

KNOWLEDGE ASSETS OF MAJOR COMPANIES

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This article estimates the knowledge assets of leading domestic companies by using two methods. The first method is based on the Edvinsson model of knowledge asset evaluation, and distinguishes knowledge assets into human, customer, innovation, and process assets. A company's income statement and balance sheet are used to estimate the size of each category.

The second methodology evaluates a company's knowledge assets as the difference between the company's ROA and the industry ROA.

The companies surveyed were Korea's leading companies in electronics, automobiles, chemicals, telecommunications, and the iron and steel industries, and included Samsung Electronics, Hyundai Auto, LG Chemical, SK Telecom, and Pohang Iron and Steel.

According to the financial statement method, the knowledge assets of the companies rose dramatically in the three years after the 1997 financial crisis. Samsung Electronics had the highest level of knowledge assets at 10.4 trillion won in 2001, followed by Pohang Iron and Steel (6.9 trillion won) and Hyundai Autos (6.4 trillion won).

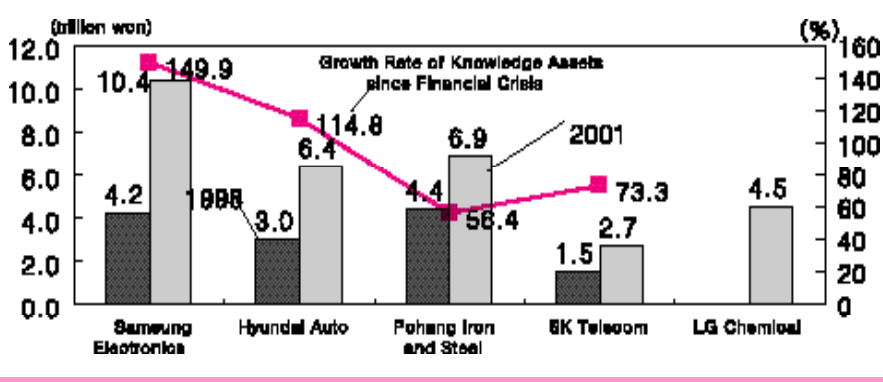
Samsung Electronics also had the highest growth rate of knowledge assets, increasing by 2.5 fold since 1998, while Hyundai Autos rose by more than 2 fold. Such increases were due to steeply upgraded investment including research and development, ordinary development, and productivity improvement.

In the cases of Samsung Electronics and Hyundai Auto, which recorded high net profits in 2001, continued growth of knowledge assets contributed greatly to profit growth.

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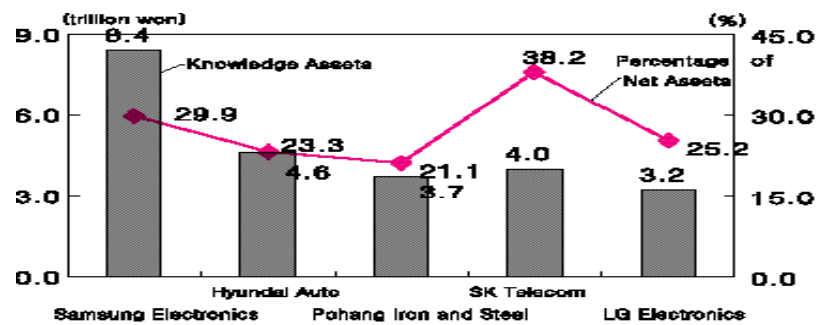
Figure 1. Knowledge Assets of Major Companies (Financial Statement Method)



The ROA method found that Samsung Electronics had the highest level of knowledge assets, while SK Telecom and the highest share of knowledge assets to net assets. Samsung Electronics had 8.4 trillion won of knowledge assets, while Hyundai Auto and SK Telecom had 4.6 trillion and 4 trillion won respectively. In terms of the share of knowledge assets in net assets, SK Telecom had the highest at 38.2%, followed by Samsung Electronics, LG Chemical, and Hyundai Auto with 29.9%, 25.2%, and 23.3%. This reflected the high share of knowledge assets to net assets in the IT, electronics, and chemical industries.

For these industries, knowledge assets were more important to competitiveness than tangible assets such as facilities, and knowledge assets were a key spending priority for these industries.

— Figure 2. Knowledge Assets of Major Companies (ROA Method) —



Discussion

The study found that after the financial crisis, the knowledge assets of major domestic companies increased dramatically, and accounted for more than 20% of net assets.

Samsung Electronics had the highest level of knowledge assets, and the companies with the highest growth rate of knowledge assets during the three years since the crisis were Samsung Electronics and Hyundai Auto. Meanwhile, the companies with the highest share of knowledge assets to net assets were SK Telecom, Samsung Electronics, and LG Chemical. The financial statement method generally found higher levels of knowledge assets than the ROA method because the latter method used average figures for the three year period, resulting in lower figures. One criticism of this study could be that it only used items that were listed on financial statements to quantitatively estimate knowledge asset levels, resulting in possible oversimplification.

In the current transition to a knowledge-based economy, it is very important for companies to accurately evaluate and build knowledge assets. Rather than tangible assets such as facilities or capital, corporate competitiveness is becoming increasingly determined by intangible assets such as human capital, technology, and brand value. A first step in knowledge management would be to develop a method to accurately evaluate a company's level of knowledge assets, and publicize the results along with financial statements. **VIP**