**INTRODUCTION TO LEAD USER RESEARCH**

**by Simon Moss**

|  |
| --- |
| **Introduction** |

**Overview**

 Suppose you want to ascertain how to improve some product, service, practice, or initiative. For example, you might want to explore how some novel app or software could be used or modified to improve the satisfaction of research candidates. To answer these questions, you could identify, and then interview, lead users—the people who are the most advanced users of this product, service, practice, or initiative (Von Hippel, 1986, 1988, 1994, 2005). You could ask these individuals to articulate how they modified, utilized, or improved this product, service, practice, or initiative. Their answers can inform future improvements. Therefore, lead user research differs from traditional interviews or focus groups because

* when individuals conduct traditional interviews or focus groups, they might ask users of some product or service to describe which improvements they would like in the future
* whereas, when individuals conduct lead user research, they might ask users which innovations, modifications, or changes they have already developed or introduced.

**How to conduct lead user research**

 To conduct lead user research, you need to complete several activities. In particular, the following table outlines many of these activities very briefly (e.g., Luthje & Herstatt, 2004).

|  |  |
| --- | --- |
| Research activity | Examples |
| Ascertain whether your research topic—the problem you want to solve—is amenable to this methodology | * The research topic should examine a product, service, or practice that lead users are motivated to improve and able to modify
 |
| Plan the project | * Organize the collaborators—other researchers with complementary skills
* Define the product, service, or practice you want to improve
* Clarify the possible role of your Lead Users
 |
| Learn about the product, service, or practice in more detail | * Scan the literature, internet, and databanks
* Interview experts in this field
 |
| Utilize one or more of the established techniques to identify lead users | * You could apply a technique called advanced analogue—individuals who use the product, service, or practice in more extreme circumstances or over a longer period of time
* You could visit relevant conventions, workshops, or weekend events
* Ask these individuals to identify the most innovative or respected users of this product, service, or practice, called pyramiding
 |
| Convince the lead users to participate in your research | * You might agree to promote their business or enhance their reputation somehow
 |
| Collect data | * Conduct interviews or focus groups
* Facilitate workshops with lead users to generate or improve the product, service, or practice
* Examine the innovations that have been displayed or promoted publicly
 |
| Write a report | * The report might include a stakeholder needs analysis to clarify the problems or constraints
* The report would then show how the suggested improvements could overcome these problems or constraints
 |
| Develop and perhaps test an improved prototype |  |

**Features of lead users**

To identify lead users, researchers need to know the characteristics of these users. They need to recognize which attributes indicate someone may be a lead user. Luthje (2000) delineated six common features of lead users:

* their practices have advanced ahead of existing trends or patterns—called **ahead of trend**; for example, they have introduced or designed innovations
* they expressed **dissatisfaction** with the existing or prevailing service, practice, or product, called
* their **knowledge** about the product, service, or practice is relatively extensive
* they have **used** the product, service, or practice extensively
* they dedicate time and effort to this product, service, or practice, demonstrating **involvement**
* they express many opinions about this product, service, or practice, called **opinion leadership**

As Franke et al (2006) outlined, lead users often experience a problem or limitation with the product or service—a problem or limitation that significantly impedes their goals. Consequently, they become especially motivated to modify and improve this product or service. They assume these changes will be beneficial, financially or otherwise. However, because these users have also advanced ahead of existing market trends, these modifications or improvements are innovative rather than common.

|  |
| --- |
| **Circumstances in which the lead user method may not be suitable** |

 To ascertain whether your research topic—the problem you want to solve—is amenable to this methodology, the following table could be helpful. This table outlines the circumstances in which the lead user method may be unsuitable.

|  |  |
| --- | --- |
| Circumstance | Details |
| Industries that tend to be especially secretive | * In some industries, lead users might not be able to disclose information or knowledge about the product or service
 |
| Industries in which products and services tend to evolve rapidly | * In some industries, products are distributed to market only days or weeks after research and development
* These swift changes tend to limit the benefits of lead user research
 |
| Industries that sell goods and services more to consumers than other workplaces | * Household consumers are not as likely to modify goods or services than are industrial consumers
 |

|  |
| --- |
| **How to identify users** |

 Lead users are defined as users who have progressed beyond typical users and, therefore, may be hard to identify. To achieve this goal, researchers can adopt a variety of approaches.

**Mass screening**

 One approach is called mass screening (for examples, see Herstatt & von Hippel, 1992; Schreier, Oberhauser & Prügl, 2007; Schreier & Prügl, 2008; Urban & von Hippel, 1988). In essence, researchers send a survey to as many users as possible, such as all customers of a particular service or all members of a relevant association. The survey comprises questions that measure the extent to which users have introduced innovations to the product, service, or practice—or demonstrated the five other tendencies that epitomize lead users. The following table illustrates some typical questions (for examples, see Belz & Baumbach, 2010):

|  |  |
| --- | --- |
| Characteristics of lead user | To what extent do you agree that… |
| Ahead of trend | * In general, I am one of the first people within my circle of friends who purchases recent advances of this product
 |
| Dissatisfaction | * I am dissatisfied with most examples of this product
 |
| Product‐related knowledge | * Within my circle of friends I am considered an expert on this product
 |
| Use experience | * I am very familiar with this product
 |
| Involvement | * This product is important and interesting to me
 |
| Opinion leadership | * In general, I often speak with my friends about this product
 |

Nevertheless, this approach coincides with a few drawbacks:

* Only around 1% of participants will be deemed to be lead users—and, hence, this approach is inefficient, potentially squandering time, money, and resources
* The answers to these questions are sometimes inaccurate—and, therefore, participants might misleadingly imply they are lead users

**Netnography**

Belz and Baumbach (2010) championed an innovative alternative to mass screening: netnography, a blend of the internet and ethnography. In essence, when researchers apply netnography, they observe or contribute to online communities systematically. As many studies demonstrate, lead users often participate in relevant online communities to contribute knowledge and to exchange information about their experiences (e.g., Jeppesen & Laursen, 2009). To apply netnography as a means to unearth lead users, researchers tend to apply four steps, as outlined in the following table.

|  |  |
| --- | --- |
| Phase of netnography | Details |
| Identify the online community or communities that might be relevant to the research question or topic | * Determine the main forums or topics that are discussed and ascertain the main characteristics of participants
 |
| Collect data about this online community | * Extract the actual comments on the online forums
* Observe other features of this community, such as the frequency of responses
* Code the data; for example, you could rate each comment on the six features of lead users
 |
| Inform the community about your research | * If someone seems interested in your research, provide more information
 |
| Interpret these data | * Identify individuals who have posted more than a certain number of times and demonstrate five or so of the qualities of lead users, such as dissatisfaction and product-related knowledge
 |

**Other sources**

 Many other sources can be utilized to uncover lead users. For example

* researchers could attempt to access databases of complaints, such as complaints posted on internet forums (e.g., Luthje & Herstatt, 2004). Lead users are often dissatisfied with existing options
* researchers often utilize a snowball sample. That is, during interviews, they might ask participants—who might be manufacturers or users—whether they know of who might be improving and developing the product, service, or practice.

|  |
| --- |
| **Evidence of utility** |

As many studies have shown, the innovations that lead users develop are often commercially attractive. For example, in some research

* software developed by lead users was more appealing to the market than software developed by conventional market research (Urban & von Hippel, 1988)
* many IT systems developed by libraries—lead users of these systems—were commercially viable (Morrison, Roberts, & Midgley, 2004)
* many surgical innovations that surgeons had developed in university clinics were also commercially viable
* almost a third of innovations that mountain bikers had developed could be commercially viable (for a review, see Franke et al., 2006)

Indeed, in discussions or focus groups, lead users tend to generate more viable ideas than typical users (e.g., Urban & von Hippel, 1988). When individuals demonstrate the two hallmarks of lead users—strong motivation to innovate and progress ahead of market trends—their innovations are especially likely to be useful and original (Franke et al., 2006).

|  |
| --- |
| **References** |

Berthon, P. R., Pitt, L. F., McCarthy, I. P., & Kates, S. M. (2007). When customers get clever: managerial approaches to dealing with creative consumers. Business Horizons, 50(1), 39-47,

Belz, F. M., & Baumbach, W. (2010). Netnography as a method of lead user identification. Creativity and Innovation Management, 19(3), 304-313.

Eisenberg, I. (2011). Lead-user research for breakthrough innovation. Research-Technology Management, 54(1), 50-58.

Franke, N., Von Hippel, E., & Schreier, M. (2006). Finding commercially attractive user innovations: a test of lead‐user theory. Journal of Product Innovation Management, 23, 301-315.

Herstatt, C., & Von Hippel, E. (1992). Developing new product concepts via the lead user method: a case study in a low tech field. Journal of Product Innovation Management, 9, 213-221.

Jeppesen, L. B., & Laursen, K. (2009). The role of lead users in knowledge sharing. Research Policy, 38, 1582-1589.

Lilien, G., Morrison, P. D., Searls, K., Sonnack, M., & Von Hippel, E. (2002). Performance assessment of the lead user generation process for new product development. Management Science, 48(8), 1042-1059.

Luthje, C. (2000). Characteristics of innovating users in a consumer goods field, an empirical study of sport-related product consumers. MIT Sloan School of Management Working Paper, 24(9), 683–695

Luthje, C., & Herstatt, C. (2004), The lead user method: an outline of empirical findings and issues for future research. R&D Management, 34(5), 553-568,

Morrison, P. D., Roberts, J. H., & Midgley, D. F. (2004). The nature of lead users and measurement of leading edge status. Research Policy, 33(2), 351-362.

Oliveira, P., & Von Hippel, E. (2011). Users as service innovators: The case of banking services. Research Policy, 40(6), 806-818.

Morrison, P. D., Roberts, J. H., & Von Hippel, E. (2000). Determinants of user innovation and innovation sharing in a local market. Management Science, 46(12), 1513–1527.

Schreier, M., & Prügl, R. (2008). Extending lead‐user theory: antecedents and consequences of consumer's lead userness. Journal of Product Innovation Management, 25, 331-346.

Schreier, M., Oberhauser, S., & Prügl, R. (2007) Lead users and the adoption and diffusion of new products: insights from two extreme sports communities. Marketing Letters, 18, 15– 30.

Urban, G., & von Hippel, E. (1988). Lead user analyses for the development of new industrial products. Management Science, 34(5), 569-582.

Von Hippel, E. (1986). Lead users: A source of novel product concepts. Management Science, 32(7), 791–806.

Von Hippel, Eric. (1988). The sources of innovation. New York, NY: Oxford University Press.

Von Hippel, E. (1994). Sticky Information and the locus of problem solving: Implications for innovation. Management Science, 40(4), 429-440

Von Hippel, E. (2005). Democratizing innovation. Cambridge, MA: MIT Press