

As the Integrated Process Model illustrates, research questions play a central role in all of the research efforts that follow. Well-formulated research questions will not assure useful research results; however, poorly formulated research questions will almost certainly guarantee that the research results will at best be of limited value to the decision maker.

One way of structuring research questions effectively utilizes a hierarchical approach. In this approach, researchers begin with very general questions. Then from the general questions researchers pose questions of increasing specificity, which are implied by a general question. When questions reach a level of specificity acceptable to the researcher, they become the basis for writing questionnaire items.

General Research Questions

An excellent way to form general research questions begins with the information gaps the decision maker and researcher identified earlier when discussing the decision problem. Recall that information gaps are simply the difference between what a decision maker currently knows and would like to know about a problem in order to make a decision.

For example, in one recent project for this class, the problem that faced the decision maker (from Habitat for Humanity's ReStore) was simply, "What must I do to increase my sales to a million dollars annually?" (Habitat's ReStore sells used or donated new home improvement merchandise.) The ReStore's two primary target markets are low-income homeowners and small independent residential landlords.

After some discussion, the decision maker believed the research should focus on the latter group.

From this problem, the decision maker identified several information gaps:

- He wanted to know the characteristics of the rental property owned by independent landlords.
- He wanted to know the business practices of independent residential landlords.
- He wanted to know the characteristics of tenants living in rental units of independent landlords.
- He wanted to know the personal characteristics of independent residential landlords.

Turning these information gaps into general research questions became a very simple matter of rewriting them in question form:

- What are the characteristics of the rental property owned by independent landlords?
- What are the business practices of independent residential landlords?
- What are the characteristics of tenants living in rental units of independent landlords?
- What are the personal characteristics of independent residential landlords?

Thus, information gaps represent an easy way to begin the process of writing the research questions that will ultimately produce the data that addresses the decision problem. And because the general research

questions derive from the decision problem and information gaps, they are much more likely to be of use to the decision maker.

The preceding discussion covers only one way of formulating research questions. Researchers should use whatever methods suit them. The important point to all this is that good research questions are critical to the overall research effort. Therefore, formulating them should represent a substantial portion of the overall research project.

Developing Implied Research Questions

As noted earlier, it may be helpful to construct a hierarchy of research questions. That is, each general research question should imply a series of more specific research questions. For convenience, these more specific questions will be referred to as “implied research questions.” The structure of general questions producing implied questions suggests a structure illustrated hypothetically in Exhibit 1 below.

Exhibit 1. Hierarchy of Research Questions

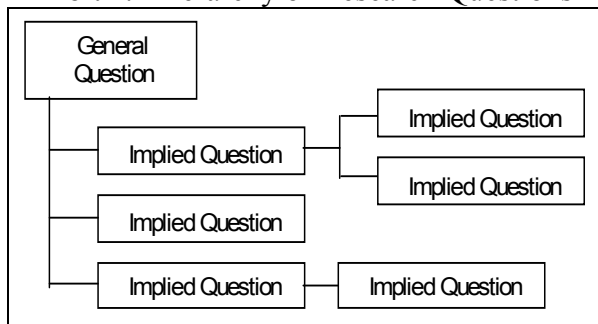


Exhibit 1 shows only a hypothetical possibility and a small one at that. The exhibit shows only one general question when in reality several are likely. The exhibit shows only a handful of implied questions flowing from the general question, when a dozen or more are not at all uncommon. The main points to the exhibit are that general questions produce implied

questions, and that implied questions may produce one or more additional implied questions – each level of increasing specificity.

Researchers should brainstorm in order to produce as comprehensive a list of questions as possible. Ultimately, the implied questions will become the basis for producing and screening questionnaire items. Therefore, produce a better list of questions, and you will produce a better questionnaire and in turn collect better data.

Returning to the Habitat ReStore class project, students were given the general questions and asked to produce fifteen to twenty implied questions per general question. Below are a few examples of implied questions from the first general question, “What are the characteristics of the rental property owned by independent landlords?”

- How old is the rental property in question?
- What kind of rental property is it (single family, duplex, etc)?
- In what general state of repair is the property?
- What features or amenities does the property offer?
- How large is the rental property in question?

Many students wonder how specific they should be with their implied research questions. No simple rule exists to answer this question. Often, knowing when to stop picking apart a general question becomes a matter of experience and intuition. In general, it’s better to be too detailed than not detailed enough.

Even experienced researchers find the process of developing useful general and implied research questions difficult. It requires creativity, patience, and a willingness to think deeply about a given

subject. Difficult though it may be, the results are crucial for a successful research project. Therefore, it's certainly well worth the time and effort it takes.

Because research questions are so critical, it's essential that they be communicated in writing to everyone working on the research project. Research teams should not assume they know what questions the project addresses. Being explicit keeps all parties working together toward the same goals.

Research Questions and Research Hypotheses

As will be discussed extensively in later Web Notes, research questions are formulated in conjunction with research hypotheses (also referred to as “conceptual hypotheses”). Importantly, researchers should formulate research questions and hypotheses at the same time; rarely if ever are research questions and research hypotheses done independently of each other. Indeed, the process presented in this class essentially requires that these two steps occur simultaneously.

Research hypotheses serve a variety of purposes, however, most important at this stage of the research process is that research hypotheses help to “justify” whether a research question is sufficiently important to collect the data needed to answer it. If not, the question should be dropped. Another useful role of hypotheses is to help generate implied research questions. So although this topic is not covered just yet, bear in mind that research questions and research hypotheses work hand in hand and no discussion of research questions can be complete with incorporating research hypotheses into it.

Commonly Asked Research Questions

No matter the industry or company, many research projects address similar types of questions. Therefore, many of the hierarchical structures of general and implied questions may look somewhat similar from project to project. To follow in Exhibit 2 are diagrams showing in generic form what commonly asked research questions may produce in the way of research question hierarchies. Bear in mind the very generic nature of these diagrams and that asking *good* research questions obviously relies on knowledge of the individual research context. The examples that follow are strictly for expository purposes.

Generally speaking, market research studies broadly fit into one or both of two study areas: customer analysis and competitive analysis. In either case, the goals of developing these question hierarchies is to think past the obvious and begin probing what are usually the more interesting and useful research questions. Ultimately, researchers hope to formulate research questions that can be used to hypothesize about the relationships and interrelationships of the factors that affect decision makers' businesses or spheres of operations.

The diagrams that follow begin with rather generic general research questions, and then expand into more detailed implied questions. These examples show the questions spreading into two levels of specificity, which is intended to emphasize the hierarchical nature of research questions. That said, however, researchers should create a hierarchy of research questions that fits their approach to research as well as the particulars of the project at hand.

Exhibit 2. Generic Research Question Hierarchy

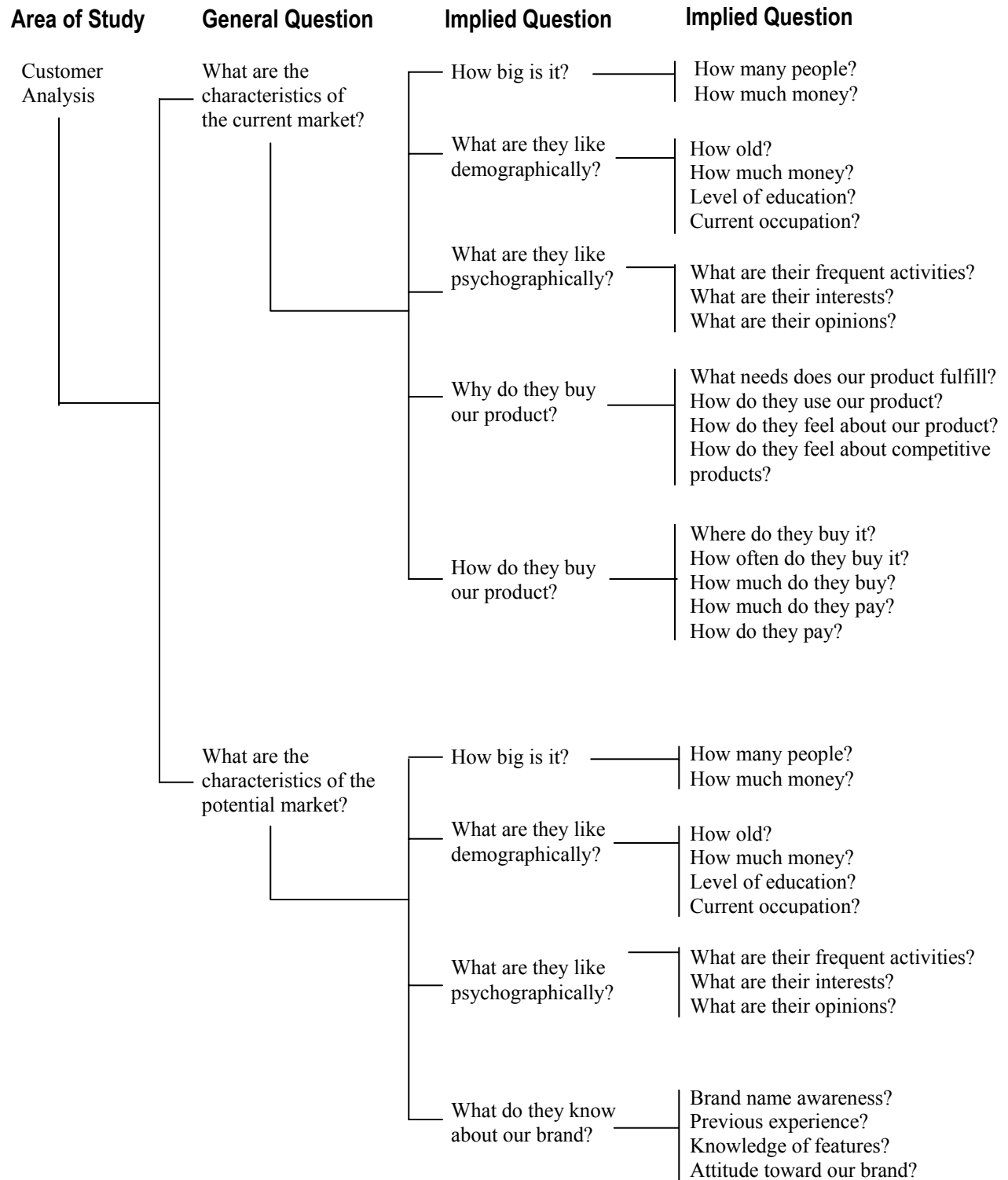


Exhibit 2 continued. Generic Research Question Hierarchy

