Doctorate Thesis (Abridged)
博士論文(要約)

The Growth of Service Economy: The Combinatory Impacts of Information Technology (IT) and Knowledge-intensive Services (KIS) on Productivity

(サービス経済の成長: 情報技術(IT)と
知識集約型サービス(KIS)の生産性に対する相互効果)

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ABSTRACT

The service sector consists of 70-75% of the global economy in advanced countries. However, there are few empirical and statistical studies performed with regard to the service sector. As a result, productivity of service sectors has not been identified clearly in relation to the sectoral growth because the productivity of service sectors has not been improved for decades in Japan as well as major OECD countries. Based on major statistics and previous literatures, it is essential to realize the development of expertise knowledge, internally or externally, that aim to improve productivity in knowledge creation with the use of Information Technology (IT). In this regard, it is suggested that knowledge-intensive services (KIS) have a special role to play for facilitating knowledge creation in services. In line with this trend, the impact of service research and development (R&D) is also considered to be important. It is also pointed out that the role of smaller firms should be identified as they consist of a large part of the service sectors. In line with these trends, this research aims at identifying productivity for the selected service sectors with the appropriate use of KIS and IT, which is able to promote knowledge creation activities such as R&D. By incorporating business size dimension, empirical analyses successfully reveal that a balanced combination of IT and KIS inputs is related to productivity trends, which has contributed to steady output growth in the selected sectors. In addition, service intermediate inputs play a moderator role against fluctuations in the entire economy. In conclusion, it is critically important for future economic directions to take into account the balance of inputs into IT and services to support the growth of the entire economy and productivity growth through the development of smaller firms.

The following part of the doctorate thesis can be referenced to one of the following books and papers.

Motomura-Kinoshita, Y. (2012), The Growth of Service Economy: The Impacts of Information Technology (IT) and Knowledge-Intensive Services (KIS) on Productivity in Japan's Service Sector, Journal of Socio-Informatics, 6(1), pp.47-60, Japan Association for Social Informatics.

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