

Final Project

**Impact of Social Media on Academic
Performance**

Chapter 3

Research Methodology

Student Name: Abdullah badawood

ID NUMBER: 233000635

Course: PMG 497

Instructor: DR.ABDUALRAHIM NADER

Chapter 3: Research Methodology

3.1 Introduction

The next part of this chapter will explain how the study into the effects of social media on academic performance was conducted. This includes explanations of the operational definitions of each of the research variables; an outline of the whole research design using Saunders' 'research onion'; the target population and the sampling procedure; details about the method of gathering primary data; details of the types of data that have been used; and details about the type(s) of statistical procedures that have been used to analyze the data. The purpose of this chapter is to demonstrate that the methodology used in this study has provided suitable ways of providing answers to the research questions and hypotheses outlined in Chapter 1.

3.2 Operational Definitions for Research Variables

There are two research variables, i.e. one independent variable and one dependent variable. Both variables are defined theoretically and then operationally so that each can be measured via a questionnaire.

- **Social media use (independent variable):** how much students use social media e.g. Facebook, Instagram, TikTok, Snapchat etc. Social media use is operationally defined by the amount of time a student spends using these platforms per day, frequency of use, and whether or not a student uses social media while doing homework or studying.
- **Academic performance (dependent variable):** students' ability to complete school work effectively. This is also referred to as students' study effectiveness. Academic performance is operationally defined by students reporting their own grade point averages (GPA); whether or not social media affects the amount of time they spend doing school work; and how well they think their grades are influenced by their social media use.

All of the above mentioned variables were measured using closed-ended questions, specifically a five-point Likert scale (1 = strongly disagree to 5 = strongly agree) allowing for the results to be analyzed using quantitative techniques.

3.3 Research Design (Saunders' Research Onion)

The research design for this study followed the layers of Saunders' "research onion", starting with the outermost philosophical layer and working inward toward the innermost data-gathering layer:

- **Philosophy – positivist:** the study assumed there exists an objective reality that can be measured numerically and statistically tested.

- **Approach – deductive:** the study began with previously established theory and hypotheses (see Chapter 1) and tested those theories/hypotheses based on the data collected.
- **Choice of methodology – single quantitative instrument (mono-method quantitative):** only one quantitative tool (a standardized questionnaire) was employed.
- **Strategy – survey:** a Survey was deemed to be the best method of obtaining standardized data from a large number of students.
- **Horizon – cross-sectional:** data was collected at one point in time as opposed to over several years.
- **techniques and procedures:** data was collected via a questionnaire and analyzed using both descriptive and inferential statistics in SPSS/Excel.

3.4 Target Population, Sampling Methods and Techniques

University students represent the target population for this study because they are the largest group affected by both social media use and academic requirements. Due to budget constraints and feasibility, it was impossible to collect survey data from all students. Therefore, a representative sample of the population was created.

- Population: undergraduate university students.
- sampling method - random sampling technique: every undergraduate university student had an equal opportunity to be included in the study resulting in reduced bias and improved generalization potential. (Convenience sampling could be identified as an alternative method to randomly select samples if questionnaires were sent out electronically).
- sample size: a total sample size of 150 students was intended which is sufficient for conducting correlation/regression analyses planned for this study.

3.5 Data Collection Method

A self-administered questionnaire (appendix Chapter 1) represented the primary means of collecting primary data for this study. The electronic version of the questionnaire was created using a google form making it easier to contact many students simultaneously and exporting responses directly to enable data analysis. Questions in the questionnaire asked for demographic data (age, gender, year in college) followed by closed-ended questions using a five-point Likert scale assessing social media use and academic performance. An introductory statement assured respondents that participation in responding to the questionnaire was voluntary, that their responses would be anonymous, and used solely for academic purposes.

3.6 Types of Data

- **Primary data:** responses from the questionnaire completed by students represent primary data and make up the majority of the data used in this study.
- **Secondary data:** information obtained from prior studies; academic journals/books (primarily used in the literature review) provide a foundation for comparing findings.

In summary, the study utilizes primarily quantitative data, enabling researchers to measure the relationship between social media usage and academic performance statistically.

3.7 Research Methods for Statistical Analysis

All the data gathered were encoded and analyzed using SPSS (backed by Microsoft Excel) with the help of the following methods:

- **Reliability analysis:** Cronbach's alpha was determined in order to confirm that all the scales of the questionnaire have an acceptable internal consistency.
- **Descriptive statistics:** frequency, percentage, mean and SD have been used in order to characterize the sample and the variables investigated in this work.
- **Correlational analysis:** Pearson's r has been used to determine whether there is a relationship (positive, negative, strong or weak) between social media use and academic performance.
- **Regression analysis:** simple linear regression has been used to calculate how much social media use can predict academic performance.
- **Hypotheses testing:** the results of the correlational and regression analyses will be used to accept or reject the null hypothesis at a confidence level of 0.05.

3.8 Conclusion

In this chapter, the methodology used to evaluate the effect of social media on academic performance was presented. This study adopted a positivist, deductive, quantitative methodology; it consists of a cross-sectional survey of 150 university students randomly sampled. All the data were collected with the aid of a structured questionnaire and analyzed with reliability, descriptive, correlational and regression methods. The next chapter presents and discusses the results achieved using this methodology.