Introduction

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The retail sector is one of the most dynamic economic sectors. Stores open and close, chains expand and contract, technological innovations improve efficiency, supply chains evolve, and new methods of purchasing are continuously emerging and evolving. The chapters in this *Handbook on the Economics of Retailing and Distribution* describe some of these changes using theory, systematic empirical evidence, and institutional details.

I hope this volume will serve as a useful starting point for researchers in economics, marketing science, and related disciplines, either looking for new research questions or expanding their research programs to address questions in the areas of retail and distribution. The chapters in this volume address methodological issues, such as the structural estimation of entry games between retailers, productivity measurement when both inputs and output are not fully observable, and demand estimation with variable assortment; policy issues including mergers, zoning regulation, and the regulation of buyer power; and some recent exciting developments in technology, retail formats, and data availability.

This book is divided into four main parts.

Part I concerns the development of the retail sector. Lucia Foster, John Haltiwanger, Shawn Klimek, C.J. Krizan, and Scott Ohlmacher (Chapter 1) use US Census Bureau data to examine the development of the retail sector, and specifically the rise of retail chains. My chapter (Chapter 2) explores the role of technological innovations in the retail sector, from the cash register to radio frequency identification (RFID) and the rise of the Internet. Brian Ratchford (Chapter 3) discusses the complexities of productivity measurement in the retail sector, and Roger Betancourt (Chapter 4) writes about the role of distribution services and provides a framework through which to view the rest of the book.

Part II contains chapters on the vertical organization of the retail sector: the relationship between retailers, wholesalers, importers, and manufacturers. Howard Smith (Chapter 5) introduces many of the important issues in this area, from negotiations between retailers and suppliers to antitrust issues, with an emphasis on wholesale and retail pricing. Anthony Dukes and Tansev Geylani (Chapter 6) provide a discussion of distribution-channel integration, argue that the growth of chains has increased retailers' power in vertical relationships with manufacturers, and trace the implications of this power shift. Horst Raff and Nicolas Schmitt (Chapter 7) follow this with a theory-based chapter on the relationship between multinational retailers and international trade. Finally, Ran Jing (Chapter 8) discusses the global impact of multinational retailers and their role as providers of foreign direct investment in developing countries.

Part III concerns the horizontal organization of the retail sector, starting with Victor Aguirregabiria and Junichi Suzuki (Chapter 9) on entry games and competition between retailers. Andrea Pozzi and Fabiano Schivardi (Chapter 10) provide a closely related discussion on entry regulation. Daniel Hosken and Steven Tenn (Chapter 11) discuss mergers in the retail sector and the US Federal Trade Commission's view of such mergers.

Next, Sara Fisher Ellison (Chapter 12) presents theory and evidence on consumer search and price obfuscation by retailers, and William Hickman and Julie Holland Mortimer (Chapter 13) discuss demand estimation in a complex retail environment with varying assortment.

Part IV includes a discussion of selected retail sectors and their unique aspects, many of which are not covered in the overview chapters or are covered only in the most general terms. These chapters are divided by three-digit North American Industrial Classification System (NAICS) codes. Charles Murry and Henry Schneider (Chapter 14) offer a chapter on motor-vehicle dealers (NAICS 441), in which the primary focus is on the nature of the buyer–seller relationship and asymmetric information. Paul Ellickson (Chapter 15) provides some context for supermarkets (NAICS 445) and expands on some of the themes in Part I regarding technology, productivity, assortment, and the rise of chain power. Michael Noel (Chapter 16) discusses gasoline stations (NAICS 447) with an emphasis on pricing and vertical relationships. Art Carden and Charles Courtemanche (Chapter 17) offer a chapter on general-merchandise retailers (NAICS 452), which includes department stores, discounters such as Walmart and Target, ‘Supercenters’ which combine a discount store with a full-line supermarket, and club stores. The emphasis in this chapter is on the ways in which these newer retailer formats have transformed retailing and impacted consumers. Finally, two chapters concern ‘non-store retailers’ (NAICS 454), specifically Internet retailers. Michael Smith and Alejandro Zentner (Chapter 18) write about online/offline competition, and Steven Tadelis (Chapter 19) offers a theory-grounded chapter about some of the newer retail formats that have emerged online: retail auctions and two-sided networks.

Finally, in a forward-looking addendum, Minha Hwang (Chapter 20) writes about ‘big data’ currently being generated by e-commerce and other Internet sources and its potential for furthering research on retail markets.

There are many themes that run through the different parts. One theme that emerges is the growing importance of chains. Chains account for a large and increasing share of all retail employment and sales, and serve as an important propagation mechanism for technological innovations and other structural changes. Foster et al., Smith, Dukes and Geylani, Raff and Schmitt, Jing, Hosken and Tenn, Ellickson, and Carden and Courtemanche all discuss important aspects of chains’ growth; their impact on consumers, competitors, and the supply chain; and regulators’ response to the growth of chains.

Another theme is the dynamic nature of the retail sector. The rise of chains is but one aspect of this dynamism. Technological progress (Basker), productivity (Ratchford), the changing nature of distribution services (Betancourt), the rise of the Internet (Michael Smith and Zentner; Tadelis), and the growing availability and exploitation of ‘big data’ (Hwang) are other ways in which the retail sector is changing. The continual and rapid evolution of the sector risks making some of these chapters obsolete before they are even in print. The authors and I have been careful to emphasize general themes and to ground the discussion in both historical context and economic theory to minimize this risk.

The importance of vertical relationships in the retail industry is a third theme that extends beyond Part III. The rise of chains (Foster et al.; Ellickson; Carden and Courtemanche) is associated with changes in the bargaining position of retailers within the supply chain (Dukes and Geylani; Howard Smith) and can affect suppliers across

international borders (Raff and Schmitt; Jing). Vertical relationships differ across the retail sector. Noel, for example, notes some important differences in pricing behavior of vertically integrated chains and independent gasoline stations, and Murry and Schneider discuss vertical integration among automobile dealerships.

Finally, the book addresses several topics of interest to public policy researchers. Smith and Zentner discuss sales taxes in the context of online/offline competition. Pozzi and Schivardi and Aguirregabiria and Suzuki both discuss zoning and entry regulation. Pricing transparency is a central theme in Ellison's chapter and is also discussed by Noel in the context of gasoline markets. The changing nature of buyer-seller relationships, and in particular the rise of consumer-to-consumer sales, is discussed by Tadelis in the context of Internet retailing and by Murry and Schneider in the context of automobile sales. Finally, antitrust concerns are discussed by Hosken and Tenn in the context of horizontal mergers and by Howard Smith and by Dukes and Geylani in the context of vertical contracts.

Empirical researchers will find useful discussions of data sources and methods in several chapters. Foster et al. provide detail on data from the Census of Retail Trade, while Hwang focuses on 'big data,' datasets that provide real-time, high-velocity, high-volume information. Murry and Schneider discuss datasets on automobile sales and dealerships; and Aguirregabiria and Suzuki discuss data that is useful for estimating entry games. Ellickson discusses several datasets on supermarkets, including both supermarket censuses and pricing datasets. Interested researchers should review these chapters for resources. In addition, methodological issues regarding model estimation are a primary focus of two chapters, Hickman and Mortimer's on demand estimation and Aguirregabiria and Suzuki's on entry models.

This book has been a pleasure to edit, thanks to the hard work and dedication of all the authors involved. The authors represent academics, government employees, and private-sector practitioners in six countries (the US, Canada, England, Italy, Germany, and China), each with a unique perspective. I have learned a lot from working with these authors. Collectively, the chapters provide insight into the different approaches – theoretical, empirical, and institutional – from which economists and marketing scientists view the retail sector and its development, the types of questions we ask, and the methods used to answer these questions.