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The Theoretical Modelling of the Firm-Level International Competitiveness in Business Studies

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Summary:

Competition, rivalry, competitiveness are manifested both when a firm operates on the domestic market and on the international market, but international competitiveness can also manifest itself in relation to domestic businesses which are forced to compete on the local market with foreign competitors or even with global players. It is determined by the degree of internationalisation of the industry in which a given firm functions, among others, but most of all by the scope, that is the territorial extent of the firm internationalisation. The aim of the paper is a specific diagnosis of the modelling of the firm-level international competitiveness available in the literature, integrating the output of economics and management studies. In order to achieve the assumed goal, literature study as well as the criticism of literature on the analysed research strand was used. Initially, competition and competitiveness were analysed from the perspective of economics, however, recent decades have brought extreme intensification of the research into competitiveness of a firm, conducted mainly from the perspective of management studies. In firm-level competitiveness modelling, the process paradigm of building competitiveness is most frequently adapted, which consists of a four-element sequence: competitive potential, competitive advantage and its sources, competitive strategies and actions, and competitive position. International competitiveness of a firm concerns not only internationalised businesses, but also local firms whose the competitors are foreign entities. In the literature of the subject there is a whole spectrum of various models which try to explain the issue of international competitiveness of a firm, but the classical ones base more on organisational and managerial factors, and the latest ones on the dynamic entrepreneurial competences and organisational learning.

Keywords: international competitiveness, corporate growth, internationalisation
JEL classification: D21, F23, L21, L26, M16

* Modelling *of* is used in the epistemological meaning as discussed by McCarthy (2004).

5.1. INTRODUCTORY REMARKS

Competition, competing, competitiveness are manifested both when a firm operates in the domestic market and in the international market, but international competitiveness can also manifest itself in relation to domestic businesses which are forced to compete in the local market with foreign competitors or even with global players. It is determined, as R.M. Gant (2005, p. 412) or C.A. Solberg (1997, p. 11) confirm, by the degree of internationalisation of the industry in which a given firm functions (Wach, 2014, pp. 19-20), among others, but most of all by the scope, that is the territorial extent of the firm internationalisation.

The aim of the paper is a specific diagnosis of the modelling of the firm-level international competitiveness (**international micro-competitiveness**) available in the literature, integrating the output of economics and management studies. In order to achieve the assumed goal, literature study as well as the criticism of literature on the analysed research strand was used.

5.2. COMPETITION AND COMPETITIVENESS IN BUSINESS STUDIES[1]

The classical theory of economics considers competition the basic mechanism of a market economy. Most frequently, in the literature of the subject it is assumed that competition is rivalry among participants of a given market play, and depending on a market entity. W. Redmon (2013, pp. 423-446) distinguishes three kinds of competition in the theory of economics, namely type 1 horizontal competition which occurs between producers or vendors, vertical competition occurring between a vendor or a producer and a buyer, as well as type 2 horizontal competition which occurs between buyers. Following M.J. Stankiewicz (2005, p. 18), we can adopt a very general definition of competition as "a phenomenon the participants of which rival with one another in the strive for analogous goals, which means that activities undertaken by some of them to achieve specific goals hinder (and sometimes even prevent from) achieving the same goals by others". Similarly, J.W. Bossak and W. Bieńkowski (2004, p. 17) define economic competition as "rivalry of entities, aiming at achieving benefits related to business activities in the domestic and international market".

Initially, competition was examined from the point of view of the whole economy, only later the theory of competition was started to be referred to the functioning of a firm, at the beginning in economics, and then in management studies (Cho *et al.*, 2002). The first significant contribution towards building theoretical bases for the functioning of competitive markets in the theory of

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[1] Business studies are understood broadly as both business economics and business management.

economics, that is the economic fundamentals of competitive play in the market was brought by A. Smith ([1776] 1812). Not only did he examine the mechanisms of market competition, but he also described them with much greater accuracy than his predecessors. The general theory of competition was then developed by D. Ricardo, T. Malthus, or J.S. Mill, among others. In the neo-classical economics and in post-Keynesian theories, owing to A.A. Cournot (1897, p. 60), competition from the point of view of the subjective structure of the market is analysed in theoretical models, distinguishing perfect competition, imperfect competition (monopolistic competition), pure monopoly competition and oligopolistic competition (including its special case - duopolistic competition). Economic models of competition, namely the forms of market rivalry are discussed from the point of view of the theory of price, and as I. Kirzner ([1973]2010, p. 17) observes, the feature connecting all the economic models of competition is generally disregarding the role of an entrepreneur and entrepreneurship, which means that it is not analysed on the internal level of a firm, but it is only a notion related exclusively to the market exchange.

It is only to so-called alternative concepts that economics owes the formation of a mature theory of business competitiveness (Rosińska-Bukowska, 2012, p. 81), which not only derived both from the classical economics and the later streams, but fist of all introduced a dynamic aspect of the competition process analysis (Maślak, 2002, p. 39), and primarily combined two complementary theoretical approaches developed in economics and in management studies. Competitiveness is not a univocal notion and is defined in various ways in the literature of the subject. For example, M.J. Stankiewicz (2005, p. 36) defines competitiveness as "an ability to accomplish goals efficiently on the market arena of competition". Still differently competitiveness is defined by J. Zagórski (1947, p. 4), for whom it is "the choice of the most favourable interchangeable conditions ensuring the maximum real income to a given individual". Z. Pierścionek (2003, p. 164) observes that „in its general sense, it is closest to the notion of economic efficiency - used in the economics, and efficiency and effectiveness - used in management studies". Therefore, distinguishing those two co-dependent notions (competition, competitiveness), on a high level of generalisation we should claim that competitiveness is an ability to compete to which the functional meaning of competitiveness should be assigned. In other words, competitiveness is a quality of entities operating in the conditions of competition.

When conducting a theoretical and pragmatic analysis, on one hand combining the pragmatic aspects of firms competing in the market and their theoretical modelling in the theory of economics, A. Noga (2009, pp. 253-279) in the retrospective approach distinguishes five waves of competition, as he defines it himself. The Harvard school represents the first wave of competition for which the attention was paid on the level of production and sales concentration, which limited market competition. Contradictory views can be found with representatives of the

Chicago school who sought the sources of competitiveness in the use of economies of scale and economies of scope. The third wave of competition was related to the development of strategic management in 1960s, 1970s and 1980s, which articulated an effort of a particular firm in forming its competitive strategy. The theory of contestable markets, developed since the early 1980s, is related to the advent of the fourth wave of competition.

Table 5.1. Typologisation of the types of competitiveness

Classification criterion	Types of competitiveness
An entity participating in the rivalry	competitiveness of economies competitiveness of sectors, industries and sections competitiveness of firms
Territorial scope of rivalry	domestic competitiveness international competitiveness
Industrial scope of rivalry	intra-industry competitiveness inter-industry competitiveness * * * competitiveness on the market of a specific type of goods competitiveness on the market of specific products competitiveness on the market of specific segments * * * competitiveness on the market of specific types of resources competitiveness on the market of specific resources
Criterion of an action or consequences	factor-based competitiveness result-based competitiveness
Winning resources or sales	demand-based competitiveness (on the outputs) supply-based competitiveness (on the inputs)
Range of assessment	operating competitiveness system competitiveness
Moment of assessment	*ex post* competitiveness *ex ante* competitiveness
Time of observation	static competitiveness dynamic competitiveness
Way of rivalry	price competitiveness quality competitiveness information competitiveness

Source: own study based on Stankiewicz (2005, pp. 37-40).

The authors of this theory created a very general theory of competition for which neither the dispersion nor the concentration are *per se* a condition of competition but their optimum levels are various for individual markets, and only their proper structure can enable to achieve higher effectiveness. R.A. D'Aveni and R. Gunther

(1995) as well as A. Noga (2009) notices at the turn of 20th and 21st century the symptoms of the fifth wave of competition which he calls hyper-competition, and its characteristic features are the intensifying globalisation of economies, the escalation of deregulation and privatization, the intensification of technological progress and the revival of the consumer sovereignty (Noga, 2009, p. 273), but there is not a crystallized theoretical model for the fifth wave of competitiveness yet, although such models are being developed (p. 275).

Both competition and competitiveness can be discussed not only on various levels (Wach, 2008, pp. 16-22), but also according to various analytical criteria (Table 5.1). J.W. Bossak and W. Bieńkowski (2004, p. 17) emphasize that "entities participating in the rivalry are both individuals conducting business activity, domestic firms, transnational corporations (TNCs), as well as nations and self-governments or regions". Most frequently, just like in case of internationalisation or other economic phenomena, three analytical levels are assumed - the macro, meso and micro one. The notion of competitiveness may refer both to the assessment of the national or global economy (competitiveness of economies, **macro-competitiveness**), but it may also refer to a firm (competitiveness of a firm, **micro-competitiveness**).

5.3. DESIGING BUSINESS COMPETITIVENESS

As M. Gorynia (2002, p. 48) observes at the beginning of 20th century, competitiveness is a notion "not possessing designations which could be defined directly", thus, it is of abstract character and requires decomposition into a set of theoretical notions characterized by a lower level of generalisation. However, similar observations could be found more than fifty years ago, J. Zagórski (1947, p. 4) in his work from 1940s entirely devoted to the theory of competition, emphasized that "competition cannot be defined precisely, either by defining what it looks like or by defining what its consequences are".

There are a lot of concepts of firm competitiveness, and in addition they evolved alongside the development of scientific knowledge within this scope. Z. Pierścionek (2003, pp. 200-202) distinguishes three groups of the firm competitiveness concept, namely, the traditional ones, the new ones and the resource-based view. Traditional concepts of competitiveness are based on the market factors and the direct sources of competitiveness. New concepts of firm competitiveness are related to innovation and entrepreneurship. On the other hand, resource-based concepts of competitiveness identify the sources of competitive advantage of a firm and the rules for their development in the long-term and they can be considered comprehensive.

A significant concept formulation was proposed by G.S. Day (1997, pp. 52-54) suggesting a cycle of strengthening firm competitiveness (continuous cycle of the creation and maintenance of advantages) basing on the sources of competitiveness (sources of positional advantages) and the competitive position (position of competitive superiority). Among others, the concept was used to model the competitiveness structure by M.J. Stankiewicz (2005, p. 89), or J. Światowiec-Szczepańska (2011, pp. 310-311). The firm competitiveness structure model is based on five structural elements of the competitiveness management process, which constitute a kind of sub-systems of the firm competitiveness system (Bednarz, 2013, p. 25), among which cause and effect relationships occur (Figures 5.1-5.2). These are: competitive potential, competitive actions, competitive strategy, competitive position (Stankiewicz, 2005, pp. 89-91). They constitute a logical sequence of modelling of firm competitiveness defined by M. Rosińska-Bukowska (2012, p. 97) as firm competitiveness in the systematic formulation which basically has a well-established position in the literature of the subject, and numerous experts in the subject refer in their considerations to exactly this logics of firm competitiveness modelling. In his early works, M. Gorynia (Gorynia, 2000, pp. 48-67; 2002, pp. 48-68; Gorynia, Jankowska, pp. 51-77; Gorynia 2009, pp. 67-99) applied an authorial approach to the modelling of firm competitiveness, rooted, as one might conclude - in economics, but in his latest work (Gorynia, Jankowska, Tarka, 2011, pp. 19-43; Dzikowska, Gorynia, 2012, pp. 1-30) he uses precisely these four notions (potential, superiority, strategy with actions and position) for the modelling of an eclectic, as he names it, concept of firm competitiveness, in accordance with the modelling of this issue in management studies, and to be more exact, strategic management, established as early as in 1990s.

Competitive potential determines an ability of a firm to participate in the market play, and includes the entirety of tangible and intangible resources of a firm (Figure 5.3), and M. Gorynia broadly completes with all kinds of organisational factors (among others, organisational structure, organisational culture) (Gorynia, Jankowska, 2008, p. 69). On the other hand, G. Głód (2010, p. 65) stresses that the development of resource-based competitiveness concepts of an entrepreneurial character was noticeable in 1980s and 1990s, and their dynamic bloom is still continuing (capabilities-based competition, distinctive capabilities, core competences, entrepreneurial skills and competencies). Competitive potential is strictly dependant not only on the size of a firm but also on the scope of its activities. The potential of firms operating on local markets is different than of those which operate on international markets. B. Godziszewski (1999, pp. 79-82) proposes structuring of competitive potential, considering its 11 functional areas of resources (information, research and development, manufacturing, quality management, logistics, distribution, marketing, finances, organisation and leadership, human resources, intangibles resources), within which as many as 91 components were distinguished. Building competitive potential must be discussed in the convention which is already commonplace in the literature: resources - capabilities - competences - core competences.

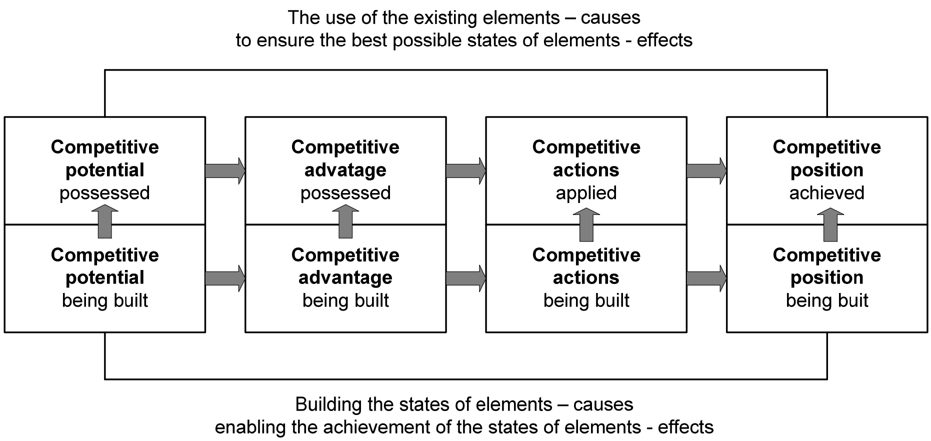

Figure 5.1. Business competition system according to M.J. Stankiewicz
Source: Stankiewicz (2005, p. 90).

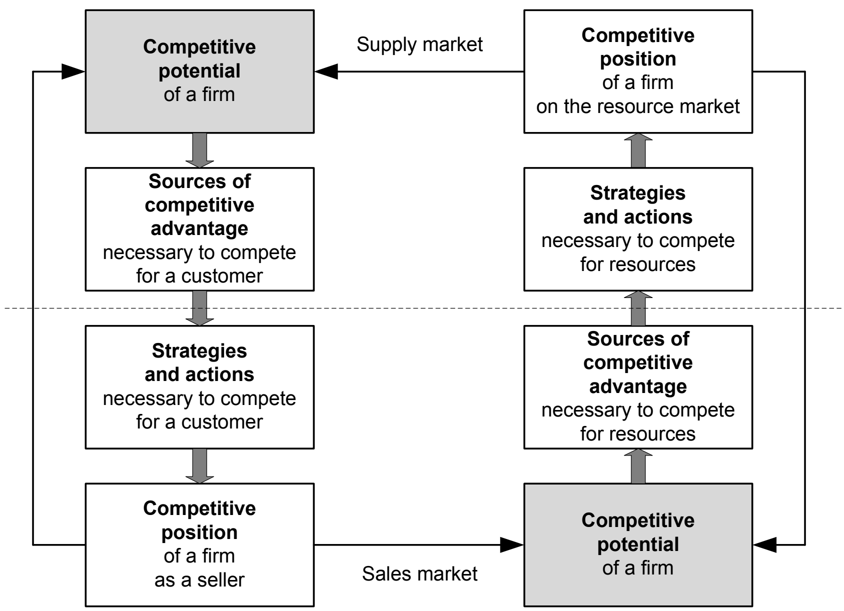

Figure 5.2. Business competition system according to J. Świątowiec-Szczepańska
Source: Świątowiec-Szczepańska (2011, p. 311).

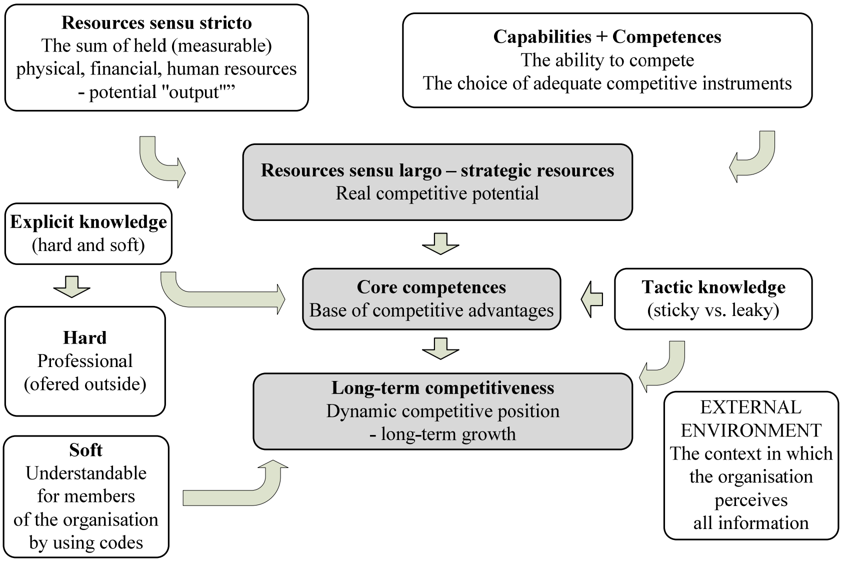

Figure 5.3. Competitive potential in building the firm-level competitiveness
Source: Rosińska-Bukowska (2012, p. 99).

Competitive advantage is defined in various ways by individual authors[2] although it is W. Alderson (1937, pp. 189-190) who is considered to be the precursor of the notion. M.J. Stankiewicz (2005, p. 172) defines competitive advantage of a firm as "an ability to use competitive potential to the extent which is enabled by so effective generation of an attractive market offer and effective competitive actions that it ensures the creation of value added". M.E. Porter ([1985]2006, p. 29) observes that "the source of competitive advantage is the value that a firm is able to work out for its customers". Porter indicates two basic kinds of competitive advantages, namely cost advantage and differentiation advantage. Cost advantage occurs when a firm produces at the lowest cost of all the firms in the industry. There are a lot of reasons for cost leadership. It may be economies of scale, preferential access to raw materials, applied technology, or labour costs in case of international firms. On the other hand, differentiation advantage is based on uniqueness. The essence of differentiation is manifested in the uniqueness in the area of the business operations which is appreciated by customers. There are also numerous sources of differentiation advantage. For example, it may be the durability of a product, know-how or servicing. Interesting modelling of competitive advantage was proposed by Ph.A. Wickham (2006, pp. 494-499) who embedded his model in a broader context of strategic entrepreneurship (Figure 5.4).

[2] The overview of the definitions can be found in the study of Stankiewicz, (2005, pp. 166-168).

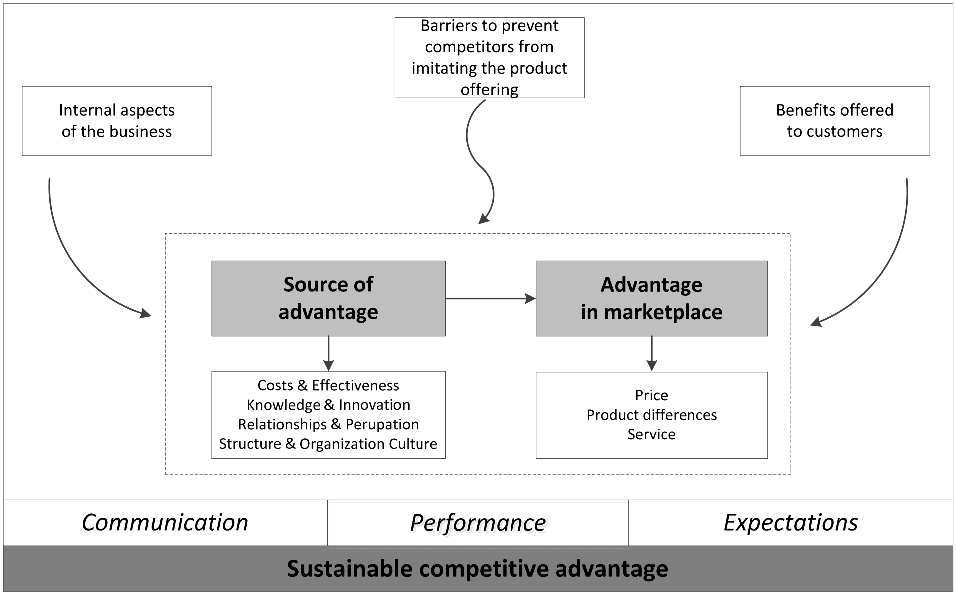

Figure 5.4. Sustainable competitive advantage from the perspective of strategic entrepreneurship
Source: own study based on Wickham (2006, pp. 494-499).

According to M.E. Porter ([1980]1992), competitive strategy constitutes a general formula on how the firm is going to compete, what its goals should be and what course of action will be needed to fulfil these goals. On the highest level of generalisation, Z. Pierścionek singles out four basic types of behaviours towards competitors, because the ways of locating a firm towards competitors can consist in (Pierścionek, 2003, p. 429):

– confrontation, that is a conflict with competitors (a firm operates in the conditions of aggressive competition, market struggle),
– cooperation (a firm operates by agreement with competitors on the basis of alliances, arrangements and/or agreements between competing firms),
– adaptation, that is avoiding competitors (a firm adjusts its operations to the competitors' operations),
– indifference, that is ignoring competitors (a firm operates independently of the decisions and operations of the competitors).

Following M.J. Stankiewicz (2005, p. 89 and pp. 243-244) it should be assumed that **competitive actions**[3] (**a competitive weapon**) are measures which are intentionally created by a firm in order to win counterparties for the presented planned offer (Figure 5.5). They can be considered on two levels, as competitive

[3] H. Gatignon and D. Reibstein (1997, p. 248) call them a competitive weapon

actions to gain resources and competitive actions to win a customer. According to M. Haffer (1999, p. 52), competitive actions include, among others, the quality of products, price, advertising, assortment, promotion, scope of services, business image, brand, terms of payment. D. Aaker (1989, pp. 91-106) emphasizes that the choice of competitive actions and strategies performs a significant role in building and managing firm's competitiveness.

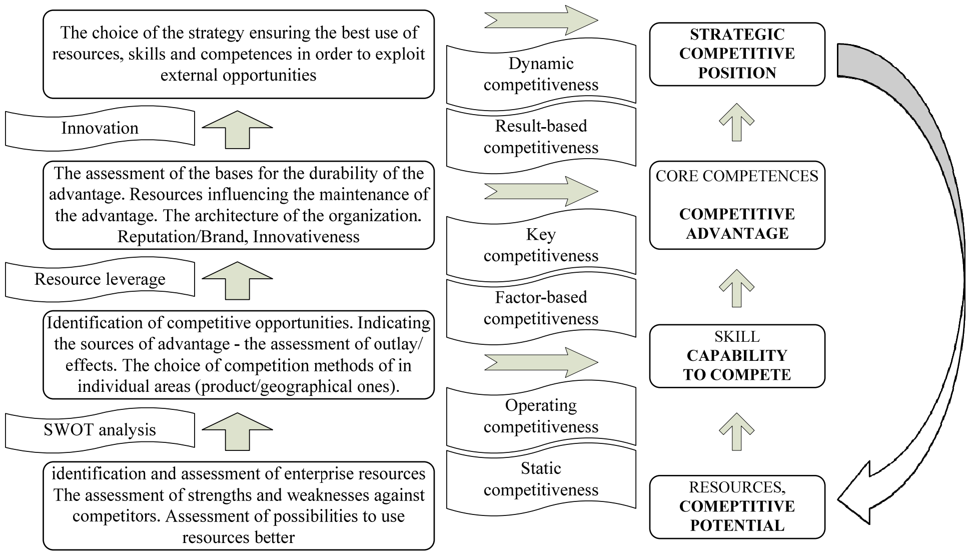

Figure 5.5. The system of competitive actions
and business competitiveness strategies
Source: Rosińska-Bukowska (2012, p. 101).

Competitive position is perceived differently in the literature of the subject. Firstly, competitive position may be understood as a source of advantage being achieved, that is the sum of strengths and weaknesses of a given firm (Strategor, [1997]1999, p. 68). Secondly, competitive position is treated as a result of competition (Gorynia, Jankowska, 2008, p. 70), namely as a measure of the achieved competitive advantage. Thirdly, competitive position is seen as a source, sign and measure of competitiveness at the same time (Stankiewicz 2005, p. 295). Competitive position as a result of competition may be perceived as:

– dominating (leader on the market),
– strong (top players on the market),
– average (competing with difficulty),
– poor (below average, bad or even no possibility of effective competition).

As a group of French scientists, Strategor (1999, p. 76), emphasizes the stability of a firm competitive position is based on the durability of competitive advantage created or achieved by it.

The literature of the subject is rich in numerous model representations of firm competitiveness, which, to a greater or lesser extent use the components presented above. An interesting model of the competitive advantage composition is presented by H. Ma (2000, pp. 15-32), who, basing on the competitive potential and the public support, introduces two pejorative factors, namely an improper combination of advantages or even lost profits. On the other hand, R.A. D'Aveni and R. Gunther (1995) propose a firm competitiveness model based on the (already mentioned) concept of hyper-competition.

5.4. NATURE OF THE FIRM-LEVEL INTERNATIONAL COMPETITIVENESS

Due to the subject of the considerations in this study, the attention will be focused on the problem of the firm-level international competitiveness, namely the micro-competitiveness in international markets. M. Gorynia stresses that it is necessary to distinguish competitiveness in the domestic market and on the international market because even an internationalised local business can compete with foreign competitors (Gorynia, 2009, pp. 61-62; Gorynia & Jankowska, 2001, pp. 54-55), nevertheless we can also analyse the issue of international business competitiveness (Bartha & Gubik, 2014). This specific nature comes down here to the scope of territorial competition, the generic mechanisms of competitiveness or competition are the same, just like the strategies of competition, although the international specific character is extremely important, as it is observed by M. Rosińska-Bukowska (2012, P. 103) "competitiveness in the era of globalisation means *de facto* international competitiveness, since achieving permanent advantage requires an ability to be competitive in the global business space". M. Gorynia, B. Jankowska and P. Tarka (2013, p. 42) add that competitive advantage is often achieved by searching for new, undiscovered resources in new geographical areas and new markets. Expansion is understood quite simply here[4], as occupying new territories, or expanding to new markets. During the expansion, firms, as G. Nizard ([1991]1998, p. 142) observes, resist the temptation to reach for easy solutions consisting in making superficial changes, and they daringly face the problems which accompany rapid shocks and deep changes. Expansion leads to the fast growth of a firm and the significant improvement of its situation in the environment.

[4] More on the international growth, see: Wach (2012, pp. 68-69).

Table 5.2. The characteristics of four types of supranational competition

International competition	Multinational competition
○ competition limited to specific foreign markets, ○ uneven distribution of competitors' shares in foreign markets, ○ competing with diverse offers produced in branches located in the countries of sales, ○ using coordinated competitive moves by competitors, ○ using research findings and competences of parent corporations transferred to foreign branches, ○ implementing individual phases of technological process in branches located in different countries, ○ concentrated strategic and operating decision taking in the seats of competing firms.	○ competition limited to specific foreign markets, ○ uneven distribution of competitors' shares in foreign markets, ○ competing with offers adjusted to the expectations of local markets, created in foreign branches located in the countries of sales, ○ using independent competitive moves by individual foreign branches, ○ using research findings of branches, as well as knowledge and skills transferred from parent corporations by competitors, ○ decentralised operating decision taking in foreign branches with pressure on decentralisation of strategic decisions.
Global competition	**Transnational competition**
○ the world-wide scope of competition, ○ the strive competes to the even shares in foreign markets, ○ competing with homogenous offers created and produced in the concentrated way, most often in the native countries of the competitors, ○ using coordinated adjacent moves by rivals, ○ using the sources of concentrated resources in selected countries by rivals, ○ concentrated strategic and operating decisions in the rivals' seats.	○ the world-wide scope of competition, ○ the strive competes the even shares in foreign markets, ○ competing with offers adjusted to the expectations of local markets assembled in foreign branches, ○ using parts and sub-assemblies produced in the concentrated way most often in the native countries of the rivals, ○ using key competences created by the transfer of knowledge and skills created between headquarters and all foreign branches by the rivals, ○ concentrating strategic decision taking in the centres and decentralisation of operating decisions.

Source: Haffer (2006, p. 47).

An interesting concept of corporate growth is proposed by Ch. Zook (2004, p. 37), basing development on adjacency moves in six different dimensions, namely:

– expansion to new geographical territories (local expansion, global expansion),

– expansion through a new channel (distribution channel, Internet channels, indirect channel),
– expansion to new segments of customers (micro-segmentation of the existing segments, unexplored segments, new segments),
– expansion through new products (another generation of products, after-sales services, complementary goods, absolute novelties),
– expansion through new activities (needs not known before, new substitutes, new models),
– expansion to new levels of value chain (through shifting value chain up and down, and the development of external sales opportunities).

Adjacency moves in the territorial (geographical) dimension, both on the domestic and the global market, are, according to Zook, an underestimated move determining the further growth of a firm and its competitiveness.

As M. Ma and M. Liao (2006, p. 22-23) emphasize, the studies into the international competitiveness of firms is a sign of the emergence of three research areas:
– research into competitive strategies (embedded in strategic management),
– research into the internationalisation process of a firm (embedded in the theory of internationalisation and in the theory of international business),
– research into export behaviours and strategic behaviours of exporters (embedded in the theory of competitiveness and the theory of organisational behaviours).

Basing on the output of those three research strands (mostly embedded in management studies), the foundations of a comprehensive theory of the firm international competitiveness (international micro-competitiveness) are being created, combining innovative capabilities, skills, as well as entrepreneurial and managerial competences and sources of competitive advantage.

Basing on the four models of internationalisation strategy by Ch.A. Bartlett and S. Goshal (international, multinational, transnational, global), (Daszkiewicz & Wach, 2013, pp. 111-114), M. Haffer (2006, pp. 47-53) propose a modified concept of the four main types of supranational competition: international, multinational, transnational, global (Table 5.2).

5.5. SELECTED MODELS OF INTERNATIONAL COMPETITIVENESS OF THE FIRM

While studying the literature, we can come across numerous models of both competitiveness of a firm and the firm-level international competitiveness. The study presents four selected models which are interesting because of the possibility of their implementation in the empirical research and because of combining two variables - internationalisation of the firm and competitiveness of the firm. What is also worth mentioning is a very interesting tri-element theoretical model verified by the empirical research with the use of a survey method, which was proposed by M. Gorynia and B. Jankowska (2013, pp. 106-109), combining the introduction of euro as an independent variable as well as internationalisation of the firm and competitiveness of the firm as dependent variables.

M. Ma and M. Liao (2006, pp. 24-25) perceive an opportunity for the increase or development of firm-level international competitiveness thanks to innovation, research and development, and the lack of them is identified by them with the loss of competitiveness. They build their model around the assumptions of the resource-based view (RBV) developed in strategic management putting resources and competences in the first place. The three factors distinguished by them are co-dependent, and these are: managerial capabilities, resources exploitation capabilities, technological capabilities (Figure 5.6).

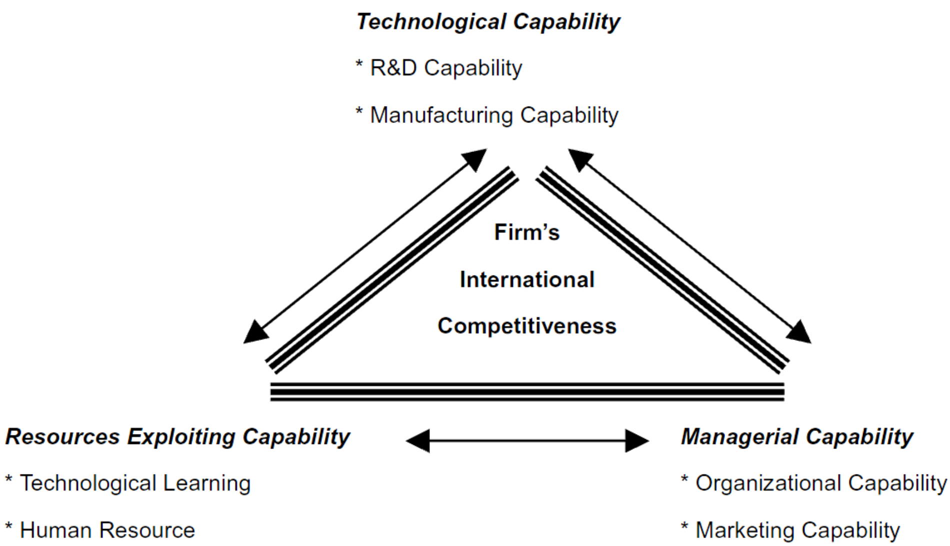

Figure 5.6. Determinants of firm's international competitiveness according to M. Ma and M. Liao
Source: Ma & Liao (2006, p. 25).

P.J. Buckly *et al.* (1988) focus on measures while building the firm-level model of competitiveness and then international competitiveness. They emphasize that competitiveness is a very complex issue need a very complex measuring system, thus they propose three measuring components (Figure 5.7) taking into special consideration the international issues (Buckly *et al.*, 1988, p. 1979):

– competitive performance (the total international performance in respect of all sales: exporting sales arising from foreign investment and licensed sales must be built into the measures),
– competitive potential (the potential of the parent company and all foreign affiliates must be taken into consideration if total potential is to be assessed),
– competitive process (the management process within the parent company and foreign affiliates and between the parent company and its foreign affiliates must be considered).

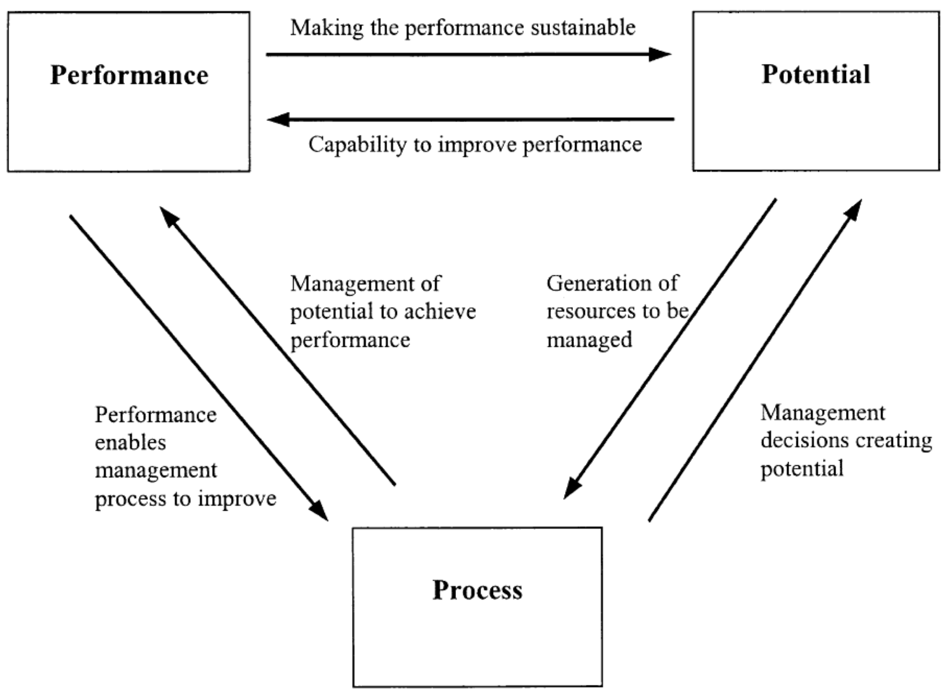

Figure 5.7. Firm-Level competitiveness model of P.J. Buckley *et al.*
Source: Buckley, Pass, & Prescott (1988, p. 178).

As T.W.Y. Man *et al.* (2002) notice a similar framework to Buckley's three-measures model of competitiveness can be found in the World Competitiveness Report, which uses "world competitiveness formula," or simple "world competitiveness" (Figure 5.8) understood as a combination of assets (competitive potential), which are inherited or created, as well as processes (competitive process), which transform assets into economic results (competitive performance). What is more, they stress that competitiveness must be discussed and observed in the long run and especially in relational configuration (Figure 5.9) taking the sustainable competitive advantage (characteristics of the competitiveness address) into special consideration. The whole process is determined by numerous and multidimensional external and internal constructs including the business external environment, the internal resources and performance indicators as well as the entrepreneur (Man *et al.*, 2002, pp. 130-131). They do believe that entrepreneurial competences (such as opportunity competences, relationship competencies, conceptual competencies, organizing competences, strategic competencies, commitment competences) play crucial and leading role in building competitiveness and competitive advantage of a firm (Man *et al.*, 2002, p. 134).

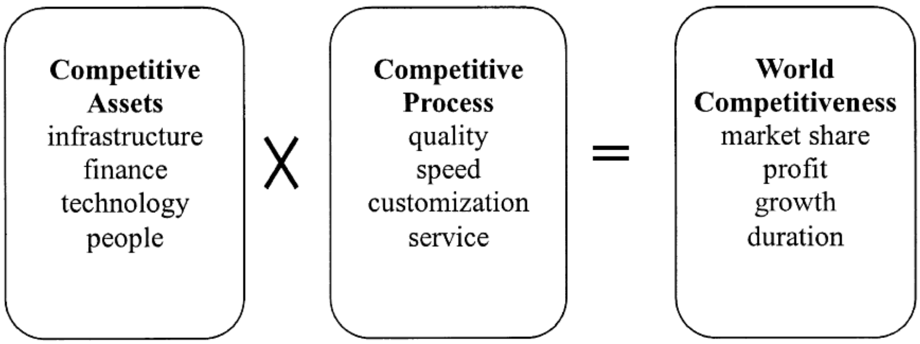

Figure 5.8. Firm-level world competitiveness formula model
Source: Man, Lau & Chan (2002, p. 127).

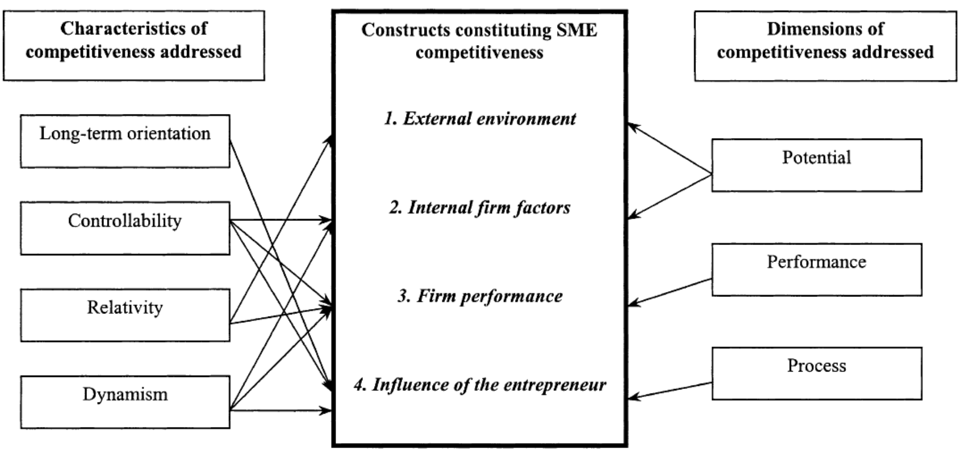

Figure 5.9. Relational model of firm-level international competitiveness
Source: Man, Lau & Chan (2002, p. 131).

N. Daszkiewicz models competitiveness of small and medium-sized enterprises as a trichotomous resultant of business innovativeness, internationalisation of the firm and the functioning in formal or informal networks (Daszkiewicz & Wach, 2012, pp. 77-89), with the simultaneous support for SMEs (Daszkiewicz 2008, pp. 119-120), and then extending the model (Daszkiewicz & Wach, 2013, pp. 142-143) (Figure 5.10) with the approach of the resource-based view and the planning school developed in strategic management (Obłój, 2007, pp. 60-78 and 125-149).

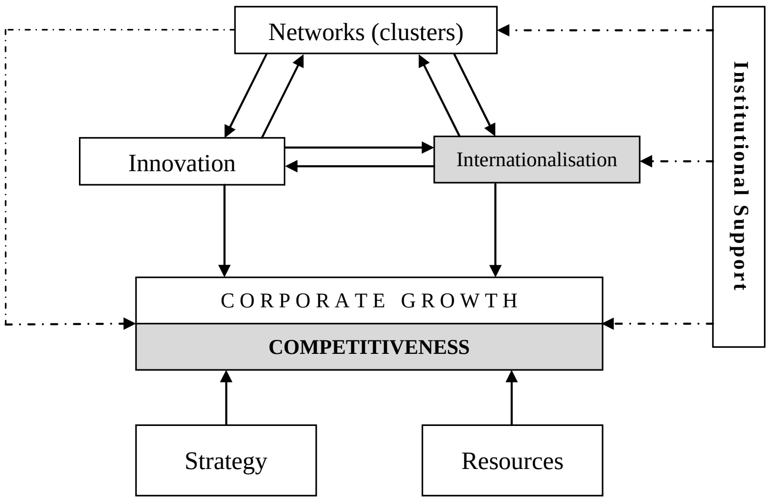

Figure 5.10. The model of firm-level international competitiveness according to N. Daszkiewicz

Source: Daszkiewicz (2008, p. 120) modified in Daszkiewicz & Wach (2013, p. 143).

A Polish and German team of researchers, P. Trąpczyński and Th. Wrona (2013, pp. 94-96), in the theoretical modelling of firm-level international competitiveness perceive internationalisation as a source of competitive advantage which is shaped by three factors which differ significantly depending on the advancement of the intensity of the internationalisation processes, as it is revealed in a different way in the initial stages of internationalisation and in a completely different way in more advanced stages (Figure 5.11). These are:

– marketing activity in the process of internationalisation, understood as a strategy in the product-market arrangement,
– value chain and its use in the process of internationalisation via the activities of externalisation and internalisation along this chain;

– organisational structure and culture significantly influencing the process of internationalisation (organisational culture, organisational structure and dependencies with subsidiaries, the role of an entrepreneur and entrepreneurship).

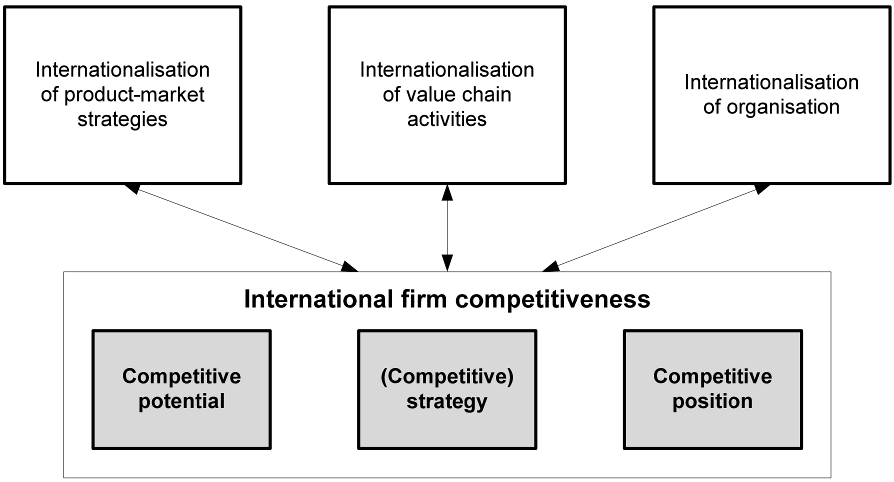

Figure 5.11. An analytical framework of the internationalisation impact on Competitiveness according to P. Trąpczyński and Th. Wrona
Source: Trąpczyński & Wrona (2013, p. 96).

International competitiveness of a firm is understood by those authors as the process described before (competitive potential, competitive strategy with competitive actions, competitive position). The potential of firm-level international competitiveness from the perspective of performance also depends on three factors: the characteristics of the international market, the characteristics of the industry in which the firm operates, business competitive position worked out in this industry.

Quite a peculiar modelling of international competitiveness of a firm in the context of the 'homogenous' European market was proposed by R. Gogel and J.-C. Larreche (1991. pp. 99-118; 1989, pp. 132-140). In their two-dimensional matrix from the perspective of product advantages (small, big) and the geographical range of the firm activities (small, big), they distinguish four types of firms due to their international competitiveness (Figure 5.12).

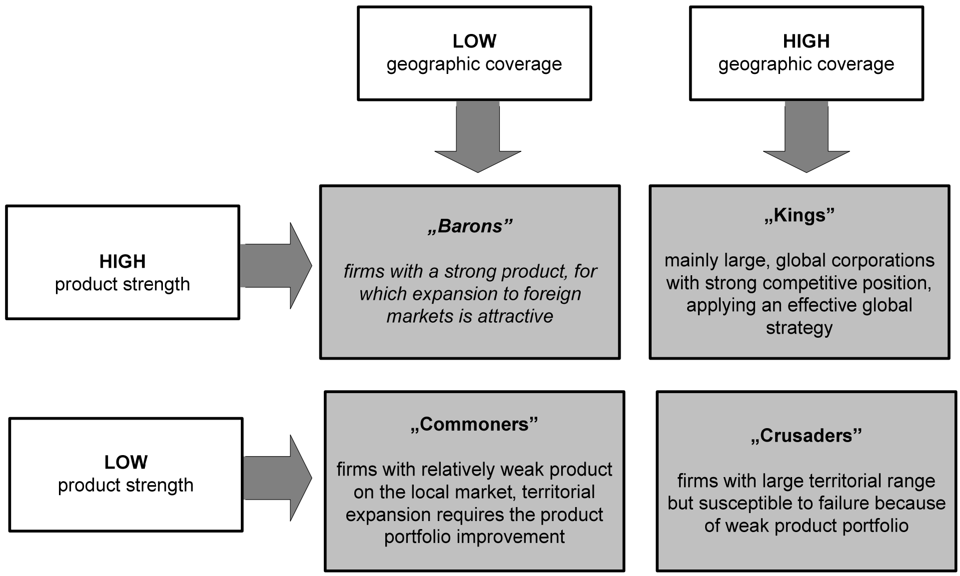

Figure 5.12. The international competitive posture matrix in the concept of R. Gogel and J.-C. Larreche

Source: adapted from Gogel & Larreche (1991, pp. 99-118; 1989, pp. 132-140).

5.6. CONCLUSIONS

There are a lot of concepts of competitiveness of the firm, and in addition they evolved alongside the development of scientific knowledge within this scope. An important element of competitiveness of the firms is their ability to function in the turbulent environment, namely their ability to adapt, and even be flexible. Businesses functioning in the conditions of the world economy globalisation, the spread of similar lifestyle all over the world, and in the era of the developing ICT systems, not only have to adapt their activities to the needs and the conditions of the contemporary market and modern challenges, but first of all they should effectively use all the existing opportunities the globalisation processes create. Therefore, businesses can search for their advantage in the competitive struggle through the introduction of the internationalisation or even globalisation of their activities (Wach, 2014). Entering foreign markets may improve the competitive position of a firm, which may help it cope with its competitors. Numerous local firms become participants of international markets due to the necessity to compete with foreign rivals even on the domestic market.

On the basis of the literature study presented in this article, we can draw the following conclusions:

1. Initially, competition and competitiveness were analysed from the perspective of economics, however, recent decades have brought extreme intensification of the research into competitiveness of a firm, conducted mainly from the perspective of management studies.
2. In firm-level competitiveness modelling, the process paradigm of building competitiveness is most frequently adopted, which consists of a four-element sequence: competitive potential, competitive advantage and its sources, competitive strategies and actions, and competitive position.
3. Firm-level international competitiveness is operationalised in the same dimensions as micro-competitiveness *en bloc*, yet with focus on the specific character of the territorial range of its activities.
4. International competitiveness of a firm concerns not only internationalised businesses, but also local firms whose the competitors are foreign entities.
5. The mechanisms of international competition of firms are very diverse and their choice depends on the adopted strategy and the range of the territorial expansion. We can distinguish four specificities of supra-national competition: international, multinational, trans-national and global.
6. In the literature of the subject there is a whole spectrum of various models which try to explain the issue of international competitiveness of a firm, but the classical ones base more on organisational and managerial factors (e.g. value chain, marketing activities, resource potential, competitive strategies), and the latest ones on the dynamic entrepreneurial competences and organisational learning.

REFERENCES

Aaker, A. (1989). Managing Assets and Skills. The Key to a Sustainable Competitive Advantage. *California Management Review*, 31(2).

Aldreson, W. (1937). A Marketing View of Competition, *The Journal of Marketing*, 1(3).

Bartha, Z. & Gubik, A.S. (2014). Specifics of International Business Competitiveness in Visegrad Countries – Qualitative Analysis of Selected Case Studies (chapter 7). In: Duréndez, A. & Wach, K. (eds.), *Patterns of Business Internationalisation in Visegrad Countries – In Search for Regional Specifics.* Cartagena: Universidad Politécnica de Cartagena.

Bednarz, J. (2013). *Konkurencyjność polskich przedsiębiorstw na rynkach europejskich na przykładzie wybranych branż,* Gdańsk: Wydawnictwo Uniwersytetu Gdańskiego .

Bossak, J.W. & Bieńkowski W. (2004). *Międzynarodowa zdolność konkurencyjna kraju i przedsiębiorstw. Wyzwania dla Polski na progu XXI wieku,* Warszawa: Oficyna Wydawnicza Szkoły Głównej Handlowej .

Buckley, P.J., Pass, C.L. & Prescott, K. (1988). Measures of International Competitiveness: A Critical Survey. *Journal of Marketing Management,* 4(2), pp. 175–200.

Cournot, A.A. (1897). *Researches into the Mathematical Principles of the Theory of Wealth,* New York NY: A.M. Kelley.

D'Aveni, R.A. & Gunther, R. (1995). *Hipercompetitive Rivalries*: *Competing in Highly Dynamic Environments,* New York, NY: Free Press.

Daszkiewicz, N. (2008). *Konkurencyjność małych i średnich przedsiębiorstw w procesie internacjonalizacji* (chapter 6) In: Daszkiewicz, N. (ed.), *Konkurencyjność. Poziom makro, mezo i mikro,* Warszawa: PWN.

Daszkiewicz, N. & Wach, K. (2012). *Internationalization of SMEs: Context, Models and Implementation,* Gdańsk: Gdańsk University of Technology Publishers.

Daszkiewicz, N. & Wach, K. (2013). *Małe i średnie przedsiębiorstwa na rynkach międzynarodowych.* Kraków: Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie.

Day, G.S. (1997). Marinating the Competitive Edge: Creating and Sustaining Advantages in Dynamic Competitive Environments. In: G.S. Day, D.J. Reibstein & R.E. Gunther (eds),*Wharton on Dynamic Competitive Strategy,* New York, NY: John Wiley & Sons Inc.

Dzikowska, M. & Gorynia, M. (2012). Teoretyczne aspekty konkurencyjności przedsiębiorstwa – w kierunku koncepcji eklektycznej?*, Gospodarka Narodowa*, vd. LXXX/XXI, no. 4(248).

Flak, O. & Głód, G. (2009). *Konkurencyjność przedsiębiorstwa. Pojęcia, definicje, modele,* Katowice: Wydawnictwo Akademii Ekonomicznej w Katowicach.

Cho, D.-S. & Moon, H.-Ch. (eds). (2002). *From Adam Smith to Michael Porter: Evolution of Competitiveness Theory.* London: World Scientific Publishing.

Gatignon, H. & Reibstein, D.J. (1997). Creative Strategies for Responding to Competitive Actions. In: G.S. Day and D.J. Reibstein (eds.), *Wharton on Dynamic Competitive Strategy*, New York, NY: John Wiley and Sons.

Głód, G. (2010). *Konkurencyjność i budowanie przewagi konkurencyjnej przedsiębiorstwa* (chapter 3), In: T. Kraśnicka (ed.), *Przywództwo a konkurencyjność organizacji przedsiębiorczych,* Katowice: Wydawnictwo Akademii Ekonomicznej w Katowicach.

Godziszewski, B. (1999). *Potencjał konkurencyjności przedsiębiorstwa jako źródło przewag konkurencyjnych i podstawa stosowanych instrumentów konkurowania* In: M.J. Stankiewicz (ed.), *Budowanie potencjału konkurencyjności przedsiębiorstwa,* Toruń: TNOiK.

Gogel, R. & Larreche, J.-C. (1989). The Battlefield for 1992: Product Strength and Geographic Coverage. *European Management Journal*, 7(2), pp. 132-140.

Gogel, R. & Larreche, J.-C. (1991). Pan-European Marketing: Combining Product Strength and Geographical Coverage. In: S.G. Makridakis, San Francisco (eds), *Single Market Europe: Opportunities and Challenges for Business.* CA: Jossey-Basspp, pp. 99-118.

Gorynia, M. (2000). Luka konkurencyjna w przedsiębiorstwach a przystąpienie do Unii Europejskiej. *Gospodarka Narodowa*, 10.

Gorynia, M. (2002). *Konkurencyjność przedsiębiorstwa – próba modelu* (sub-chapter 1.5) In: M. Gorynia (ed.), *Luka konkurencyjna na poziomie przedsiębiorstwa a przystąpienie Polski do Unii Europejskiej, Implikacje dla strategii firm i polityki gospodarczej.* Poznań: Wydawnictwo AE w Poznaniu.

Gorynia, M. (2002). *Pojęcie konkurencyjności – istota i poziomy* In: M. Gorynia (ed), *Luka konkurencyjna na poziomie przedsiębiorstwa a przystąpienie Polski do Unii Europejskiej.* Poznań: Wydawnictwo Akademii Ekonomicznej w Poznaniu.

Gorynia, M. (2009). *Konkurencyjność w ujęciu mikroekonomicznym* (chapter 3) In: M. Gorynia, E. Łaźniewska,*Kompendium wiedzy o konkurencyjności* (eds). Warszawa: PWN .

Gorynia, M. & Jankowska B. (2008). *Klastry a międzynarodowa konkurencyjność i internacjonalizacja przedsiębiorstwa.* Warszawa: Difin.

Gorynia, M., Jankowska B. & Tarka P. (2013). *Basic concepts of company competitiveness* (chapter 1) In: M. Gorynia, B. Jankowska (eds), *The Influence of Poland's Accession to the Euro Zone on the International Competitiveness and Internationalisation of Polish Companies.* Warsaw: Difin

Grant, R.M. (2005). *Contemporary Strategy Analysis,* Chichester: John Whiley & Sons.

Haffer, M. (1999). Instrumenty konkurowania In: M.J. Stankiewicz (ed.), *Budowanie potencjału konkurencyjności przedsiębiorstwa.* Toruń: TNOiK.

Haffer, M. (2006). Ogólna charakterystyka współczesnej konkurencji międzynarodowej (chapter 1) In: M.J. Stankiewicz (ed.), *Zarządzanie wiedzą jako kluczowy czynnik międzynarodowej konkurencyjności przedsiębiorstwa.* Toruń: TNOiK, pp. 47-53.

Kirzner, I. (1973). *Competition and Entrepreneurship.* Chicago: University of Chicago.

Ma, H. (2000). Competitive Advantage and Firm Performance. *Competitiveness Review*, 10(2), pp. 15-32.

Ma, M. & Liao M. (2006). A Firm-Level Study on the International Competitiveness: Theoretical Analysis and Empirical Findings. *International Journal of Innovation and Technology Management*, 3(1), pp. 22-23.

McCarty, W. (2014). Modeling: A Study in Words and Meanings (chapter 19). In: S. Schreibman, R. Siemens, J. Unsworth (eds), *A Companion to Digital Humanities*. Oxford: Blackwell.

Man, T.W.Y., Lau, Th. & Chan, K.F. (2002). The competitiveness of small and medium enterprises: A conceptualization with focus on entrepreneurial competencies. *Journal of Business Venturing*, 17, pp. 123–142.

Maślak, E. (2002). *Koncepcje konkurencji w naukach ekonomicznych* In: M. Gorynia (ed.), *Luka konkurencyjna na poziomie przedsiębiorstwa a przystąpienie Polski do Unii Europejskiej.* Poznań: Wyd. AE w Poznaniu.

Nizard, G. (1998). *Metamorfozy przedsiębiorstwa. Zarządzanie w zmiennym otoczeniu organizacji* (Les métamorphoses de l'entreprise. Pour une écologie du management, Paris: Economica). Warszawa: PWN.

Noga, A. (2009). *Teorie przedsiębiorstw*. Warszawa: PWE.

Obłój, K. (2007). *Strategia organizacji*. Warszawa: PWE.

Pierścionek, Z. (2003). *Strategie konkurencji i rozwoju przedsiębiorstwa,* Warszawa: PWN.

Porter, M.E. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Companies,* New York, NY: Free Press.

Porter, M.E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance,* New York, NY: Free Press.

Redmond, W. (2013). Three Modes of Competition in the Marketplace. *The American Journal of Economics and Sociology*, 72(2).

Rosińska-Bukowska, M. (2012). *Rozwój globalnych sieci biznesowych jako strategia konkurencyjna korporacji transnarodowych. Przykład sektora motoryzacyjnego*. Łódź: Wyd. Uniwersytetu Łódzkiego.

Smith, A. (1812). *An Inquiry into the Nature and Causes of the Wealth of Nations*. London: Ward, Lock & Co.

Solberg, C.A. (1997). A Framework for Analysis of Strategy Development in Globalizing Markets. *Journal of International Marketing*, 5(1).

Stankiewicz, M.J. (2005). *Konkurencyjność przedsiębiorstwa. Budowanie konkurencyjności przedsiębiorstwa w warunkach globalizacji*. Toruń: TNOiK.

Strategor (1999). *Zarządzanie firmą. Strategie, struktury, decyzje, tożsamość,* transl. K. Bolesta-Kukułka (Politique générale de l'entreprise, Paris: Dunod). Warszawa: PWE.

Światowiec-Szczepańska, J. (2011). *Strategiczne narzędzia konkurowania* (chapter 9). In: *Podstawy wyborów strategicznych w przedsiębiorstwach.* Warszawa: PWE.

Trąpczyński, P. & Wrona, Th. (2013). From going international to being international - strategies for international competitiveness. *Poznan University of Economics Review*, 13(1).

Wach, K. (2008). *Skutki akcesji do Unii Europejskiej dla polskich przedsiębiorstw*. Kraków: Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie.

Wach, K. (2012). *Europeizacja małych i średnich przedsiębiorstw: rozwój przez umiędzynarodowienie.* Warszawa: PWN.

Wach, K. (2014). Europeanisation of Firms as Their International Growth within the European Union: The Empirical Investigation into the Internationalisation Level among Polish Firms (chapter 1) In: B. Knežević & K. Wach (eds), *International Business from the Central European Perspective.* Zagreb: University of Zagreb, pp. 3-14

Wach, K. (2014). Internationalisation and Globalisation as the Wider Context of Europeanisation Processes from the Macro- and Microeconomic Perspective. *Horyzonty Polityki,* 5(10).

Wickham, Ph.A. (2006). *Strategic Entrepreneurship.* Harlow: Prentice Hall.

Zagórski, J. (1947). *Ogólna teoria konkurencji.* Warszawa-Łódź: Wydawnictwo Kazimierza Rutskiego.

Zook, Ch. (2004). *Beyond the Core: Expand Your Market without Abanding Your Roots.* Boston, MA: Harvard Business School Press – Bran & Company.