CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

This chapter will discuss in detail the process of manufacturing OPF cement sand brick. There are one ratio of plain cement sand brick (standard control brick) and three different ratio of OPF used in manufacturing of cement sand brick. All the brick were prepared for compression test, density test and water absorption test. All the OPF cement sand brick specimen will compare with plain cement sand brick (standard control brick).
3.2 CONCEPTUAL FRAMEWORK OF RESEARCH

Figure 3.1: Conceptual framework of research
3.3  MATERIALS USED

In order to make OPF cement sand brick, it is consist of Ordinary Portland cement, sand, OPF and plain water.

3.3.1  Ordinary Portland cement

Ordinary Portland cement is the most common important materials used and one of the primarily material to manufacturing OPF cement sand brick and plain cement sand brick. The Ordinary Portland cement used was type I Portland cement as followed the ASTM C150 (2005).

3.3.2  Fine Aggregate

Fine aggregate used for manufacturing of OPF cement sand brick is river sand. River sand is used in manufacturing of OPF cement sand brick and plain cement sand brick (standard control brick).

3.3.3  Oil Palm Frond (OPF)

The OPF was used in this research collected from Bandar Tasik Puteri Rawang, Selangor Darul Ehsan. Before all the fresh OPF being used, all the fresh OPF was cut into smaller size using a cutter into a small piece around 2-3 cm in length. Then, all fresh OPF is dried under the sun. Figure 3.2 shown the various shapes of OPF after dry process.