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Strategia Netherlands

Module5

Assignment

Jicko Bondole

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**Module 5 Questions:**

**Q1.** Explain the difference between data collection and data capture (10mrks)

**Data collection[[1]](#footnote-1)**

Data collection is defined as the procedure of collecting, measuring and analyzing accurate insights for research using standard validated techniques. A researcher can evaluate their hypothesis on the basis of collected data. In most cases, data collection is the primary and most important step for research, irrespective of the field of research. The approach of data collection is different for different fields of study, depending on the required information.

The most critical objective of data collection is ensuring that information-rich and reliable data is collected for statistical analysis so that data-driven decisions can be made for research.

Data collection is an important aspect of research. Let’s consider an example of a mobile manufacturer, company X, which is launching a new product variant. To conduct research about features, price range, target market, competitor analysis etc. data has to be collected from appropriate sources. The marketing team can conduct various data collection activities such as [online surveys](https://www.questionpro.com/) or [focus groups](https://www.questionpro.com/blog/focus-group/).

The survey should have all the right questions about features and pricing such as “What are the top 3 features expected from an upcoming product?” or “How much are your likely to spend on this product?” or “Which competitors provide similar products?” etc.

For conducting a focus group, the marketing team should decide the participants as well as the mediator. The topic of discussion and objective behind conducting a focus group should be made clear beforehand so that a conclusive discussion can be conducted.

Data collection methods are chosen depending on the available resources. For example, conducting questionnaires and surveys would require the least resources while focus groups require moderately high resources.

Data Collection is the process of gathering and measuring raw information (data) on variables of interest, in an established systematic fashion that enables determination of stated project performance or research questions, test hypotheses, and or evaluate outcomes. It uses specific tools for collection purposes[[2]](#footnote-2).

**Data capture**

The process of keying in information into an M&E system, designed specifically for the purpose of data collection and eventual analysis. Other definitions state that it is the process of converting data from forms into a format that can be interpreted and analyzed[[3]](#footnote-3).

* This is the process of collecting and entering of data into a computer, or the conversion of data into a form compatible with computers. Multiple methods are available for capturing data from unstructured documents (letters, invoices, email, fax, forms etc.)!
* Whenever a method of capture is considered, it is advisable in the first instance to consider the original documents, to determine if the document or form can be updated to improve the capture/recognition process and method.

Commonly, the key steps to data capture include:

Receipt of forms/Editing/Querying/Imputation/Coding/Conversion/Verification/Validation

**Q 2:** Explain the benefits of correctly interpreting data in an M&E process. (5 mrks)

The correct interpreting of data in M&E process it’s critical/benefit on:

* Data identification and explanation.
* Comparing and contrasting of data.
* Identification of data outliers.
* Future predictions.

**Q3.** Explain the main concerns for a data analyst while undertaking the task of data analysis. (10 mrks)

* Is the data meaningful? Data analysis starts with collecting the right data to analyze. The data should pertain to the goals and objectives of the analysis.
* Make sure that the data in use will provide the needed results: If the data does not provide meaning to the analyst, then it cannot be converted into information to an audience..
* Is the data measurable? It can be said that the first step to success is defining an objective. Data analysis requires objective measurable facts.
* Is the data transformable? The data analyst needs to be fluent in the important tools of the information age
* Is the data beneficial? This is probably the most important question to ask in data analysis.

**Q4.** Describe key measures that are mandatory for data quality assurance at program level and explain the value of data quality assurance. (15 mrks).

**Measures to ensure data quality**:

1. Increasing the HR capacity both at Coordination and field levels, for the M&E functions.
2. Strengthen national mechanisms on data quality through supportive supervision.
3. Establish an electronic/ web based data capturing, reporting and management system that will help to minimize on data errors.
4. Periodic reviews and revision of data collection and reporting tools at all levels, regular updates to review and enhance tools while re-orientating staff on them.
5. Provide training and mentorship in Monitoring and evaluation including regular updates focusing on data collection, analysis and use of data to field staff to improve their capacity in data quality assurance.
6. Provide technical support to assist field staff develop good data storage at their level and at all service delivery points.

Data Quality Assurance has the value of enabling better decision-making based on data that is:

* Accurate
* Consistent
* Complete
* Timely

**Q5:** In about 350 words, describe the main challenges to effective data interpretation and analysis. (10 mrsk)

**1) Correlation mistaken for causation:** our first misinterpretation of data refers to the tendency of data analysts to mix the cause of a phenomenon with correlation. It is the assumption that because two actions occurred together, one caused the other. This is not accurate as actions can occur together absent a cause and effect relationship.

* Digital age example:assuming that increased revenue is the result of increased social media followers… there might a definitive correlation between the two, especially with today’s multi-channel purchasing experiences. But, that does not mean an increase in followers is the direct cause of increased revenue. There could be both a common cause or an indirect causality.
* Remedy: attempt to eliminate the variable you believe to be causing the phenomenon.

**2) Confirmation bias:**our second data interpretation problem occurs when you have a theory or hypothesis in mind, but are intent on only discovering data patterns that provide support, while rejecting those that do not.

* Digital age example: your boss asks you to analyze the success of a recent multi-platform social media marketing campaign. While analyzing the potential data variables from the campaign (one that you ran and believe performed well.
* Remedy:as this pitfall is often based on subjective desires, one remedy would be to analyze data with a team of objective individuals.

**3) Irrelevant data:** the third and final data misinterpretation pitfall is especially important in the digital age. As large data is no longer centrally stored, and as it continues to be analyzed at the speed of thought, it is inevitable that analysts will focus on data that is irrelevant to the problem they are trying to correct.

* Digital age example:in attempting to gauge the success of an email lead generation campaign, you notice that the number of homepage views directly resulting from the campaign increased, but the number of monthly newsletter subscribers did not. Based on the number of homepage views, you decide the campaign was a success when really it generated zero leads.
* Remedy:proactively and clearly frame any data analysis variables and KPIs prior to engaging in a data review. If the metric you are using to measure the success of a lead generation campaign is newsletter subscribers, there is no need to review the number of homepage visits.

**Bibliography**

1. <https://www.questionpro.com/blog/data-collection/>
2. **Strategia Netherlads – Module 5course**

1. <https://www.questionpro.com/blog/data-collection/> [↑](#footnote-ref-1)
2. Strategia Netherlands – Module5 Course [↑](#footnote-ref-2)
3. Strategia Netherlands – Module5 Course [↑](#footnote-ref-3)