CHAPTER 3

Marketing the Bicycle

Abstract How does the practice of marketing work within the bicycle industry? This chapter examines the bicycle marketing focusing on its three pillars, which consist of understanding customers through market segmentation, designing a market offering for those customers who bicycle firms choose to serve and using sports as a marketing tool. For each topic, the chapter discusses the evolution of marketing practice since the birth of the bicycle industry. Furthermore, the chapter is enriched through examples, based on data, showing market segmentation approaches, market offering hierarchies and participation by bicycle firms to key stage-races on the road.

Keywords Market segment · Segmentation variable · Product line · Model · Product variant · Annual model change · Road racing

3.1 Marketing in the Bicycle Industry

The bicycle industry and marketing have a curious relationship from a historical perspective. They are both victims of a twofold neglect. Firstly, the role played by marketing in understanding the evolution of an industry is underrated. Economic and business historians usually approach the study of an industry from a technological perspective. The main focus is technological innovation and its impact on industries over time.

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This is the supply side perspective emphasizing the changes in production brought by technology. It is evident that technological innovations have been the keys to the industrial revolutions since the eighteenth century, nevertheless, this idea neglects an alternative perspective that calls for including the demand side into the history of any industry. It means that consumers do play a role in shaping the success or failure of a new product developed through technological innovation. Since the eighteenth century, consumers had to be persuaded that they needed the new products launched into the market. This situation indicated that manufacturing was not enough to pursue a firm's goals. A further activity was needed to handle the demand side of the business. It was marketing and it worked in tandem with manufacturing to enhance the demand for new offerings (Fullerton 1988, p. 112). Bicycle industry studies are no exception since most of them favour the technological perspective as the main lens for understanding the evolution over time. Marketing is very often a neglected topic within bicycle history literature. Secondly, the role played by the bicycle industry in developing marketing innovations, which impacted on other industries, particularly the automobile industry, has been almost completely ignored (Petty 1995, p. 33). Bicycle industry was instrumental in bringing about modern marketing as it is known nowadays. Marketing historians tend to focus on other consumer goods such as food, beverages, detergents, toiletries and cosmetics, home appliances and cars. It seems difficult to acknowledge the contribution of bicycle industry in advancing marketing concepts and tools, which are still used in many industries all over the world.

Bicycle marketing was involved in building the underpinnings of the automobile age by providing a preview on a miniature scale of much of the social phenomena which the automobile enlarged upon (Aronson 1952, p. 312). The bicycle and the marketing activities created to enhance its demand had, directly and indirectly, a decided influence on the introduction and ready acceptance of the automobile (Oliver and Berkebile 1974, pp. 22–24). The attractiveness of the automobile was nourished on the feeling inspired by the bicycle, which extended the boundaries of spatial experience for the consumers and stimulated desires for increased independence of movement. This experience was the background for considering motor vehicles, particularly small cars, as the obvious next stage in searching for increased mobility (Sachs 1992, p. 106). It was the bicycle that gave rise to a new type of mobility, introducing thousands of people to individual and independent mechanical transportation, which

became widespread during the twentieth century through the automobile. The bicycle and its marketing rendered another service to future car drivers by forming a movement for road repairs and construction in the United States. This was a lobbying group, called Good Roads movement, which succeeded in promoting the construction of hundreds of miles of roads upon which the early automobile depended, and the creation of both state and federal legislation that would result in the national highway system (Hounshell 1979, p. 180).

The marketing of bicycles also provided the automobile industry with a distribution system based on a network of both agents and repair shops where selling and repairing were carried out. These shops also acted as a training school for a group of mechanics who could easily turn from the bicycle to the automobile (Aronson 1952, p. 310). In UK some of the leading bicycle firms, such as Humber, Rover, Singer, Swift, Triumph and BSA began to make motor cars and took advantage of their distribution system, which already existed (Church 1982, p. 7). A similar situation happened in the United States for some bicycle builders, such as Albert A. Pope, Alexander Winton and George N. Pierce (Chandler 1964, pp. 10–11). The large number of bicycle dealers in the 1900s, in Europe and the United States, helped the nascent automobile industry to search for its cadre of dealers within the bicycle industry. For instance, the first dealer of Ford Motor Company was an agent for a bicycle firm (Tedlow 1990, p. 134). The link between bicycle dealers and car dealers was so strong that a study about the marketing of automobiles, conducted in the 1910s in US, divided the car dealers into three categories: bicycle men, nephew of rich uncles, and men seeking new connections (Tedlow 1990, p. 136). Overall, the marketing of bicycles was a learning experience for the car culture of the twentieth century (Hounshell 1979, p. 179) and contributed to the development of the system of *automobility* described by Sheller and Urry (2000).

This chapter intends to remedy the shortcomings of a twofold neglect, mentioned earlier, through the analysis of what marketing was, and still is, within the bicycle industry. Marketing is about the interplay between company and customer within the context of competition (Tedlow 1990, p. 375), and, to manage this interaction, a bicycle firm can employ various marketing concepts and tools. The chapter focuses on the three interdependent pillars that are the core marketing activities practised by bicycle firms. Firstly, segmenting the market; secondly, developing a variety of offerings; and thirdly, using sports as a marketing tool. Bicycle marketing

is more than these three pillars, but its very nature is deep-rooted in them, and it is fair to say that there is no marketing without them. The other marketing concepts and tools used within the bicycle industry depend on them and need to be consistent with them. The following sections examine each of the three pillars.

3.2 Segmenting Markets

It is plausible that the bicycle industry used a form of market segmentation since its birth in the 1870s, but the introduction of the safety bicycle was the watershed for adopting a more advanced way of segmenting markets. The new approach was a marketing strategy characterized by a customer-centred mind-set. Does it mean that bicycle firms understood that customers played an essential role in determining the success or failure of the new bicycle, and, as a result, asked themselves which potential customers should we attempt to serve? The answer was the process of market segmentation, which consists of dividing the market into groups of potential customers, called market segments, with distinct characteristics, behaviours, needs, or wants. Segmentation aims to cluster customers in groups that clearly differ from each other but show a great deal of homogeneity within the group. It is important that the segments are sufficiently different from each other. Companies chose which market segments to serve and develop a specific offering for each. Segment-based marketing is usually compared with its alternative—mass marketing—that does not recognize the diversity of customers, and consequently develops the same offering for all customers.

Market segmentation is an essential component of the history of marketing, particularly marketing practice (Fullerton 2016). This history is usually framed according to the three phases in the development of consumer product marketing in the Unites States (Tedlow 1990). Tedlow argues that it is possible to discern a progression in American marketing through three phases: fragmentation, unification and segmentation. His structured periodization is built on the evidence drawn from four industries: soft drinks, automobiles, grocery retailing and general merchandise retailing. The market segmentation phase began approximately in the 1920s for the automobile industry and later, during the 1950s, for most consumer goods industries. This historical account was criticized by other scholars that considered his three-phase model too simplistic (Cohen 1990, p. 552; Trentmann 2017, p. 317). One of the main criticisms was

that market segmentation was already practised before the period of time indicated by Tedlow. He replied arguing that the segmentation that took place after World War II was far more complex than anything that had preceded it. Before the 1950s, there had been a market segmentation based on price through which firms would offer three lines (known as good, better, and best) of an essentially similar product. Since the 1950s, market segmentation, instead of relying on price or product characteristics, was based on telling the customer what kind of person buys the kind of offering in question. This form of market segmentation was designed to create a community of customers (Tedlow 2015, pp. 25–26). Tedlow clearly states that his phases of marketing evolution are applied to non-American markets, and to a range of products, and sometimes found useful, and sometimes not (Tedlow and Jones 2015, p. 7). However, he does not acknowledge the role played by the bicycle industry in developing a complex form of market segmentation between the 1890s and the 1900s, which impacted on the automobile industry and, plausibly, other industries.

How was the bicycle market segmented? The answer is provided by the catalogues and price lists, from 1899 to 1954, of the most long-lived Italian bicycle firm: the Bianchi company (Mari 2015, pp. 142–144). This firm was a market leader and it is plausible to state that its segmentation approach represented a common practice within the bicycle industry in Italy and abroad, as corroborated by other sources such as the catalogues and price lists of the Rover Cycle Company Limited (1897) or The Raleigh Cycle Co. Ltd. (1889, 1906).

During the early 1900s, the bicycle industry used two broad criteria to divide customers into segments: demographic and behavioural characteristics. The former criterion relied upon the following specific variables: gender, age and anthropometric measures. The latter used two further variables: bicycle usage and price sensitivity. The application of these criteria to segment the market can be thought as a sequence of steps (Fig. 3.1). The first is to use the variable *gender* to identify two segments: male customers and female customers. The second step was to apply the variable *age* to the previous segments and group four new segments: adult male customers, children male customers, adult female customers and children female customers. The third step was to add the *bicycle usage*, a behavioural characteristic, to identify new segments of customers. The main uses for bicycle were transportation, leisure and racing. Each of them is linked to a specific group of customers: commuters, tourists, and racers

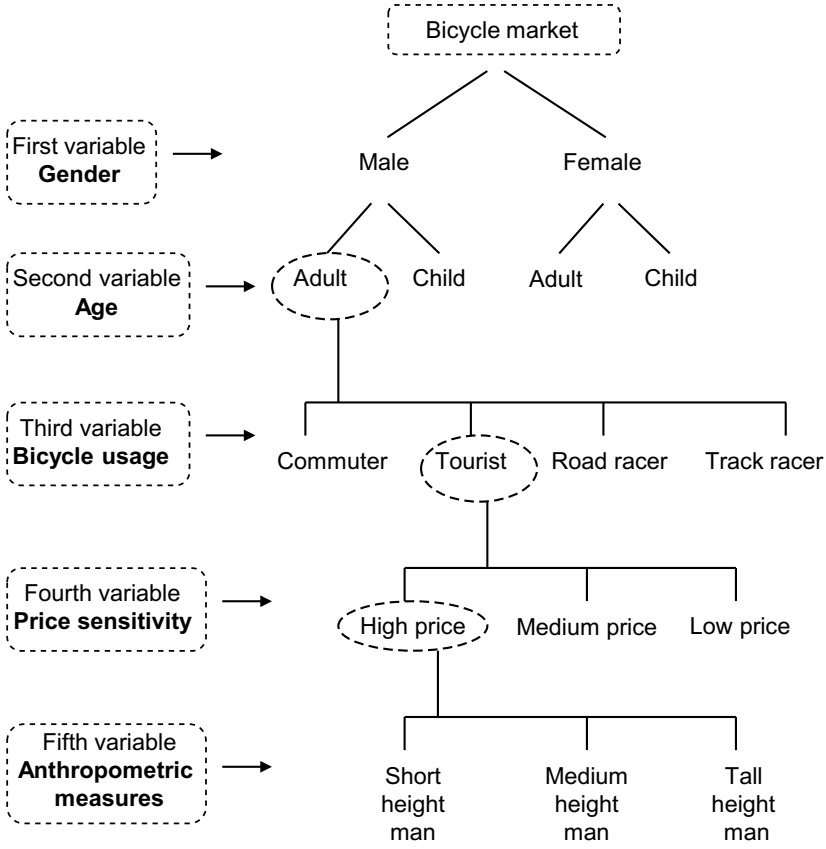

Fig. 3.1 Bicycle market segmentation in the 1900s

who were further subdivided into road and track racers. To exemplify a partial list of new segments were adult male commuters, adult male tourists, adult male road racers and adult male track racers. The fourth step in market segmentation was to examine *price sensitivity* of customers. It meant to acknowledge that customers showed further key differences in regard to income and social class. The bicycle industry used a price range to take into account socioeconomic conditions of customers and develop offerings consistent with what each market segment could afford to buy. A partial example of new segments based on three levels of price was:

adult male tourists able to pay a high price, adult male tourists able to pay a medium price, and adult male tourists able to pay a low price. The last step in segmenting the market was to use the *anthropometric measures*. These are the human body measurements affecting the size of the bicycle that, in turn, influences the performance of the cyclist in pedalling. The new segments resulting from the use of anthropometric measures were classified according to the height, or stature, of the potential customers usually measured in centimetres. The height was considered as a synthesis of the basic anthropometric dimensions such as thigh length, lower leg length, inseam length, chest height, upper arm length, forearm length and hand length. The height was easier to measure and gave a rough idea of bicycle fit to a specific customer. For example, the segment including adult male tourists able to pay a high price was subdivided into three new segments, each of them corresponding to a different height: short height man, medium height man and tall height man. It should be emphasized that bicycle industry preferred to convert the height of customers into the size of the bicycle frame, usually measured in centimetres, so that market segments were identified through small, medium and large bicycle frame. Instead, for children bicycles the size of the wheels was used as a proxy for anthropometric measures. It was usually measured in inches, for example, 20 and 24 inch wheel diameter. Figure 3.1 exemplifies the adult male segment using the bicycle for tourism and able to pay a high price for a bicycle. The other market segments follow the same logic.

The previous complex segmentation scheme identified multiple segments that needed to be evaluated from the perspective of the company to decide which of them to serve and which to ignore. The rationale was that some market segments were less attractive for fulfilling firm goals and, consequently, it was not feasible to develop a unique offering for each segment. The company retained those market segments for which it was able to create an offering that satisfied customer needs better than the competition and, at the same time, achieved its goals. The final result was the product assortment as it appeared in the company catalogues that hid the segmentation criteria and emphasized the offering.

After almost 120 years, how has the segmentation of the bicycle market changed? The answer is straightforward: nothing has changed. To find evidence of such a statement is enough to take a close look at any catalogue and price list (print or online) published by a bicycle firm. This is an easy way to discover the market segmentation employed by the bicycle

industry. In most cases, catalogues and price lists provide all the information required to grasp the market segmentation variables hidden by the product assortment. The example below is drawn from the 2011 catalogue and price list of Giant Manufacturing Co. Ltd., the leading Taiwanese firm, which allow a thorough comparison with the market segmentation approach of the 1900s. The Giant's segmentation framework shares both the five variables and the sequence of steps with the market segmentation process discussed earlier. Firstly, the bicycle market is divided into three groups according to two demographic variables: gender and age (Giant 2010a). This step leads to three market segments: adult men, adult women and youth (both female and male). Secondly, Giant employs two behavioural variables for each market segment: bicycle usage and price sensitivity. To understand both variables, Giant asks its potential customers the following questions: (a) where do you ride?, which provides a clue to bicycle usage; (b) what is your desired riding level?, which helps to shed light about how customers are sensitive to price. The former question has three alternatives answers: on road (that is, paved roads and paths), off road (that is, single track and dirt paths), and across-the-road (that is, a mix of dirt and pavement). The latter question has also three alternative answers: lifestyle, sport and performance. These three riding levels correspond to different price points within the offering (Giant 2010b). It means that a lifestyle customer is interested in a less expensive bicycle, a performance customer is willing to spend a lot of money for buying a bicycle, and a sport customer is in-between the other riding levels. The three alternative answers to each question can be arranged in a two-dimensional matrix of nine cells, each representing a market segment (Fig. 3.2). For example, the group of customers including adult men riding off road and enthusiasts of expensive mountain bicycles (that is, a performance riding level). Figure 3.2 depicts the matrix for the adult men segment, which is slightly different for women and youth segments. The matrix for women has eight cells since Giant is not serving the market segment identified as across-the-road and performance. The youth matrix includes only three cells: on road and lifestyle, off road and sport, and across-the-road and performance. The third and last step in the market segmentation process is to consider the anthropometric measures. Giant manufactures various sizes of both bicycle frame and wheel for each of the cells within the three matrixes.

Apparently, the two market segmentation approaches might be considered different from each other. There is a partial variation in wordings and

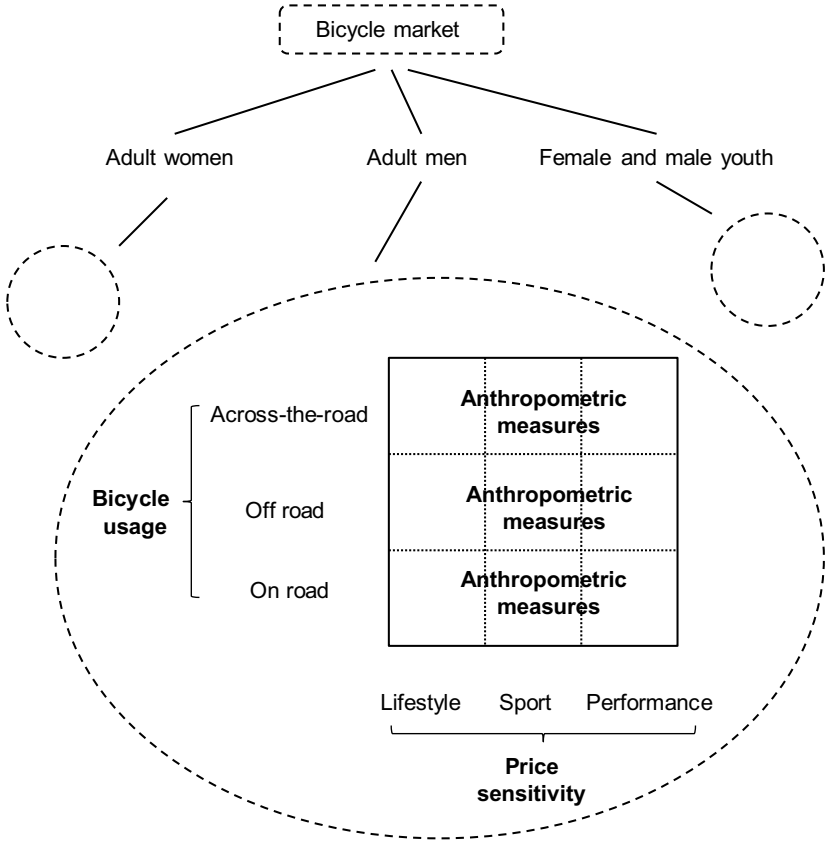

Fig. 3.2 Bicycle market segmentation in the 2010s

the process of jointly applying the variables to identify market segments, employed by Giant, could be seen as a different option by a careless reader of company catalogues. These differences are minor points that do not change the basic framework shared by both approaches. It is fair to state that market segmentation in the bicycle industry is still done in the same way as it was since the 1900s. Both examples of segmentation clearly show that the argument regarding the three phases of marketing evolution, and particularly the segmentation phase, does not hold. Market segmentation was a practice already used before the 1920s and it was also

a complex approach based on both demographic and behavioural variables. Bicycle firms learned very early that product characteristics or price were not enough for identifying potential customers, something else was needed. Bicycle usage, as a further market segmentation variable, helped bicycle firms to focus on the desire of potential cyclists for being part of a community of customers sharing the same interest in cycling. For those cyclists, buying a specific kind of bicycle was a way to be associated with a distinct group of customers, such as the commuters using their bicycle on road, the tourists riding across-the-road, or the racers competing off road. This emphasis on the identification of a person with a broader group of customers has received a renewed attention, within the bicycle industry, through the variable gender. In 2008, Giant opened its first store exclusively for women, called *Liv / giant*, in Taipei City on the assumption that this distinct group of potential cyclists was neglected compared to men. Three years later, in 2011, Giant launched *Liv / giant* as a new brand of bicycles dedicated to serving female riders worldwide, and changed its name to *Liv* in 2020.

3.3 Developing Market Offerings

The second pillar of bicycle marketing centres around what products a firm should offer for sale and what features they should incorporate. These choices are usually called product policy decisions. They are intertwined with market segmentation as they follow it. Once a bicycle firm identifies market segments, it has to decide which of them it wants to serve and how. Product policy in the bicycle industry has been characterized by two main decisions: creating variety in market offerings and managing it over time.

The former decision involves what and how many products to offer. It means that bicycle firms choose the dimensions of variety to compete on, which must be of value to customers. Variety refers to the number of items within the offering of a firm. Offerings are also called product assortment, product mix, product range or collection. Variety is a stock concept that is bound to a specific set of items and a moment in time (Sanderson and Uzumeri 1997, p. 9). It is measured at a given time through the mapping of existing products, which is a hierarchical structure showing the relationship between the items of the offering. This hierarchy is organized into three levels: product lines, models (also called products) and product variants (also called items, versions or stock-keeping unit, SKU). A single

product line usually includes a group of models that are closely related because they are proposed to the same market segment and perform a similar function. A single model differs sufficiently from other models and has a distinctive marketing designation within the marketplace. It usually consists of a group of product variants. A single item is distinguishable by size, appearance, or components. The offering of a bicycle firm can be measured through three dimensions: the number of product lines, the number of models within each product line, and the number of product variants of each model. Bicycle firms usually divide up their product lines very finely, with each model representing a small variation from the rest of the line. Thus, bicycle firms extend their offerings with only incremental changes and manufacture multiple models with highly similar components (Dowell 2006, p. 962).

To examine further the concept of variety within an offering, it can be useful to categorize it into three types: fit, taste and quality (Ulrich 2005, p. 115). Each of them refers to one or more characteristics of the bicycle. For instance, a fit characteristic is the size of the bicycle frame or the size of wheels. A fit characteristic is based on the interaction between the customer and the product, which, in turn, affects the degree of customer satisfaction or dissatisfaction in using the bicycle. Metaphorically, a cyclist should wear the bicycle as a piece of clothing. Fit characteristics recall the anthropometric measures employed to segment markets, and explain why bicycle firms use this category of variety in their offerings. A taste characteristic is the colour of the bicycle or the brand of some components. Customers show their preferences for a particular taste characteristic that can influence the decision to buy or not to buy the bicycle. Variety based on taste characteristics is a further key decision in developing market offerings that are appealing to customers. A quality characteristic refers to variation in quality levels of bicycles. It is usually created within a product line to take into account the price sensitivity of customers. It is used to establish a price-performance link between the bicycles in the same product line. It means that the variety stems from the price range of components used for manufacturing the models within the product line. Thus, less expensive components offer a lower level of performance, and more expensive components provide a higher performance level. It is a common practice to build a product line through several models starting from an economy model (or low-end, or low-quality), and ending to a premium model (or high-end, or high-quality).

The linkage between segmentation criteria and offering is that product lines are built for market segments identified through gender, age, and bicycle usage. Whereas models are developed for accounting for price sensitivity of segments and product variants try to fit the anthropometric measures of customers or satisfy other needs and wants. The following examples provide some evidence about the offerings of the two bicycle firms discussed earlier.

In 1902 Bianchi's offering consisted of six product lines, twelve models, and sixty seven product variants (Mari 2015, pp. 145–146). Four product lines were for segments interested in using the bicycle for transportation and leisure purposes and two for racing activity. It is likely to assume that despite the fact that commuting and leisure riding were different market segments, Bianchi company decided it was not viable to offer specific models for each of them and developed an offering suitable for both purposes. The four product lines for transportation and leisure were: bicycles for adult males, bicycles for adult females, bicycles for boys and bicycles for girls. The two further product lines were: bicycles for adult males engaged in road racing and bicycles for adult males practising track racing. Each product line consisted of a certain number of models and it is evident that adult male segments were the most important for Bianchi. Three out of six product lines and seven out of twelve models were developed for them. Moreover, commuting and leisure riding of adult men was considered the main field of usage requiring the most models. Specifically, such a product line included seven models whose price range was from 350 to 680 lire. Each model was identified through a letter or a technical characteristic and for each of them were available some product variants according to what the company thought was appropriate. For instance, model *B* was offered in four different frame sizes and customers could also choose two different braking systems. The total number of product variants within the man commuting and leisure product line was 39.

The structure of offering proposed in 1902 resembled the basic product assortment developed by the company from 1899 to 1954. Each year between five and seven product lines were available. The transportation and leisure bicycles for man, woman, boy, and girl, were the four main product lines offered to a broad public, whereas the other key product line represented by road racing bicycles was for a niche group of enthusiasts. Two further product lines were not available every year because they fulfilled a very particular customer need. The track

racing bicycles were offered from 1899 to the 1920s. This was consistent with the evolution of cycling that gradually replaced track races with road racing events. The seventh product line was developed for military purposes in the early 1910s. From 1899 to 1954, the Bianchi product lines offered between seven and seventeen models each year. Most of the time there were eleven models, with between 60 and 80% of the offering aimed at the key market segment of adult males. Moreover, the bicycles used by adult men for transportation and leisure riding represented between 40 and 60% of the product assortment. Models within the same product line were delineated on a price-performance basis. The higher the price, the greater the performance of the bicycle. Bicycles varied in their performance on different attributes. It was usually technical features that impacted the weight of the bicycle, its comfort, or its style. Bianchi tried to appeal to consumers from various income and social classes through luxury and affordable products. The former were expensive bicycles comprising advanced features such as a lighter steel for building the frame or a more effective braking system. The latter were inexpensive bicycles that offered a basic set of features consistent with a low price. In 1902 Bianchi proposed 67 product variants, 62 in 1914, 38 in 1933 and 42 in 1941. Most of the time Bianchi offered three different frame sizes, measured in centimetres, for its main products. In the late 1920s, the number of frame sizes of male bicycles used for transportation and leisure was up to six.

The Giant's offering in 2011 consisted of 20 product lines, 133 models, and 560 product variants (Giant 2010a, b). There was a product line for each market segment served by the company as depicted in Fig. 3.3, which includes the market segmentation approach examined earlier. Each matrix refers to a broad group of potential customers: adult men, adult women, and female and male youth. Giant decided to serve the nine market segments of adult men identified through bicycle usage and price sensitivity. At the same time, some market segments of adult women and youth were not considered promising for the company, and no offering was developed for them. Each cell of the matrixes includes the number of models.

The whole offering of Giant in 2011 shared the same emphasis on adult men customers as of Bianchi's offering. Over 70% of models available were for adult men, compared to approximately 16% for adult women and 14% for youth. A similar situation is confirmed by the number of product variants: 80% for adult men, 16% for adult women and 4% for

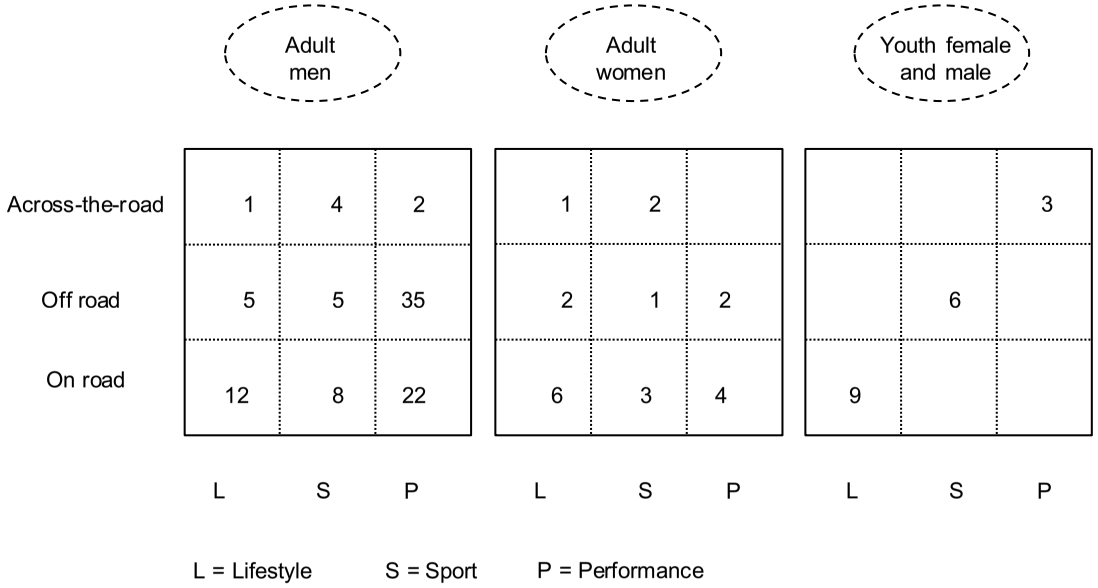

Fig. 3.3 Offering of Giant in 2011

youth. The matrix of adult men shows that most of the models are developed for being used on road and off road. Moreover, customers able to spend more money for buying a bicycle can choose from a larger variety of models as the performance riding level, both on road and off road, has the highest number of models and product variants. The variety of offering is created through fit and quality characteristics. Giant developed from one to six sizes of a bicycle frame, depending on the price range of the bicycle. The more expensive the model, the more sizes of a bicycle frame. The quality characteristic was extensively used to provide customers with a selection of price points that could satisfy a large number of potential customers. The taste characteristic, based on the colour of bicycles, was not very common in Giant's offering. Most of the bicycles were offered in one colour and very few of them had two or three options, usually the less expensive bicycles.

The second decision of product policy, in the bicycle industry, is managing variety over time. This choice is usually framed as the annual model change approach. The origin of this practice is controversial (Petty 1995, p. 40), some scholars argue that it was used by the nascent bicycle industry in UK while others maintain that it originated from other durable goods industries. There are traces of this practice in four industries and examining them might provide a clue to the puzzle of its origin.

The farm implement industry in the United States, from the late 1840s to the 1850s, began to change every part of their machines from years to years, particularly the McCormick reaper company used to change its whole offering of machines every year to keep them attractive in the market. The changes were dictated by the presence of competition, and by the experimental work in progress to improve the products. The annual model change within this industry became a pattern for both manufacturers and farmers, who came to expect changes from year to year. The industry was characterized by a habitual cycle of change (Hounshell 1984, pp. 157–159).

The pottery and glass industry in the United States introduced, by the 1880s, the practice of changing some products at the beginning of each year. The potters and glassmakers began to launch new patterns every year to capture the trade of high-volume customers. They understood that it was more effective to do business with department stores, chain stores and mail-order houses. As a result, a new approach to product design, innovation and promotion was developed. It was mainly based on introducing some new products every year, and creating artistic items in a

hierarchy of price categories to accommodate customer preferences and differences. Moreover the industry participated to the annual show ran, in early January, in Pittsburgh. This event became the way to institutionalize the annual model change practice (Lee Blaszczyk 2000, pp. 24–26). US pottery and glass industry emulated the example of the British firm Wedgwood & Bentley, which developed, during the eighteenth century, a set of marketing practices for satisfying the demand of the people for novelty and beauty, such as introducing one or two new shapes or patterns every year and using a showroom in a fashionable quarter of London (McKendrick 1982).

The British bicycle industry started to renew its offerings every year during the 1880s (Harrison 1977, pp. 113–117; Millward 1999, pp. 167–169; Duncans 1898, p. 506). It meant that the whole offering was changed every year according to an established seasonal pattern, which included the participation to an annual show, such as the Stanley Show, which ran from 1878, and later the National Show, which ran from 1893. The quest for novelty arose from both the process of product invention and refinement, which was continuous until the basic design of the bicycle settled down around the safety bicycle, and the need to expand the market through the extension of the practice of cycling to new classes and purposes. The annual model change was also nourished by the buying habits of potential customers who showed a desire for constant change, which, in turn, was shaped by the pressure of fashion. For instance, in Italy during the 1910s most of the cyclists bought a new bicycle every three years compared to seven-eight years of the 1890s, and some affluent people could afford to buy a new bicycle every year or even twice a year (Roseo 1912, p. 202).

The automobile industry, particularly the General Motors Corporation, introduced the annual model change practice in the 1920s. It was Alfred P. Sloan, Jr, who became operating vice-president of General Motors in 1921 and president in 1923, who gave birth to this practice (Tedlow 1990, pp. 167–168). He developed a broader product policy based on three aspects: the product line, the annual model change and style. This was the answer to the competition facing the automobile industry by the mid-1920s in the United States. Marketing became a greater challenge than production and the main problem was no longer to sell an individual his first car, but to convince him who already owned a car to buy a new car (Chandler 1964, p. 13). It was also coined the word *Sloanism* to evoke such product policy, even though it was not

so widespread as it was *Fordism* (Rothschild 1973, p. 38). The offering of General Motors was organized in a six-model price range that ran incrementally from cheap to expensive. Each model was launched at a selected price point within the specified price range. These price points had to be sufficiently separated to prevent the company from competing primarily against itself (Tedlow 1990, p. 169). Sloan reasoned that the price range structure would fully accommodate potential buyers of every income throughout their lives. This is an example of market segmentation implemented through the variable price, and it seems that General Motors did not use further variables to understand its markets (Tedlow 1990, p. 180). The annual model change initiated in 1923, but the concept evolved gradually and was fully formalized and regularized in the 1930s. Sloan recalled that 'on the average two years elapse between the time we make the first decisions on the new models and the time the cars appear in dealers' showrooms' (Sloan 1990 [1963], p. 238). The changes had to be done between the first of August and the first of November as any other date run into the selling season (Sloan 1990 [1963], p. 167), and were primarily based on style. The role of styling was to change car bodies on a four-year cycle, with face-lifting changes in-between (Sloan 1990 [1963], p. 277). The appearance of a car was considered the most important factor in convincing customers that the car they presently owned was obsolete. As a result, the annual model change was the ideal device to stimulate car sales and claim that last year's model was no longer in fashion.

The annual model change practice has different meanings in different industries. Its scope ranges from genuine improvements employed through structural changes, which affect the performance of a product, to cosmetic upgrades based on stylistic and aesthetic changes to make the product seem new or different. Its application can involve the whole offering each year or a part of it. For instance, both farm implement and bicycle industries renewed the full offering every year, whereas pottery and automobile industries focused their changes on a limited number of products. The bicycle industry usually uses the expression annual collection to indicate that changes are implemented across the whole product assortment. The possibility to change the offering from one year to another was made easier by using interchangeable components and sharing them across a wide range of bicycles. The four industries show that the main rationale behind the annual model change practice was to increase the sales of a product. However, they also emphasize the role played by potential customers who asked for novelty and changes. It is

plausible to state that there was a dialogue between customers and firms. Product policy decided by those firms shaped consumer preferences, but at the same time, those preferences influenced the choices made by the firms. Both behaviours contributed to make the annual model change a habit within those industries.

3.4 Marketing Through Sports

The third pillar of marketing in the bicycle industry is the use of sports as a marketing tool. It should be emphasized that marketing through sports is different from sports marketing. The former means that bicycle manufacturers use sports activity as the basis for appeal to potential customers of their products. The sports activity is part of the firms' marketing efforts to market bicycles. The latter is the application of marketing concepts and tools to market sporting events and to increase the number of participants, both athletes and spectators, in a specific sporting activity. Bicycle firms are not sports organizations whose primary goals are organizing sporting events or promoting the practice of competitive cycling.

It might help to briefly recall what bicycle sports means. Bicycle racing emerged in the 1870s and 1880s and evolved from the classic form of sprinting on the track, held in hippodromes or on special tracks constructed for cycling, to a new kind of racing based on four categories of events: long-distance place-to-place races on the road, stage-races on the road, *stayer* or paced races on the track, and Six-Day races on the track (Ritchie 2018, p. 265). Long-distance road races were introduced in the late 1880s and early 1890s. Cyclists had to race over a distance of 500 or 600 km, with no scheduled rest-breaks, aiming to cover the distance in as short a time as possible. For example, some European road races still take place nowadays, such as Liège-Bastogne-Liège, first held in 1890, or Paris-Roubaix, since 1896. A stage-race is a race held over several days, consisting of separate daily races with aggregate finishing time (Ritchie 2018, pp. 267–269). The two most well-known examples of this kind of bicycle racing, which still take place on a regular basis, are the Tour de France, first held in 1903, and the Giro d'Italia, since 1909. A paced race evokes the athletic technique by which one cyclist benefits by riding in the slipstream either of another single cyclist, a multi-cycle or a motor-driven pacing machine, which made it possible for cyclists to overcome wind-resistance and ride faster (Ritchie 2018, p. 272). Six-Days were indoor track races lasting for six days, in which either individuals or

teams of two riders competed (Ritchie 2018, p. 277). Road races became the most widespread form of bicycle racing and are still the emblem of modern competitive cycling.

Why bicycle racing and its four categories of events were of interest to the bicycle industry? The answer might appear obvious, but the relationship between the industry and the sports was complex and has affected the history of bicycle business until today. A clue to answer the question is provided by the vision of the founder of Bianchi company, who had to confront a difficult situation when he began his activity in 1885. Before the introduction of the safety bicycle, the image of cycling evoked something hilarious, unsafe, awkward and tangled. It was clear that legitimizing bicycle use was a key issue that any bicycle firm could not ignore if it was to succeed. As a result, it was necessary to face the public's aversion to bicycles induced by previous nineteenth century attempts to develop the machine. The best way to change attitudes towards cycling, and popularize the new practice of individual mobility was to demonstrate the technical improvements that had given birth to the safety bicycle. If people could see the bicycle in action, they would grasp how different was the new design and how the problems of earlier designs were solved. The opportunity of showing people cycling in action was offered by the nascent bicycle road races that took place across many countries, particularly in Europe. These road races provide millions of people with their initial exposure to the first modern spectator sport. Riders passed by their homes and local communities and spectators were able to participate directly in the races without the need for tickets or travel to distant sport venues. Bicycles were the essential tool of this newly popularized sport and road races became the springboard to boosting the bicycle's use by showing it in action (Mari 2015, p. 149). The stage offered by road races helped bicycle firms to overcome the aversion to bicycles, which in turn increased the practice of cycling, which ultimately affected favourably the sales of bicycles. Despite the fact that competitive cycling was something different to using bicycles for transportation or leisure purposes, the impact of marketing through sports was beneficial to the entire activity of cycling as these further uses of the bicycle were not mutually exclusive, and interchange between then frequently occurred. For instance, the same individual might race on the weekend, and ride to work during the week (Ritchie 2018, p. 9).

A further reason that explains the relationship between the bicycle industry and the sports is that races were the primary testing ground for

bicycle technology. The real racing environment became the best way to test products and innovations that were, subsequently, transferred to the production of bicycles. It is fair to say that there was a mutually beneficial relationship between bicycle racing and the industry. The sports asked the industry for advanced machines characterized by lightness and speed, and the industry needed racing for improving its products through innovation and technical changes.

The relationship between bicycle racing and the industry can be better understood through the archetype of competitive cycling exemplified by stage-races on the road, particularly the two most celebrated and long-lived races mentioned earlier: the Tour de France and the Giro d'Italia. The Tour borrowed the idea of racing in stages from motor sport, such as cars and motorcycles, which had been developing this kind of event for several years (Dauncey 2012, p. 85). For instance, in 1901 it was organized a successful automobile tour of Italy (Mari 2015, p. 150). In turn, the formula of the Tour inspired other European countries to introduce their own national tours: the Tour of Belgium in 1908, the Tour of Holland in 1909, the Giro d'Italia in 1909, the Tour of Germany in 1911 and the Tour of Catalonia in 1911 (Ritchie 2018, p. 272).

The Tour was invented by the French newspaper *L'Auto-Vélo*, launched in October 1900, as a means to compete against its main rival *Le Vélo*. The founding commercial premise was clear: the race could act as a way to sell more newspapers to the public and advertising space to the bicycle industry, both in the pages of *L'Auto-Vélo* and on the backs and bikes of riders (Dauncey 2012, p. 110). The formula of the Tour was developed according to the needs of the newspaper to maximize its sales. A race divided into stages facilitated reporting, and allowed a style of journalism based on anecdote and fostered a sense of the evolving drama of the competition. The commentary by journalists was made before, during, and after the long stages, and the fact that stages were separated by periods of rests allowed further opportunities to sell copy covering further topics not directly related to racing. Moreover, the organization of start times and distances of stages facilitated printing deadlines and maximizing crowds at the finish lines (Dauncey 2012, p. 85). The Tour was since its very beginning a for-profit event, it became the commercial linkage between the sporting press and the bicycle industry. Both worked together to shape the Tour into an entertainment spectacle. Bicycle firms sponsored teams of professional cyclists to compete in the Tour, assuming that the success of their team in races would have generated more free

press coverage (that is, more newspaper articles and pictures generated in the press coverage of racing) that could have been realized with the same amount of directly purchased advertising (Brewer 2002, p. 292). In 1931, the Tour further emphasized its for-profit nature by opening the event to businesses outside the bicycle industry, known as *extra-sportifs*, seeking to use the spectacle of the Tour to promote their products (Reed 2003, p. 105). The evolution of this event highlights the nexus of relations between sports, media, and bicycle industry that would have become even more intertwined in the television age during the 1960s.

The Giro d'Italia shares many analogies with the Tour. It was invented by the biweekly magazine *Gazzetta dello Sport*, founded in 1896, particularly focused on road cycling races. This magazine began to organize its own races as a way to overcome the increasing competition from other sports magazines. In 1905, it started the first Giro della Lombardia and two years later the first Milan-Sanremo, in 1907. It announced that the first Italian cycling tour was ready for starting in 1909 to pre-empt a similar plan from the *Corriere della Sera*, a leading Italian newspaper, which was trying to organize a road race across the country similar to the Tour (Mari 2015, p. 150). The race was a great success and, as a result, the *Gazzetta dello Sport* became a triweekly magazine in 1909 and a daily newspaper in 1913. The Giro d'Italia opened the event to businesses outside the bicycle industry in 1954, and the nexus of relations with the media became stronger with the advent of television in the second half of the 1950s. The Giro d'Italia was held every year since the 1909 edition, except during the 1915–1918 and 1940–1945 time frame for world wars.

The data available, regarding the first 94 editions from 1909 to 2011 (Castellano 2012), provide a snapshot of the participation of the bicycle industry to this road race. A note of caution is needed in examining these data as it was not always possible to clearly discern the names of bicycle firms and, as a result, some assumptions were made. Moreover, the category of bicycle firms only includes manufacturers of bicycles and tyres. The first long phase of the participation of the bicycle industry to the Giro d'Italia lasted for about 45 years from 1909 to 1954 (Fig. 3.4).

Data show that the total number of racing teams is almost overlapped with the number of bicycle firms sponsoring their own racing team. Until 1934 there was a synergy between bicycle manufacturers and tyre manufactures as most teams were a jointly endeavour of these firms. For instance, Alcyon and Hutchinson, Atala and Continental, Bianchi and

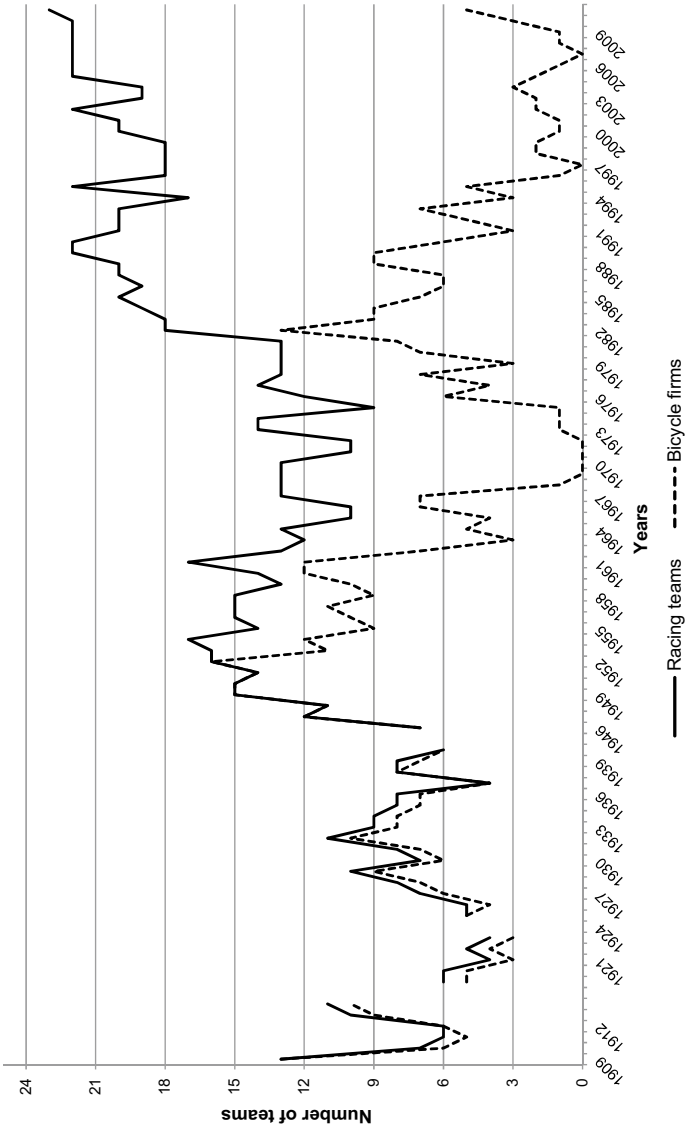

Fig. 3.4 Racing teams at Giro d'Italia in 1909–2011

Pirelli, Legnano and Dunlop. After 1934 the tyres manufacturers abandoned the Giro d'Italia and returned to participate from 1951 to 1962, not on a regular basis. The mid-1950s saw a significant decrease of racing teams emanating from bicycle firms. This reduction was even worst during the 1962–1975 time frame when bicycle firms almost disappeared from the Giro d'Italia. They were substituted by other companies outside the bicycle industry. From the mid-1970s to 1982 bicycle firms joined again the Giro d'Italia and afterwards a long series of fluctuations until 2011, which could be interpreted as dictated by contingent decisions by bicycle firms. The year 1954 is the watershed of the contribution of bicycle firms to the Giro d'Italia and almost matches the end of the so-called golden age of the Italian competitive cycling. It is clear, from the data available, that after 1954 an increasing number of companies outside the bicycle industry were using road races as a marketing tool. This situation in Italy mirrored what happened across Europe and elsewhere. A partial explanation of the continuous exit of bicycle firms from the Giro d'Italia is the cost involved in sponsoring a racing team. According to some estimates (Van Reeth 2016, p. 57), the yearly average total budget of the ten best performing road racing teams jumped from approximately 4 million euro in 1992 to almost 14 million euro in 2004. A further source (Desbordes 2006, pp. 407–408) provide estimates about the total budget of 30 professional cycling teams registered with the Union Cycliste Internationale (UCI). In 2003, the annual budget ranged from 1.5 to 8 million euro, and, in 2004, from 1.5 to 12 million euro.

It would be useful to understand whether the introduction of off-road races, since the 1980s, impacted the choice of bicycle firms to invest money in competitive cycling. Data about mountain bike racing are not available and it is not possible to provide any evidence, however, it seems plausible to argue that bicycle firms, particularly small and medium-sized enterprises, had difficulties to participate, in the same sport season, to both road and off-road racing.

3.5 Conclusion

Marketing in the bicycle industry has not changed after many years. Bicycle firms seem to suffer from structural inertia, which makes them unable to adapt to internal and external challenges. Internal factors, such as routines and traditions, and external forces, such as competitive pressures and access to resources, determine strong inertial pressures on

structure, which, in turn, make organizational change extremely difficult to accomplish (Suddaby and Foster 2017, p. 22). Should bicycle marketing change? Someone might argue that there is no need to change, if it has somehow worked until today why worrying about changing it. There are at least three reasons that suggest thinking about changes in practising bicycle marketing. Each of them is associated with one of the three pillars examined earlier.

Bicycle firms still try to understand their potential customers using the market segmentation framework developed more than 100 years ago. After such a long time, it is useful to ask if this is the most suitable approach for gaining enough knowledge about customers. Perhaps a more advanced framework, based on gathering primary data directly into the market, would provide valuable insights, which could lead to develop an offering closer to customer needs and wants.

The practice of annual collection is considered the right path to introduce innovation and improvements into the market since the nineteenth century, but there is also an alternative view that sees it as a wasteful manipulation of the consumer. Moreover, annual model change puts a tremendous pressure on the manufacturing process and marketing activity of any bicycle firm. It is time that the bicycle industry thinks about a different way of doing business, staring from lengthening the life cycle of its offerings.

Some preliminary data about the participation of bicycle firms to road races show that bicycle industry is perhaps rethinking its relationship with sports as a marketing tool. If it is true, the bicycle industry could consider to broaden its role and provide a contribution to a more sustainable mobility, particularly urban mobility. City cycling might be a valuable opportunity for bicycle firms truly committed to offer their support for changing the urban transportation system.

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