Abstracts

A Consensus-based Validity Appraisal Method for Assessing Information Systems

Satoshi Kuriyama

Corporate renewal is a pressing concern for many organizations these days. Without properly designed and maintained information systems to provide a solid foundation for reforming administrative processes, it can become difficult if not impossible to carry out related management strategies. Thus, it is extremely important to be able to assess the value and worth of investment in information systems and also generate consensus on the value of information systems at the management strategy level.

While industry is pursuing a deliberate strategy of higher investment in information systems, techniques for assessing the value of such investment do not yet exist. Given the difficulty of establishing a precise causal relationship between investment in information systems and the resulting benefits, this paper instead focuses on the issue of consensus building with respect to investment in information systems.

First, I consider the long-standing issue of assessing the value of information systems from the perspective of the difficulty of demonstrating the efficiency of the system. I illustrate the limitations of the demonstrative approach and argue instead for the consensus approach.

Next, I introduce the concept of value standards for information system performance based on the extent to which an information system is able to contribute to the implementation of management strategies. In this context, I describe the importance of constructing a "plan-do-check-act" cycle for value assessment and in particular of achieving consensus at the planning stage. If we choose to measure the value of an information system in terms of its contribution to management strategies, then we need tools for visualizing management strategies. The tool used in this paper is the balanced scorecard, and this is briefly described.

Finally, I develop a concrete technique for assessing the value of information systems based on the balanced scorecard, citing a corporate case study involving a sales-force automation project. In addition, I identify future initiatives that are needed in order to make effective use of this technique.

Revitalization of Small and Medium-size Enterprises: A Case Study for Identifying Factors of Success

Yuichi Sato

Traditionally the manufacturing sector in Japan has been underpinned by small and medium-size enterprises. Even today, small and medium-size enterprises help Japan to remain competitive in global markets. However, the ongoing shift of manufacturing operations overseas, combined with the emergence of China as a potent force in manufacturing, has led to grave concerns over the hollowing out of the Japanese manufacturing sector. Moreover, the "escorted convoy" type structures that have been built up in the keiretsu system, which bind major enterprises (such as automobile manufacturers) to small and medium-size enterprises, are now starting to disintegrate. Small and medium-size enterprises have been left to fend for themselves and are increasingly exposed directly to the forces of global competition. More than ever before, managers need increasingly advanced skills with respect to investment, technology development, personnel training, and other areas. Similarly, small and medium-size enterprises need to be able to consolidate and revitalize themselves in line with the changing times.

Support schemes for small and medium-size enterprises in Japan have taken an across-the-board approach, comprising a range of strategies from direct assistance for struggling companies through to consolidation support for enterprises employing key technology and initiatives designed to promote the trickle-down effect. Two of the more important strategies for fiscal 2005 are the Industry Cluster Program and the enactment of legislation designed to encourage small and medium-size enterprises to diverge into new areas. The aim of the Industry Cluster Program is to bring together the private, public, and academic sectors in industry concentrations capable of generating new fields of industry with global relevance. The main aim of the new legislation, meanwhile, is to promote a new approach to tie-ups among influential companies over a wider area, based around companies with key technology.

In western Saitama there are a great many small and medium-size enterprises that have not only survived the "lost decade" following the collapse of the bubble economy, but have developed into prospering businesses today. This region now boasts a concentration of new small and medium-size enterprises employing advanced technology. Over the last few months, these companies have demonstrated the following notable trends: (1) Succession of business operations via M&A; (2) use of innovation in base technology as a means of survival; (3) demand led by environmental industries; (4) riding the wave of digital development; (5) pushing the boundaries of nano-technology; (6) going beyond conventional concepts to open up new fields; (7) FC in manufacturing; and (8) proactive approaches to employment of older workers.

Although western Saitama is only one small region in Japan, the initiatives being undertaken here have relevance for small and medium-size enterprises throughout the country that underpin the manufacturing sector. The enthusiasm to take on these challenges is the key factor in ensuring the survival of the manufacturing sector in Japan.

Behavior of Stock Prices after Stock Repurchasing Announcements: Analysis of Evidence following Amendments to the Commercial Code in October 2001

Takashi Hatakeda

This paper describes a statistical study of changes in the excess earning rate of a company's stock following an announcement of its intention to repurchase stock. The study involves an analysis of the signaling hypothesis associated with stock repurchasing in the period since October 2001.

The main findings of statistical significance were as follows: (1) The less assets a company holds, the greater the impact of a stock repurchasing announcement on the share price. (2) The lower the PBR (ratio of market value to book value), the greater the impact of the announcement. (3) The higher the ratio of own stock purchased to the total stock issued, the greater the impact of the announcement.

These findings, like those of many other early studies, provide support for the signaling hypothesis in connection with stock repurchasing announcements following the Commercial Code amendments in October 2001.

Finally, there was no significant difference in the impact of stock repurchasing announcements between those companies that actually carried out the stock repurchasing as announced and those that did not. Thus, the existence of the stock repurchasing investment hypothesis was not supported.

Measuring Financial Standing of Small and Medium-size Businesses by the Improved Corporate Capacity Index

Toshifumi Matsumoto

Traditionally, the biggest problem in analyzing financial statements has been the lack of concrete criteria for judging individual indicators. Furthermore, the way in which the indicators are combined to deliver an overall verdict on the state of the company has always been something of a black box. As a result, analysis of financial statements is often difficult for the layman. Yet in today's economic climate, the ability to make sense of financial statements is an indispensable skill that should not be restricted to the domain of economic experts. To this end, it is necessary to compile this expert knowledge into an "instruction manual" and develop a basic technique for analyzing the financial health of companies with a reasonable level of accuracy and reliability, albeit not to the advanced expert level. The Corporate Capacity Index was developed with this in mind.

The Corporate Capacity Index is based on the six key indicators contained in balance sheets and profit and loss statements: liquid assets, total assets, capital, turnover, ordinary profit, and net profit. The Index uses various combinations of these figures to calculate five corporate capacity sub-indices: earning power, solvency, corporate vitality, sustainability, and growth. The sub-indices are then aggregated to produce an overall value for the Corporate Capacity Index. The criteria for acceptability is 1.0, meaning that an Index value greater than 1.0 indicates a company in a sound financial position. The use of a simple threshold in this way is one of the prime features of the Corporate Capacity Index.

This paper describes in detail the computations behind the Corporate Capacity Index, including modifications to the earning power and growth sub-indices. The modifications to the earning power formula enable derivation of the value from simplified as well as regular balance sheets, while modifications to the growth calculation formula are designed to prevent misreading the financial data leading to fatal discrepancies in the Index calculation.

Using the Corporate Capacity Index, I have determined the financial standing of small and medium-sized enterprises by industry using the company financial information database published by the Small and Medium Enterprise Agency. The results, as shown in the attached list, can be used to determine the financial standing of each company relative to others in its industry category.

Design and Control of Supply Chain Management in the Manufacturing Industry

Naoshi Wakatsuki

Supply chain management (SCM) has been gaining acceptance in industry since the mid-1990s due to the increasing use of software solutions and the resulting affluence in society. Over the last decade, SCM has established itself as one of the key tools of corporate management. Over this period, SCM has developed into a systematic corporate management approach, and there is now a good understanding of the prerequisites for successful SCM design and operation.

SCM seeks to design the flow of products and information in order to boost overall administrative speed and efficiency. In the manufacturing industry, for instance, it is possible to develop typical models for key processes tailored to the market characteristics of a product. The design must specify the inventory stage to which orders correspond from the client's perspective. Meanwhile it is also possible to increase added value by overhauling administrative processes other than ordering where client liaison is involved. The IT approach is another important element of the design.

Building solid supplier relationships is of paramount importance in the manufacturing industry. Suppliers should be classified based on product type and characteristics, while obsolescence risks and distribution costs must also be taken into account. These processes are driven by changes to evaluation indicators employed by the procurement sector.

SCM requires changes to the conventional organizational structures used to maintain control over the supply chain. Depending on the nature of the product, in some cases it will be necessary to institute centralized authority for supply chain control, while in other cases distributed control will be more appropriate. The structures will need to be reorganized on the basis of these decisions.

A new design approach is not in itself enough to enhance the efficacy of SCM throughout the organization. Rather, a two-pronged approach is required: redesigning the administration in its entirety in line with the corporate policy, while at the same time working to modify and improve individual processes.