Panel Research

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ABSTRACT
Panel research, as a marketing research method, is longitudinal quantitative survey of consumer behavior. Data can be collected multiple ways varying from personal interview to usage of bar code readers. User centered design (UCD) aims increasing usability of a product by, for example, involving users to the design process and having iterations of design solutions. In a case, where UCD is applied, usually the qualitative data is the most valuable for design. Therefore, non-recurring panel discussion group, so called focus group, can be used for data collection. The main difference of using panel either in consumer or user research, is the type of data being collected and the lifespan of participating sample group. In this paper we discuss if these two panel research manners could adapt something from each other.

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Panel research, focus groups

ACM Classification Keywords
D.2.1 Software, Software engineering, Requirements / Specifications

INTRODUCTION
Panel research is collecting the same data repeatedly from sample of people from the target groups [1]. The commercial use of panel research has started in 1948 [1] and ever since the use of panels has grown as well as the number of panel research service providers has grown. The electrical equipment has been used for longtime in panel research for data collection, but the Internet has recently made the revolution in research possibilities.

Panels are traditionally used in longitudinal market research, where the focus is to have valid and extensive data of consumer behavior. The validity as well as the extension is ensured by large sample size. The data is quantitative and can therefore be analyzed by statistical methods.

From the point of view of marketing applications, panels enable the possibility of combining accurate measurements of such parameters as expenditure and individual behavior over time. The analysis of the data can provide guidance in area such as pricing, advertising effectiveness and sales projections.

The best-known examples of panel research are the continuous consumer purchasing panels, covering grocery, food and drink, and toiletries. The other major use of panel research has been for television audience research. There are also panels being used to collect opinion and attitude data.

User centered design uses panel discussions, formally focus group sessions, to collect qualitative data about users’ feelings and attitudes [7]. A moderator leads the discussion based on predefined focus, and group of members belonging to target group expresses their thoughts. The results cannot be used for evaluation, but rather for generating hypothesis for further evaluation and user validation [7].

In this paper we first examine briefly the basic premises of marketing panel research and then those of discussion panels used in UCD. We survey several papers written on these topics, and end the paper with a discussion and conclusions.

THE BASIC IDEAS OF PANEL RESEARCHING
Proctor [5] defines a panel as a continuing group that responds to questioning from time to time. The duration of panel life span can last as little as a week or, some cases even a year or more.

The ways the panel members and their observers communicate are via telephone, postal or personal interviews. A data collection method is self-completion diary returned by post and an interview-administrated check, smart cards, in-home interviewer checks, bar code reading, for example scanning technology at the point of sale (EPOS), etc. In fact, the last method can be extended to in-home bar code readers which are issued to panel members, linked to a small data terminal or PC. Panel members record purchases as they are brought into the home using the terminal.

Products bought and consumed outside the home cannot efficiently be recorded and therefore hybrid systems are employed, such as interviewing supported by state-of-art software for call scheduling and data entry. One possible
extension of this area, as technology evolves, will be the integration of speech-recognition and text-to-speech technology. Another useful medium for communication in panel research is the Internet. One usage is the interactive self compilation questionnaires.

Being a panel member is not an easy task as reporting fatigue is a real possibility. Therefore, in order to ensure consistent reporting for as long as is desired, recruitment should be thoroughly conducted and potential panel member should be told honestly what is required of them to do. Panel members should be discarded only in case of poor compliance; after all it’s not an exam.

The most important trait of a panel is the quality of its measurements. Are panel members doing the allotted task? Are they doing it consistently? There is a need for checks and validations in order to ensure the consistency of the measurements. Experience over many years in many countries shows an extremely high correlation between panel measurements and sales. Otherwise, the author remarks, panels would not have reached the scale they are at today.

According to Blyth [1], the primary outputs of panels are periodic reports on issues like market values, volumes and consumer penetration. Panels are used for the analysis of individual/household purchasing over time and in this manner help in understanding of market dynamics. Panel operators have developed a range of analyses that benefit on the special characteristics of panel data.

PANEL DISCUSSIONS IN UCD
Panel discussions, for example focus group sessions, are qualitative method that can be exploited before, during and after design process. Before the design process, panels are used for studying user needs, and during the process panels are used for requirement gathering. After design the panels are used for collecting feedback of the solution produced.

Focus group session is usually unique situation and the group is formed of six to nine users belonging to target group of the design [3]. The discussion can be inspired using stimulus material, for example a video sample or design sketch. The discussion topics are predefined and the moderatos take care for that nobody dominates the discussion.

STUDIES IN SOFTWARE ENGINEERING REALM
An interesting usage of focus group method has been proposed by Kontio et al. [2]. In their paper they present three cases where the focus group method was used to obtain feedback and experiences from software engineering practitioners and application users. However, few obstacles should be taken into account: technology changes rapidly, data may be difficult to publish because of business secrecy, or the lack of comparable criteria among different organizations. At the same time, focus group method is a fast and cost effective method and it can provide content rich and qualitative information that are difficult or expensive to capture with other methods.

The objective of the first study was to provide insights into why and how corporations seek to improve their risk management practices. Three focus group sessions were held. Each session started with an overview of the objective of the study and with a discussion on how participants should discuss and act during the session. Next, the participants were asked to spend few minutes writing their answer to a given question then the answer posted and a discussion ensued. The sessions were recorded and later analyzed, and categorizations of risk management were identified.

The objective of the second study was to clarify practical challenges in requirement prioritization, e.g. when prioritization is performed and who does it. Sessions were planed according to carefully defined specific topics. Participants were asked to brainstorm their thoughts and come up with key words that were collected and posted. Those key words worked as a basis for discussion. The study resulted in deeper understanding of the requirements prioritization practices in the participating companies.

The aim of the third focus group study was to collect user opinions about the usability of the website of Helsinki School of Economics. The idea was to find out what could be done to improve the usability of it. The sessions were computer-mediated. The software employed allowed each participant contribute to the discussion anonymously and simultaneously via a personal computer. Also oral discussion was allowed. Participants were asked, for example, to mention which are the best and then the worst characteristics of the website. There was also a vote on best/worst characteristics on a scale from one to five in order to get an overall rating from the group. One observation from this study was that the anonymous comments were much more frank than results attained in other studies conducted one-by-one.

Observations
The authors listed the strengths and weaknesses of their methods. On the positive side, the setting of the group seems to encourage the participants to react to the points during the discussion, building on each other’s experience. The results are new issues and insights not expected in the original planning. The discourse prompted other to share similar and opposite incidents, a trait that might not have been occurred in personal interviews.

The researchers maintain that the focus group method is cost effective, as information on different topic can be gathered at the same time. Moreover, the method allows in-depth exploration of why the participants think the way they do. This is contrary to questionnaire results, which usually reveal only what people think, not why. Also on the positive side was the participants’ reactions; they indicated that the sessions provided them with valuable information.
On the weaknesses side, the researchers pointed out group dynamics; it is not easy to the moderator to have control over the flow and style of the discussion. In addition, some of the participants are less active and it is the task of the moderator to balance the discussion. It may happen that some participants may volunteer incorrect information and as a result disagreement may take place and may result in selective contributions and volunteering of information.

One major problem is that some participant may have some hidden agenda due to business relationship or their company’s internal politics. As a result, such hidden agendas may bias the results of the sessions. In addition, some relevant information may be withheld due to business secrecy, which may result in not much open discussion, as one would hope.

Another obstacle is the time limit and the danger of too complex issues or not necessarily understood by all participants, not even by the researcher. One way to avoid this problem is to partition complex issues to more “digestible” pieces.

One of the recommendations the authors advance is the use of computer mediated technology. They maintain that it is easier to get software users and developers to employ the technology than, for example carpenters or other craftsmen.

TRUST AND MISTRUST OF ONLINE HEALTH SERVICE
Sillence et al. [6] have studied fifteen women, faced with a risky health decision, were observed while searching the Internet for information and advice over four consecutive weeks. The paper is concerned with the issue of how trust develops in an online health context. While other studies usually evaluate the quality of information and advice available on the Internet from medical perspective, this research shows that consumers, especially those with an interest in the health topic, search for and appraise information in a different way to experts. As a rule, the women participated in this study mistrusted sites sponsored by pharmaceutical companies and disliked sites with a corporate look and feel.

There are between ten and twenty thousand health-related sites available on the Internet, dealing with topics like rheumatoid arthritis, diabetes, etc. It was noted that 70% of studied performed on those sites concluded that quality is a problem on the Internet. While ordinary consumers are more likely to be influenced by the attractiveness of the design, people with a greater stake in the outcome, may well pay more attention to the content of the websites.

One major problem is that only few studies involve real consumers engaged in real tasks, that is, users who actually went to buy the product. In this study fifteen women at various stages of the menopause (41-60 years, mean 49) were observed searching for information and advice online over four week period. The current study is part of a longer-term project which real-world consumers evaluate information and advice online.

Each participant attended a total of four 2-hour sessions held in an Internet café, searching for information and advice on the menopause. This was followed by a group discussion with a facilitator. Participants were told to freely surf the web during sessions 1 and 4, and were directed to specific web sites during sessions 2 and 3. The participants were asked to record their perceptions of each site visited and use this information during the discussion sessions.

It has turned out that participants rejected or mistrusted a website quickly if the name was inappropriate, the layout was too complex or boring, the print was small, there was too much text; there were pop up advertisements and if the content was irrelevant.

On the other side, if the layout was clear, navigation aids were good, the content informative and the illustrations relevant, the information unbiased and the language clear, than the site was chosen to be explored in more depth. Most participants preferred sites that were run by reputable organizations or had medical or expert feel about them. Most participants showed some distrust of the advice and information on websites sponsored by pharmaceutical companies and those explicitly selling products. The women were quick to notice websites sponsorship, even if buried in the small print.

In fact, the women were looking for sites written by other women who shared similar interests, for example Project Aware, a “website by women for women.” The participants were keen to read about other women’s experiences on website discussion boards, although they did not feel immediately comfortable posting their own messages to the site.

To investigate the longer-term process of maintaining trust, the participants have been given diaries to keep over a number of months and have been invited to take part in follow up interviews. The aim is to examine the extent to which information and advice from friends and family, doctors, and government health campaigns is integrated with the advice sought online.

STUDYING ORGANIC FOOD
With the rapid growth in the market of organic food, the European Union has considered it essential to explore, among other topics, how consumers relate to organic food products. In the report concerning the Finnish side of the whole research, Niva et al [4] concluded that consumers’ views and ideas about organic foods were multifaceted and complex. They had found out that consumers have different, even contradictory expectations and views. There was no one shared view of what organic foods are and what they represent.

As the first step, the researcher recruited members of the panel through a preliminary questionnaire sent to Finnish consumers willing to take part in this study. The idea was to recruit participants with varying background, age, education, employment, number of children under 14 years
of age, etc. The questionnaire included questions on the frequency of buying organic products, the amount of money spent on organic foods on weekly basis, and the ways of recognizing organic foods in shops. One purpose of the questionnaire was to screen regular and occasional users of organic foods and to separate them in groups according to background variables.

Six focus discussion groups, composed of 55 consumers all from the area of Helsinki, were recruited. Each group consisted of eight to ten members. The participants were given an organic product worth about five euros as a reward after the discussion. In addition, coffee, tea and pastries were served before the start of the discussion. All members of the panel got a free subscription of the Finnish consumer magazine *Kuluttaja* published by the Finnish Consumer Agency.

The discussions began with an introduction round with everyone saying their first name and telling what their favorite organic food was. The first theme of the discussion concerned consumers’ views and ideas of organic products in general. The participants were asked how they understood the term “organic,” the importance of the origin of food and whether there was were differences among various regions or countries they would avoid or support when buying organic products.

The discussions revealed that there was the blurring of “fact” and “trust” concerning organic product. It seemed that the presumed healthfulness of organic products was one of the main reasons to use organic food, rather than knowledge of specific scientific evidence of health effects. For many informants the very essence of organic food was that it was not anonymous, that is, ideally the possibility to buy directly from the producers. Some of the participants saw the organic production as small scale, as opposed to large food processors’ organic product lines. One conclusion of the study was that green consumerism has been gaining more attention.

DISCUSSION AND CONCLUSIONS

The person or team who design a new product or examine the result of embarking one are somewhat in the dark as far as knowing the success or failure of their efforts. One way to solve the problem is to assemble a group of customers who are willing to spend time in executing a follow-up work and are prepared to share honestly their praises and misgivings of the questions posed to them.

Finding the right people is not an easy task. One method of recruiting students and paying them for the time they spend is an easy way out but may not be that practical. A better way is to find informants among those people who actually need the product and who eventually may benefit from it. Since providing feedback is a time consuming chore, the one who conducts the study has to see to it that the responses are genuine. In case of group discussions, one has to be aware that some people are more talkative than other, so there must be some kind of mechanism to extract responses even from those who keep silence.

Panel research typically answers questions like what, but not questions like why. Panels in the market research are designed to find out about product penetration and trends over a time period. Panel discussions give data about users attitudes and feelings, and thus they answer the question why. UCD could benefit also from marketing panel research, if the questions are shaped to answer the usability questions. All in all, panel study in its different forms is a very important and useful tool in the process of product design and follow-up. Therefore it should be designed in a meticulous way and conducted carefully, with utmost adherence to even small details.

REFERENCES


