

Erker, Paul: *Vom nationalen zum globalen Wettbewerb. Die deutsche und amerikanische Reifenindustrie im 19. und 20. Jahrhundert*. Paderborn: Ferdinand Schöningh Verlag 2005. ISBN: 3-506-71788-X; 710 S.

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What does competition look like in a market dominated by just a handful of producers? According to Paul Erker, the tyre industry is particularly qualified to teach us about such oligopoly dynamics. The first conclusion Erker draws in his massive „Vom nationalen bis zum globalen Wettbewerb“ states that the historical development of the tyre industry shows that despite a shrinking number of suppliers, competition can in fact grow, contrary to what competition and oligopoly theory tells us.

The book is an overwhelming piece of work in several respects. Its sheer size of 710 pages, though likely to scare some potential readers away, is awe-inspiring. Its large time span from 1820 to 1971 and its similarly broad geographic scope, including both European and North American tyre industries, are equally commanding. More importantly, however, the degree of detail and solidity of this Habilitationsschrift are impressive. Central in Erker's study is the concept of 'dynamic competition' and he draws on the work of Michael Porter to further specify a competition model that he finds particularly well suited to analysing competition processes on a meso-level from a historical perspective.¹ After a relatively short introduction, Erker sets out to write a 'business demography' of the sector, paying particular attention to technological development in this process.

The dramatis personae of the study are the companies that have been active in this branch, which is well in keeping with Erker's interest in business history. As the book focuses on oligopoly dynamics, it comes as no surprise that the companies that dominated the market also play an important role in the book. Firms dealt with come from both sides of the Atlantic, as the sector was truly global from an early stage in its development, enabling Erker to draw comparisons between both

different firms and different national settings. Among the American 'Big Four' (US Rubber, Goodrich, Goodyear and Firestone) and the European 'Big Three' (Continental in Germany, Dunlop in the United Kingdom, and Michelin in France), Erker highlights the role played by Continental and Goodrich. Plenty of primary sources are available for both companies, more so than for any of the others. Erker also deals with the many middle-sized and small firms and gives ample attention to the relationships of cooperation and antagonism between them. Lacunae in the source materials, particularly for the pre-1914 period and the Interbellum, have been filled through extensive readings of professional journals dedicated to the rubber sector.

In describing the competition in the tyre industry in the 19th and 20th centuries, Erker shows that the action and reaction schemes of companies were interwoven in a complex multi-level game that was played in both home and export markets on both sides of the Atlantic. Overall market complexity was increased through the difference between the market for equipping new automobiles and the spare tyre market. With the increasing technological complexity of the tyre itself and the divergence in automobile models and functions, further sub-divisions and niches emerged over time.

For the sake of manageability, the broad time frame has been subdivided into three periods corresponding with the different phases in competition dynamics. The first period (1820-1914/1918) deals with „the formation of the oligopoly“. It starts at the beginning of the 19th century, when the first products forged from natural rubber came on the market. The tyre entered the scene in the 1860s, first used for horse-drawn vehicles and later for bikes. The pneumatic tyre broke through in the 1880s, and it soon became the product that would cover the wheels of the automobile, linking its fate to that of the latter. When car use started to spread in the United States just after the turn of the century, the tyre market expanded enormously, attracting several newcomers. Particularly interesting in

¹ Porter, Michael E., *Wettbewerbsstrategie. Methoden zur Analyse von Branchen und Konkurrenten*, Frankfurt 1992.

this part is the section on the European ‘publicity war’ that took place in the build-up to World War I. Advertisements for Continental, Michelin and Dunlop took on a nationalistic flavour and pleaded against ‘buying foreign’, turning tyres into symbols of nationalism.

The second period (1918-1936) is titled „global oligopoly competition in unstable markets“. The Interbellum was characterised by a phase of decreasing globalisation. Tyres were becoming a complex technological product, meaning that producers had to make tough choices as to which aspects should be the focus of their innovation strategies. Innovation improved tyres’ life expectancy and reduced prices, making it increasingly difficult for the players in the market to stay profitable. Further pressurized by the existing worldwide overcapacity, the market witnessed the start of a long shakeout phase that still continues today.

The third period (1936/39-1970/71) is dedicated to the „regulated competition and new technologies“. „Regulated competition“ refers to the fact that while the state regulated central factors of the competition like price, technology and profitability just before, during and after the war, the overall competition settings in the market did not change. The major technological change was the introduction of synthetic rubber by the Nazis, which moved the cutting edge of innovation to Europe for the first time in decades. Though natural rubber made a short comeback after World War II ended, synthetic rubber soon reigned supreme, ending the sector’s woes due to volatile natural rubber prices. Erker’s story ends at the beginning of the 1970s with the oil crisis and the breakthrough of yet another type of tyre that through its lower surface resistance reduced fuel consumption. However, the chapter’s fourth and last section shortly introduces the reader to the period from the early 1970s until the present day, in which the tyre industry reshuffled and concentrated at an accelerated pace.

Despite the extensive scope of Erker’s text, there are some interesting points the book neglects. For one, there is asymmetric attention paid to the production side at the expense of developments in demand for rubber tyres. While Erker does point to the intimate relationship

between the tyre and car industries, it would be intriguing to learn more about how consumers influenced competition and innovation. Recent work in the history of technology and technology studies has proven that such perspectives can be rewarding.² More attention for this aspect would also have enabled us to link the story of the tyre better to the history of mobility culture in general. A second point I would like to raise is that, on reading the text, I sometimes had difficulty grasping the actual nature of the innovations dealt with in the text. More illustrations of both the actual tyres (like the ones on pp.118, 541) and of the technical processes used for their production might have helped to reduce this problem.

Other than that, I think the book, through its many submerged themes (the role of R&D in the modern firm, labour relations, (im)possibilities of technological transfer, the relationship of science and technology) should make it appeal to a broad readership of business historians, economic historians, transport historians and historians of technology.

Footnotes:

Frank Schipper über Erker, Paul: *Vom nationalen zum globalen Wettbewerb. Die deutsche und amerikanische Reifenindustrie im 19. und 20. Jahrhundert*. Paderborn 2005, in: H-Soz-Kult 10.06.2005.

²See Oudshoorn, Nelly; Pinch, Trevor (eds.), *How Users Matter. The Co-Construction of Users and Technology*, Cambridge 2003.