**CHAPTER THREE: METHODOLOGY**

**3.1 Research Design**

This study adopted a quantitative research design to investigate the factors which influence the choice of hostels among undergraduate students at Kwame Nkrumah University of Science and Technology. We selected a quantitative approach to research because of its ability to statistically prove the occurrence of the problem. By collecting and analyzing data, researchers can easily identify patterns, relationships, very important features and statistical variables related to housing decisions that present the problem.

The study is grounded in the **push-pull theoretical framework**. From Chapter 2, there was an emphasis in existing literature on the push and pull factors which influences students’ hostel preferences namely: Cost, Proximity, Social Environment and Security. This made grounds for us to base the study on this theoretical framework, follow a quantitative approach to collect and analyze data, and lastly develop a hypothesis to prove whether these factors influence students’ preferences in the university.

The major question that came up when we decided to develop questionnaires to guide the research was:  
*“Do push and pull factors significantly influence student housing choices at KNUST, or are other factors more influential?”*

Given that the study is grounded in the push-pull theoretical framework, this question became inevitable to ask and therefore is the research question that guides the study.

We also decided to use a structured approach in setting our questionnaires for this research since it allows for the collection of reliable and well generalized data that can inform institutional policies and private investment strategies in student housing at the university.

**3.2 Data Collection**

**3.2.1 Target Population**

This study focuses on only undergraduate students currently enrolled in KNUST, across all levels of study and academic disciplines. We decided to include all undergraduate students regardless of academic disciplines and levels of study to capture the diverse range of students, reflecting the varied backgrounds and socioeconomic realities they come from. By doing so, we aimed to get a complete picture of what students need and want from their housing, as well as the challenges they face.

**3.2.2 Sampling Technique**

The sampling technique used for this research is the **stratified random sampling** method to ensure balanced representation from various strata such as gender, year of study, and faculty. Stratification enhanced the accuracy of the results by ensuring that subgroups were proportionally represented.

**3.2.3 Sample Size Determination**

Currently, there are six (6) colleges and twenty-four (24) faculties. Using **Cochran’s formula**, a standard for determining appropriate sample sizes in large populations, the researchers calculated a minimum requirement of **380 respondents** for a 95% confidence level and a 5% margin of error. This was increased to **400 students** to account for non-responses or invalid entries.