# TD1.

Introduction to quantitative research

Section 1. What is quantitative research?

Research methods in management are often divided into two main types: **quantitative and qualitative methods**.

❑ Qualitative research involves collecting and analyzing non-numerical data (e.g., interview data, observation data, netnographie data, text, video, or audio) to understand concepts, opinions, or experiences.

It can be used to gather in-depth insights into a problem or generate new ideas for research.

❑ Quantitative research,involves collecting and analyzing **numerical data for statistical analysis**.
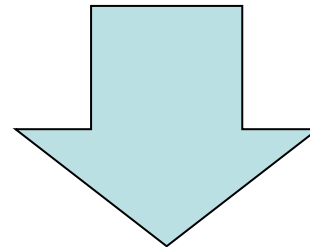
What is quantitative research?

Aliaga and Gunderson (2002):

"**Quantitative research is 'Explaining phenomena by collecting numerical data that are analysed using mathematically based methods (in particular statistics) ».**

Let's go through this definition step by step.

1. The first element is ***explaining phenomena***. This is a key element of all research, be it quantitative or qualitative.

2. When we set out do some research, we are always looking to explain something.

3. In management this could be questions like:

- '**why do consumer perceive negatively the revenue management pricing in hospitality sector** ?'

- '**what factors influence this perception ?**'

and so on.

In quantitative research we collect *numerical data…*

In quantitative research we collect *numerical data*.

$\Rightarrow$This is closely connected to the final part of the definition: **analysis *using mathematically based methods*.**

In order to be able to use mathematically based methods our data have to be in numerical form (**coding step**).

(Qualitative data are not necessarily or usually numerical, and therefore cannot be analysed using statistics).

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•**When do we use quantitative methods?**

■

When do we use quantitative methods?

There are four main types of research question that quantitative research is particularly suited to find an answer to:

1. **The first is when we want a quantitative answer.**

Examples are: How many students choose to study tourism ?

2. Numerical change can likewise only accurately be studied using quantitative methods.

$\Rightarrow$ *Are the numbers of students in our university rising or falling? Is achievement going up or down? We would need to do a quantitative study to find out.*
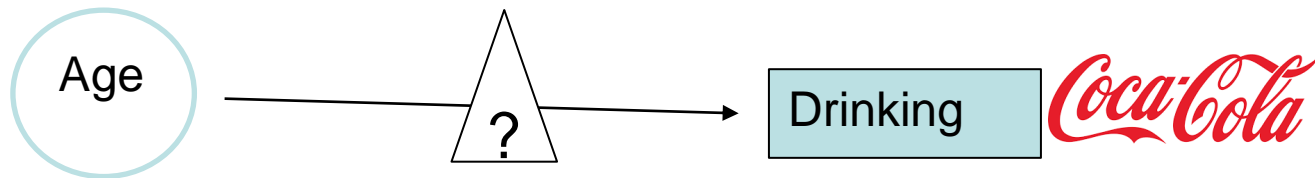
3. As well as...

3. As well as wanting to find out about the state of something, we often want to explain phenomena.

⇒ *What factors predict the "cancellations" or "no-shows" in my hotel ?*

4. Quantitative research is especially suited is the testing of *hypotheses*.

⇒ *We might want to explain something, for example whether there is a* ***relationship between an age and Coca-Cola drinking****.*
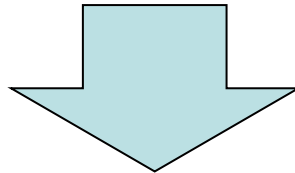

Typology of quantitative research

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There are two main types of quantitative research design:

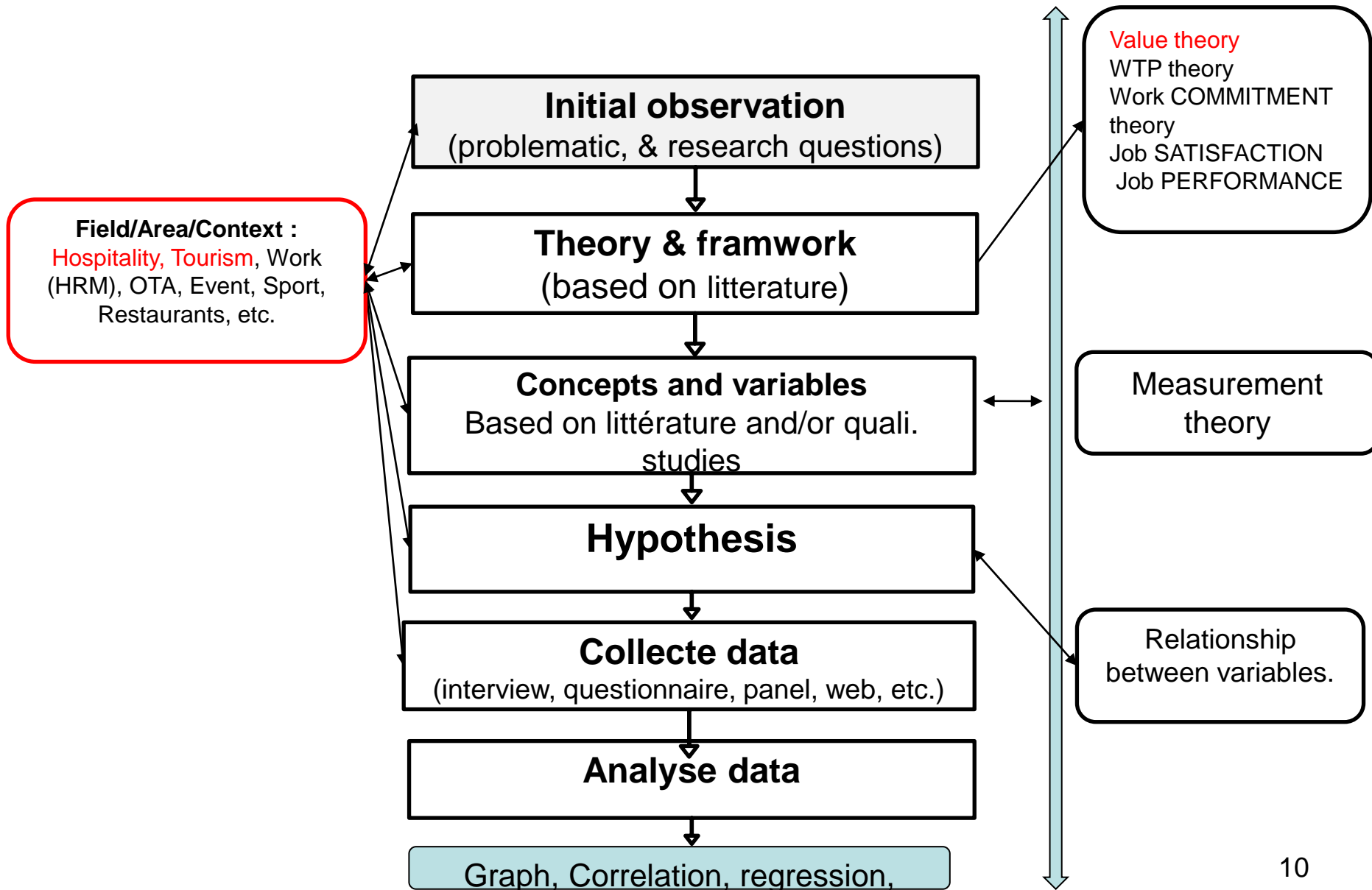- *experimental* designs and *non-experimental* designs.

Typology of quantitative research

1.<u>Experimental designs</u> are sometimes known as 'the scientific method' due to their popularity in scientific research where they originated..

2.<u>Non-experimental methods</u> include survey research, historical research, observation and analysis of existing data sets. Non-experimental research is sometimes equated with survey research and is very common in the social sciences

Section 2. Quantitative Research Process

Initial observation
(problematic, & research questions)

Theory & framwork
(based on litterature)

Concepts and variables
Based on littérature and/or quali. studies

Hypothesis

Collecte data
(interview, questionnaire, panel, web, etc.)

Analyse data

Graph, Correlation, regression,

Field/Area/Context :
Hospitality, Tourism, Work (HRM), OTA, Event, Sport, Restaurants, etc.

Value theory
WTP theory
Work COMMITMENT theory
Job SATISFACTION
Job PERFORMANCE

Measurement theory

Relationship between variables.

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Article 1
The antecedents of perceived value in the Airbnb context (Stollery and Jun, 2017).

Work to do : Read the article and aswer to the questions below

Applied research Project –Practical works (PW)

Exercise 1**The antecedents of perceived value in the Airbnb context (Stollery and Jun, 2017).**
1. What is the Field/Area/Context of this research (Hospitality? Tourism?, Restaurant?,etc.)?
2. What is the disciplinary field of this research (marketing?, general manaement?, Human Resource management?, information technology, accounting, etc.)?
3. What is the initial observation of this research (problematic, & research questions)?
4. What is the main objective of this research?
5. What is the main theory (or theories) and framework of this research (Willingness to pay theory? Work commitment theory? Value theory? Turnover theory)?
6. Identify and explain all the main concepts that are studied in the article.
7. Identify and explain all the main measurement scales that are studied in the article.
8. Identify and explain all the hypothesis that are studied in the article.
9. Identify and explain the data collection methods (interview, questionnaire, panel, web, etc.) and data analysis methods that are used in the article.
10. What are the main findings and the originality/value of this research?
11. Propose a few key words that will make it easy to find this article on the Internet or in a library.

Exercise 2. Presentation of your own research project
Use the same questions grid (questions above) to present your own research. 1. What is the Field/Area/Context of you own research (Hospitality? Tourism? Sport?, etc.)? 2. What is the disciplinary field of your research (marketing, HRM, strategy)? 3. What is the initial observation of your research (problematic and research questions)? Etc