**Institution: Africa Centre for Project Management**

**Course: PGD001 - Post Graduate Diploma in Monitoring & Evaluation**

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**Module 5 Assignment**

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

Data collection is any process whose purpose is to acquire or assist in the acquisition of data. Collection is achieved by requesting and obtaining pertinent data from individuals or organizations via an appropriate vehicle. The data is either provided directly by the respondent (self-enumeration) or via an interviewer. Collection also includes the extraction of information from administrative sources or secondary sources which may require asking the respondent permission to link to administrative records. Data could be collected through self-enumeration, telephone interviews or personal interviews with either a paper or an electronic questionnaire (e.g. electronic data reporting, Internet, computer-assisted interviewing). (Bethlehem, J., Cobben, B., 2008)

Data capture refers to any process that converts the information provided by a respondent into electronic format. This conversion is either automated or involves staff keying the collected data (keyers). Data coding is any process that assigns a numerical value to a response. Coding is often automated; however, more complex decisions usually require human intervention (coders). (Laflamme F., 2008)

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

Data analysis and interpretation helps improve processes and identify problems. It is difficult to grow and make dependable improvements without, at the very least, minimal data collection and interpretation. Correctly interpreting data results in:

1) Informed decision-making: A decision is only as good as the knowledge that formed it. Informed data decision making has the potential to set industry leaders apart from the rest of the market pack. Most decisive actions will arise only after a problem has been identified or a goal defined.

2) Anticipating needs with trends identification: data insights provide knowledge, and knowledge is power. The insights obtained from market and consumer data analyses have the ability to set trends for peers within similar market segments.

Data gathering and interpretation processes can allow for industry-wide climate prediction and result in greater revenue streams across the market. For this reason, all institutions should follow the basic data cycle of collection, interpretation, decision making and monitoring.

3) Cost efficiency: Proper implementation of data analysis processes can provide businesses with profound cost advantages within their industries.

4) Clear foresight: companies that collect and analyze their data gain better knowledge about themselves, their processes and performance. They can identify performance challenges when they arise and take action to overcome them. Data interpretation through visual representations lets them process their findings faster and make better-informed decisions on the future of the company.(Mona, 2018)

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

Data in and of itself will not provide any meaning unless it can be delivered in a proper way. To achieve this the main concerns for the data analyst are as follows:

a)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.

If the data does not provide meaning to the analyst, then it cannot be converted into information to an audience. Make sure that the data in use will provide the needed results.

b) Is the data measurable? -It can be said that the first step to success is defining an objective. Data analysis requires objective measurable facts. Without concrete measurable data the analyst will not be able to see whether success is achievable. Make sure the data can be defined and quantified.

c) Is the data transformable? -The data analyst needs to be fluent in the important tools of the information age.

Proper tools will allow the analyst to sift through data quickly and achieve the desirable results.

Proper data transformation will lead to meaningful information for the analyst's audience.

d) Is the data beneficial? -This is probably the most important question to ask in data analysis.

In other words, is the data analysis presenting itself in a meaningful way to its intended audience?

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

The value of data quality assurance is to get high quality data that leads to high quality decision-making on project performance. The following are some of the key measures to ensure data quality

i)Increasing the HR capacity both at Coordination and field levels, for the M&E functions

ii)Strengthen national mechanisms on data quality through supportive supervision

iii)Establish an electronic/ web based data capturing, reporting and management system that will help to minimize on data errors.

iv)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.

v)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.

vi)Provide technical support to assist field staff develop good data storage at their level and at all service delivery points

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

With today’s data-driven organizations and the introduction of big data, analysts are often overwhelmed with the amount of data that is collected. With so much data available, it’s difficult to dig down and access the insights that are needed most. When employees are overwhelmed, they may not fully analyze data or only focus on the measures that are easiest to collect instead of those that truly add value. In addition, if an employee has to manually sift through data, it can be impossible to gain real-time insights on what is currently happening. Outdated data can have significant negative impacts on decision-making.

To be understood and impactful, data often needs to be visually presented in graphs or charts. While these tools are incredibly useful, it’s difficult to build them manually. Taking the time to pull information from multiple areas and put it into a reporting tool is frustrating and time-consuming.

The next issue is trying to analyze data across multiple, disjointed sources. Different pieces of data are often housed in different systems. Analysts may not always realize this, leading to incomplete or inaccurate analysis. Manually combining data is time-consuming and can limit insights to what is easily viewed.

Moving data into one centralized system has little impact if it is not easily accessible to the people that need it. Decision-makers need access to all of an organization’s data for insights on what is happening at any given moment, even if they are working off-site. Accessing information should be the easiest part of data analytics.

Nothing is more harmful to data analytics than inaccurate data. Without good input, output will be unreliable. A key cause of inaccurate data is manual errors made during data entry. This can lead to significant negative consequences if the analysis is used to influence decisions.

Some organizations struggle with analysis due to a lack of talent. This is especially true in those without formal statistic departments. Employees may not have the knowledge or capability to run in-depth data analysis.

Finally, analytics can be hard to scale as an organization and the amount of data it collects grows. Collecting information and creating reports becomes increasingly complex. A system that can grow with the organization is crucial to manage this issue. (Rebecca W.,2018)

**References**

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