

# Methodology

# Outline

1. Different research methods
2. Primary and Secondary data
3. Qualitative analysis
4. Quantitative analysis
5. Questionnaires

# Methodology

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- **Research design:**
  - General plan of how you will answer your research question
  - Includes: clear objectives derived from the research question, sources of data collection, data analysis.
- First methodological choice: **quantitative, qualitative or mixed method.**
- **Quantitative analysis:** examines **relationships between variables**, measured numerically and analysed using statistical and graphical techniques.
- **Qualitative analysis:** studies **participants' meanings and the relationships between them** using a variety of data collection techniques and analytical procedures.
- **Mixed methods:** combine both methods **concurrently OR sequentially.**

# Primary & secondary data

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## **Primary data**

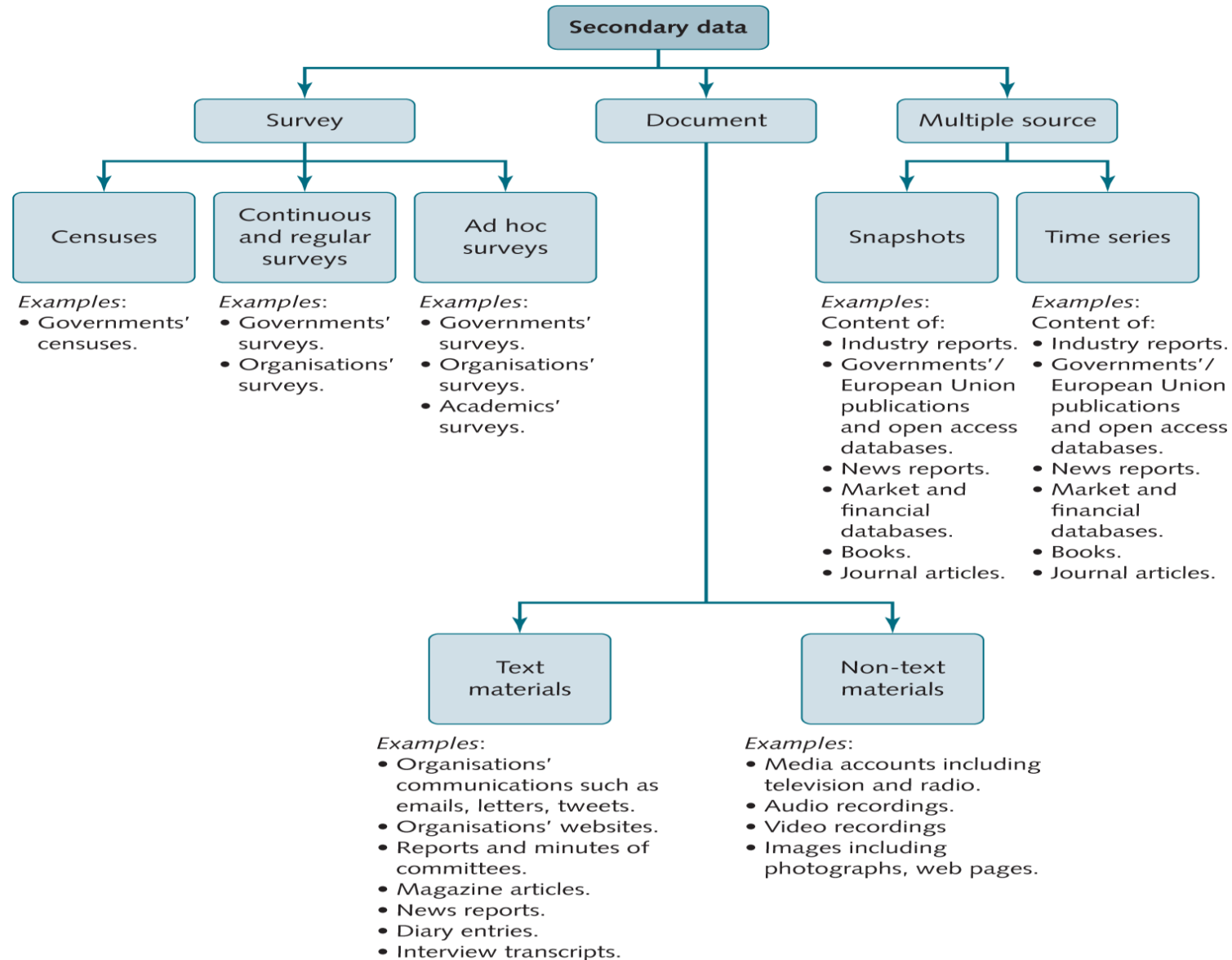
Data that are collected by the researcher using surveys, experiments, interviews.

## **Secondary data**

Data that are collected initially for some other purpose, through various means.

**Both primary and secondary data can be qualitative (text, recordings, etc) or quantitative (numbers).**

# Forms of secondary data



Saunders et al., 2016.

# Pros & cons of secondary data

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- Pros
  - **Fewer resource requirements:** less expensive and time consuming
  - Availability of **longitudinal data**
  - **Permanence** of data
- Cons
  - Do not match the researcher's need
  - Access may be costly (licence with fees)
  - No real control over data quality

# Qualitative analysis: case studies

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- Qualitative methodology is based on **case studies**. The elements of response to the research question provided by the theory and tested as part of qualitative methodology can be formulated as “**research propositions**”.
- Based on **face-to-face interviews** and the collection of **discourse/textual data**, that means facts, opinions and perceptions of the individuals.
  - These players must belong to an organization that needs to be managed and is concerned by the research question of the dissertation, or must perform an activity in relation to this organization (client, supplier, competitor, institution, expert, etc.).
- The instrument of observation is the **interview guide**.

# Qualitative analysis : case studies

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- **Multiple case study:**

- enables management **consistencies** to be detected more easily, and therefore increases the external validity of the managerial findings,
- reinforces the **generalizable character** of the managerial recommendations.

- **Single case study:**

- requires to increase the number of interviews with players within the only organization studied, in order to **compare the points of view** and make a critical analysis of the practice,

- The total **number of interviews** to be conducted :

- discussed with the supervisor
- determined with respect to the degree of “**theoretical saturation**” of the research (Glaser & Strauss, 2017), the impression that the last unit of observation (last interview) no longer really provides new elements.



# Qualitative analysis : interviews

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- The **field of observation** (type of firm contacted, position of the contact person, etc.) must be justified with respect to the aim of the dissertation.
- The semi-structured nature of the interview forces the student to **break the research question down into more concrete questions** which will be asked to the contact persons.

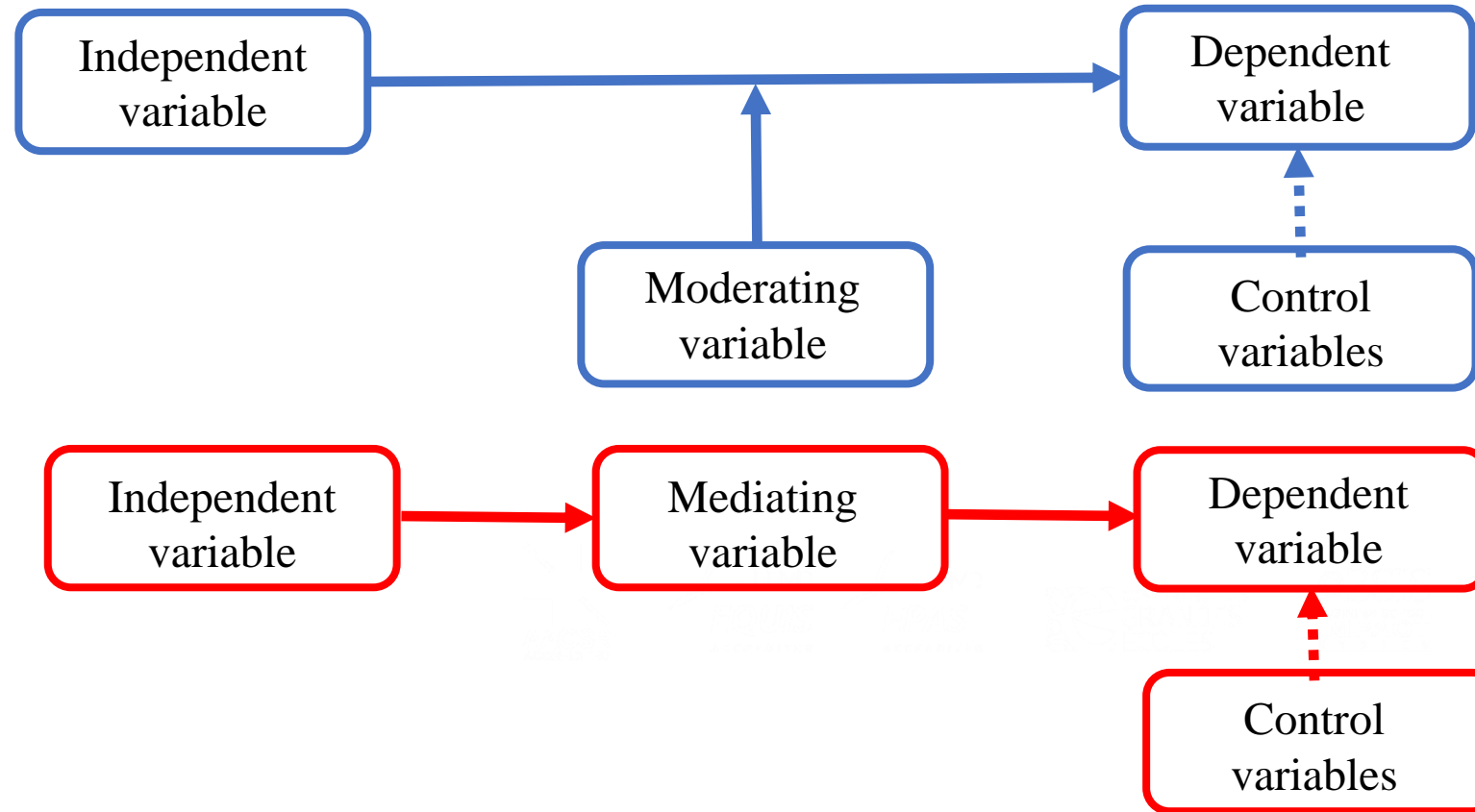
# Qualitative analysis : analysis

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- Collected data must be **categorized**, that means **summarized** and **structured** according to the concepts used in the research propositions.
- **Condensing the data** according to the key research concepts makes it easier to compare the findings with respect to the scientific elements of response expressed by the research propositions.
- **Phase 1: full transcription of the data** (or verbatim) when the interview was recorded (advised). If this is not the case, the student is strongly advised to write a report including the statements collected thanks to note-taking, after the interview.
- **Phase 2: categorization of the written data**, i.e. classifying them according to the key concepts borrowed from the literature and chosen as part of the theoretical framework of the dissertation.

# Quantitative analysis: research model

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# Quantitative analysis

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- **Dependent variable:** a variable that changes in response to changes in other variables
- **Independent variable:** a variable that is associated with changes in a dependent variable
- **Mediating variable:** a variable that transmits the effect of an independent variable to a dependent variable
- **Moderating variable:** a variable that affects the relationship between an independent variable and a dependent variable.

# Building your own survey (1)

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- **Questionnaire:** all methods of data collection in which each person is asked to respond to the same set of questions in a predetermined order (De Vaus, 2014).
  - Good for **descriptive** or **explanatory research**, not for exploratory research.
  - **Self-completed:** internet/web or mobile: Qualtrics, SurveyMonkey, Google forms, postal, delivery and collection.
  - **Interviewer completed:** telephone or face-to-face.
- Key issues:
  - **Response rate:** total number of responses/total number in sample
  - **Validity (accuracy):** ability of the questionnaire to measure what you intend to measure => look for other relevant evidence!

## Building your own survey (2)

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- **« the question must be understood by the respondent in the way intended by the researcher and the answer given by the respondent must be understood by the researcher in the way intended by the respondent » (Foddy, 1994: 17)**
- Key steps:
  - Careful **design of questions**
  - Clear visual **presentation**
  - Lucid **explanation of the purpose**
  - **Pilot testing**
  - Careful **planning and execution of delivery and return** of the questionnaires

## Building your own survey (3)

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- Many **types of questions**: open, list, category, ranking, rating (Lickert style), quantity.
- Questions development:
  - **Adopt** questions used in other questionnaires
  - **Adapt** questions used in other questionnaires
  - **Develop** own questions

# Types of questions (1)

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- **Open questions**
  - Please list up to three reasons why you enrolled in a DBA program
- **List questions**
  - What is your educational background?  
High School Bachelor Master DBA
- **Category/frequency questions**
  - How often do you visit this shopping center?  
First visit Once a week etc.
- **Ranking questions**
  - Place the most important item at the top, the next second etc.



## Types of questions (2)

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- **Rating questions**

- Using a 4, 5, 6 or 7 points Lickert-style rating
- For the following statement tick the box that matches your view most closely  
Agree Tend to Agree Tend to disagree Disagree

- **Quantity questions**

- What is the turnover of the company?

- **Combining rating questions into scales**

- Create a score by combining rating questions. Each rating question is therefore an item.
- Possibility to use existing scales (recommended).

# Types of questions (3)

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## Lickert 5 (7) categories

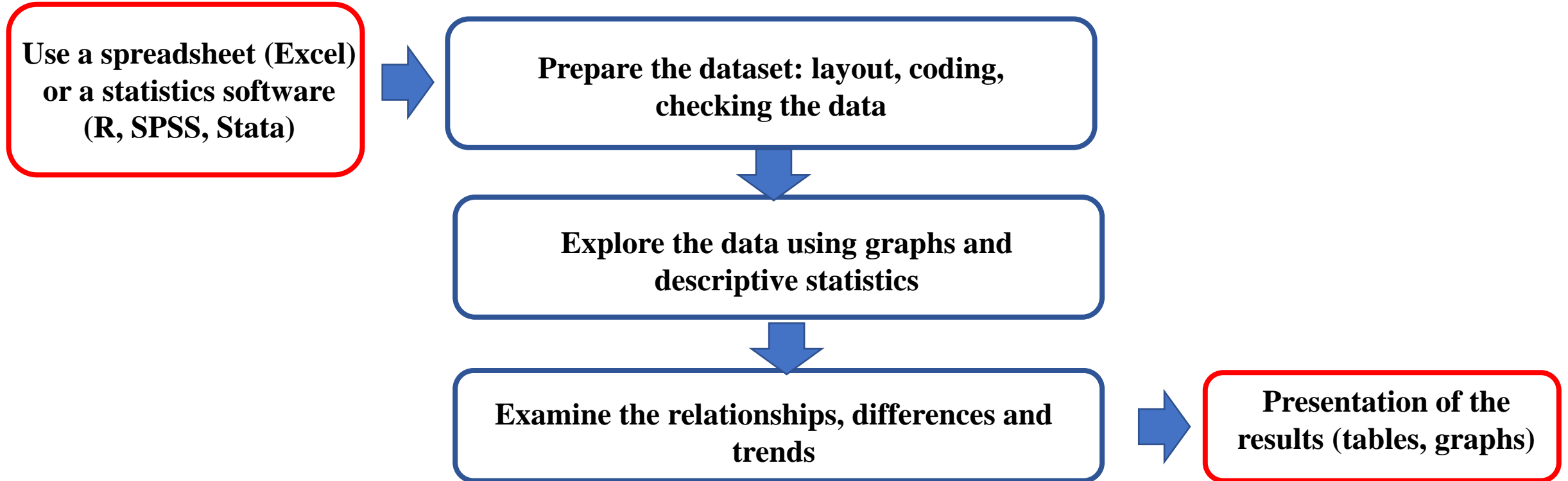
- Strongly agree
- (Moderately agree)
- Agree
- Neither Agree or disagree
- (Moderately disagree)
- Disagree
- Strongly disagree

## Frequency questions

- Always
- Almost always
- Very often
- Frequently
- Sometimes
- Seldom
- Almost never
- Never

# Analysing the quantitative data

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# References

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- Booth, W. C., Colomb, G. G., Williams, J. M., Bizup, J., Fitzgerald, W. T. (2016). The craft of research. University of Chicago press.
- Lamotte, O. (2021). Final Year Dissertation course at EM Normandie