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# Corporate Household Data: Research Directions

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# CORPORATE HOUSEHOLD DATA: RESEARCH DIRECTIONS

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## Abstract

*Traditionally, organizations tend to acquire information on corporate structure and corporate relationships by contacting people in the organization who are familiar with these relationships. Problems arise when there is no consistent view of corporate structure and corporate relationships across all levels of organization and by differing outside organizations. Furthermore, corporate structure and corporate relationships evolve dynamically in the rapid changing business environment. How to capture and institutionalize organizational memory and knowledge base, and keep track of changes in and multiple views of corporate structure and relationships are two fundamentally critical tasks underpinning organization activities such as marketing promotion, financial risk analysis, and supply chain management. In this research<sup>1</sup>, we attempt to define the concept of corporate household data. We investigate how organizations acquire the knowledge and apply it to their business operations. Furthermore, we study how organizations learn to adapt to the various facets of corporate household data. With a well-defined corporate household structure, we can incorporate knowledge workers' understanding of corporate relationship into organizational memory.*

## Research Questions

A review of the literature reveals that there is no corresponding concept for *corporate household data* to that of *individual household data*. Table 1 shows the search results of concepts related to “corporate household” based on ABI/INFORM from 1986 to 2001. As it is suggested, the term “corporate household” has not been mentioned. Although there are many papers on “corporate structure” (Arnold, 2000; Shull, 1998; Putnam 1998;), we believe that the term cannot catch the rich phenomena we are exploring. By “corporate household” we not only mean the hierarchical structure within the corporation, but also the relationships around the corporate boundary. Our research is exploratory, mainly using qualitative research methods.

The first question we ask is what is a *corporate household*? It would be useful to understand the concepts and problems of corporate “household” or “householding”. Traditionally, a household is defined as a husband and wife with their children. However, as family structure evolves, such as the increasing number of single families, families with no children, or husband and wife with different last name, it becomes more and more difficult to define and identify “household”, and, therefore to collect household data (Kotler, 1997). Household structures are becoming more and more complex. For example, are grandparents or visiting cousins living at same address to be considered part of the same household? Are two unmarried people living together a household? Is a gay couple a household? We are definitely not trying to address any moral issues here – but rather that different observers could come to different conclusions depending upon their purposes and criteria used. In addition to name and address data, other data are used to sort out household information, such as shared bank accounts, tax-ID, and phone number (Godish, 1992).

Similarly, for a corporate household, we need to define the scope, content, and context of a corporate household, and identify the relationships within a corporation, between suppliers and the corporation, and between the business customers and the corporation.

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Walsh and Ungson (1991) defined organizational memory as stored information from an organization's history that can be brought to bear on present decisions, and offered five specific categories of organizational memory. Structure is one of important carriers to retain the memory. Decisions that are critically considered in terms of an organization's history as they bear on the present are likely to be more effective than those made in a historical vacuum. Besides, as Zander and Kogut (1995) suggested, the degree of codification and ease to learn has a significant positive influence on the speed of knowledge transfer. Therefore, a well-defined corporate household structure would promote the efficient organizational learning and knowledge transfer for the new employees. Second, there are various household techniques for different purposes at the individual household level. Conceptually, the corporate structure would also be different depending on different contexts such as a financial perspective, legal perspective, and the reporting structure. Identifying those contexts, representing the right structure for the right task provides the competitive advantages for the organization over its competitors. Finally, industrial practitioners, such as Dun & Bradstreet have a rather standard representation of corporate structure. Dun & Bradstreet's corporate family tree is structured with eight types of entities (single location subsidiary, headquarters, branch, division, subsidiary, parent, domestic ultimate, and global ultimate) and two types of relationships (branch to headquarter linkage, and subsidiary to parent linkage). Each entity are uniquely identifies by D-U-N-S number. Although the D&B corporate family structure is useful for financial and legal purposes within the corporate boundary, there are many other types of corporate relationships, such as those in the global manufacturing context. Those corporate relationships extend beyond the corporate boundary, and are fundamental in facilitating business decisions such as how to provide a single global sourcing capability or consolidate manufacturing plants globally. A good household structure should be able to analyze individual level data within the household environment. Capturing knowledge of relationships, representing and institutionalizing the knowledge into the organizational memory are critical parts of understanding the concept of corporate household

**Table 1. Search Results of Concepts Related to Corporate Household Data**

Keywords	1999-2001	1986-1998
Household data	2/13 papers*	10/72 papers
Household	None	None/14
Corporate household	None	None/2
Corporate householding	None	None
Corporate household data	1/9	10/124
Corporate client	1/7	11/50+
Corporate structure	16/64	31/400
Corporate relationships	2/7	12/58
Corporate affiliation	None/1	1/7

Note: "2/13" represents 2 out of 13 papers are relevant.

## Research Method

As research questions suggested, our research is exploratory in nature. Our primary research methods for exploring our research questions are semi-structured interviews via telephone and face-to-face, case studies, and surveys. Some of interview will be conducted in client sites, where demonstrations and close observations could provide a richer understanding of why corporate household is important, what should be captured as corporate household knowledge, and how it is applied in various areas. After we have somewhat clear understanding on the scope and the content of corporate household, the structured interviews or case studies, which are good at exploratory research (Yin 1994), will be used to collect and analyze data rigorously. Finally, survey could be used to test the concepts learnt from interviews and case studies in variety of industries and environments (Judd, C.M. Smith, E.R. & Kidder, L.H., 1991). However, in this paper, we will only present below some of preliminary research findings from interviews.

## Preliminary Research Findings

Corporate household data could be applied in many areas. Consider the case of a major International Insurance Group (IIG). The issue of corporate household impacts IIG in areas such as risk management, market promotion, and competition. In terms of risk management, when IIG evaluates the risk of a company in the insurance application approval process, it has to consider the risk involved in that company's subsidiaries also. If a subsidiary of the parent company is sued, the parent may become liable. If IIG is the insurer and the insurance policy covers this particular situation, then IIG will become liable. For example, suppose Ford wants to buy professional liability insurance from IIG. In the insurance application approval process, IIG would need to know which companies are Ford's subsidiaries in order to accurately assess the total risk involved. The current approach that IIG uses is as follows: For commercial insurance, one of the most important piece of information that IIG look for in the client's insurance

application is the client's Dun & Bradstreet number. Using the D-U-N-S number, it can obtain information from Dun & Bradstreet and other sources on the client. Thus the burden of handling corporate household is shifted to Dun & Bradstreet, which has comprehensive databases on corporate structure.

An information executive of a global manufacturing company (GMC) we interviewed also expressed extreme interests in corporate household data. Her company has the same concepts in the global sourcing context. The purpose of global sourcing is to identify a manufacturing site, which could produce a particular product with the lowest costs, including total costs of manufacturing and transportation costs. The big part of manufacturing cost is raw material cost. Therefore, identifying and maintaining relationship with material vendors are critical in order to reduce the costs. However, due to localized systems, two manufacturing sites have two different, independent relationships/contracts with the same vendor for the same material. The situation becomes even more complicated when a vendor has different relationships with different corporate function areas, such as manufacturing, finance, and accounting. Therefore, it becomes even harder to have a single, consistent view of a vendor globally. Inconsistencies between systems make it difficult to understand a vendor globally. It is impossible to know how much of a raw material is used on the global basis. Besides, GMC cannot take advantage of low price across all of its manufacturing sites from that vendor.

From the interview, we try to answer three questions we posted before. In terms of the scope and content of a corporate household, we found that at least three types of entities need to be included in corporate household data, i.e. corporate, its suppliers/vendors, and its customers. Corporate structure is relationships, functions, and people within the entity of the corporate, such as the one represented by organizational chart. Furthermore, the relationships between corporate and its suppliers, and between corporate and its customer are also important. Even though the corporate structure of the supplier is not visible to the company, the company should manage the relationships with vendor consistently within the corporation. Secondly, corporate household structure would be different under different contexts. Take corporate structure as an example. Corporate structure defined by Dun & Bradstreet from financial and legal perspective is different from the one used by the GMC from manufacturing perspective. The relationships between entities in D&B family tree are legal responsibilities, while the relationships between entities in GMC structure may reflect the product/manufacture dependence. Finally, the interview with the executive at GMC confirms our speculation that the relationships outside corporate boundary do exist, and play strategic roles as well.

## Conclusion

The corporate structure and the corporate relationships are changing constantly. On one hand, the corporate household structure is different under different contexts. For example, the relationships with vendors at the global level are different from those at regional level or local level. On the other hand, the corporation should be able to track and manage the changes of relationships initiated both by the corporation itself and by the vendors, and change them accordingly. Our inquiry in this research has been the understanding of what constitutes a corporate household, how do organizations utilize the concept of corporate household in their business activities, and how they adapt the concept in various tasks. Just like individual household data (customer data) are fundamental to customer relationship management, corporate household data are key to understanding how organizations learn and practice their business.

## References

- Arnold, S. "Risk Managers", *Strategic Finance* (81:12), June 2000, pp. 60-64.
- Godish, J.G. "Householding Technology Yields Flexibility", *Bank Marketing* (24:2), 1992, pp.17-19.
- Judd, C.M. Smith, E.R. & Kidder, L.H. *Research Methods in Social Relations*, 6<sup>th</sup> Edition, Harcourt Brace Jovanovich College Publishers, 1991.
- Kotler, P. *Marketing Management: Analysis, Planning, Implementation, and Control*, 9<sup>th</sup> Edition, Prentice Hall, 1997.
- Putnam, L. "The American Keiretsu: America's New Competitive Advantage", *American Business Review* (16:1), January 1998, pp.113-120.
- Shull, B. "The Right Corporate Structure for Expanded Bank Activities", *The Banking Law Journal* (115:4), May 1998, pp. 65-96.
- Walsh, J.P. & Ungson, G.R. "Organizational Memory", *Academy of Management Review* (16:1), 1991, pp.57-91.
- Yin, R. *Case Study Research: Design and Methods*. Second Edition, SAGE Publications, 1994.
- Zander, U. & Kogut, B. "Knowledge and the speed of the transfer and imitation of organizational capabilities: An empirical test", *Organization Science*, January/February, 1995