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Product Variety in Automotive Industry

Understanding Niche Markets in America

Springer

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Summary

The subject of this book is product variety in the United States automobile industry. Specifically, it aims to understand the organization and the limits of the generation of variety at the industry level.

This sector shows a dual structure: on the one hand, there are relatively few and large companies producing cars that apparently achieve a degree of market power through the differentiation of their production. On the other hand, a relatively small niche market with distinct and smaller producers offers specialty equipment to enhance the performance, appearance, and handling of vehicles. This peculiarity allows an original type of empirical analysis of variety generation defined niche market analysis. By comparing the variety produced by the large companies with that provided by the niche market, it will be possible to understand more deeply the nature and operation of niche markets and to provide fresh empirical evidence on the limits of variety generation at the industry. Results have implications for economic theory and management and call for further research on this topic.

Contents

Introduction

This book is about product variety in the U.S. automobile industry. Specifically, it aims to understand the organization and the limits of the generation of variety at the industry level.

This topic is worth addressing for two main reasons. The first is linked to the specific characteristics of the sector of the automobile industry, which shows a dual structure in the production of variety: on the one hand there are relatively few and large companies producing cars that apparently achieve a degree of market power through the differentiation of their production. On the other hand, a relatively small niche market with distinct and smaller producers offers specialty equipment to enhance the performance, appearance and handling of vehicles. **By analyzing the nature of this niche market I aim to further develop the theory of niche market and to provide fresh empirical evidence on the nature and operation of these markets.** There already have been attempts to address the nature of niche markets and their links with the generation of variety empirically. Scholars of industrial ecology have tried to extend their analysis to the evolution of industrial organization in specific industries such as newspapers and wine producers (Boone et al. 2002; Swaminathan 2001, both based on the seminal contribution by Carroll 1985). Works with an evolutionary flavor have focused on bifurcation of trajectories and on the emerging of new technology by looking at market's niches (e.g., Frenken et al. 1999 analyzed aircrafts, helicopters, motorcycles, and microcomputers).

However the case for the automobile sector is rather different. This is because the specialty equipment niche market does not develop a particular version of a product as it is the case presented in the ecological literature. In addition, the specialty equipment market is not a different market *per se* and neither it represents a different technological trajectory. Its nature is to provide consumers with tools to customise their product. This peculiarity allows an original type of analysis of variety generation. As explained in detail in Chap. 3, by comparing the variety produced by the large companies with that provided by the niche market, it will be possible to understand more deeply the nature of variety.

Thus, **a second aim of this book is to shed empirical light on the limits of variety's generation.** A body of theory (Henderson and Clark 1990) studies improvements in the product design and describes limits in variety's generation as intrinsically related with the hierarchical structure of the product's design.

A different stream of literature (Lancaster 1966, 1971), that considers variety mainly as product differentiation, focuses on the comparison between the cost structure in producing variety and in the incentives arising from the value given to heterogeneity by the demand side of the market. Here the limits to variety are exogenous to the product, whose characteristics are flexible and, theoretically, do not have upper boundaries in the various forms they can assume. **This book will empirically distinguish between these explanations concluding that one emerges as the most convincing for the US automobile industry and examining to what extent the two approaches can coexist.**

The second reason to address this issue is not industry specific: the analysis of variety, especially linked to the existence of niche markets is crucial for the understanding of economic development.

The most convincing explanation for the existence of the fringe of small firms is the need to supply some segments of demand representing preferences that are too diverse to accept the standard product. It is reasonable to assume that consumers with these preferences are not simply odd people with weird tastes; on the contrary, their diversity is often linked with a higher degree of sophistication. There are different types of these users, which, as highlighted in the book, might be the real engine of qualitative innovation.

This qualitative innovation and, therefore, variety generation are crucial for the economic growth. The evolution of mass production in the last century has been a continuous attempt to increase technology's productivity through process innovation (Piore and Sabel 1984; Abernathy and Utterback 1978). If productivity steadily increases and demand reaches a saturation point, the economy can incur in an imbalance because it produces the amount of good and service required with decreasing amounts of inputs, including labour. The growth in variety counterbalances this bottleneck by creating new sectors that employ new inputs. Since variety generation is crucial for economic development and since niche markets seem to play an important role, it is worth shedding some light on the phenomenon: **if any result of this research can be generalized, it can have an importance in the understanding of the process of growth and welfare creation, the ultimate questions of economic analysis.**

The first chapter is about the evolution of variety in the automobile industry and describes the context in which the analysis is carried out. The second chapter will address the theoretical basis for an economic analysis of variety and provide guidance for the data analysis. Moreover it will develop few concepts that will be used in the empirical part. The third chapter is divided into two parts. It will first describe the new methodology applied in book for the data analysis and, thereafter, will proceed with the empirical analysis of variety generation. Finally, conclusions will resume the aims and the achievements of the book.

References

Abernathy, W. J. & Utterback, J. M. (1975). Patterns of industrial innovation. *Technology Review 80*(7), 40–47.

Boone, C., Carroll, G. R., & van Witteloostuijn, A. (2002). Environmental resource distributions and the market partitioning of Dutch daily newspaper organizations. *American Sociological Review, 67*, 408–431.

Carroll, G. R. (1985). Concentration and specialization: Dynamics of niche width in populations of organizations. *American Journal of Sociology*, *90*, 1262–1283.

Frenken, K., Saviotti, P. P., & Trommetter, M. (1999). Variety and niche creation in aircraft, helicopters, motorcycles and microcomputers. *Research Policy*, *28*(5), 469–488.

Henderson, R., & Clark, K. (1990). Architectural innovation. *Administrative Science Quarterly*, *35*, 9–30.

Lancaster, K. J. (1966). A new approach to consumer theory. *Journal of Political Economy*, *4*, 132–157.

Lancaster, K. J. (1971). *Consumer demand: A new approach*. New York: Columbia University Press.

Piore, J. M., & Sabel, C. F. (1984). *The second industrial divide. Possibilities for prosperity*. New York: Basic Books.

Swaminathan, A. (2001). Resource partitioning and the evolution of specialist organization: The role of location and identity in the U.S. wine industry. *Academy of Management Journal*, *44*, 1169–1185.