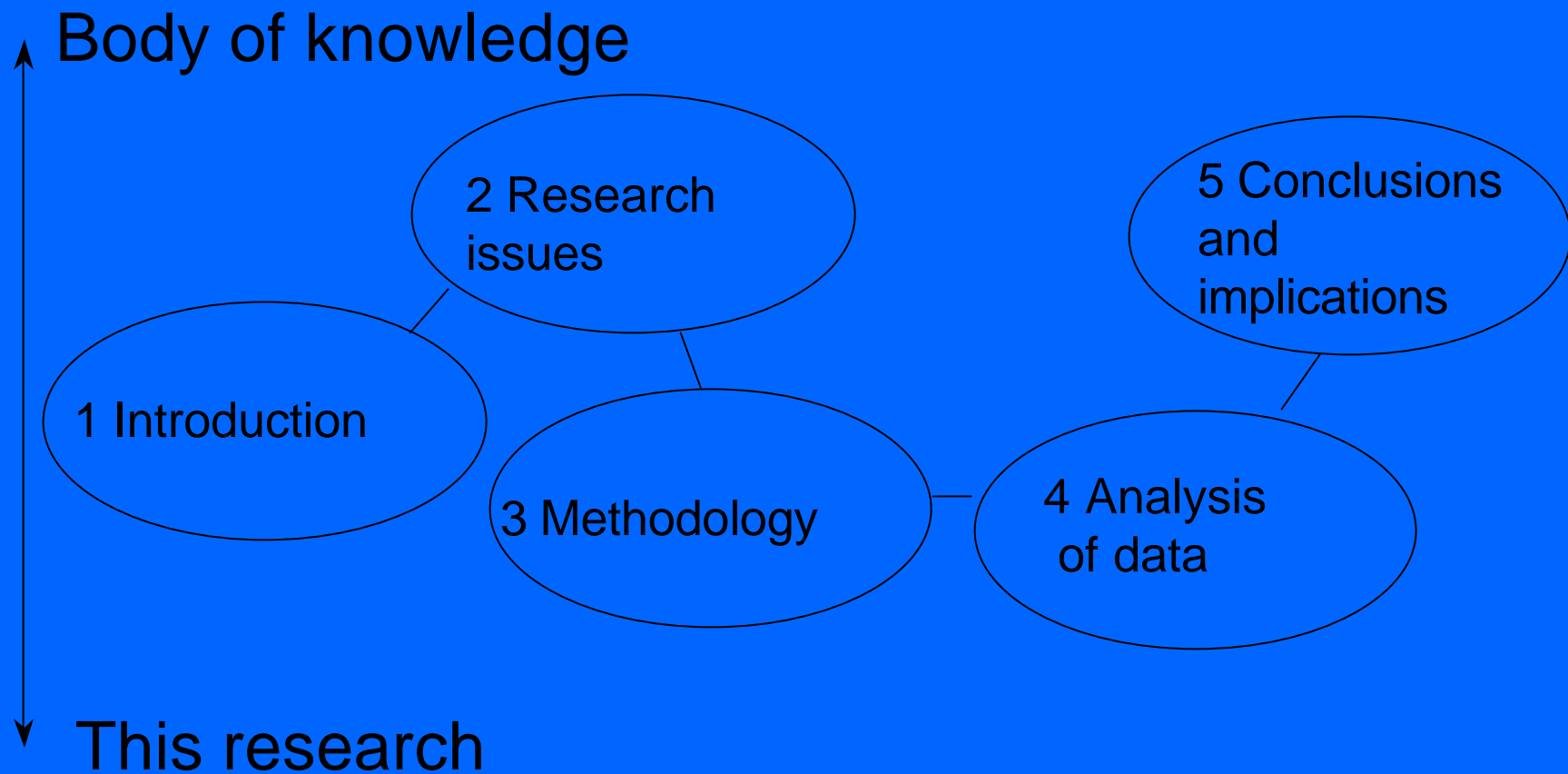
Thesis skeleton

Chapter	Concept	Model of the skeleton
1	Research problem	*
2	Hypotheses or research issues	* * *
3	Questionnaire items or interview questions	*** *** ***
4	Sections for each hypothesis/issue with items/themes in each	
5	Sections for each hypothesis w with conclusions in each	
5	Section for research problem	

How many? And how long?

- ✝ 350+ survey, 200-300 SEM
- ✝ 35 to 50 interviews
- ✝ 4 to 15 cases, but 'information richness is the underlying principle'
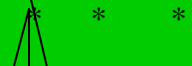- ✝ 60,000 to 100,000 words;

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Chapter 4 Analysis of data

✝ patterns in the data

✝ link (independent) text and tables and figures

✝ sections for each RI/proposition

✝ do not refer to the literature from chapter 2

✝ start with a brief description of subjects

Thesis skeleton

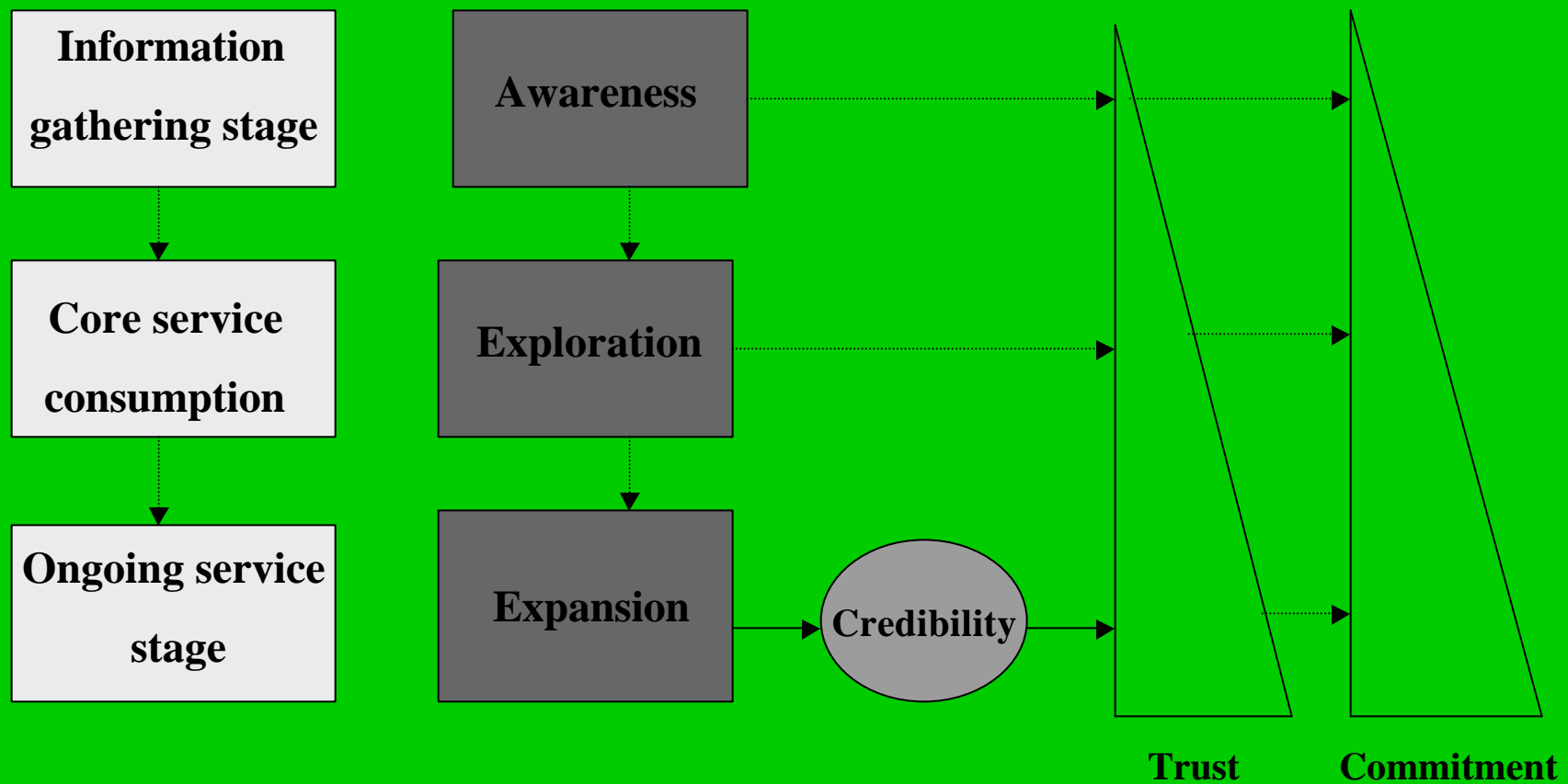| Chapter	Concept	Model of the skeleton
1	Research problem	← *
2	Hypotheses or research issues	* * *
3	Questionnaire items or interview questions	*** *** ***
4	*Sections for each hypothesi/issue with items/themes in each*	* * *
5	Sections for each hypothesis w with conclusions in each	
5	Section for research problem	

Chapter 5 Conclusions and implications

✝ link findings of chapter 4 to the literature for each RI/hypothesis (next slide), identifying and emphasizing CONTRIBUTIONS

✝ solve the research problem within context of the literature of the immediate discipline

✝ conclusions and implications are different

✝ implications for theory in parent and other disciplines, with a revised theory

✝ implications for policy and practice

✝ limitations discovered, if any (refer briefly to the delimitations and limitations of methodology sections)

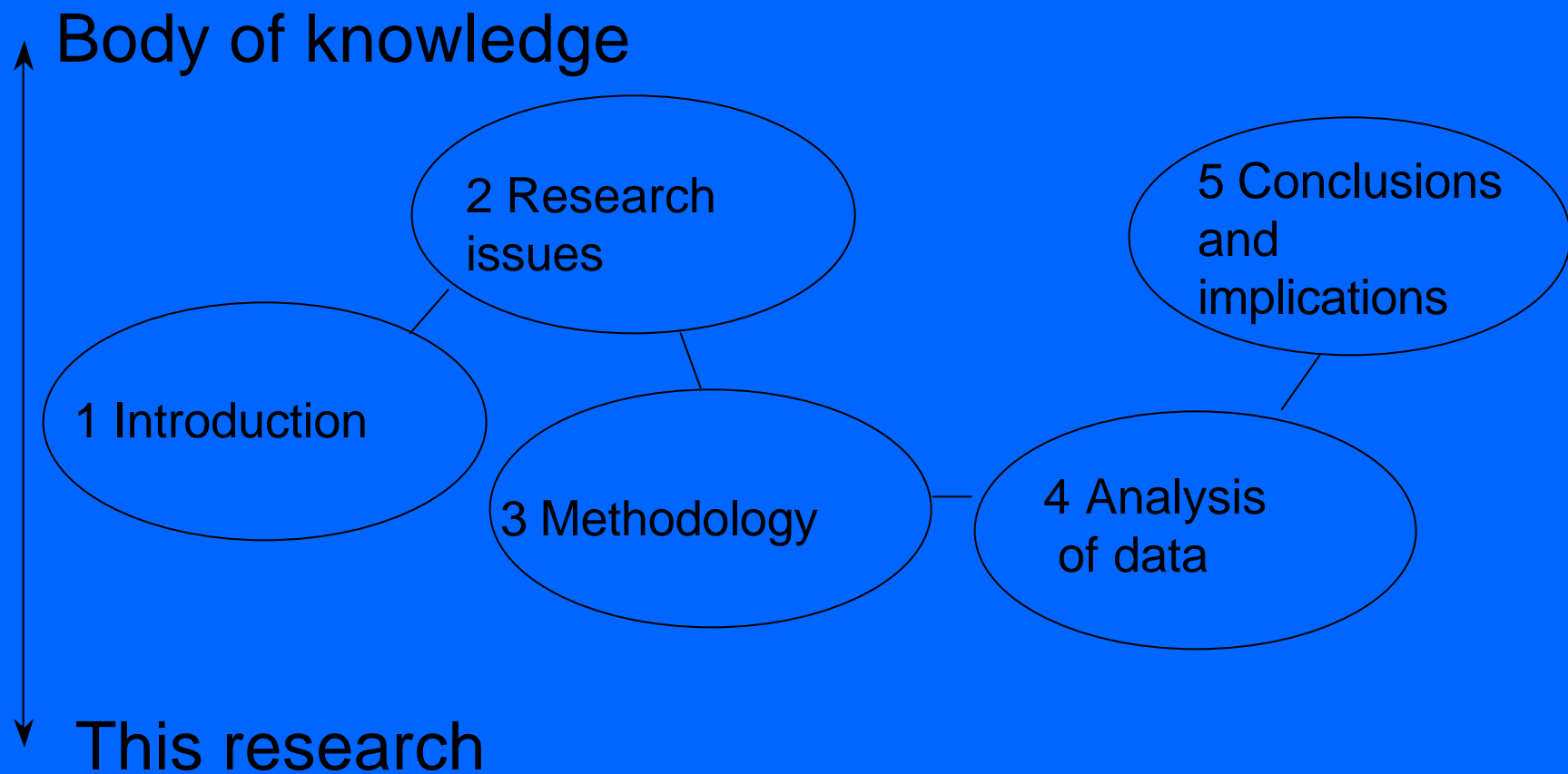✝ further research (based on relaxing the delimitations of scope in section 1.7)

Thesis skeleton

Chapter	Concept	Model of the skeleton
1	Research problem	*
2	Hypotheses or research issues	* * *
3	Questionnaire items or interview questions	*** *** ***
4	Sections for each hypothesis/issue with items/themes in each	* * *
5	*Sections for each hypothesis w with conclusions in each*	* * *
5	*Section for research problem*	*

Example of chapter 5 theory building: service quality and relationship development and maintenance model

In conclusion, basic pattern of a thesis

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Recap: thesis of my thesis

- *How should a postgraduate research student in management or marketing present their thesis?*
- Essentially, I argued that:
  - » a structured approach is efficient and effective
  - » a thesis is a *coherent report* rather than a consecutive one
    - – the *opening night* of a film, not details of its many scripts and re-shoots of scenes, some of which were out of order and some even ended up on the cutting floor
  - » the thesis is a final *project* report that matches the expectations of a project's clients, ie examiners
  - » the structure is a foundation for your later, more important research career

Conclusions about this first - not the last - step in the ladder

✝ Students can creatively concentrate on content and not re-invent process

✝ Students finish earlier with a thesis that requires fewer revisions, and can get on with the (more important) rest of their career

✝ Students learn skills used in writing articles and funding applications (and much other writing, too)