ENZO FERRARI, A SUCCESSFUL INDUSTRIALIST AND **ENTREPRENEUR**

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Abstract: The roots of today's automotive industry are to be found in the First Industrial Revolution. The internal-combustion engine automobile is considered as the defining product of the industrial age. The history of the automobile began in the second half of the nineteenth century when spectacular advances in engineering enabled inventors to finally replace the horse with the car. The late 1890s witnessed the emergence of important manufacturers, such as Oldsmobile in the United States of America, Fiat and Renault in Europe At the turn of the past century, Henry Ford, an American engineer and entrepreneur, launched the famous Model T. The paper aims to briefly present the life of Enzo Ferrari and to identify some of the key factors that allow him to become so successful. To achieve the objectives of the paper the author used a qualitative research method It shows that the company and its products are intrinsically linked with its imperious founder. Also, the paper exhibits the triumph of Ferrari race cars but also illustrates the standards for luxury, elegance and performance set by its unforgettable road cars. It demonstrates that Enzo Ferrari was both a successful industrialist and entrepreneur.

Keywords: entrepreneur, industrialist, automobile, Enzo Ferrari, race car. JEL Classification: L26, M00.

1. Introduction

The First Industrial Revolution brought the age of steam to human society. Starting with the seventeenth century several scientists succeeded in making valuable discoveries that later led to the invention of the steam engine. The Italian physicist and mathematician Evangelista Torricelli (1608-1647), a former student of mathematicians Benedetto Castelli and Bonaventura Cavalieri, invented the barometer, a scientific instrument that allows the measurement of air pressure. Further experiments were carried on by the German Otto von Guericke (1602-1686), the inventor of the vacuum pump, the Dutch Christiaan Huygens (1629-1695), the inventor of the pendulum clock, and the British Robert Boyle (1627-1691), the first modern chemist. All of them contributed to the emergence of the first practical fuelburning engine designed by the British Thomas Newcomen (1664-1729), which was installed in the coal-mining industry. This steam engine had "the great advantage of being self-acting, in that all the water-cocks and valves required by the hydraulic system were opened and closed by a system of rods driven by the beam" (Crump, 2007, p.52). However, the Scottish James Watt (1736-1819) was the mechanical engineer who significantly improved Newcomen's engine and designed a much more efficient one, which was crucial in the expansion of the First Industrial Revolution.

Born and developed in the British Empire, the First Industrial Revolution rapidly penetrated other European countries such as France, Belgium, Germany and Switzerland. It was not only a purely technological revolution but also a socio-cultural and economic phenomenon (Cipolla, 1994). Thus, the roots of today's automotive industry are to be found in the First Industrial Revolution. The internal-combustion engine automobile is considered as "the defining product of the industrial age that began in the early eighteenth century" (Appleyard, 2022, pp.1-2). The French Nicolas-Joseph Cugnot (1725-1804) built the first full-size and self-propelled steam road vehicle, used in military campaigns in the 1770s.

The history of the automobile began in the second half of the nineteenth century when spectacular advances in engineering enabled inventors to finally replace the horse with the car. Working absolutely independently, the German Nicolaus August Otto (1832-1891) and the French Jean Joseph Étienne Lenoir (1822-1900) managed to produce feasible internal combustion engines in the 1860s. They were followed by the British engineer Robert Neville Grenville (1846-1936) who developed a steam-powered road vehicle. The carriage had a twocylinder engine and a steel chassis, capable of obtaining a remarkable speed for that time of around 18 mph in the 1880s (National Motor Museum, 2023). Pretty in the same years, Gottlieb Wilhelm Daimler (1834-1900) and Carl Friedrich Benz (1844-1929), two Germans who worked individually, built petrol-engined vehicles.

The late 1890s witnessed the emergence of other important manufacturers, such as Oldsmobile in the United States of America (USA), Fiat and Renault in Europe. At the turn of the past century, Henry Ford (1863-1947), an American engineer and entrepreneur (Toma, 2005; Toma et al., 2021), launched the famous Model T that "led an industrial and social revolution, introducing mass-production techniques to the manufacture of motor cars" (Chapman, 2020, p.18). By producing his Model T, Ford also created a huge number of customers for an affordable and standardized car (Hobsbawm, 1999). While most Europeans viewed the automobile as a product for the wealthy class Ford succeeded in manufacturing and selling a car for the middle class as "his goal as a businessman was to make their lives better by providing inexpensive, quality transportation" (Tedlow, 2003, p.119).

In Europe, the Italian Enzo Anselmo Giuseppe Maria Ferrari (1898-1988), nicknamed "il Commendatore" (commander), started his automobile journey by becoming a race car driver. After the Second World War, he established Ferrari S.p.A. and decided to produce cars. One of the world's leading luxury brands, Ferrari has always focused on the design, manufacturing, engineering, and marketing of its famous automobiles. Since its emergence, the company has considered that producing cars is rather an art than engineering. Maranello's belle macchine (nice cars) have been driven by numerous celebrities, such as princes, actresses and businessmen.

The aims of the paper are to briefly present the life of Enzo Ferrari and to identify some of the key factors that allow him to become a successful industrialist and entrepreneur. To achieve the objectives of the paper the author used a qualitative research method. The structure of the paper is as follows: the second part comprises the literature review. The research methodology is presented in the third part of the paper. The fourth part displays the results and discussion. The conclusions are illustrated in the last part of the paper.

2. Literature review

The concept of entrepreneur constitutes a fundamental term in the business literature. During the time, researchers and businessmen have shown their profound interest towards it. An entrepreneur is defined as follows:

- "a person who directs a company and takes commercial risks" (Collin, 2007, p.139).
- "a person who sets up businesses and business deals" (Brookes, 2011, p.172).
- "someone who has an idea and who works to create a product or service that people will buy, as well as an organization to support that effort" (Shopify Staff,
- "an individual who creates a new business, bearing most of the risks and enjoying most of the rewards" (Hayes, 2023, p.1).
- "one who organizes, manages, and assumes the risks of a business or enterprise" (Merriam-Webster Dictionary, 2023a, p.1).

From the above definitions, several characteristics may be revealed. Despite the lack of a unique definition, the concept "entrepreneur" indicates that:

- In most cases, entrepreneurs create new businesses.
- Entrepreneurs are risk-takers.

- The entrepreneurs provide products and/or services to customers. In its turn, the term of industrialist designs:
- "a person who owns or runs an industrial concern, especially a large industrial company" (Adam, 1993, p.241).
- "one who owns, or holds a powerful position in, industrial concern(s)" (Davidson et al., 1994, p.492).
- the "owner or director of a factory" (Collin, 2007, p.205).
- "a powerful businessperson who owns or controls large industrial firms or factories" (Brookes, 2011, p.255).
- "one owning or engaged in the management of an industry" (Merriam-Webster Dictionary, 2023b, p.1).

Thus, an industrialist is generally either the owner or director of a factory.

Entrepreneurs and industrialists share some common features but also differences. Both of them are involved in businesses. Also, the entrepreneurs and the industrialists are doing their best to generate sufficient income to avoid their dependence on an employer. On the other hand, the nature of their work is, in most cases, totally different. Also, there is a significant difference regarding the scale of their operations in favour of the industrialists (Kohli, 2017).

In this sense, Enzo Anselmo Giuseppe Maria Ferrari represents a valuable example as he epitomizes both types: entrepreneur and industrialist. Ignited with vibrant entrepreneurialism (Grădinaru et al., 2017; Catană et al., 2020; Zainea et al., 2020) and autocratic leadership (Cornescu et al., 2004), Enzo Ferrari demonstrated his long-term thinking (Toma, 2013; Toma and Grădinaru, 2016), passion for excellence (Goodfellow, 1958) and innovation, commitment to continuous improvement (Toma, 2008a; Toma and Tohănean, 2019) and quality (Toma, 2006; Marinescu and Toma, 2008; Toma and Naruo, 2009; Cohen and Sharma, 2016). By showing great respect to customers, as a form of social responsibility (Toma, 2008b; Toma et al., 2011; Imbriscă and Toma, 2020), he largely payed the way for their loyalty and retention. This is why Enzo Ferrari provided both "race cars that triumphed everywhere from the Grand Prix of Monaco to the 24 Hours of Le Mans and road cars that set standards for elegance, performance, and exclusivity" (Lerner, 2018, p.6).

It is said that Ferrari is ,,still a great name for stirring the blood of every car enthusiast desptite the fact that others have built faster cars or won more races in one or other International category" (Bowler, 2009, p.34). The great number of Grand Prix victories and world championships won by the Ferrari team in Formula One are attributable to ,,men, women, and equipment of the first order, all contributing to consolidating the legend of the Prancing Horse" (Acerbi, 2006, p.xvii). Between the First World War and the Second World War the Formula 1 races served to "showcase some of the biggest manufacturers of the day, featuring the fastest and most powerful prototype machinery" (Codling, 2017, p.1). A short presentation of Enzo Ferrari's life and an identification of the main characteristics that contributed to his success are shown later in this paper.

3. Research methodology

In order to achieve the aims of the paper, the author carried out a qualitative research method through desk research. In the beginning, he gathered and analysed numerous information from different secondary sources of data, especially articles and books. Then, the author compounded this information, organized the paper and wrote it.

4. Results and discussion

Born in 1898 in the Italian city of Modena, Enzo Anselmo Giuseppe Maria Ferrari grew up with relatively little formal education in a family that owned a small workshop in which his father manufactured metal parts. When he was ten years old, he went to the races with his family and saw Felice Nazzaro, a famous Italian race car driver, who won the Circuito di Bologna, a Grand Prix race car. His victory deeply inspired Enzo Ferrari to participate in race car competitions. Thus, the dream of Enzo was to become a racing driver. This is why he searched later for a job in the car industry.

After several unsuccessful attempts, Enzo succeeded in becoming a race car driver in 1919. As he loved so much motor-racing, he founded in 1929 the famous Scuderia Ferrari, a racing division of Alfa Romeo, in order to win race car competitions and, eventually, produce the fastest racing cars. Moreover, Enzo run the factory Alfa Corse team before the beginning of the Second World War. Unfortunately, the Scuderia Ferrari was dissolved in 1937 and Enzo lost his position as Sporting Director with Alfa Romeo company. Later, he founded Auto Avio Costruzioni, a company that manufactured parts for the aircraft industry, but he remained faithful to race cars.

During the war, he thought about the possibility to build his own cars. After the end of World War II, Enzo established Ferrari S.p.A. in 1947. In the same year, he launched his first Ferrari 125S (Ferrari, 2023), equipped with a 1.5-litre V-12 engine. The following years witnessed the rapid expansion of his assortment range, including both race cars and road cars but in small numbers.

Alberto Ascari, one of the illustrious Ferrari car drivers, won the first Formula 1 World Championship in 1952. One year later, he won again. It is stated that "Ferrari's success in motor racing was built on focused effort from the best engineers and drivers, inspired by the determination of the man in whose name they were racing" and "failure was not tolerated and lost races were followed by a post-mortem meeting in the comapny boardroom" (Chapman, 2020, p. 325).

In the mid of the 1950s, the new 250GT series was designed and marketed in Europe and became Ferrari's first volume-production model (Jennings, 2010). Consequently, the demand for Ferrari road cars soared and Enzo implemented the first assembly line within his factory located in Maranello, near Modena. But "increasing competition from the likes of Jaguar and Aston Martin forced Ferrari to go a stage further and produce a limited series with lower, lighter and more aerodynamic bodywork" (Bowler, 2009, p.34).

At the end of the 1960s, Fabbrica Italiana Automobili di Torino (Fiat Automobiles S.p.A.) bought a 40% stake in Ferrari S.p.A. and took control of the production activitity. In addition, the Fiat conglomerate had the option to buy an additional 50% stake after the death of Enzo. As a consequence, Ferrari "benefited from the corporate backing, technical knowhow, and physical resources of Fiat, and production skyrocketed from 928 in 1970 to 2,221 by the end of the decade" (Lerner, 2018, p.6). Fiat provided the needed financial stability that allowed quality improvements of the cars.

Enzo was married with Laura Domenica Garello (1900–1978) and had one son, Alfredo. He died at the age of 90 in Maranello, after a prodigious career in the automotive sector. His name will remain known worldwide for his fast and luxurious cars. In his honor, the Italian company launched the Enzo Ferrari in 2002 at the Paris Motor Shaw. Equipped with a brand-new V12 engine, this supercar integrated all its electronic control systems at that moment.

Enzo Ferrari was a highly successful industrialist and entrepreneur. As an industrialist, he owned Ferrari S.p.A. As an entrepreneur, he created and developed several businesses. Some of the main features that significantly contributed to his extraordinary success are the following:

- ambitious;
- self-confident:
- inspirational but autocratic leader;
- creative entrepreneur;
- teams creator;
- enthusiastic:
- passion for mechanics;
- egocentric and humane;
- desire to win;
- pretentious and even fastidious;
- visionary;
- manipulator of people (sometimes);
- good sense of humour;
- business acumen.

Sometimes riven by contradictions-"crude yet courtly, callous yet affectionate, quickthinking yet pig-headed, narrow-minded yet larger than life" (Lerner, 2018, p.10), Enzo Ferrari crucially influenced the evolution of the automotive industry.

5. Conclusions

The age of automobile has brought the desire for fast and luxury cars. Ferrari has always been among the most prestigious automobiles manufacturer worldwide. Today, Ferrari's wide range of cars, either race cars or road cars, allows the company to remain at the forefront of the global automotive industry. The brand is recognized all over the world not only as the most prestigious motor-racing team but also for its design, inimitable style and technologies applied.

The paper briefly presents the life of Enzo Ferrari and, implicitly, the story of the company he established. It shows that the company and its products are intrinsically linked with its imperious founder. Also, the paper exhibits the triumph of Ferrari race cars that dominated the Formula 1 World Championship but also illustrates the standards for luxury, elegance and performance set by its unforgettable road cars. It demonstrates that Enzo Ferrari was both a successful industrialist and entrepreneur.

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