

Wojciech Szymon Kowalski (*Office of Analysis and Market Conditions
WS Kowalski, Poland*)

<https://orcid.org/0000-0001-6139-7273>

wskowalski@poczta.onet.pl

ENTREPRENEURSHIP IN SPORT: SPORT IN BUSINESS, USING PROFESSIONAL FOOTBALL AS AN EXAMPLE

Abstract: The issue of entrepreneurship in sports joins the more general trend of catching up with the long Renaissance period of “reflecting” on the character of the professional sportsman (athlete), so peculiarly overlooked, and one of the main protagonists of the culture of antiquity, alongside the artist or philosopher. The author of the article adopts the convention of the ‘corporate athlete’, for which he sees a contemporary exemplification in football, the most popular sport. The examples cited from the economic history of football, preceded by an outline of the basic categories of entrepreneurship, are an attempt to show the essence of an economic, two-way view of these issues. The description of the institutionalisation of analytics and football’s ‘information bank’, highlights the effectiveness of an interdisciplinary approach to entrepreneurship in sport. In contrast, the characterisation of the re-engineering carried out at FC Barcelona is a case of an approach that treats sport as a natural economic environment. Providing a wholesome, inspirational building block, grounding some elements of management and entrepreneurial.

Keywords: entrepreneurship, football, sports analytics, transdisciplinarity

<https://doi.org/10.14746/sho.2022.40.2.002>

INTRODUCTION

The origins of interest in sports with a clear “component” of entrepreneurship, which can be associated with various forms of bodily (physical) competition, undertaken for prestige and/or entertainment purposes, with the simultaneous participation of a gathering and, therefore, emotionally involved audience, can be traced to the court centres of ancient Middle Eastern civilizations. The word “sport” is derived from Latin (*dis, porta*),

where *dis* meant moving from one place to another, and in this case “beyond” – while “*porta*”, meaning gate and hence, “beyond the gate”. This was due to the need to move physical forms of entertainment, games outside the increasingly restricted (by fortifications) free areas of Roman cities – to the outside. In the Romance languages, ‘sport’ functioned as *disporto*, *deporte*, *disporto*, before reaching the British Isles in 1066 with William the Conqueror (c. 1028–1097). Subsequently, as a result of the so-called *afetisation*, it was adopted as *sporte* and then, due to the lack of an accent on the “e”, passed into *sport*. The earliest record of the word comes from a 15th-century Arthurian poem. In contrast, it appears as many as 124 times in Shakespearean works (Lipoński, 2013: 18–19). The earliest being in Egypt, around 4,000 BC, and subsequently in other state organisms of that period, such as Assyria, Babylon, China, Korea and India (Lipoński, 2012: 28). To be placed on an absolute pedestal over time in ancient Greece and Rome. It’s hard not to agree with the view that people have, therefore, almost always, worked to turn sports into a business venture (Porter and Wamplaw, 2018: 632).

It, therefore, means that over the last several thousand years, the competitive (professional) form of sport so interpreted, aimed at various marketable (commercial) activities, is what Max Weber described as: “an economic phenomenon”, “economically conditioned” and, “economically significant”. In pre-pandemic 2019, the turnover value of professional football in Europe, was in the region of USD 28.9 billion, which, for example, exceeded the nominal value of Cyprus’ GDP or corresponded to approximately 51% of the nominal value of the GDP generated by the Croatian economy (Lange, 2022). At the same time he emphasizes that the boundary here is fluid, as it depends on the direction of interest and the fact that it extends practically to the totality of all cultural processes (Weber, 1985: 58). This is understood contemporarily, after Clifford Geertz, as a “dense description”, thus, including all aspects of a community’s life, i.e.: values, symbols, institutions and interpersonal relations occurring within it (Huntington, 2003: 14).

In view of the above, it should be puzzling that economics – as a science, which has been developing with such intensity, more or less, since the turn of the 18th and 19th century – has for several centuries essentially abstracted from the economic aspects of sports. So if one is to look for some form of explanation for this, according to the author, it could be found in the context used by Peter Sloterdijk. In his view, the return of the great Renaissance, which we experienced between the 15th and 19th

centuries to the age of ancient culture and art, bypassed the fascinating world of sports at the time because it was the result of a long period of 'thinking'.

Our classical renaissance, however, only revived what went into the hands of the upper classes. For a long time, people hesitated whether to bring back, along with the artist, philosopher and scholar, one of the most fascinating figures of antiquity, namely the sportsman. He returned only 100 years ago and has been shaping our scene ever since [...]. Only when it became clear that the forms of mass sports gatherings would not turn into revolutions, with new mass culture pens erected everywhere (Sloterdijk, 2006: 72).

In this situation, therefore, the fact that the first works devoted to the economic dimensions of sports date from less than 70 years ago seems quite understandable. The trend started with a pioneering "package" of six articles from 1953 to 1971 (see: Noll, 2006; Garcia, 2019: 5–6), which, however, flowed in subsequent years with varying intensity. It can be argued that despite the, quite strongly raised, topics of marketing, finance (public issues of clubs' shares, mergers and acquisitions of clubs) or predictions (related to the prediction of results) in the last two or three decades, with respect to literal sports entrepreneurship, it was not always necessarily a rapid stream, but rather an "incidentally" flowing stream. In the literature on the subject, one can encounter the view that the inspiring breakthrough in this regard is raceable to the series of publications initiated in 1986 by Stephan Hardy (Porter and Wamplew, 2018: 633–634).

This reality is also reflected in the most popular global sport, which is undoubtedly football.¹ And where the reasons for the phenomenon of this popularity represent an ongoing research challenge, in spite of the already difficult to identify, number of often different transdisciplinary approaches. However, a mere selective characterization of them in relation to the stages of development of this sport would require an entirely separate discussion, thus, going far beyond the volume of this article.

A bibliometric analysis conducted by an international research team entitled: "Entrepreneurship and Innovation in Soccer", clearly shows that: "...although soccer is considered one of the most widely played and

¹ According to the "World Population Review", football has about 3.5 billion fans worldwide and about 250 million registered players in about 200 countries worldwide. The next most popular sports in the world are cricket (2.5 billion fans), basketball (2.2 billion fans) and hockey (2 billion) ('Most Popular Sports...', 2022).

watched sports in the world, it is at an early stage of research from the perspective of entrepreneurship studies" (Fajardo et al., 2020: 2). At the same time, it is also worth emphasizing that: "...there is also the lack of research approaches dealing with the origin and evolution of entrepreneurial innovations in soccer" (Fajardo et al., 2020: 3).

The desire to at least partially reduce this thematic "gap" highlights the primary purpose of this article. It is an attempt to present selected aspects of entrepreneurship in soccer as a sport discipline as well as soccer in entrepreneurship. This is because such a treatment of the subject meets the two-way research approach observed in the American literature on this subject. It has grown, not only "out of", but also alongside the "traditional" economics of sports, and for which the term "sportometrics" was coined in the latter dimension. It treats sports as a natural economic environment, where, instead of talking about "economics of sports," the idea of sports is introduced as an additional dimension of economics. Consequently, it can be said that on the one hand we have here a traditional approach, characterized by the use of economics (and other sciences) thanks to which the possibility of achieving efficiency in a sports organization is increased. Thus, understood primarily through the prism of achieving satisfactory results in sports competition. On the other hand, however, observations from the world of sports can prove to be inspiring for many other fields, not excluding even the most complex socio-economic problems. Where players are treated as rational economic actors, and events or league seasons are seen as the workings of miniature economies (Tollison, 2004). A somewhat model example of this is the conclusions of the "Father of sportometrics". Robert D. Tollison and Robert E. McCormick in 1984 (McCormick and Tollison, 1984), resulting from a study of the effect of introducing an additional - third referee in university basketball games in 1978. The analysis of both of these scholars showed a 34% decrease in the number of fouls committed, which became, among other things, the impetus for the revision of Gary Becker's crime model, as well as an important contribution to the debate on the need for more law enforcement officers to reduce crime in the US (Sauer 2017: 69).

With regard to this way of thinking, as if by itself, the well-known aphorism of Albert Camus comes to mind: "everything I know about morality and duty I owe to soccer"; or expressing a similar view that "soccer is left-wing, and rugby is right-wing" (Morlino, 2016: 4). The sensitivity of writers as Andrzej Koźmiński reminds us - can often outstrip scholars and analysts (Koźmiński, 2022: A21).

This publication, apart from the introduction, consists of three parts. In the first, an attempt is made to take a synthetic look at the theoretical foundations of entrepreneurship, in the light of the history of economic thought and management. Where such terms and issues, among others, such as risk and its institutionalization, innovation and “creative destruction” or management and conflict arising from the asymmetry of the essence of the laws of production and distribution, for example, spread the conceptual net in front of almost all areas of socio-economic activity. Therefore, including those focussing on competitive sport, which is an economically conditioned and economically important phenomenon. In the second part, two different examples of entrepreneurship in professional football are discussed. The first, refers to the broad context of the institutional reconstruction that took place in the training division (and beyond) of FC Barcelona in the late 1980s and early 1990s. From a sportometrics point of view, this is an example of reengineering, the practical implementation of which preceded the consolidation of the theoretical foundations of this, at the time, avant-garde, management concept. The second example discussed refers to the genesis of the scientific (interdisciplinary) analytical approach to soccer. In this way, the author of the article also tried to meet the demands made at the time by foreign researchers that the perspectives presented should also include viewpoints that take into account the experience of countries outside the contemporary “top” of sports economics (Klein and Kurscheidt, 2007: 18). In the third and concluding section, based on the assumption, that increasing the number of participants in the final tournament for the 2026 World Cup (from 32 currently) to 48, will result in a worldwide increase in various activities on the part of national soccer federations and their governments. The author of the article expects that, with all the disadvantages of this format (e.g., the probable decrease in the level of sports competition during the championship tournament, or the significant increase in the cost of its organization), it will also contribute to the fact that a much more pro-social soccer, i.e. representative soccer, will thus emerge from the current - overly commercial - shadow of club competition. It will thus become more socio-economic, and if not in the literal, then probably in a very close sense of the word. These processes should also be accompanied by a successive improvement of the scientific approach to soccer, at the representative level, characterized by a significant shift in analytical emphasis from quantitative optics to qualitative aspects.

THE ESSENCE OF ENTREPRENEURSHIP IN THE LIGHT OF ECONOMIC THEORY AND MANAGEMENT SCIENCE

The concept of entrepreneurship is ambiguous. Such a state of affairs is derived from the diversity of emphases in contemporary theoretical and practical approaches to the problems of social and economic life. It concentrates, due to the constant variability and multiplicity of social, economic or cultural conditions, not so much on the personal characteristics of people, i.e. owners and employees of companies and social organizations, but primarily on the functioning of the market around them. Consequently, as Małgorzata Bednarczyk notes: "...there is [admittedly] no finite and universal list of people who could be called 'entrepreneurs' [but] there are [theory-formulated] universal components that characterize the entrepreneurial behaviour of people and organizations" (Bednarczyk, 2016: 26).

The categories of "entrepreneur", and indeed of "entrepreneurship" were found in an epoch-making 18th-century essay for economics as a science: *the General Considerations on the Natural Laws of Commerce* (French: *Essei sur la nature du commerce en generale*) by Richard Cantillon. This is the work that for about twenty to more than forty years. According to Edward Taylor, the original work written in English has been lost, and only its French translation, published posthumously in 1755, has survived (Taylor, 1957: 54). In contrast, we can read in M.N. Rothbard that:

the honour of being called the 'father of modern economics' does not go to Adam Smith, but to the French-Irish trader and courageous man who wrote the first essay on economics more than forty years before the publication of *Investigations into the Nature and Causes of the Wealth of Nations* (Gorazda, 2014: 107).

This would mean that the original must have been written between 1730 and 1735, that is, no less than two decades before the French-language source translation.

According to various sources, preceded Adam Smith's "canonical" work published in 1776 entitled: *An Inquiry in the Nature and Causes of the Wealth of Nations*. William Stanley Jevons viewed Cantillon's *Considerations* as "the cradle of political economy" and Joseph A. Schumpeter regarded it as "the first example of a systematic immersion into the world of economics". According to Murray N. Rothbard, the author of this treatise should

be considered the “founding father of modern economics” (Thornton, 2019: 38).

R. Cantillon considered the entrepreneur and the ubiquitous risks associated with uncertainty broadly (both then and for the next century and a half, “risk and uncertainty” were treated almost synonymously in economics), recognising and identifying them both with the farmer exposed to the vicissitudes of the weather conditions, a financial speculator making stock purchases with borrowed money, or a craftsman determined to bear the costs associated with the development of his workshop (Cantillon, 1775). Anne Robert Jacques Turgot, who lived around the same time, one of the main representatives of Physiocracy, enriched R. Cantillon’s theory of the entrepreneur with a very important contribution on the analysis of capital, but later ignored by British classical economists until the 20th century. In accordance with which, “the main force of the market economy is not any entrepreneur, but the capitalist-entrepreneur, the man who combines both functions” (Rothbard, 2019: 70). Hans Karl von Mangoldt, among others, made similar statements in the mid-19th century.

Leveraging fluctuations in the relationship between the effort to be put into a business and the result to be achieved are thus the hallmark of an entrepreneur. However, starting a business will not be possible without having certain assets and personal qualities. In order to get at the disposal of employees [...], you need capital, and to have capital [...], you need to be able to do business either through your own assets or through personal qualities. [...] As a rule, therefore, entrepreneurs engage in their ventures with capital as well as with personal activity; [but] even a person without his own assets can be thought of as an entrepreneur if his personal qualities have given him enough credit to provide him with the necessary funds from others (Mangoldt, 1855: 39-40).

However, already in light of descriptions of the 18th and 19th century economic life and interpretations of it at the time, this need not be so clear-cut. Leaving aside the fact that at the time the word, “entrepreneur” (derived from the French verb *entreprendre* - “to undertake something”, “to do something”) also functioned as a synonym for the term “adventurer”, in the sense that it was used to refer to both a trader and a venture capitalist, i.e. a speculator (Skousen, 2012: 84). It is therefore worth recalling that Fernand Braudel, who also drew attention to this issue, referred to the official records of the Dutch administrators of Suriname in Guyana in 1775, commenting on:

the distinction between entrepreneurs and capitalists.² The entrepreneurs designated the areas of the plantations and drainage canals, then “turned to capitalists from Europe and, in order to gain funds, they admitted them to partnership in their enterprises”; [over time] the meaning of the word “capitalism” came more and more closer to meaning a money-spinner or a provider of funds (Braudel, 2019: 207).

A significant contribution to the ordering of this issue, and in the spirit of the above quote, can be traced to “the chief synthesizer of classicism”³ John Stuart Mill. He distinguishes (in *Principles of Political Economy*) between the “entrepreneur” as the one who bears the risk and manages, and the “owner” (shareholder), who, although also takes the risk – in relation to the invested capital, but does not participate in the day-to-day operations and does not manage the risk on a daily basis (Sobel, 2021). It is also difficult not to agree with F. Braudel that in the case of each of these roles and accompanying forms of economic activity, we can, more or less, since the 16th century, speak as a “man of interest” or “people of interest” (Braudel, 2019: 220).

Jean-Baptiste Say, on the other hand, saw the essence of entrepreneurship in the process of transferring resources from less to more productive areas. And in the entrepreneur himself (fr. entrepreneur), whom he also, by the way like R. Cantillon, was,⁴ – he saw, first and foremost, one who undertook an enterprise in order to make a profit. He was equipped with the appropriate knowledge and capital, and the capital did not have to be his own either, but equally well borrowed (Skousen, 2012: 85). As if as a corollary, alongside labour, land and capital, a fourth factor of production appeared through J.B. Say – and it was in the form of the entrepreneur’s profit, which is the sum of his remuneration for his labour and the risks incurred. It was, again, as with R. Cantillon, the issue of risk, highlighted by J.B. Say, that over time became the subject of serious discourse on the essence of entrepreneurship. It would also appear, among others, in the aforementioned H.K. von Mangoldt, who saw its essence

² More is written extensively on the historical interpretations of terms such as “capital”, “capitalist” or “capitalism” by, among others, F. Braudel (2019: 203–210).

³ This is what E. Taylor called J.S. Mill, and his body of work including *The Principles of Political Economy with some of their applications to social philosophy*, published between 1848 and 1870 seven times (supplemented and revised) he regarded as the pinnacle of classicism (Taylor, 1957: 167).

⁴ J.B. Say owned cotton spinning mills, while R. Cantillon specialised in financial transactions, achieving spectacular success in this field, including speculating on the share prices of the Mississippi Company and the South Seas Company (Thornton, 2019: 30).

in the in the ability to combine various means of production in an activity undertaken at one's own risk (Mangoldt, 1855: 36). In later years, this thought would be particularly emphasized by Frank Albert Fetter. This leading representative of the second generation of the Austrian School, saw in the entrepreneur one who even "specializes in taking risks, acting as a buffer, taking upon himself and distributing the burden; [...] profits are made, not by insight into these risks, but by an above-average ability to bearing them (Herbener, 2019: 200).

Although this interpretation of profit had already been disagreed with by, among others, Friedrich B. von Hermann, for whom the entrepreneur's profit was not so much a reward for risk, since he recognized these as part of the cost of production, but rather as payment for: "the combination of factors of production, plan, supervision, personal skills, as well as the guarantee of interest to the owners of capital, etc." (Taylor, 1957: vol. 1. 186). Later, Carl Menger also spoke in a very similar way. In his opinion the entrepreneur's profit was: "merely something incidental" in the face of the planning and occurrence of a causal process of production, the purpose and driving force of which is the satisfaction of the subject's most important needs (Salerno, 2019: 142).

Finally, the issues in question were clarified to a degree that had not occurred before and were put in order in economic theory by Frank Knight. In a work published in 1921: *Risk, Uncertainty and Profit*, he made a fundamental distinction between "risk" and "uncertainty", noting that:

The concept of Uncertainty should be clearly distinguished from the close concept of Risk, with which Uncertainty has always been confused with [...]. It turns out that measurable uncertainty or proper "risk" [...] differs so much from unmeasurable uncertainty that, in effect, it is no uncertainty at all (Bernstein, 2011: 313).

According to F. Knight, in the course of business, an entrepreneur encounters two types of uncertainty, i.e. measurable uncertainty and unmeasurable uncertainty. The former can be equated with risks that are largely hedgeable, i.e. transferred to the shoulders of others. Unmeasurable uncertainty, on the other hand, is that one resulting from its very nature, consisting of various unprecedented situations, which also cannot be calculated and therefore included in the cost and price. This type of uncertainty is similar in nature to the possibility of death at a certain age (Blaug, 1994: 470).

The figure of the entrepreneur also appeared in the works of the great economists of the late 19th and 20th centuries, including, among others, Leon Walras and Alfred Marshall, but none of them did as much for it in their theoretical approaches as Joseph A. Schumpeter (1883–1950), who “placed it at the heart of capitalism, [as if] anticipating [his] later fascination with entrepreneurship” (Mikosik, 1994: 70; Swedberg, 2021: VII). The Austrian-American scholar literally accepted J.B. Say’s definition of the entrepreneur, with the exception, however, that his interest was only in that area of his activity in which he performs the primary movement and/or combination of factors of production (Schumpeter, 2021: 63). Such an approach was part of one of the five – as he expressed it – “combinations,” which in time he called “innovations,” constituting the essence and meaning of his interest in the entrepreneur and entrepreneurship.

He identified the matrix of such innovative combinations with the following circumstances: 1) the introduction of a new commodity, i.e. one with which consumers are not yet familiar, and/or a new quality of it; 2) introduction of both a novel method of production in a given field (not necessarily based on some scientific discovery) and a new way of distribution of some commodity; 3) the opening of a new market, a branch of production that did not previously exist in a given country; 4) the mastery of a new source of supply of raw materials and/or semi-finished products; 5) the carrying out of a novel organization of any industry, the instilling of monopolistic production or the breaking up of some prevailing monopoly (Schumpeter, 2021: 55). These processes, according to J.A. Schumpeter, are accomplished:

in certain clearly distinguishable waves divided by periods of relative calmness. However, the process as such continues uninterrupted, in the sense that we always have either a revolution or the absorption and assimilation of the results of the next one from the upheaval, whereby, taken together, they form what we know as the business cycle (Schumpeter, 1995: 102, footnote 2).

According to such reasoning, e.g. Henry Ford in 1906 was not yet a “Schumpeterian entrepreneur” when he became the head of the “standard” automobile plant, He, however, became one only by 1909, when he began the production of his own vehicle commonly called “Ford Model T”. And then becoming it fully in 1913, when he started the production line (Mikosik, 1994: 75).

The entrepreneur, according to Schumpeter, although also literally called “the captain of industry”, does not need, at all, to be limited to the

strictly industrial sphere. He could just as well be someone like a merchant from 12th-century Venice, a financier of the type of John Law, or a rural tycoon concentrating in his hands the breeding and trading of cattle, the running of a brewery, inn or store, because “everyone is an entrepreneur, if and only if, he actually ‘carries out new combinations,’ and loses this character once he has built up his business, once he has stabilized it like other people running their businesses” (Schumpeter, 2021: 65).

Researchers of the works of J.A. Schumpeter point out that his entrepreneur is a person equipped with a special property – “entrepreneurship,” which should be understood, as a state of mind: *Der Unternehmergeist*, or “the spirit of entrepreneurship”. The factors influencing this ‘state of mind’ are also important. Ch. Anderson and D. Sally point out that desperation, the danger of being marginalised or lack of financial resources, can support innovation in football as elsewhere (Anderson and Sally, 2014: 304). According to Stanislaw Mikosik, it is such:

the entrepreneur’s peculiar state of mind, which frees him or her to overcome obstacles, prejudices and resistance, and to swim against the current in unknown circumstances [...]. The differences between those who have an “entrepreneurial spirit” and those who do not, Schumpeter presented in the following sentence: “Implementing a new plan and acting in accordance with the plan are things as different as building a road and walking on it” (Mikosik, 1994: 75).

The cited author also stresses that, although the concept of innovation itself is a proportionally small slice in the overall work of J.A. Schumpeter, it is this perception of the social and economic life that pervades virtually all of his work. Adding that it is “one of the best known and usually most frequently cited passages from the entire oeuvre” (Mikosik, 1994: 68). The same is true, by the way, of an even slimmer volume of his works, but one that translates into enormous cognitive and literature resonance, i.e. with the notorious notion of “creative demolition” (Schumpeter, 1995: 102).

In light of various interdisciplinary approaches, it seems more reasonable to think of J.A. Schumpeter not so much as the author of the concept (and the term) of “creative demolition,” but rather as a contribution to its popularization. All the more so because this “trademark” – was, as Hugo and Erik Reinert point out, first introduced into economics, not by J.A. Schumpeter, but by Werner Sombart who was under the strong (and also terminologically inspiring) influence of Nietzschean philosophy (Reinert and Reinert, 2006: 56). And as proof of this, they cite, among other things, a quote from W. Sombart from his 1913 book *Krieg und Kapitalismus*,

(i.e. 29 years before *Capitalism, Socialism and Democracy*) regarding the aftermath of Europe's century-long timber shortage, which contributed to the development of coal mining as the foundation of 19th-century capitalism.

From destruction, a new spirit of creation is born; the scarcity of wood and the needs of daily life forced the discovery or invention of wood substitutes, forced the use of coal for heating, forced the invention of coke to produce iron. That these developments made possible the tremendous growth of capitalism in the 19th century is a fact (Reinert and Reinert, 2006: 74).

While with J.A. Schumpeter, the entrepreneur's activity is ultimately supposed to lead to a state of economic (industry) disequilibrium, according to the views represented by Israel Kirzner and other leading representatives of the Austrian School headed by Ludwig von Mises, both the starting point itself and the target "azimuth" lie on completely opposite sides; strongly articulating the "dissatisfaction with the role (and place) assigned to the entrepreneur" (Kirzner, 2010: 74), the view is also expressed that such action is precisely an attempt to move away from a state of disequilibrium, because:

changes initiated by the entrepreneur always move toward a hypothetical state of equilibrium, arising in response to an existing pattern of erroneous decisions, a pattern characterized by missed opportunities [...]. [In addition,] I consider the entrepreneur, not as a source of innovative ideas created *ex nihilo*, but as a category alert to conditions that already exist, but have yet to be recognized (Kirzner, 2010: 75).

Thinking in these categories, assigns a special role to "vigilance," or in other words, keen judgment of emerging new circumstances, without which it is difficult to achieve long-term benefits. Otherwise, existing opportunities for development may remain missed (Kirzner, 2010: 76). This is exactly the kind of approach we find in the history of the greatest achievements in entrepreneurship, and at practically all stages of its development. It is clear, therefore, that in the language of management science, a somewhat distinct field that essentially, "addresses the essence of the enterprise and the principles of its operation" (Drucker, 2010a: 5), one of the key concepts is, "market opportunity policy" (Drucker, 2010b: 85), also expressed as "a way of understanding the market and responding" or "sensing an opportunity" (Piercy 2003: 324–325).

Nowadays, this type of approach is characteristic for so-called flexible structures, i.e. economic entities distinguished by a “fast decision path”. Until the turn of the 19th and 20th century it was all the easier to apply for such a way of operating, as many areas of the economy were still dominated by family-owned and/or single-owner companies. And those organized in the form of companies (the second, besides the state, “collective entrepreneur”), were somehow reserved, mainly, for large capital-intensive ventures. Over time, the situation began to change as family- and individually-owned companies also began to grow, e.g. in trade by integrating ‘backwards’, i.e. by taking over manufacturing and eliminating wholesale. Industrial companies, on the other hand, have integrated “upstream” by taking over channels and distribution networks (Cameron and Neal, 2010: 364).

To meet the challenges of the new era, the entrepreneur (both individual and collective) had to become, both, an analyst of an increasingly complex market environment and an organizer of how to operate in such an environment. Meanwhile, we know from the records in the annals of the *American Society of Mechanical Engineers* (ASME) that the nascent post-Civil War great entrepreneurship there, which transcended the scale of operations, first across city and county boundaries, and then across state lines, was rather archaic in this field and suffered from the overwhelming enormity of sheer ignorance in this regard.

Management in the plants is unorganized [...] there is no professional literature, no organization or media to exchange experiences [...]. A cure for this situation [...] ought to come from the engineers (Morris, 2006: 330).

The citation is an excerpt from a paper by Henry R. Towne an entrepreneur and later president of ASME, entitled “The Engineer as Economist” from May 1866, considered by some (especially in the US) as the moment of the birth of management science (Kiechel, 2013: 63). The first use of the terms “management” and “manager” is attributed to J.S. Mill, who applied them to describe the functioning of companies. From the 1880s onwards, the term “management” appeared in the sense of conducting or directing business activities. It was not until F.W. Taylor’s works, *Management of a Manufacturing Workshop* (from 1903) and *Principles of Scientific Management* (from 1911), that the terms “management” and “manager” were permanently introduced into the vocabulary of management theory and practice (Wawrzyniak, 2001: 315).

A field that fits in with what Peter F. Drucker called business theory, which is, a set of assumptions shaping the behaviour of any organization, i.e., not just profit-oriented ones (Drucker, 2010b: 40). A resource, on the one hand, equipping the entrepreneur with adequate comprehensive knowledge of the market, i.e. its participants (customers, competitors, co-operators), the technologies used and the dynamics of their utility, as well as its own strengths and shortcomings. Thus, formulating in yet another form a hard imperative for the entrepreneur (and his organization) to maintain a state of constant readiness to learn. In the way, for example, in which the single or double problem loop of entrepreneurship was proposed by the precursors of the concept of organizational learning, i.e. Chris Argyris and Donald A. Schön (Smith, 2001, 2013). The essence of single-loop learning is that when an error is detected and corrected, it allows the organization to continue with the current policy or achieve the goals currently being pursued. Single-loop learning is like a thermostat that learns when it is too cold or too hot and turns the heating on or off. The thermostat is able to perform this task because it gathers information (room temperature) and takes corrective measures. Double-loop learning, however, occurs when an error is detected and corrected in a way that involves modifying the underlying norms, rules and goals of the organization (Smith, 2001, 2013).

On the other hand, focusing attention on efficiency within the broader production process. Thus, also taking into account the inherent and overly sensitive issue of optimal distribution of the earned “surplus”. It is worth recalling that it is precisely the management of the category of labour, and, therefore, the distribution of the surplus in question, was one of the most significant reasons for the separation of management science into an independent scientific field (Jarmołowicz, 2009: 5). With, we might add, still socially satisfactory results. At least, a partial attempt to explain this state can be sought in J.S. Mill’s *Principles of Political Economy*, who (in the book *Division*) noted: “The laws and conditions of production have [...] the character of physical laws. There is nothing left in them to choose or collectively can do with them as it pleases” (Skousen, 2012: 166).

Thus, if the laws and conditions of production, which also guide the entrepreneur, are objective in nature, then the laws of distribution – by their very nature – are (rather) subjective (and changeable), and, thus, in essence immanently conflicting. The search for an appropriate balance in this most crucial issue of social relations, according to Alain Touraine (2011: 11) is

one of the ever-present challenges. They are, moreover, not only facing entrepreneurial theory, at least since the precursors of the pro-social approach to the firm/organization, i.e. Henri Fayol or Fritz Roethlisberger, but facing economic theory and practice in general.

ENTREPRENEURSHIP IN FOOTBALL: FOOTBALL IN ENTREPRENEURSHIP

The most popular sport in the world, football, which, in the US is referred to as soccer, has found its way into the narrow circle of the aforementioned pioneering economic texts on sports. The word football in the US means what, in the rest of the globe is simply American football. The growing intensity of research on soccer and its socio-economic environment, also contributed to the fact that within the framework of such an approach to sports, an even more specialized area of knowledge emerged, for which it was adopted to use the name *Economics of Football* (German. *Fußball-Ökonomie*, French. *L'économie du football*). Somewhat in analogy with the US, where the term *Baseball Economics* is commonly used (Becker, 2006: 203).

While the interest of scientists in football may seem unlikely, there is a [...] a subset in the world of science that manifests a serious and unflagging interest in this sport [...]. Studies of football appear in countless scientific journals from a wide range of fields – from economics to physics, operational research and psychology to statistics, and the interest of scientists in this sport is continues to grow rapidly (Anderson and Sally, 2014: 42).

In 1993, the United States published the book *Re-engineering the Corporation Manifesto for Business Revolution* by Michael M. Hammer and James A. Champy. Thanks to it, the circle of the most influential management concepts has been widened to include “reengineering” of business processes (*Business Process – Reengineering Process*). The essence of this concept, in a nutshell, is to rethink and then redesign the existing business process. And the scope of the changes implemented is to be the path to the goal, which is the so-called dramatic improvement in performance. The key stages of implementation are: fundamental rethinking, radical redesign of operations, fundamental improvement of results, and what accompanies that – processing (Zimniewicz, 2003: 16).

Re-engineering of professional football clubs is, undoubtedly, one of the more exciting areas of observation. If only for the fact that the effects of its implementation are manifold, relatively quickly visible and largely independent of the size of the capitals behind these actions. As a result, it allows us to conclude that the most spectacular successes do not necessarily relate to the wealthiest club enterprises. All the more so, since it is precisely in their case that we can also encounter the phenomena of the permanent need for engineering, where a flawed initial process of this type, results in the need for secondary and even subsequent ones. The reasons for the mistakes made are various, and the limited volume framework of this article precludes a longer discussion in this regard. Nevertheless, it is worth noting, at least, that they are also too often due to certain "objective" shortcomings of the concept. Among which noteworthy is the neglected aspects arising from cultural differences. Not infrequently, they also provoke strong and significant resistance (Zimniewicz, 2003: 28). In recent years, Manchester United has become a good example of the endless "sequences" of re-engineering. The example of this club is also associated with one of the more interesting forms of resistance, following the highly turbulent circumstances in 2005, related to the acquisition of capital control of the Old Trafford-based football company by the American Glazer family.

The response of part of the fan community was the founding of an alternative – semi-amateur club United FC of Manchester (Keoghan, 2016: 133–134). Thus taking the form of a concrete, institutionalized disapproval and opposition to the new owner who was imposing an unacceptable business model for the club founded in 1878. Initiatives of this type are becoming arranged in a much stronger trend, started in the UK in 1992, and carried out within the framework of supporters' associations of so-called *supporter's trusts*, which, for various reasons, but most often salvaged (including as a result of sham or failed re-engineering), decided to take the fate of local clubs into their own hands (Keoghan, 2016: 18). As if referring back to the tradition of grassroots initiatives at the origin of many football entities in the 19th and early 20th centuries. In a historical perspective these activities should therefore not be regarded as *Novum*, but rather as yet another highlighted institutional linearity, fitting into the optics of the *longue durée*. That is a tendency, as Wojciech Morawski reminds us, sometimes difficult to perceive from the perspective of a single generation or a human life, but indeed occurring in reality (Morawski, 2011: 7–8).

By contrast, the overhaul of the operation of FC Barcelona's sports division in the late 1980s, is an outstanding sportometrics example, where the hard-edged practice of the re-engineering approach, at least, went ahead of the solidification of its conceptual framework. It was Johan Cruyff who, from 1988 to 1996, was its architect and direct implementer.

When one "of the best football players ever to play on the planet" (Hurkowski, 2005: 131), arrived in the Catalan capital to become a coach at the club, where he had already played as a player (1973–1978), he already had significant training successes under his belt with the Ajax Amsterdam team (Dutch Cup: 1986, 1987; Cup Winners' Cup 1987), the successful reform of youth team training at the club, and "the sum of many years of thoughts about football" (Kuper and Szymański, 2019: 450–451). Also, those backed up by the knowledge of the approach to sport and the arcana of its operation in the United States that he gained from his three-year stay in the USA, when he played for the Los Angeles Aztecs (1979) and Washington Diplomats (1980–1981) teams. It was his stay in the United States, a country considered the home of scientific insight into the relationship between the spheres of sports and economics (Grabowski, 2019: 17), that was to be the turning point "between Cruyff the football player and Cruyff the teacher", with his perfectly developed analytical talent (Os, 2007: 11).

It was in America that I discovered new skills in myself and learned to develop them [...]. In American sports they understand, better than anyone else, how important it is to work together [...]; to work on developing the sport to the highest possible level [...]; overseas, this is a preconception. Americans want and expect the best [...]. Sport at the top level [...] - this is what only counts in America (Cruyff and de Groot, 2017: 97–102).

The above qualities, knowledge and aptitude combined with a favourable "political situation" at the club, whose president was under pressure from the upcoming elections and had to accept the compromise of giving J. Cruyff, contrary to previous custom, full authority over the club's first team and training structures, provided the essential ground for Barcelona's eventual transformation. "This is an ideal example of knowledge transfer," as stated by Simon Kuper and Stefan Szymański (2019: 453). This results not only in groundbreaking performance improvements, but also, and perhaps most importantly, in contributing to the realization of goals in the form of historic triumphs in the history of the club. The function of the soon-to-be-successful implemented idea was the so-called total foot-

ball (Dutch: *Totaalvoetbal*). After 1974, the Dutch tended to prefer the term *de Hollandse school*, referring to the great Dutch painting of the Renaissance period. As time went on, total football also began to be misunderstood, as almost every team's style, whose play was based on staying on the ball and swapping positions, was almost manneristically interpreted in this way. What distinguished the Dutch of the 1970s from others was the addition of "wheeling" players involved in pressing and the aggressive use of the offside trap, also treated as a critical element of offensive play (Wilson, 2021b: 24, 28).

The fruit of a tactical revolution developed and implemented first at Ajax Amsterdam (1965–1971) and then at the Dutch national team in 1974 by Rinus Michels, a coach honoured by FIFA in 1999 with the title of "The Coach of the Century". According to Barry Hulshoff, a player for Ajax Amsterdam (1965–1977) and the Dutch national team (1971–1973), and later also a coach:

Total football means that a player from the offense can play defense; although only if he knows how to do it. That's it. You create space, you enter space. And if the ball doesn't appear, you leave your zone, after which another player enters it (Wilson, 2021a: 321).

In such an ultra-offensive (but at the same time, thanks to the defensive-oriented pressing) spectacular system of play, only players with outstanding technical and physical abilities can function. Ideally selected performers must therefore be: "football artists who do not cease to be aggressive craftsmen" (Meijer, 2015: 53). In practice, building a team that plays this way involves a several-year process of selecting the right players and creating a team from scratch. Carlos Rexach, first a team-mate of J. Cruyff's from the period of their time together at Barcelona, when the coach (however with rather modest successes) at that time was R. Michels, and later an assistant during the Dutchman's coaching job at the Catalan club, says:

when Cruyff and I came to Barcelona, we decided to instil in the players the idea of football that inspired us – the game of Rinus Michels [...]. So first of all we had to find and acquire players who adhere to the right philosophy of the game and have the necessary skills, as well as to educate those we were given in inheritance. [...]. Everything went smoothly once we introduced our philosophy of the game to everyone, which we did not intend to deviate from (Wilson, 2021a: 541).

In fact, it was a spectacularly carried out re-engineering project, carried out under enormous pressure, not found in other fields, and resulting from the interest and the excitement that sports – and in particular this discipline – are accompanied by.

As a coach [...] he created a team that could play best in his system in several stages, constantly consolidating and developing his assumptions. He brought in new players and got rid of old ones, completely as if each was a piece of a complicated puzzle that only he could put together. Some pieces fit better than others, and sometimes they didn't fit at all. It took him three seasons to create a group of football players who worked their magic. He moulded individual talents and abilities into an entity overflowing with dedication and skill, into a true dream team (Burns, 2014: 357).

The yield that J. Cruyff reaped, including the first European Cup in the history of FC Barcelona (in 1992), or the Spanish championship 4 times in a row (1991–1994), is much greater and momentous enough that it cannot be limited to the showcase of even the most valuable trophies. In particular, because of the much broader institutional and historical context. During the period of Francoist rule (1937–1975), it used to be said that on the western side of the continent “Europe ended at the Pyrenees” and cosmopolitan Real Madrid was simply a Spanish rarity (Kuper and Szymański, 2019: 449). For the first 70 years or so, founded in 1899 “Barca” was indeed a large club, but as S. Kuper reminds us, not likely to have any particular ambitions to become a big club. So all in all, it was limited to its role as a bastion of regional pride. But then:

Cruyff showed up and made Barca a great club. [...] It was him who shaped Barca's style of play, its football nursery school, even the right mentality for this club. Xavi [the team's current coach] called him “the most influential figure in FC Barcelona's history.” [...] and Guardiola [an alumni and coaching successor of Cruyff] states that he is “the most important figure in the history of all football history” (Kuper, 2022: 69).

In 1999, the Johan Cruyff Institute was established. Barcelona-Amsterdam-based university specializing in “raising the next generation of sports management leaders.” Although its founder and patron expressed the belief that world-class football is based on: “technique, tactics, training and financing” (Cruyff and de Groot, 2017: 280), in doing so he also did not fail to add that the primary source of achieving profitability is sports performance, i.e. the ability of the first team to win. As business areas such as marketing or finance, for example, have a servile and secondary function to it (Wilson, 2021b: 268–269).

The percentage of matches won, thus the primary means of earning profitability in professional team sports, was (using baseball as an example) formalized by Gerald W. Scully. It is a function of the coach/manager's effective transformation of the skill vector of the team's play relative to that of the rival team, as well as the result of luck and/or so-called white noise⁵ (Scully, 1995: 160). The scale of influence of individual factors is determined by the shifting, from time to time, boundaries of their cognition and skilful use.

Analytics has become one of such very rapidly developing "areas of support" of efficiency in this century – i.e. increasing the chances of favourable results in competition. A considerable number of different publications have already been written on this subject. To the greatest extent in English-language (and Anglo-centric), in which, unfortunately, there are also a lot of inaccuracies and omission of facts, as to at least parallel developments and achievements taking place also in other countries of Europe. Especially since the use of such methods has found application there at the highest international level. It is described, for example, by Christopher Biermann, who cites emphatic examples of this from Germany, Denmark and Iceland, in his book *Football Hackers*, to which the author also refers in this article. So let the pages of "Studia Historiae Oeconomicae" also be a good opportunity, based on a critical analysis of the literature on the subject, make the facts in question, at least, a little clearer and outline them in a slightly more historically accurate perspective.

The pioneer of the ubiquitous current football statistical analysis, working on a universal method of success (winning) in professional football, was an Englishman Thorold Charles Reep, from 1928 to 1955 a professional officer in the accounting service of the Royal Air Force (RAF). His proprietary method of parameterized analysis of football matches, aimed at working out the most effective way to score goals, or win, as he explains:

I break the game down into a series of small events directly related to the ball, such as a pass, a centre, a shot. [...] Each type of event is strictly categorized using shorthand signs created for this purpose [...] each pass is described in terms of length, direction, height and effect, as well as the position on the field of the passer and the defender (Anderson and Sally, 2014: 22).

⁵ White noise is a stochastic step process, used in time series modelling, and consists of a sequence of mutually independent random variables with identical distributions, having a constant mean and variance (see Maddala, 2013: 582–583).

R. Pollard points out that it is exceedingly rare to be able to date the start of research in a field so precisely. In the case of T.Ch. Reep's football analytics, it was on 18 March 1950 at 15:50, i.e. before the second half of the Swidon Town vs. Bristol Rovers match (Pollard, 2002: 853). According to his analysis, of which he made about 2,500 between 1950 and 2011, the key to scoring goals was to have actions consisting of no more than three passes, involving the fastest possible moves – with a long pass – of the ball into the opponent's half. Preferably in the vicinity of a statistically-determined *position of maximum opportunity* (POMO) located as close as possible (i.e., not on the offside) to the so-called further post of the rivals' goal – relative to the attack carried out on the opposite side of the field (Campbell, 2018).

Leaving aside the numerous controversies surrounding T.Ch. Reep's proposed concept of "football optimum," it should be recalled that he was also the first full-time analyst to work in professional English football. First in the 1950/1951 season at London Brentford, then from August 1951 for three and a half years at Wolverhampton Wanderers, and from the 1955/1956 season for another three years at Sheffield Wednesday. Tellingly, it is this west London club, which is back in England's top division after 74 years since the 2021/2022 season, which has become the modern-day benchmark for integrating mathematical modelling into the football team management process. Since 2012, the popular *The Bees* have been owned by British businessman Matthew Benham, owner of book-making website Matchbook and Smartodds, a sports performance forecasting company using statistical predictive models. In 2014, M. Benham also acquired Danish premier league club FC Midtjylland (Sumpter, 2018: 92–93).

Later he was, mainly, active as a freelance columnist (including, *Daily Mail*) and consultant (Pollard, 2002: 853), advising a total of more than twenty organizations and/or football managers, including those leading England's national teams, such as Graham Taylor and Norway's Egil Olsen (Lyons, 2011). In addition, T.Ch. Reep also co-authored and authored several scientific articles, of which the most important is considered to be the one written with Bernard Benjamin (1910–2020) for the "Journal of the Royal Statistical Society" in 1968 (Pollard, 2002: 853). The matter concerns a text based on T.Ch. Reep's statistical research from 1950 to 1964 (see: Reep and Benjamin, 1968: 581–584). The text also did a good job of capturing the nature of T.Ch. Reep's contributions to the football industry. In reality, however, despite his efforts, he did not invent any system of play,

but primarily invented a method of recording what happens on a football field during a match (Campbell, 2018).

Following up on an earlier thought, however, it is difficult to fully share the observation, that the introduction of mathematics, and other sciences in general, into football, requires a balance that we are yet to learn (Sumpter, 2018: 93). Well, when T.Ch. Reep was already working as an independent consultant, it was in then – lying on the other side of the “Iron Curtain” – Poland, that a comprehensive approach to football analytics began. And, last but not least, in a way that is close to the way it is used today with the use of already incomparably newer technologies.

Analytics is much more than spreadsheets and statistics: it is an openness to all kinds of data and information – official, unofficial, structured and unstructured, observed, recorded, remembered and – a determination to find any regularities, patterns and relationships that may be in them (Anderson and Sally, 2014: 12).

According to Andrzej Streljau, coach of the Polish national team (1989–1993), and earlier as assistant coach to Kazimierz Górski in the period 1972–1974 and in 1976, as well as being a lecturer at the Academy of Physical Education in Warsaw. The intellectual germ of such an approach to football in Poland were Walenty Kłyszajko and Zygmunt Jesionka, associated with the Warsaw and Krakow Academy of Physical Education, respectively. They authored an analytical study on football efficiency based on observations of the 1966 World Cup in England (Chromik and Streljau, 2018: 74–75).

However, the real breakthrough in terms of the evolution by which football went from being a game of opinion to a game of knowledge came a little later (Biermann, 2022: 18). At the dawn of the 1970s, Jacek Gmoch – a former representative of Poland, a graduate and researcher at the Department of Road and Bridge Construction at the Warsaw University of Technology, and later on a coach, in cooperation with two friends (an economist – Stanisław Więckowski and a mathematician – Wojciech Skoczek), developed a document: *Ways to improve the position of Polish football in the international arena*. Soon by the beginning of 1971, it found its way into the hands of the highest party and state authorities. The paper took an innovative approach, using, among other things, various quantitative methods (e.g., probability calculus) to conduct a network analysis of the statistical material collected on the observation sheets (similar to T.Ch. Reep). With the help of the punch card technique and the comput-

ing power of the university's computer (model, "Oder"), there were also efforts to find new optimal solutions concerning, for example, training, refinement of field tactics (e.g. optimal distance between players and formations), and, as a result, to increase the chances of achieving good results in this way (Gmoch et al, 2018: 110–113). These papers were part of the concept developed and implemented by J. Gmoch of the famous "information bank." It served first for the needs of his former team, i.e. Legia Warsaw, when in the 1969/1970 season, the capital's team reached as far as the semi-finals of the European Club Champions Cup (0:0 and 0:2 against Feyenoord Rotterdam), and at the turn of 1971/1972, the Polish national team (Szczerba and Gmoch, 2021: 106–107). It was during the period in which coach K. Górski's team won the gold medal of the Olympic Games in Munich (1972) and won third place at the 1974 World Championships played in West Germany. The official status of the "Bank of Information" was granted by the Polish Football Association in early 1972 (Jucewicz, 2012: 54).

In the context of the history of the development of football analytics, whose development in Poland at that time was something absolutely unprecedented in the world, it should be recalled that the information bank became famous abroad only in 1974 (Gmoch, 1978: 97). That was when it became obvious that it was not simply some "addition" to the effective and impressive style of play of the "White-Red" team ("Poland played wide, from wing to wing with panache, with flair") during *Weltmeisterschaft'74* (see more: Zbyszewski 2014: 32). In fact, it was a very important asset of the Polish national team. While evaluating the game of the Polish team, international experts unanimously shared the view that it had the data to become world champions (Urban, 2005: 94). The sports world then discovered Polish footballers, who completely won hearts with their fresh, attacking football. They made, as the Parisian "L'Equipe", for example, wrote at the time, a *furor*, showing how to play modern football. Science, work, talent, technique, intelligence and flexible tactics, became the elements determining success (Nowosielski and Szkiela 1975: 138–139).

Experts have examined the causes of the Polish football boom. Poland's secret: engineer Jacek Gmoch assembled and developed the first database for football in 1971. Since then, Poles have been collecting all details from the world of football with the help of VCRs, tapes and films, and have been preparing analyses for each upcoming match. Probably no coach or team knows more about their rivals than the Poles ("Diese Deutschen...", 1974).

Earlier, and just as importantly, because already after the Olympic triumph – the institution of the information bank as the “secret weapon” of the Polish national team, was rather attempted to be covered up, and its influence was muted. This is how this situation was to be explained J. Gmoch: by the then president of the Polish Football Association – Jerzy Nowosielski: “You know, we don’t want the Russians to find out how we work here, that we have a bank of information” (Szczërba and Gmoch 2021: 108).

In the context of the information that J. Nowosielski may have had at his disposal at the time about the “fraternal” football arms race, and which was being waged within the so-called People’s Democracy Camp, his statements cannot be treated as mere anecdote. All the more so, since much food for thought is also provided by contemporary publications on the use of computer techniques at Dynamo Kyiv and the USSR national team, which from 1973 (club) and from 1975 (national team) was led by the future legendary coach-innovator, also an engineer by profession, Valery Lobanovsky.

In terms of a specific set of functionalities, the concept of an information bank, with an interdisciplinary – “algorithm of national team success”, was characterized by an open formula (Cierpiatka et al., 2018: 66). In the book, *Alchemia futbolu* (The Alchemy of Football), written by J. Gmoch during the period of his independent work with the national team (1976–1978), this is how the author characterized its essence:

for a bank of information, anything can be useful, which in some specific way allows us [...] to decipher the opponent’s reasoning, his predilection for a certain game, certain names [...]. We do not adapt to the opponent’s way of playing – instead, we develop on the basis of knowledge of this concept – a counterplan, that is, the type of game that suits him least [...]. When we have full [...] knowledge of the opponent and full on-going discernment of our own player resources, we can develop the most effective tactical plan (Gmoch, 1978: 101–102).

The use of the concept of “alchemy” in the title seems timeless, and therefore, still relevant. This view is also shared by S. Szymanski, comparing the analogy between the current state of advancement of football knowledge and the empirical approach of European alchemists, preceding the advent of the scientific revolution during the Enlightenment (see: Szymański, 2019).

Implemented in a pioneering manner, and not only at the level of representative competition, the concept of knowledge-based football consist-

ed of being able to take advantage of what the world already knew, but just had not yet managed to adopt for football (Gmoch et al., 2018: 132). This included, among other things, the information processing theories contained in the, then groundbreaking works of Allen Newell and Herbert A. Simon (Jucewicz, 2012: 94). One of the innovative forms of testing such counterplans was the cadre's matches with specially selected sparring-partners, i.e., club teams, designed to brand the way future rivals would play as part of a prior arrangement (see: Gmoch, 1978: 101–102). The subsequent history of “analytical football”, for which something like “basic research” (if not much more) was realized in Poland half a century ago, went this way; What Francis Bacon long ago called: “data-driven deduction” (Kuper and Szymański, 2019: 379). Over time, i.e. at the beginning of the 21st century, being already a specialized field of knowledge, collected and developed according to various strategies primarily in football clubs (the so-called, “Money ball effect”) and within the framework of a thriving branch of entrepreneurship. The title of Michael Lewis’ fact-based book (and the movie based on that title) about the Oakland Athletics baseball team, which, with a more modest budget, began to find success by contracting players who were duly undervalued on the market, but had statistically proven skills. Companies such as OptaSports (now Stats LLC/ Vista Equity Partners, founded in 1996), for example, provide various data and tools for, for example, video analysis along with their digital libraries. An average soccer match analysis records and classifies about 2,500 different events involving each player. Specialized in providing external analytical services for the use of those interested in gaining knowledge about the sources of success in the most popular sport.

Even so, far-reaching restraint is strongly recommended in assessing their actual effectiveness anyway. The author of this article largely shares Roland Loy’s view that it may have to take the proverbial light years before we thoroughly understand how success in football is actually created (Loy, 2007).

CONCLUSIONS AND INDICATIONS

The outlined manifestations of entrepreneurship are examples of the effect resulting from the tradition of “deep reflection on the sport.”⁶ According to S. Kuper and S. Szymański, authors of *Soccernomics*, the Old Continent excels in this for the same reason in which it led the way during the scientific revolution of the 16th and 17th centuries. The foundation here, then, is a dense population network that promotes the exchange of ideas, the accumulation of experience and talent. Except that in football, ideas, and soon to be added, money, began to circulate much faster than in many other sectors of the economy (Kuper and Szymański 2019: 378–380). The so-called *Big Five*, i.e. Europe’s five strongest national football leagues (England, France, Spain, Germany, Italy), are also the still “closed circle” of European countries triumphant in the FIFA World Cup held since 1930.

This year’s 22nd FIFA World Cup 2022 in Qatar is the last tournament with the participation of 32 national teams. In 2026, the World Cup to be organized by the US, Canada and Mexico will play as many as 48 teams. This means that as many as approx. 1/5 of FIFA’s affiliated members will directly participate in the championship. The failure of a national team to qualify – understood as – a social organizational entity, with, at the same time an institutional form of such entrepreneurship in professional sports (Bednarczyk, 2016: 20), will be associated with an arguably much greater social disillusionment and levels of frustration than before. At the same time, many national federations (and their state governments) will see, in the increased spending, the opportunity to perform at championships – an opportunity, reflected in the concept of national marketing. Thus – “the embodiment of the state, the symbolic image of the nation” (Boniface, 1998). Indeed, it is no coincidence, as French political scientist Pascal Boniface noted in 1998, that after the fall of the Berlin Wall:

one of the first steps taken by the newly independent states was to apply for membership in FIFA, as if it were as natural and necessary as UN membership, as if the state was no longer defined only by the three existing elements (territory, population and government), but also a fourth element: the national football team. It is as if a nation’s independence is characterized by its ability to defend its borders, mint a coin and compete in international football tournaments (Boniface 1998: 91).

⁶ The Polish Football Association (PZPN) was founded in 1919, just a year after her Independence; the Dutch – Koninklijke Nederlandse Voetbal Bond (KNVB) – was founded in 1889 and was one of the eight founders of FIFA in 1904, along with: Belgium, Denmark, France, Germany, Spain, Switzerland and Sweden.

In this situation, it can be expected that there will be an even more pronounced conceptual revival in the field of football entrepreneurship aimed at the needs of national teams. The peculiarities of modern competition in this field, are becoming more and more different than in club football. This problem, in terms of a roughly research postulate, is already formulated, for example, by political science. Articulating the need to typologize the study of modern football with a clear distinction between the domestic and international dimensions, both in the area of club rivalry and, precisely, representative football (Dmowski, 2018: 451).

In practice, this can result, for example, in a slightly lower utility of quantitative analysis than in inter-club competition, with a necessary shift of emphasis towards a qualitative approach. Thus, one about which the author of *The Alchemy of Football*, almost as a visionary, had written more than forty years earlier.

In order to know and understand the situation of football in a country today, it is necessary to refer to its history, traditions, the models from which it originated, and to trace – as meticulously as possible – the evolution it has undergone. This will allow you to understand why its team members and representation play in a certain way. Reaching back to the sources will also allow us to observe the nuances that divide the current phase of development of the team we are interested in from the team that played [some] years back (Gmoch 1978: 100).

Against this backdrop, we can expect to face a period of much more in-depth trans- and multidisciplinary studies of national football models, than hitherto. Into the climate of which was the primary goal of this article, by outlining selected aspects of soccer entrepreneurship, the author sought to introduce. Secondly, this is aimed at contributing to, at least, a partial reduction of the,, also mentioned, important thematic gap in this area.

The subject of much greater interest should be, among others, such issues as the diversity of civilizational and cultural conditions, anthropological conditions, climatic conditions or macroeconomic bases for development (Boniek 2016: 5). These challenges are and will be all the greater, as the diversity of playing styles is observed worldwide, as Michał Zachodny, author of a book publication in line with the said trends, points out. It affects the blurring of traditionally understood characteristics and values attributed, in a simplistic way, to individual nations and countries (Zachodny 2022: 358).

The expected approaches should, increasingly, be a much more sophisticated basis for developing not only tactical, ad hoc “counterplans” for a specific rival or co-participants in a championship tournament, but no less a building block for our own training models, corresponding to long-term challenges. With Gabriel Hanot’s, who was a football player for the French national team, a coach and then a prominent figure in French sports journalism, working and editing “L’Équipe” and “France Football”, nevertheless not lost relevance, a colloquy anchored somewhere: “tell me how you play, and I will tell you who you are” (Platini and Ernault 2014: 227).

Wojciech Szymon Kowalski, graduate of the Poznań University of Economics (now the University of Economics in Poznań). Since 1991, professionally associated with the financial market. Within the framework of the business (Biuro Analiz i Koniunktur WSKowalski) deals mainly with analysis of the scope of the macroeconomics and commodity markets. The subject of his interests is economic history, in particular the stock market institution and the economy of the Football (in the U.S., it is Soccer).

REFERENCES

Literature

- Anderson, C., Sally, D. (2014) *The Number Game: Why Everything You Know About Football Is Wrong* (Polish edition). Wrocław: Wydawnictwo Bukowy Las.
- Becker, G.S., Becker, G.N. (2006) *The Economics of Life: From Baseball to Affirmative Action to Immigration, How Real – World Issues Affect Our Everyday Life* (Polish edition). Warszawa: One Press.
- Bednarczyk, M. (2016) ‘Istota przedsiębiorczości w sporcie’, in Bednarczyk, M. and Nessel, K. (eds) *Przedsiębiorczość w sporcie*. Warszawa: CedeWu.pl, pp. 19–30.
- Bernstein, P.L. (2011) *Against the Gods: The Remarkable Story of Risk* (Polish edition). Warszawa: Kurhaus Publishing.
- Biermann, Ch. (2022) *Football Hackers* (Polish edition). Kraków: Wydawnictwo SQN.
- Blaug, M. (1994) *Economic: Theory in Retrospect* (Polish edition). Warszawa: Wydawnictwo Naukowe PWN.
- Boniek, Z. (2016) ‘Przedmowa’, in *Narodowy Model Gry*. Warszawa: Polski Związek Piłki Nożnej.
- Boniface, P. (1998) ‘Football as a factor (and a reflection) of international politics’, *International Spectator*, 23(4), pp. 87–98.
- Braudel, F. (2019) *Civilisation matérielle, économie et capitalisme, XV–XVIII siècle. Les structures du quotidien: le possible et l’impossible* (Polish edition). Warszawa: Państwowy Instytut Wydawniczy.
- Burns, J. (2014) *Barca: A People’s Passion* (Polish edition). Kraków: Wydawnictwo SQN.
- Cameron, R., Neal, L. (2010) *A Concise Economic History of the World: From Paleolithic Times to the Present* (Polish edition). Warszawa: “Książka i Wiedza”.
- Chromik, J., Streljau, A. (2018) *On Streljau*. Kraków: Wydawnictwo SQN.

- Cierpiatka, J., Latasiewicz, M., Mrówka, K., Nowak, M., Tkocz, N. (2018) *Mundial: tajemnice, kulisy, historie nieznanne*. Kraków: Wydawnictwo Arena.
- Cruyff, J., de Groot, J. (2017) *My Turn: The Autobiography* (Polish edition). Kraków: Wydawnictwo Literackie.
- 'Diese Deutschen können uns nie schlagen' (1974) *Der Spiegel*, 26, 23 June.
- Dmowski, S. (2018) 'Futbol i polityka – zagadnienia teoretyczno-metodologiczne', in Wojtaszczyk, K.A., Sulowski, S. and Jakubowski, W. (eds) *Teoria. Instytucje. Procesy. Zagadnienia ogólne*. Vol. I, part I. Warszawa: Uniwersytet Warszawski. Instytut Nauk Politycznych.
- Drucker, P.F. (2010a) *Management Challenges for the 21st Century* (Polish edition). Warszawa: Wydawnictwo MUZA.
- Drucker, P.F. (2010b) *Classic Drucker* (Polish edition). Warszawa: Wydawnictwo MT Business.
- Fajardo, P.E., Núñez-Pomar, J.M., Ratten, V., Crespo, J. (2020) 'Entrepreneurship and Innovation in Soccer: Web of Science Bibliometric Analysis', *Sustainability*, 12, 4499. <https://doi.org/10.3390/su12114499>
- Garcia, J. (ed.) (2019) *Sports (and) Economics*. Social Economic Studies, 7. Madrid: Funacas.
- Gmoch, J. (1978) *Alchemia futbolu*. Warszawa: Krajowa Agencja Wydawnicza.
- Gmoch, J., Bartosik, A., Klinke, Ł. (2018) *Najlepszy trener na świecie*. Warszawa: Grupa Wydawnicza Foksal.
- Gorazda, M. (2014) *Filozofia ekonomii*. Warszawa: Wydawca Kopernikus Center Press.
- Grabowski, A. (2019) *Ekonomia sportu. Zagadnienia metodologiczne i wybrane doświadczenia*. Warszawa: Wydawnictwo PWN.
- Herbener, J.M. (2019) 'Frank A. Fettner. Zapomniany olbrzym', in Holcombe, R.G. (ed.) *15 Great Austrian Economists* (Polish edition). Wrocław: FijoRR Publishing, pp. 183–208.
- Huntington, S.P. (2003) 'Z kulturą trzeba się liczyć', in Harrison, L.E. and Huntington, S.P. (eds) *Culture Matters: How Values Shape Human Progress* (Polish edition). Poznań: Wydawnictwo Zysk i Spółka, pp. 11–16.
- Hurkowski, R. (2005) *Z piłką do Europy*. Warszawa: Quick Publishing.
- Jaromołowicz, W. (2009) 'Praca we współczesnej teorii i praktyce gospodarowania', *Wykład inauguracyjny*, Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu, Poznań.
- Jucewicz, A. (2012) *Wielcy selekcjonerzy*. Warszawa: Oficyna Wydawnicza ABA.
- Keoghane, J. (2016) *Punk Football: The Rise of Fan Ownership in English Football* (Polish edition). Warszawa: Magnus.
- Kiechel, W. (2013) '100 lat zarządzania', *Harvard Business Review* (Polish edition).
- Kirzner, I. (2010) *Competention and Entrepreneurship* (Polish edition). Warszawa: FijoRR Publishing.
- Klein, M.L., Kurscheidt, M. (2007) 'Einführung: Neue Perspektiven ökonomischer Sportforschung', in Klein, M.L. and Kurscheidt, M. (eds) *Neue Perspektiven ökonomischer Sportforschung. Sportökonomie 9*. Schorndorf: Hoffmann-Verlag, pp. 9–34.
- Koźmiński, W. (2022) 'Dżuma właśnie nadeszła', *Rzeczpospolita*, 15 March, p. A21.
- Kuper, S., (2022) *Barca: The rise and fall of the club that built modern football* (Polish edition). Kraków: Wydawnictwo SQN.
- Kuper, S., Szymański, S. (2019) *Soccernomics: Why England Loses, Why Spain, Germany, and Brazil Win and Why the U.S., Japan, Australia – and Even Iraq – Are Destined to Become the King of the World Most Popular Sport* (Polish edition). New York: Nation Books.
- Lipoński, W. (2012) *Historia sportu*. Warszawa: Wydawnictwo Naukowe PWN.
- Lipoński, W. (2013) 'Polacy też swoją piłkę mają', *Rzeczpospolita*, pp. 18–19.

- Maddala, G.S. (2013) *Introduction in Econometrics* (Polish edition). Warszawa: Wydawnictwo Naukowe PWN.
- McCormick, R.E., Tollison, R.D. (1984) 'Crime on the Court', *Journal of Political Economy*, 92, pp. 223–235.
- Meijer, M. (2015) *Louis van Gaal: The Biography* (Polish edition). Łódź: Wydawnictwo Galaktyka.
- Mikosik, S. (1994) *Teoria rozwoju gospodarczego Josepha A. Schumpetera*. Warszawa: Wydawnictwo Naukowe PWN.
- Morawski, W. (2011) *Dzieje gospodarcze Polski*. Warszawa: Diffin.
- Morlino, B. (2016) *Portraits legendaires du football* (Polish edition). Ożarów Mazowiecki: Wydawnictwo FK Olesiejuk.
- Morris, C.R. (2006) *The Tycoons How Andrew Carnegie, John D. Rockefeller, Jay Gould, and J.P. Morgan Invented the American Supereconomy* (Polish edition). Gliwice: Wydawnictwo HELLON.
- Noll, R.G. (2006) 'Sports Economics After Fifty Years', in Rodríguez, P., Késenne, S. and García, J. (eds) *Sports Economics After Fifty Years: Essays in Honour of Simon Rottenberg*. Oviedo: Ediciones de la Universidad de Oviedo, pp. 17–49.
- Nowosielski, R., Szkiela, W. (1975) *Droga do finatu*. Warszawa: Ludowa Spółdzielnia Wydawnicza.
- Os, P. van (2007) *Johan Cruyff. De Amerikaanse jaren*. Amsterdam: Uitgeverij Carrera.
- Piercy, N. (2003) *Market-Led Strategic Change*, Second Edition (Polish edition). Warszawa: Wydawnictwo Felberg SJA.
- Platini, M., Ernault, G. (2014) *Parlons football. Entretiens avec Gérard Ernault* (Polish edition). Wrocław: Wydawnictwo Dolnośląskie.
- Pollard, R. (2002) 'Charles Reep (1904–2002): pioneer of notational and performance analysis in football', *Journal of Sport Sciences*, 20(10), pp. 853–855.
- Porter, D., Wamplew, W. (2018) 'Entrepreneurship, Sport, and History: An Overview', *International Journal of the History of Sport*, 35, pp. 626–640.
- Reep, C., Benjamin, B. (1968) 'Skill and Chance in Association Football', *Journal of the Royal Statistical Society, Series A (General)*, 131(4), pp. 581–585.
- Reinert, H., Reinert, E. (2006) 'Creative Destruction in Economics: Nietzsche, Sombart, Schumpeter', in Backhaus, J.G. and Drechsler, W. (eds) *Friedrich Nietzsche 1844–1900: Economy and Society*. New York: Springer Science & Business Media, pp. 55–86.
- Rothbard, M.N. (2019) 'Anne-Robert-Jacques Turgot. Związły, przejrzysty, genialny', in Holcombe, R.G. (ed.) *15 Great Austrian Economists* (Polish edition). Wrocław: FijoRR Publishing, pp. 59–78.
- Salerno, J.T. (2019) 'Carl Menger. Założyciel szkoły austriackiej', in Holcombe, R.G. (ed.) *15 Great Austrian Economists* (Polish edition). Wrocław: FijoRR Publishing, pp. 113–152.
- Schumpeter, J.A. (1995) *Capitalism, Socialism and Democracy* (Polish edition). Warszawa: Wydawnictwo Naukowe PWN.
- Schumpeter, J.A. (2021) *The Theory of Economic Development*. London–New York: Routledge Classic.
- Scully, G.W. (1995) *The Market Structure of Sports*. Chicago: The University of Chicago Press.
- Skousen, M. (2012) *The Making of Modern Economics* (Polish edition). Warszawa: FijoRR Publishing.
- Sloterdijk, P. (2006) 'Ein Team von Hermaphroditen', *Der Spiegel*, 23, 6 June, pp. 70–75.
- Sumpter, D. (2018) *Soccermatics* (Polish edition). Warszawa: Copernicus Center Press.

- Swedberg, R. (2021) 'Introduction in to the Routledge Classic: What Makes The Theory of Economic Development a Classic', in Schumpeter, J.A. (ed.) *The Theory of Economic Development*. London–New York: Routledge Classic, pp. VII–XVII.
- Szczerba, J., Gmoch, J. (2021) 'Ja chyba rządziłem tym krajem!', in Maciorowski, M. (ed.) *Polska gola!*. Warszawa: Wydawnictwo Agora.
- Taylor, E. (1957) *Historia rozwoju ekonomiki*. Vol. 1–2. Poznań: Państwowe Wydawnictwo Naukowe.
- Thornton, F. (2019) 'Richard Cantillon początki teorii ekonomicznej', in Holcombe, R.G. (ed.) *15 Great Austrian Economists* (Polish edition). Wrocław: FijoRR Publishing, pp. 37–57.
- Touraine, A. (2011) *Penser autrement* (Polish edition). Warszawa: Państwowy Instytut Wydawniczy.
- Urban, T. (2005) 'Opfermythen und ein Märtyner Polen fühlt sich bis heute von der deutschen Feuerwehr verschaukelt. Die Stars werden zu Legenden, Deyna stirbt als gebrochener Mann', in *Fußball-Weltmeisterschaft 1974 Deutschland*. München: Süddeutsche Zeitung WM Bibliothek.
- Wawrzyniak, B. (2001) 'Koniec wieku zarządzania', in *Tworzenie organizacji*. Warszawa: Wydawnictwo Wyższej Szkoły Przedsiębiorczości i Zarządzania im. L. Koźmińskiego, pp. 315–330.
- Weber, M. (1985) '«Obiektywność» poznania w naukach społecznych', in Chmielecki, A. (ed.) *Problemy socjologii wiedzy*. Warszawa: Państwowe Wydawnictwo Naukowe, pp. 45–148.
- Wilson, J. (2021a) *Inverting the Pyramid: A History of Football Tactics* (Polish edition). Kraków: Wydawnictwo SQN.
- Wilson, J., (2021b) *The Barcelona Legacy* (Polish edition). Kraków: Wydawnictwo SQN.
- Zachodny, M. (2022) *Polska myśl szkoleniowa*. Kraków: Wydawnictwo SQN.
- Zbyszewski, K. (2014) 'Nogami do sławy', in Zbyszewski, K. (ed.) *Wczoraj i na wyrwyki. Nogami do sławy. Piłkarskie Mistrzostwa Świata 1974*. Łomianki: Wydawnictwo LTW, pp. 7–63.
- Zimniewicz, K. (2003) *Współczesne koncepcje i metody zarządzania*. Warszawa: Polskie Wydawnictwo Ekonomiczne.

Internet sources

- Campbell, A. (2018) 'Don't shoot the messenger: The first football analyst was a pioneer 50 year ahead of time', *Nutmeg*, 8, www. <https://www.nutmegmagazine.co.uk/issue-8/dont-shoot-the-messenger-the-first-football-analyst-was-a-pioneer-50-years-ahead-of-his-time/>. Accessed 11 February 2022.
- Cantillon, R. (1775) *Essei Sur la Nature du Commerce en Generale*. Traduit de anglois. <https://socialsciences.mcmaster.ca/econ/ugcm/3ll3/cantillon/essay1.txt>. Accessed 22 December 2021.
- Lange, D. (2022) 'Market size of professional soccer in Europe 2006–2020', *Statista*. <https://www.statista.com/statistics/261223/european-soccer-market-total-revenue/>. Accessed 15 April 2022.
- Loy, R. (2007) 'Fußball ist unkalkulierbar', *11freunde*. <https://11freunde.de/artikel/fu%C3%9Fball-ist-unkalkulierbar/567373>. Accessed 20 September 2022.
- Lyons, K. (2011) 'Goal Scoring in Association Football: Charles Reep', *Keith Lyons Clyde Street*. www. <https://keithlyons.me/2011/02/28/goal-scoring-in-association-football-charles-reep/>. Accessed 13 March 2022.

- Mangoldt, H.K. von (1855) *Die Lehre von Unternehmergewinn*. Leipzig. https://www.deutschestextarchiv.de/book/view/mangoldt_unternehmergewinn_1855?p=51. Accessed 6 February 2022.
- 'Most Popular Sports by Country' (2022) *worldpopulationreview.com*. <https://worldpopulationreview.com/country-rankings/most-popular-sport-by-country>. Accessed 19 September 2022.
- Sauer, R.D. (2017) 'Robert D. Tollison: Father of sportometrics, friend and colleague'. <https://link.springer.com/content/pdf/10.1007/s11127-017-0431-2.pdf>. Accessed 19 June 2022.
- Smith, M.K. (2001, 2013) 'Chris Argyris: theories of action, double-loop learning and organizational learning', *The encyclopedia of pedagogy and informal education*. <https://infed.org/mobi/chris-argyris-theories-of-action-double-loop-learning-and-organizational-learning/>. Accessed 22 April 2022.
- Sobel, R.S. (2021) 'Entrepreneurship', *Econlib*. <https://www.econlib.org/library/Enc/Entrepreneurship.html>. Accessed 2 March 2022.
- Szymański, S. (2019) 'Soccer Analytics: Science or Alchemy?', *Soccernomics*. <https://www.soccernomics.com/?p=1575>. Accessed 21 September 2022.
- Tollison, R.D. (2004) 'Sportometrics', *Econlib*. <https://www.econlib.org/library/Enc/Sportometrics.html>. Accessed 19 June 2022.