**Data Collection**

**merits, limitations and pitfalls of approaches to data collection and analysis.**

**Introduction -**

* This report will examine the merits, limitations and pitfalls of approaches to data collection and analysis as part of the research process. It will also talk about the limitations and pitfalls of primary and secondary research.

**Data Collection -**

It is the process of gathering data or information which can be used for further processing and can be acquired by a number of ways. It can be in the form of Questionnaires, Forms, Online articles, Books, Commercial media, etc.

**Research used in this research -**

This report will cover the types of research methods that are used in conducting a research with the help of different methods.

**Primary Research :**

This research method involves first hand collection of data by an individual for analysis, study, research, or documentation of the collected information.

**Merits of Primary Research -**

Primary research can be a really effective way of using resources to perform research. The advantages and pros of primary research methods which will be covered and be discussed below -

**Information Advantage -**

The information that is collected after conducting a primary research is for the researcher to keep as it is first hand from the participants and not taken from another source. This data is for the researcher to use and conduct further research on the topic of interest. Since the data is collected first hand by the researcher, it allows for a ‘information advantage’ for the researcher.

**Efficiency of information -**

It helps to focus all the resources on a specific area and get as much data that is needed to perform research. It collects data which identifies specific issues based on the topic you have at hand. With the proper tools and techniques used in performing the research the efficiency of collecting information increases. It is more efficient and gets the data which is necessary for the research and does not collect unnecessary data.

**Better Control -**

With all the data that is collected there is greater control over what information is collected and which is discarded from the vast array of responses from the research performed. By performing primary research the researcher has greater control over their surrounding and gets first hand data which would otherwise be inaccurate.

**Gathers Specific research -**

Since information gathered is based on a specific topic of interest it can use Google Forms is really convenient as it can collect data over the internet without having to go place to place, and gather as much data with a click of a button. Questionnaires help to get first hand data which could be beneficial to the researcher.

**Limitations of Primary Research -**

Primary research can not always be the best way to go about doing the research.The limitations and cons of Primary research will be covered in this section discussing those points below -

**Not always Possible -**

It is not possible to interview each and every person and get their feedback as it requires an insufficient amount of resources to go about performing those research. Questionnaires can be lengthy and the participant may not have time to go through each and every question at once.

**Time Consuming -**

As collecting first hand data using primary research methods, it would take up massive amounts of time giving out questionnaires and forms and waiting for a reply from the participants would not be efficient in carrying out the research if there is a deadline which needs to be met.

**Cost -**

It can also be expensive to conduct primary research as resources used to conduct research can cost more to invest into, rather than get data which has already been collected by someone else which can cut cost and increase efficiency of the research.

**Pitfalls of Primary Research -**

Primary research is not always perfect in the way it collects data from the participants, it could collect information in various ways which may not be idle for the participants involved. Here are some common issues that are faced by the researcher that will be discussed against primary research methods -

**Reported Results -**

The participants may approach their survey with a light minded and positive nature which in reality may be otherwise. These stereotypes can affect the responses that the participant may actually want to say. The participant may want to make themselves look more presentable than they are and not show their true colour out to the public.

**Data Validation -**

The information provided by the participants might not be accurate as they may give silly responses as they may not take the research seriously and mess around with their responses. These responses should not be considered in the overall result of the research as it may affect the way other responses in the research. This is not idle as that particular response may be valid but is affected by the foolish nature it is approached by.

**Other related Factors -**

While conducting the research there may be other related factors that may affect the outcome of the research. It may be the specific demographic of people that have a belief, or the environment that they live in, the social differences that they may have that influences their decisions they make in their answers which can impact the overall results of the research.

**Similar results are not influenced -**

The results of a survey that have a similarity does not imply that the participants have been through the same situations. As a result they may have completely different opinions on thoughts and may have just this one thing in common. This does not mean that they are close to each other or related to each other in any way to come to the same decision.

**Survey Biased -**

The researcher may have a certain bias on the topic of interest they perform their research or may have their own opinion on the research. This could affect the outcome of the research as the researcher puts their own thoughts on the survey and manipulates the participants into making their choices in the survey.

**Results are too Generalized -**

When performing a research it is most likely that the data collected can be based on a limited amount of research conducted which could follow a particular trend at the time or follow a specific pattern to come to a conclusion for the research. Most research is generalised as companies don’t do research over a longer period of time and assume or predict the outcome of the research.

**Secondary Research :**

This research method involves second hand collection of data by an individual for analysis, study, research, or documentation of the collected information.

**Merits of secondary research -**

Secondary research can be a really effective way of using resources to perform research. The advantages and pros of secondary research methods which will be covered and be discussed below -

**Difficulties in Collecting Data -**

The previous researcher who conducted the research may have specified that they must have collected their data, have mentioned the difficulties in acquiring the data. This could be a great way to inform other researchers on how to go about performing their research and what to keep in mind before proceeding with the research.

**Answers Question -**

It may answer questions that the researcher may have had before, with help of secondary research methods it may have given the researcher an overview of the research and may have helped the researcher to come to a conclusion on specific obstacles faced in performing the research.

**Clarification of Questions -**

It helps clarify any questions the researcher is facing as the process of learning never stops. This can be an insight into what was not heard about at first and was clarified by other research conducted by others in the field. It helps larger scale research which helps develop a broader view of the topic and adds more to it when it is used by other researchers in the field.

**Cost less to obtain data -**

It costs less to get secondary research data as it requires less resources than compared to primary research. It makes it more appealing to researchers to obtain secondary research data with ease and not to spend over a massive amount of resources on the research.

**Easier Access of Information -**

Now a day technology has evolved where we could just get information by just looking it up online and finding numerous amounts of research already conducted and recorded on websites which makes it easier to gather information from them and have an overall view of the research. This immensely benefits the researchers in moving forward in their overall result.

**Limitations of secondary research -**

Secondary research can not always be the best way to go about doing the research.The limitations and cons of Secondary research will be covered in this section discussing those points below -

**No Information Advantage -**

Secondary research data may hold charges or may be free to use, depending on the researcher. It does not give the researcher an edge over others as it can be gathered easily by anyone. It also does not make the data very important as it may not be required by other researchers conducting their research.

**Out of Date data -**

Secondary data is not always up to date and can not be reliable. It may be conducted years back and may have been abandoned by the researcher. It holds no value in current times and is just a part of the history records in the past detailing in that period of time.

**Information is Incomplete -**

The secondary data the researcher gathered may not be complete, or may have missing data in the research. It may be a small scale research the researcher may have conducted, which may have resulted in incomplete data. It may also be a sample research conducted which may not have all the data.

**Insufficient Information -**

Secondary research may not provide sufficient resources required for the researcher to carry out their research. In fact the research might have to spend a lot more time to gather the required information that is needed for the research to move forward.

**Researchers Requirements -**

Secondary research may provide data based on the topic but it may not be what the researcher intended to use. It may be out of context and not at all related to the research which the researcher is performing at the moment. This could affect the way the researcher conducts their research and will have to resort to other ways to acquire information.

**Researcher Quality -**

While performing research using secondary data may not be the best as the researcher may vary based on other demographics and may be incorrect to be used in the research at hand. This may be an invalid data which may not have been updated for years and is not valid in the current environment of where the research is performed.

**Pitfalls of secondary research -**

Secondary research is not always perfect in the way it collects data from the participants, it could collect information in various ways which may not be idle for the participants involved. Here are some common issues that are faced by the researcher that will be discussed against secondary research methods -

**Biased Responses -**

The participants may be biased to the questions in the survey, this could affect the overall result of the research as they lean towards their thoughts and beliefs which could manipulate the researcher into coming to a wrong conclusion using these manipulated data.

**Quality Control -**

The quality of the secondary data can’t be controlled and hence it would not always be reliable for the researcher to use in their research. It makes it difficult to control the quality of the information for the researcher.

**Inappropriate Data -**

The data may contain some inappropriate responses by the participants, but this may not be their fault as they truly stand by their response. This leads to the research being compromised and the researcher in a conflicted weather to include the information into their research.

**Outdated Data -**

The secondary data collected is outdated and may not be updated frequently. It is not idle for the researcher to use it in their research. They may have to resort to other means of research methods.

**Researcher Quality -**

The quality of the secondary data is essential as it determines the outcome quality of the research. It makes or breaks the end result of the research which may end up poor or up to standard.

**Incomplete Information -**

The information can be incomplete which may be due to it being a sample survey for a smaller research conducted. It is not useful for the researcher to go ahead with the data. This further makes the process more tedious.

**Not Specific to the topic -**

The secondary information may not be related to the topic the researcher is conducting. It can change the outcome of the research as other data may get mixed up into the current research.

**Conclusion -**

In conclusion, this report examines the merits, limitations and pitfalls of approaches to data collection and analysis as part of the research process. It also talks about the limitations and pitfalls of primary and secondary research.

**Resources -**

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