

Definitions available  
for quantitative  
research given by  
different authors



There are many definitions available for quantitative research given by different authors. Aliaga and Gunderson (2002) have described the quantitative research methods very well. According to them “ Quantitative research is an inquiry into a social problem, explain phenomena by gathering numerical data that are analysed using mathematically based methods e. g. in particular statistics”. According to the Creswell (2003) researcher primarily uses post-positivist approach to develop knowledge when quantitative research is selected (i. e cause and effect thinking, use of measurement and observations, and test of theories), employs strategies of inquiry such as experiments and surveys, and collects data on predetermined instruments that yield statistical data.

## **Qualitative Research**

Bryman and Bell (2007) stated that qualitative research is a research strategy that indicates the relationship between theory and research and usually emphasizes on how theories were generated. As a research strategy qualitative research is inductivist, constructionist, and interpretivist, but qualitative researchers always don't subscribe to all three of these methods.

Quantitative research is adopted as a research strategy for this dissertation. Quantitative research method is adopted because it allows the researcher to get the facts and not abstract about the aim of dissertation (Bryman and Bell, 2007). According to Matthews & Ross (2010) quantitative research methods are basically applied to the collection of data that is structured and which could be represented numerically. Generally quantitative data is collected when researcher has adopted the positivist epistemological approach and data is collected that can be scientifically analysed.

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Fellows and liu (2008) said that quantitative research methods are typically adopted because they are scientific methods and provide immediate results. Other reason for selecting this approach is that it is more efficient, can test hypothesis and always aimed at clarifying features, count them and build statistical models to explain what is observed during research. In contrast qualitative research is mostly used in disciplines where focus is on explanation and description such as sociology, social anthropology and psychology rather than on predictions (Hakim 2000).

Furthermore Berg (2004) argued that quantitative research is usually given more respect and acceptance reflecting the tendency of general public to regard science as it uses scientific methods and implying precisions. In comparison qualitative research requires greater time, more clarity of goals during setting the research design, and cannot be measured or analysed by using computer programmes. Many authors say that qualitative research methods and analytic strategies can't be associated with high tech society in the ways quantitative research technique could be.

### **Approach to data and research epistemology**

The choice of research method is influenced by my epistemological stance: positivist which implies a cause- effect approach based on measurements (Bryman and Bell, 2007). Cameron and Price (2009) stated that the choice of data collection approach is always influenced by the individual's philosophical preferences. According to Remenyi and williams (1992: 32) if the research philosophy reflects the principles of positivism then the researcher will probably adopt the philosophical stance of natural scientist, prefer working with observable social reality and the end product of such <https://assignbuster.com/definitions-available-for-quantitative-research-given-by-different-authors/>

research can be law-like generalization similar to those produced by the physical and natural scientists. Gill and Johnson (2010) argued that under the dimension of positivism researcher assume the role of an objective analyst, making detached interpretations about those data that have been collected in a value free manner.

Survey methodology will be used to collect data for the purpose of this research as the work of Saunders (2003) has been very valuable in orienting the choice of data collection method for this study. Zikmund (2003) defined survey as a method of gathering primary data based on communication with a representative sample of individuals. Usually the type of information gathered in surveys varies considerably, depending on a survey's objectives and typically survey investigations attempt to describe what is happening and reasons for particular business activity. The aim of this research is to evaluate the consumer attitude towards internet banking and according to Saunders, Lewis and Thornhill (2003) survey methodology is the best way to measure attitudes and to describe behavioural patterns.

Due to time constraints and lack of finances only survey methodology will be used to collect data.

According to Groves, Flower and Couper (2003) from more than past 25 years survey methodologies have established many new methods of collecting survey data like self administered questionnaires, personal interviews, door to door interviews, telephone interviews etc., but To collect data in relation to the dissertation question; “ Impacts of internet on banking industry in UK by analysing the consumer attitude towards it in Preston”

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questionnaires will be used to collect data as used by academics like Oppenheim (2000). The main reason for choosing the questionnaires as the predominant research method is because questionnaires are a practical way of collecting a large quantity of first-hand primary data. The benefit of collecting data through questionnaire is that data will be up-to-date. Academics such as Pikkarainen et al (2004) conducted 427 questionnaire which were delivered to respondent by post in which 268 were returned showing 63% response rate. This shows questionnaires are a good research method to employ when gathering a large amount of data.

Another advantage of using questionnaire as a data collection method is they are a safe way of gathering data as they require a little involvement from the researcher. They are less dangerous to carry out than other research methods such as participant observation as the exchange is briefer and carried out in a safe, public environment. Furthermore questionnaire enables hypotheses to be tested, correlations to be identified and straight forward descriptive data to be obtained (Bryman and Bell, 2007).

Selltiz et al (1981) argued that questionnaires are convenient for the respondent to complete, cheap and are a relatively easy research method to implement when gathering first hand primary data.

However there are certain drawbacks of using questionnaires as a research method. How questions are simply worded can be crucial in the responses that are obtained. Sometimes questions can be ambiguous and as a result respondents can interpret them differently. Respondents may not understand what is being asked of them consequently resulting in inaccurate

and invalid data (Bryman and Bell, 2007). Furthermore, bias may be present in the words used by the researcher e. g. loaded terms thus the validity of the data gathered can be questioned.

Another drawback of using questionnaires as research methods in general is that respondents may not answer questions truthfully. They may just respond with what they think the researcher wants to hear. Others may lie to conceal their true responses or for impression management. Thus the validity and accuracy of the data obtained from this research method may be debatable.

Furthermore, Bryman and Bell (2007) argued that in some questionnaires the responses the participants may want to give may not be provided or may not accurately describe their internet banking habits. Thus it can be difficult to test a hypothesis and make inferences about the general population.

In this proposal, 80 questionnaires will be distributed. The reason for choosing this sample size is due to time constraints in data collection and data analysis. In this research one could argue is a sample size of 80 sufficient to draw conclusions from? However, even though the sample size is just 80, the intention is to gain representative data of the Preston population at large. If more time, finance and resources were available may be a larger sample could have been sought to represent UK.

All respondents will be selected at random with a view to gather representative data of the population from which generalisations can be made. Dillman (2000) argues that by this process a wide range of opinions can be achieved. Half the questionnaires will be aimed at random male  
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respondents and the other half at random female respondents so that conclusions can be drawn regarding gender and internet banking habits.

A criticism however of conducting the research in this manner is depending upon the day and time it is conducted could result in different responses being obtained. Therefore in order to gain a more valid insight into consumer internet banking habits, the questionnaire will be conducted at different times throughout the day e. g. 5 in the morning, 5 at lunchtime and 5 in the evening.

The questionnaire will comprise of 10 questions and the type of questions that will be used in the questionnaire will consist of both open and closed-ended questions. (Refer to Appendix 1). The questionnaires are being structured in this manner so that the strengths of one questioning technique balance out the weaknesses in the other. Grummitt (1980) specifically used open ended questions in his research because the data generated from them was useful and insightful. By following Grummit's method and using open ended questions will allow the respondents the opportunity to elaborate and express their own opinions and views. Also using this questioning technique will result in responses with greater validity and in-depth detail. Further, by using open ended questions in the questionnaire it will allow qualitative data to be obtained which will identify and explore the respondents' opinions and behaviours in relation to online banking.

Despite the benefits of using open ended questions, there are however some drawbacks to consider. DeVaus (2002) says the responses can be time-consuming to analyse and sometimes respondents can go off subject with

irrelevant information. Furthermore, some respondents can be daunted and may miss out questions thus resulting in missing data. Also responses can be ambiguous and difficult to quantify. Therefore due to varying responses it could be difficult to form definitive conclusions from open-ended questionnaire responses.

In using closed-ended questions respondents can simply tick or cross in a box to indicate their responses thus data can be collected relatively easily with little time and effort. Using this questioning technique in the questionnaire will generate quantitative data which could then easily be illustrated in graphs to identify any patterns or trends and make comparisons in consumer behaviour. Also with closed-ended questions responses can be interpreted and quantified quickly as respondents are given a range of options to choose from. Consequently, the use of closed-ended questions will result in responses of greater reliability as mentioned by Marshall and Rossman (1999), as respondents will be able to simply indicate their responses from pre-determined answers.

However the drawbacks of using closed-ended questions is that they do not allow the respondents to explore and develop their responses, thus resulting in difficulties in measuring what is exactly being said by the respondents.

Also the responses lack rich in-depth detail because respondents are restricted in their answers and cannot justify their responses. Furthermore vital information can be missed out as the answers the respondents want to give may not be provided in the list.



As a result of the benefits and drawbacks of each question type, a combination will be used. By doing this, data will be generated that is both reliable and valid and will enable conclusions to be drawn.

Appendix 1 shows the layout and structure of the questionnaire. By constructing the ten questions in this manner will allow us to gather the necessary data in order to gain a better understanding of online banking. The first question is designed to enable us to identify if there are any gender differences with online banking habits. Questions three and four will establish how popular internet banking actually is and how often customers use this service; this will indicate how loyal the respondents are towards this service. Questions six and seven will identify how confident respondents are in using internet banking and if they have ever been a victim of online fraud. Question eight should show how satisfied and easy internet banking is for respondents to use. Question nine will help us to establish respondents' preferences with banking online, and finally question ten will help to identify and understand the likelihood of changing consumer banking habits in the future.