

3. Research Methodology

This study is an exploratory research. It is mainly based on qualitative procedures. Secondary data is used in this study as some useful figures are already collected by industry analysts and published on trade magazines. For instance, key statistics that indicate the profitability of the industry are the subscriber count and Average Revenue Per User (ARPU), which are reported in some trade magazines. It is much easier to collect and analyse these data than to collect and tabulate industry wide statistics, especially when we consider the time and resource constraint of the project.

A major source of data comes from industry magazines and books. Two of the industry magazines that data was obtained from are *ASIAcom*, a business newsletter of Asian telecoms, Internet, cable and satellite TV; and *Global Mobile*, an international business newsletter of mobile communications markets. As for books, both technical and business references are used – technical books have details on technology and standards (e.g. the GSM technology and MoU document), while business references are used in literature review and analysis.

Other sources of data are online resources and newspaper articles. The website of service providers and vendors are listed below:

Maxis: www.maxis.com.my

DiGi: www.digi.com.my

Celcom: www.celcom.com.my

TM Cellular: www.tmtouch.com.my

Time dotCom: www.time.com.my

Telekom Malaysia: www.telekom.com.my

Nokia: www.nokia.com

In carrying out this research, the following technique is used or referenced, though the sequence was not followed strictly at all times (Brent):

- i. Recording of data for future reference
- ii. Storage of data, e.g. in a system of file folders
- iii. Concept formation and topology construction – look for meaning in the data by treating incidents in the data as occurrences of general conceptual categories and to use those specific incidents to infer the broader categories which may be used to create a framework of knowledge or theory about the data
- iv. Classification – the process of determining into which category a particular datum falls
- v. Query/retrieval – notes pertaining to specific categories can be retrieved by locating the file for the concept and examining the contents if such a file exists
- vi. Summarization of data

Apart from the time and resource limitation, one of the problems faced in the study is that the overlap of data collection and analysis places some constraints on the research - it is not always possible to get the data needed for the analysis, even though a lot of time and effort had been spent in skimming through piles of trade magazines with conscious effort to identify data relevant to the study. As a result, the subject of the paper was evolving in

the data collection process. While analysing the data, categories of data change as the ideas evolve over time. Ely's experience described the process quite well: "Through the writing, we qualitative researchers work on the edge of awareness, looking both outside and inward for sources of potential translation of event into meaning." (Ely, p49)

In order to achieve objective 1, the external environment was analysed. The analysis was broken down into two parts, i.e. the general environment which includes economic, technology, global, political/legal, demographic and socio-cultural segments; and a structural analysis of industry using Michael Porter's five competitive forces model. There are five players in the industry, i.e. Maxis, Celcom, DiGi.com, TM Cellular, and Time dotCom.

To achieve objective 2, internal environment analysis of a public company, DiGi.com, was carried out. The internal environment of DiGi.com was analysed by Porter's value chain analysis to identify the firm's strengths and weaknesses.

To achieve objective 3, Porter's generic strategies are analysed based on the results of the previous analysis, and a generic strategy that could be used by the provider to achieve competitive advantage is recommended.

The next chapter analyses the general environment of the industry.