

BUSINESS RESEARCH METHODS

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Q1 a. What is the purpose of conducting quantitative research?

b. Discuss some strengths and weaknesses of Quantitative research?

Ans. a

The purpose of quantitative research is to generate knowledge and create understanding about the social world. Quantitative research is used by social scientists, including communication researchers, to observe phenomena or occurrences affecting individuals. Social scientists are concerned with the study of people. Quantitative research is a way to learn about a particular group of people, known as a sample population. Using scientific inquiry, quantitative research relies on data that are observed or measured to examine questions about the sample population

Ans. b

Strengths	Limitations
Findings can be generalized if selection process is well-designed and sample is representative of study population	Related secondary data is sometimes not available or accessing available data is difficult/impossible
Relatively easy to analyses	Difficult to understand context of a phenomenon
Data can be very consistent, precise and reliable	Data may not be robust enough to explain complex issues

Q2. What is Reliability? Discuss inter-item reliability. Support your answer with at least two examples.

Ans.

Reliability is defined as the probability that a product, system, or service will perform its intended function adequately for a specified period of time, or will operate in a defined environment without failure.

The most important components of this definition must be clearly understood to fully know how reliability in a product or service is established:

- **Probability:** the likelihood of mission success
- **Intended function:** for example, to light, cut, rotate, or heat
- **Satisfactory:** perform according to a specification, with an acceptable degree of compliance
- **Specific period of time:** minutes, days, months, or number of cycles
- **Specified conditions:** for example, temperature, speed, or pressure

Stated another way, reliability can be seen as:

- Probability of success
- Durability
- Dependability
- Quality over time
- Availability to perform a function

The inter-item reliability is important for measurements that consist of more than one item. *Inter-item reliability* refers to the extent of consistency between multiple items measuring the same construct. Personality questionnaires for example often consist of multiple items that tell you something about the extraversion or confidence of participants. These items are summed up to a total score. When researchers sum up the answers of participants to receive a single score, they have to be certain that all items measure the same construct (for example extraversion). To check to what extent items are in accordance with each other, the *item-total correlation* can be computed for each combination of items. This is the correlation between an item and the rest of all items

combined. Each item on the measurement instrument should correlate with the remaining items. An item-total correlation of .30 or higher per item is considered to be sufficient.

Q3. Discuss validity. Differentiate between construct validity and face validity.

Ans.

Validity refers to how accurately a method measures what it is intended to measure. If research has high validity, that means it produces results that correspond to real properties, characteristics, and variations in the physical or social world.

High reliability is one indicator that a measurement is valid. If a method is not reliable, it probably isn't valid.

If the thermometer shows different temperatures each time, even though you have carefully controlled conditions to ensure the sample's temperature stays the same, the thermometer is probably malfunctioning, and therefore its measurements are not valid.

If a symptom questionnaire results in a reliable diagnosis when answered at different times and with different doctors, this indicates that it has high validity as a measurement of the medical condition.

However, reliability on its own is not enough to ensure validity. Even if a test is reliable, it may not accurately reflect the real situation.

The thermometer that you used to test the sample gives reliable results. However, the thermometer has not been calibrated properly, so the result is 2 degrees lower than the true value. Therefore, the measurement is not valid.

A group of participants take a test designed to measure working memory. The results are reliable, but participants' scores correlate strongly with their level of reading comprehension. This indicates that the method might have low validity: the test may be measuring participants' reading comprehension instead of their working memory.

Validity is harder to assess than reliability, but it is even more important. To obtain useful results, the methods you use to collect your data must be valid: the research must be measuring what it claims to measure. This ensures that your discussion of the data and the conclusions you draw are also valid.

Face Validity

- Does the test “look like” a measure of the construct of interest?
- “looks like” a measure of the desired construct to a member of the target population
- will someone recognize the type of information they are responding to?
- Possible advantage of face validity.
- If the respondent knows what information we are looking for, they can use that “context” to help interpret the questions and provide more useful, accurate answers
- Possible limitation of face validity ...
- if the respondent knows what information we are looking for, they might try to “bend & shape” their answers to what they think we want -- “fake good” or “fake bad”

Construct Validity

- Does the test interrelate with other tests as a measure of this construct should?
- We use the term construct to remind ourselves that many of the terms we use do not have an objective, concrete reality.
- Rather they are “made up” or “constructed” by us in our attempts to organize and make sense of behavior and other psychological processes
- Attention to construct validity reminds us that our defense of the constructs we create is really based on the “whole package” of how the measures of different constructs relate to each other
- So, construct validity “begins” with content validity (are these the right types of items) and then adds the question, “does this test relate as it should to other tests of similar and different constructs?”

Q4.

- **What is Referencing?**
- **Why is it important to reference the research work?**
- **Lay down the steps of referencing.**

Ans.

a. Referencing means acknowledging your source: in the body of your work (in-text referencing or citation) and linking your citations to your list of works cited (also reference list or bibliography).

b. Citations are not used simply to avoid plagiarism; they have other important roles too. Referencing allows you to acknowledge the contribution of other writers and researchers in your work. ... By citing the work of a particular scholar, you acknowledge and respect the intellectual property rights of that researcher.

c.

Step 1:

When taking notes for an assignment topic, write down all the relevant bibliographic details of your information sources, such as author, date of publication, title, publisher, place of publication, etc.

Step 2:

Insert a brief citation at the appropriate place within the text of your assignment where this information is used. Example of one type of an in-text reference:

APA Example:

(Langford, 2002, p.22)

Chicago Example:

Langford (2002, 22) or (Langford 2002, 22)

Step 3:

At the end of your assignment add a reference list or bibliography containing all your information sources with full citations. Example of an end-text reference:

APA Example:

Langford, M. (2002). Basic photography. Oxford: Focal Press.

Chicago Example:

Langford, M. 2002. Basic photography. Oxford: Focal Press.

Q.5

- **Discuss Positivism in detail.**
- **What are the assumptions wrt positivism given by Conen et al?**

Ans.

As a philosophy, positivism adheres to the view that only “factual” knowledge gained through observation (the senses), including measurement, is trustworthy. In positivism studies the role of the researcher is limited to data collection and interpretation in an objective way. In these types of studies research findings are usually observable and quantifiable.

Positivism depends on quantifiable observations that lead to statistical analyses. It has been noted that “as a philosophy, positivism is in accordance with the empiricist view that knowledge stems from human experience. It has an atomistic, ontological view of the world as comprising discrete, observable elements and events that interact in an observable, determined and regular manner”

Moreover, in positivism studies the researcher is independent from the study and there are no provisions for human interests within the study. Crowther and Lancaster (2008) argue that as a general rule, positivist studies usually adopt deductive approach, whereas inductive research approach is usually associated with a phenomenology philosophy. Moreover, positivism relates to the viewpoint that researcher needs to concentrate on facts, whereas phenomenology concentrates on the meaning and has provision for human interest.

Researchers warn that “if you assume a positivist approach to your study, then it is your belief that you are independent of your research and your research can be purely objective. Independent means that you maintain minimal interaction with your research participants when carrying out your research.”[3] In other words, studies with positivist paradigm are based purely on facts and consider the world to be external and objective.

The five main principles of positivism research philosophy can be summarized as the following:

There are no differences in the logic of inquiry across sciences.

The research should aim to explain and predict.

Research should be empirically observable via human senses. Inductive reasoning should be used to develop statements (hypotheses) to be tested during the research process.

Science is not the same as the common sense. The common sense should not be allowed to bias the research findings.

Science must be value-free and it should be judged only by logic.

The following are a few examples for studies that adhere to positivism research philosophy:

A study into the impact of the global economic crisis of 2007 – 2009 on the brand equity of US-based listed companies

An analysis of effects of foreign direct investment on GDP growth in Vietnam

A study of relationship between diffusion of innovation of mobile applications and saturation of applications in a country

The following table illustrates ontology, epistemology, axiology and typical research methods associated with positivism research philosophy:

Ontology	Epistemology	Axiology	Typical methods
Real, external, independent	Scientific method	Value-free research	Typically deductive, highly structured, large samples, measurement, typically quantitative method of analysis, but a range of data can be analysed
One true reality (universalism)	Observable and measurable facts		
Granular (things)	Law-like generalizations	Researcher is detached, neutral and independent of what is researched	
Ordered	Numbers	Researcher maintains objective stance	
	Causal explanation and prediction as contribution		

Ontology, epistemology, axiology and typical research methods associated with positivism research philosophy.