Chapter 2: Objectives

Before moving ahead with any analysis, it is important to define the objectives as precisely as possible. Clearly defined objectives are achievable through carefully chosen methodologies. In the previous chapter the rationale has been explained in details. In this chapter, the objectives of the research will be explained at a micro level by defining broad research problem and broad research framework.

2.1. Broad Research Problem
Broadly speaking, the current study is, in essence, an exploratory study where the focus was kept at building a framework which could extract some meaningful insights from consumer reviews. As explained in earlier sections, significant amount of consumer data are lying in various web sites in the form of texts. Mining all these texts is a very complicated, memory intensive task. Hence, it was required to focus on a much smaller subset of that large data dump in the internet. For choosing a subset, some careful thought process went into the study.

Marketers often need to take quick decisions on those products whose product life cycle is short. In other words, quick decisions are to be taken for those products which get obsolete very quickly. The pressure on managers to take critical decisions varies considerably before and after the saturation point of a typical product life cycle curve (90). If a product gets obsolete, it doesn't generate any revenue stream and the organization need to put forward new products in place of the old product to stay relevant in the market. However, before launching a new product, it is always a good idea to understand the trend and likings of consumers in that market and for that some sort of market research is required. However, products can also be launched without doing any market research. Particularly, if an organization follows “Me too” type strategy, it might not go for expensive market surveys. Rather, it might choose to produce those products which market leaders are producing. Such strategies could be helpful in those markets where entry barriers (91, 92) are relatively low. Particularly, for generic products, such strategies could be useful. But, a similar trend could be found in electronic goods which are manufactured by assembling parts which are supplied by
different suppliers. In India, if the electronic markets are observed closely, LCD TV could be one such example where there are many players in the market competing with each other. Just a decade ago, Micromax and Intex were not there in this segment but now, they have also come up with their products to compete with leading brands like Sony, Samsung and LG. Thinking along the same line, it would be seen that mobile phones, smart phones to be a little bit more specific, are produced by several firms at different price ranges. In fact, competition is very high in smart phone markets and it is seen that new models are being launched at short interval of time. It is the shortage of time that could restrict the decision makers to go for detailed market survey prior to launching the next phone. Prudent managers might find it better to start their market analysis much earlier to offset the shortage of time before launching a new mobile. But the need was felt to extract some information from the consumer reviews available in various review sites so that, prior to running detailed market survey, at least some critical information were collected for own product and for competitive product as well on the basis of various consumer reviews. That is why, in this study, mobile phone reviews were taken into consideration for analysis. Text mining approaches were used through and through in this study to explore the reviews in a very scientific manner so that meaningful insights could be found out objectively. The reasons for choosing this topic can be summarized using the following bullet points.

- Customer perceptions and behaviors are important and they are required to be analyzed quickly for several modern products having short product life cycle.
- Continuous monitoring of changes in taste and preferences is essential and that can be done effectively through web based information such as consumer reviews/ social media interactions
- But decoding market structure information from unstructured textual data posses significant challenges on the analyst
- The current study addresses such issues by providing an analysis framework keeping the focus on the consumer reviews pertaining to smart phone market in India.
2.2. Broad Research Framework

Being a data mining process from texts, it was essential to frame a proper work flow process to mine the reviews in the most methodical and meaningful way. Texts can be analyzed in different ways. In one form the text is fed into the system as is and the texts are analyzed based on sequential occurrence of texts. In another way, for different set of analyses, texts could be broken down to their atomic forms, i.e. words. The analyses are different in these two procedures and both the procedures were adopted to analyze the reviews. The sequence of analyses which were done is shown in Figure 2.1.

![Figure 2.1. Broad process flow diagram for review analysis](image)

Since text mining cannot be an entirely objective analysis, provisions for subjective judgments were also kept within this framework. Subjective judgments are needed during context specific analysis. For example, words which are relevant in the context of mobile phones might not be relevant in the context of television or books. That is why, text analysis cannot be done entirely in an automated way to extract key insights. As depicted in Figure 2.1, the analysis process starts from data preprocessing and it took considerable amount of time since the reviews were required to be cleaned prior to including into the subsequent analysis process. The framework shows the process flow diagram in a broader sense to do consumer review analysis which is in-line with market research for assisting decision makers to make informed decision regarding their marketing strategies or tactics.