

Preface

This book analyzes retailers' market areas, the manufacturers' factory locations, and city systems' structures in the globalized world. The activities of the retailing and manufacturing industries are crucial economic elements to build a framework for people's daily lives. These activities are concretely realized in cities and city systems. Retailers' locations and their market areas establish the basic structure of consumption activity and form the core of individual cities. Manufacturers' factories, which provide various kinds of employment for people, are located in cities because the daily lives of workers in the factories are sustained by the functions of the cities surrounding them. That is, both the consumption and production activities provide the economic base of cities while, at the same time, these activities are maintained by the city system. This book explains the retailers' market areas, the manufacturers' factory locations, and the structure of the city systems, and shows the mechanisms by which the spatial patterns of both industries—retailing and manufacturing—and the city systems are organized in a space.

In addition, the locational changes of the two industries and the structural variation of the city system are analyzed. The book clarifies the mechanisms of the locational changes of the retailing and manufacturing industries due to the growing economic globalization from the point of view of the determination of a firm's location. The book then deals with variation of the city system: After proposing a new way of construction of the city system on the basis of the market areas, it explains the mechanism of change of the city system, which is brought about by reduction of transportation costs.

This book consists of three parts. Part I shows the mechanism of the organization of the retailers' market areas and explains changes of the market areas by introducing the concept of the contact price curve for consideration. The retailers' market areas formed at one time are altered by reduction of the transportation cost per mile. The shape and size of the retailers' market areas are changed in different ways. The optimal market area shape is not confined to a hexagon; a triangle or a square can be the optimal shape for retailers in spatial competitive equilibrium. The shape that is optimal for retailers is dependent on the type of competition among

retailers and the cost conditions. Also, while the market area size is shrunk by the reduction of the transportation costs per mile in some cases, the market area size is expanded in other cases. It is shown in Part I that the locational pattern of retailers varies greatly from the existing pattern which was established in a time before globalization.

Locations of the manufacturers' factories are examined in Part II of this book. In the days when production activity of firms was confined to a country or a small area, the location factors were limited to a group of general location factors, transportation costs, labor costs, and agglomeration economies. In the times of economic globalization, firms' production activities are expanding across national borders. The corporate tax rates and the interest rates of countries become important location factors; these factors are decisively important when manufacturing firms select a country to locate their factories. Part II begins its analysis by clarifying the transformation of factories' production modes in an agglomeration and shows that the fragmentation of factories' production processes are prepared from the starting point of the agglomeration formation; economic globalization gives the manufacturing firms the motivation of a spatial departure of the fragmented blocs to a location outside the agglomeration. This part of the book then proposes a search method and the concept of a "location prospective area" to the manufacturing firms. By using this method, the manufacturing firms can find a new location site of a fragmented production bloc with low search costs. The manufacturers set a locational prospective area in a large geographical area, and they select a region within the location prospective area by considering various social and economic location factors.

Part III of the book moves its focus to the city system laid out in a region. Nowadays the spatial range of retailing and manufacturing activities are spread beyond individual cities' areas. As a result, the city system and network of the city systems become an important spatial base on which economic activities of various kinds of firms are realized. Part III introduces a new theoretical way of constructing a city system, called the "flexible market area" theory. This theory explains the new formation mechanism of the city system and describes the structural change of the established city system: By using knowledge of the retailers' market areas that is analyzed in Part I, the formation of the city system and a mechanism of the change of the established city system are explained differently than in preceding analyses. Then the reciprocal relationships between the cities within a city system are examined on the basis of the analysis of land rent in the cities' areas. Finally, Part III looks into the relationships between the city systems and the social and economic performances achieved in regions using data from Japan. This examination shows that there are clear relationships between the city systems and the performances achieved in regions. The study presented in Part III shows that the

city system plays a role as a location factor to attract factories from outside the region. It suggests that the theoretical results derived are useful for policy makers in existing industrialized countries to deliberate on the reformation of city systems to revitalize the regional economy.¹

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