

Title	製造業のサービス化に向けた顧客とのインタラクションを促進する情報システムのインフラストラクチャー：ハイアールの事例研究
Author(s)	勇, 轟
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# Abstract

This research explores how manufacturers involve their customers to make knowledge and value creation via technological convergence. It aims to clarify the interactive infrastructure of customer interaction for driving servitization in manufacturing in the mobile Internet era.

Servitization, first introduced by Vandermerwe and Rada in 1988, is a competitive strategy for product companies to create a differentiation advantage by adding services to products. Most manufacturers are adopting a servitization strategy to innovate organizational capabilities and processes to better create mutual value through a shift from selling product to selling a product-service system (PSS) (Baines et al., 2007). However, for many manufacturers, the PSS only brings them a short-term advantage. Soon after, another commodity trap happens in services, just as it occurs in products. The service commodity leads to increased service offerings and higher costs but does not lead to correspondingly higher returns (Gebauer et al., 2010). The weakness of the PSS approach is that services are still regarded as distinct characteristics of products to deliver to customers. The roles of customer engagement caused by the mobile Information technology are not taken into full account.

While we focused on thinking about the above issues on servitization research, Haier, the world's biggest home appliance manufacturer, came into our sight. The firm sees customer interaction as the critical strategy of corporate development. It even formulates the creed "No interaction, no Haier". We think these characteristics are pretty suitable to developing the servitization research from the perspective of customer interaction: Haier is well known for the abilities of understanding consumer needs precisely through service innovation; it regards customer interaction as the premise of innovation, otherwise, neither incremental innovation nor disruptive innovation can ensure its customer value; it interacts with one million fans on average per day, committed to changing the situation of 'guessing customer needs' and instead listen to their voices carefully before production.

The research employed the methodologies of Narrative Analysis and Grounded Theory to construct and analyze the data. Grounded theory is an appropriate method for the research because it aims to find the new theories on servitization from the advanced business practices in the mobile Internet era. As Strauss and Corbin and Strauss (1990) defined, Grounded Theory is a research approach by which theory is derived from data, systematically organized and analyzed through the research process. In the method, a researcher does not begin a study with a preconceived theory in mind. Instead, the research begins with an area of study and gets the theory from the data. Data collection, analysis, and the final theory stand in close relationship to one another. (Mays & Pope, 1995; Strauss, 1987). The consistency of the findings from the two methods makes the research persuasive while keeping the narrative story interesting.

In order to make the analysis process proceed logically and clearly, we selected the qualitative analysis tool of MAXQDA software to deal with the data. We utilized it to aid the analysis of the transcribed text. All the text was imported into the software. The software assists us define variables, provide tabular overviews and assign colors and weights to text segments. Furthermore, every step of the process was easily tracked, and results could be accessed with just a few clicks. The data was coded repeatedly with trial and error until it logically generated the theories.

Through the analysis of the 9 categories, their association with the 20 concepts, 91 labels and the interactive comparison with the raw context, we found the saturation of theory describing the information system infrastructure of customer interaction as Customer Self-Serving Platform. New customer values are co-created when the interaction is upgraded into customer engagement. We define customer engagement as a process of customer self-actualization, where customers use their enthusiasm and knowledge to do what they are interested in. Customers are attracted to engage timely and deeply in digital, knowledgeable and social ways. The emotional award, which customers get from the self-actualization, also develops the traditional service concept. It activates a positive circle of knowledge and value creation between Haier and its customers. Moreover, customer self-actualization, as a new experience adds to the total customer value. Customer value is far beyond product function and is anything that customers think is useful to them.

**Keywords:** servitization; customer self-serving platform; customer self-actualization; value co-creation; information service infrastructure