Developing Electronic Markets:

Determining user requirements via marketing research

By Sandy Chong & Christian Bauer

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Marketing research is a promising method for improving the design of electronic markets.

The fundamental differences between electronic markets and traditional, more restricted information systems demand new and innovative approaches to information systems development. Here, we evaluate several marketing research techniques for use in the electronic markets context.

> " Understanding user requirements is critical to the success of information systems. This is acknowledged in most information systems development methodologies. "

The construction of electronic marketplaces tends to deal with large numbers of anonymous users, who cannot be influenced by marketers as in traditionally. This is because consumers participate voluntarily in electronic markets, and they cannot be *ordered* to use the system. Rather, they need to be *attracted* to the electronic market systems. This consumer autonomy puts the electronic market developer in the difficult position of having to compete for user participation.

Here, we investigate how electronic market developers can determine user requirements by using the traditional tools of marketing research.

The role of marketing research

Marketing research has been known to help assess the potential of new products, measure results, solve marketing problems, help in planning, and point out "mistakes" that could drain profits or create losses. Whether a company conducts the research itself or hires another firm to do the task, the goal is still the same: to acquire data that allow managers to make informed marketing decisions.
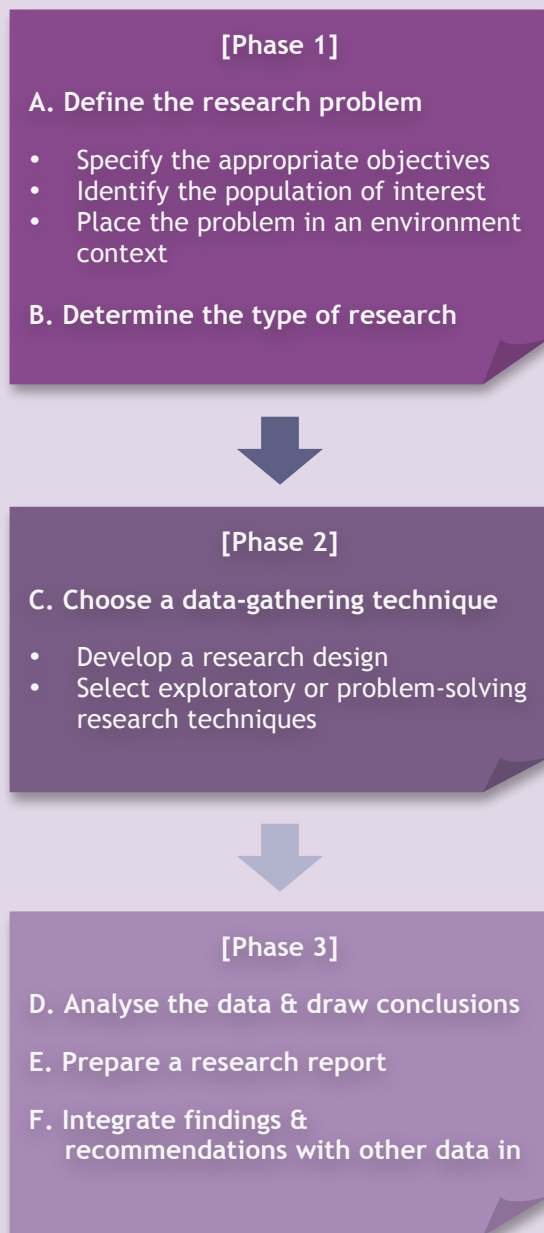
The marketing research process

Ideally, marketing research is a series of carefully thought-out steps designed to attain a specific objective as shown in Fig. 1.

In the first two phases, defining the problem and determining the type of research needed are crucial. This not only helps researchers structure the study but also keeps the firm from spending the research budget on the collection of unnecessary and useless data. The third phase is concerned with analysing of data. However, only the first two phases are of particular importance in the determination of user requirements for electronic market systems.

Fig. 1: The process of marketing research

[Phase 1]

A. Define the research problem

- Specify the appropriate objectives
- Identify the population of interest
- Place the problem in an environment context

B. Determine the type of research

[Phase 2]

C. Choose a data-gathering technique

- Develop a research design
- Select exploratory or problem-solving research techniques

[Phase 3]

D. Analyse the data & draw conclusions

E. Prepare a research report

F. Integrate findings & recommendations with other data in

Soloman, M., and Stuart, E. Marketing: Real People, Real Choices. Upper Saddle River: New Jersey:Prentice Hall, 1997.

Marketing research techniques are important tools that help electronic market developers to determine user requirements; hence their ability to deliver successful solutions will be enhanced. In this article, we outline two research techniques and discuss their suitability in the electronic market development process.
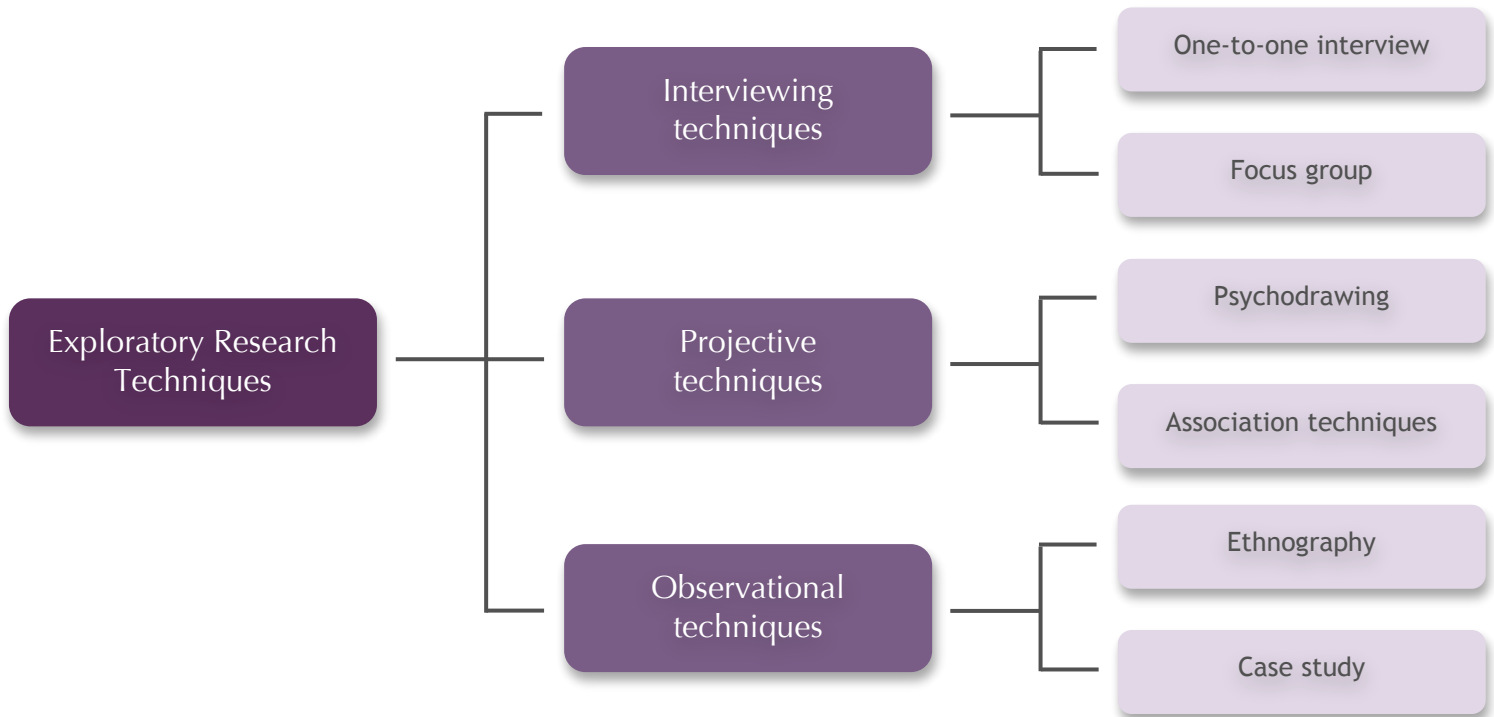
Exploratory Research Techniques

Fig. 2: Exploratory Research Techniques

Exploratory research investigates or explores a marketing problem that is not yet well defined. It is meant to collate ideas for new strategies and opportunities. In particular, qualitative data of consumers' attitudes, feelings and buying behaviour is collected (see Fig. 2).

Interviewing techniques

In the early stages of the electronic market development, interviewing techniques can be used for content creation and idea generation. Early checking of reactions to a new concept through the group method may be useful in gauging reaction to a graphical design, content presentation or innovative functionality.   Focus groups can be used to determine the acceptance of a particular feature or content of a product prototype.

Projective Techniques

In the association technique, participants are asked to respond to some ambiguous object or issue by telling a story about it. Psychodrawing is where respondents draw a picture to respond to a research question instead of verbalising their answers. This is useful for designing and analysing graphics or visual clues in electronic market development (e.g. colour, design, and mood of webpage).

Observational techniques

Observational techniques aim at identifying how people solve problems or conflicts. Ethnographical research is an observation of consumers in their natural setting, which helps researchers to gather finer details.

Descriptive problem-solving techniques

Problem-solving research techniques allow marketers to test their hunches about the cause of marketing phenomena or the results of a particular strategy. There are two methods researchers can employ to collect information from its target market (see Fig. 3).

Cross-sectional design

This method involves the collection of information from a cross-section of consumers in a population at one point in time.

Surveys. Mail surveys are relatively easy to administer and offer a high degree of anonymity to respondents. It is used to get information from people who are difficult to interview in person, by phone or via Internet. Telephone surveys are useful when there are many open-ended questions, and when researchers want to gather user feedback. On the other hand, personal interviews are expensive and apply only to niche markets where opinion leaders are key. Lastly, on-line surveys are very useful in that potential e-commerce customers have access to the Internet, and are willing to use the technology to do an on-line questionnaire. Respondents can be drawn from banner ads on other web sites, or personal E-mail invitations.

Observations. Mechanical observation relies on non-human devices to record people's behaviour. Especially if consumers will not disclose their behaviour, researchers may resort to unobtrusive techniques involving sophisticated technology. Technologies, such as client-side data storage (cookies), log-file statistics or clickstream analysis, offer a clear picture of user behaviour down to the individual level. These methods provide rich and meaningful information, however, they are usually suitable for the later stages of development, not the initial start-up phase. On the other hand, personal observation and recording of human behaviour is costly and thus not a feasible method.

Longitudinal design

By gathering a sample of respondents that is representative of the target market (consumer panels), this method tracks the responses of the same sample of respondents over time. For example, in order to check the impact of a Web site relaunch, consumers can be asked about advertising recall and changed behaviour within intervals of a few days. This is a cost efficient method that helps the development of electronic market systems.

Cross-sectional design

Surveys

Observation

- Mail Survey
- Phone Survey
- Personal Survey
- Online Survey

- Personal Observation
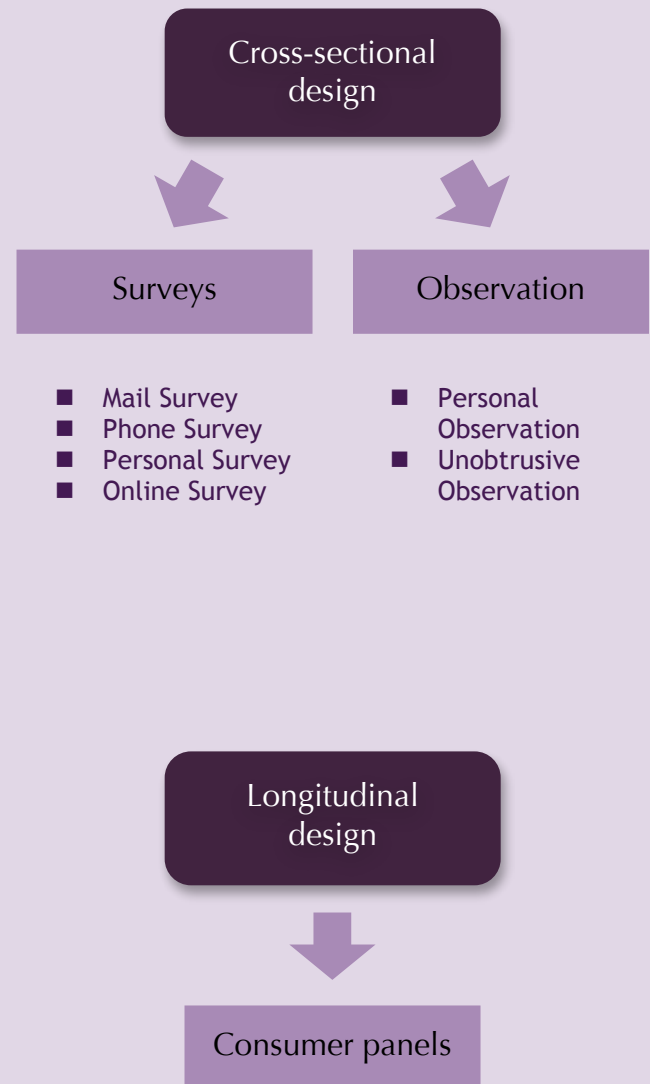- Unobtrusive Observation

Longitudinal design

Consumer panels

Fig. 3: Descriptive problem-solving techniques

In conclusion, the development of electronic market systems requires a user-centric approach in order for marketers to define goals and determine the desires of the targeted users. Together with the technical-oriented view of the traditional information systems development methodologies, electronic market developers can better decide how the site can best reach its audience. ∎

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For more information about Verity's global services and innovative business solutions, contact us at:

+61 4 02211373 (Australia)
+65 8337 7178   (Singapore)
info@verityconsult.com
www.verityconsult.com

About the Authors

Dr. Sandy Chong
Curtin Business School, Curtin University of Technology
Western Australia, Australia

Principal consultant, Verity Consulting Pty Ltd
dr.sandychong@verityconsult.com
linkedin.com/in/sandychong

Dr. Christian Bauer
Curtin Business School
bauerc@cbs.curtin.edu.au