TECHNICAL TRANSACTIONS 8/2017

CZASOPISMO TECHNICZNE 8/2017

CIVIL ENGINEERING

DOI: 10.4467/2353737XCT.17.129.6880

Karolina Jerzak

Agnieszka Dziadosz (agnieszka.dziadosz@put.poznan.pl)

Institute of Structural Engineering, Faculty of Civil and Environmental Engineering, Poznan University of Technology

COMPETITIVENESS OF A BUILDING COMPANY WITHIN THE ORGANISATIONAL LIFE CYCLE

Konkurencyjność przedsiębiorstwa budowlanego w kontekście cyklu życia organizacji

Abstract

The role and the meaning of a construction company on the market is variable depending on the phase of the life cycle of the company in a given moment. The processes and the services offered by a company are dependent on time and how the business activities of the company are developed as well as the barriers which the company encounters at specific stages of the business activities of the enterprise. In this specific context competitiveness can be understood not only as a comparison of the position of the company with other enterprises functioning within a given sector but as a resultant of possibilities and chances created by an organization in the context of its life cycle. The main aim of this article is to try and assess the influence of the life cycle of a construction company on its market behaviour taking into account the theoretical consideration of competitiveness.

Keywords: organizational life cycle, competitiveness, barriers of entry

Streszczenie

Rola i znaczenie przedsiębiorstwa budowlanego na rynku jest zmienna w zależności od fazy życia, w jakim się ono w danym momencie znajduje. Procesy i usługi oferowane przez przedsiębiorstwo uzależnione są bowiem od czasu i rozwoju działalności oraz barier jakie napotyka w poszczególnych etapach działalności. W tym kontekście konkurencyjność może być rozumiana nie tylko jako porównanie pozycji przedsiębiorstwa z innymi działającymi w danym sektorze, ale jako wypadkowa możliwości i szans stwarzanych przez organizację w kontekście cyklu jej życia. Celem niniejszego artykułu jest próba oceny wpływu fazy życia przedsiębiorstwa budowlanego na jej zachowania rynkowe przy uwzględnieniu teoretycznych rozważań konkurencyjności.

Słowa kluczowe: cykl życia organizacji, konkurencyjność, bariery wejścia

1. Introduction

Competitiveness in definition is the connection of the results achieved by a company in comparison to other enterprises functioning within a given sector. The key element in order to be able to achieve a considerable competitive advantage are the networks of the company and the measures taken within the organization itself, which indicate that the meaning and importance of human capital is a factor influencing the marking of barriers for competitiveness. The role and the influence of human capital on the development of an enterprise is difficult to measure, therefore enterprises more often undertake actions intended at trying to identify the influence of intangible factors.

P.F. Drucker posited a thesis that both tangible assets such as machinery and capital take constitute a background role and the basic value will be knowledge [1]. The key skills and competences included in the resources of an enterprise may constitute the basis for gaining a permanent competitive advantage for an organization. This is considered as the resource-based approach [2], where the source of knowledge is both the environment of an enterprise as its interior. The resource-based approach constitutes a further amplification of strategic management and refers to an analysis of the stakeholders as a source of knowledge which can be transformed and used within a company as a factor in its development. Competitiveness can be seen as the ability to learn, improve and implement new ideas and services or organizational structures.

The competitiveness of an enterprise differs with regard to the phase of the life cycle it is in. The connection of identifying the life cycle of an organization with patterns of how to manage an organization can become a powerful tool in gaining competitive advantage and ensuring sustainability [3]. Enterprises similarly to living organisms are born, develop and connect with others then die [4], and at each stage there are specific difficulties and conditions.

Every single enterprise functions within a strictly defined sector, which sets the conditions and sets the particular phases of development, as well as the unique manner of identifying key factors of success. The main aim of this article is to try and assess the influence of the phase of the life cycle of a construction organization on its market behaviour taking into account the theoretical consideration of competitiveness. Theoretical conceptions of the life cycle of an organization will be presented in this article together with the identification of the factors of competitiveness. The last part of the article presents the primary analysis on the basis of the research conducted on construction companies of medium size operating in the Polish market and there will be a presentation of conclusions on the basis of theoretical consideration.

2. The life cycle of an enterprise – literature review

The Organizational Life Cycle (OLC) is according to S. Hanks 'a unique configuration of variables connected the context of an organization, its strategy and structure' [5]. Enterprises use the Organizational Life Cycle as a means of assessment and identification of the changes

taking place in an organization. Taking into account the general assumptions each and every organization undergoes the process of birth, development and in the end death or rebirth.

Scientists have not been able to find a consensus with regard to the division of a life cycle within an organization into fixed stages This may be caused by the fact that they conducted their research in different sectors of business activities of various enterprises. However, life cycles are dependent on the compilation of internal possibilities of an enterprise as well as the external forces influencing it [6].

A three stage division of the cycle being the birth, youth and maturity have been proposed by G. H. Lippitt and W. H. Schmidt [7], who indicated that entering the next stage is connected to a crisis with regard to critical managerial concerns such as survival and stability in a simple birth, youth and maturity format [8].

A four stage model of power (Forming, Development, Maturity and Disappearance) is dependent on time and abrupt changes force a change in the concept of management which was proposed by H. Mintzberg. The struggle for power is related to a desire for personal rewards on the part of top management. While the decline stage of an organizational life cycle does not spell certain death, it does require a turnaround [9] or a revolutionary change in strategy, structure, decision-making style, and situation for a successful return to a more stable or growth stage [8]. R.E. Quinn and K.S. Cameron were the ones to introduce the four stage cycle starting with the Entrepreneurial stage, the Collectivity stage, the Formalization stage, finishing with the Elaboration of the Structure stage [10].

The various definitions are dependent on the sector which the enterprises function in as well as the management style, which in turn is reflected in the stages of development of an organization similar to those of a metamorphosis (where the company goes through typical cycles in time), crises (when after achieving the next stage a crisis is necessary in order to be able to move to the next stage), the development of the market (the key element being outward directing), the behavioural changes (where each and every stage requires a change in managerial approach) and the structural change (where the structure of the organization at a particular stage is not beneficial, be it the previous stage or the forthcoming one) [11].

The most popular model is that presented by L. Greiner, who portrays the transition from one stage to the next in the development of an organization through crises. Furthermore he indicates that the necessity of maintaining professionalism in management leads to an increase in bureaucracy [12].

Greiner indicated that crises are inevitable; however, they can be solved by evolution or revolution. The evolution process is less risky; however, it requires timing skills from management. All of the processes in an organization should be analysed on a regular basis leading to their improvement [4].

In the model presented above, it is necessary to solve conflicts at particular stages, otherwise the organization reaches a standstill and does not develop. The cycles force a constant analysis of the company by the management, be it with regard to external or internal factors.

Regardless of the phase the company is in, the most important factor is the analysis of the shareholders and the behavioural patterns of competition in a given sector. Departing from the market reality and concentrating strictly on internal assessment and analysis may lead

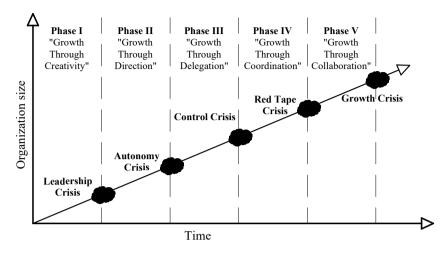


Fig. 1. Models of the organizational life cycle by L. Greiner [4]

to the fall of an organization due to supersession by competition. The development of an enterprise is also supported by the knowledge possessed by its members as well as that which is concluded from the previous crisis phase.

An organization which has undergone the birth stage regardless of the life cycle model, faces a challenge connected to involving employees in competition activities, in addition to which it becomes necessary to manage change and invest in solutions which will enable a competitive position to be obtained at the beginning and then be maintained.

3. The competitiveness of a construction company

The definition of competitiveness differs with regard to the sector analysed [14], time, and geographical horizon. Porter states that there is no universal definition of competitiveness and at the same time he indicated that productivity is the source of competitive advantage [15].

Regardless of the fact scientists are putting all their effort into normalizing both the definition of 'competitiveness' as well as the method of measuring its level. When it comes to the construction market this can be difficult due to the heterogeneous business activities of the market. According to J. Bossak, the most important factor with regard to competitiveness for the building company would be selling construction work and assembly services with a profit [16].

Table 1. Comparison of competitiveness definitions depending on the scale [17]

Level	Formed by	Key elements of the system	Assumptions
Competitiveness on a national level	B.R. Scott and G.C. Lodge [18]	"A country's ability to create, produce, distribute and/or service products in international trade while earning rising returns on its resources".	The theory assumes that all goods are accessible on the international market and they compete with other goods from markets with varied cost structures. Productivity is the key factor for ensuring a substantial return from their business activities together with minimizing costs. [17]
Competitiveness on a company level	Aldington Report [19]	"A company is competitive if it can produce products and services of superior quality and lower costs than its domestic and international competitors. Competitiveness is synonymous with a company's long-term profit performance and its ability to compensate its employees and provide superior returns to its owners."	In order to be competitive within a sector, knowledge of market needs, the ability to generate low costs of both business activities and services constitute a vital element.

The sources for competitive advantage can be divided with regard to their approach into:

- ▶ the resource-based approach where knowledge, human capital, technological advancement and experience with the appropriate connection have a huge impact on limiting the ability of competition to gain unique resources. The resource-based approach can be applied when the organization has passed its birth phase, due to the fact that before that stage it is not able to assess its possessed resources and skills in connection to the past and further the business experience is relatively small.
- ► the position-based approach where the sector which the organization is active in is analysed. Its competitiveness is dependent on M. E. Porter's five forces functioning in the sector, meaning that the organization is forced to alter its position with regard to environmental and market forces.

Within the construction sector competitiveness depends on three factors: the size of the business, the scope of activities and location [20]. Of equal importance in order to gain a competitive position is the strategy of the lowest price, which can be used as an effect of scale – the more contracts are signed the stronger the reaction of the sector upon appearance taking

advantage of the price of the competitor in a tender. The source of competitive advantage may come from intangible assets such as employee experience, know-how, managerial skills when it comes to strategic analysis, and gaining and maintaining loyal suppliers and sub-suppliers of goods and services. According to M. E. Porter the source of competitive advantage may be cost leadership, differentiation of services and the concentration strategy, this approach coincides with the hypothesis of the author of the article.

Competitiveness requires both an analysis of the company internally as well as the external factors and the business activities of the organizations functioning on the market in the same sector. The connection between competitive advantage and the final product is connected to the possessed competences of a given company.

The concept of competitiveness based on competences was devised by C.K. Prahalad and G. Hamel, for whom the most crucial issue is collective learning by the organization, most importantly being expressed in the coordination of productive skills and the streams of technology [21]. The key competences are communication, employee commitment and persistence. The constant need for developing the key competences may have its effects in gaining and maintaining competitive advantage [22].

4. The organizational life cycle and the competitive position on the basis of primary research

Construction organizations are forced to face various barriers and internal and external challenges when they go through the particular stages of their life cycle, which disturb their business activities and can become a threat for their further functioning. Intense concentration on the external problems by the management of the company without taking into account the internal situation of a company can cause conflicts and cleaving between the vision of the company owners for obtaining new contracts and the activities of employees who are not fully aware of it. The situation may also be reversed when the management of the company pays too much attention to which stage the company is in and overestimates the meaning of the role of human capital, while not reacting to the market activities of competition. Finding a comfortable position is of great importance and is a huge challenge, but is worth undergoing.

In the subsequent part of the thesis the results of a primary survey conducted in the months of March and April 2016 based on a full list of medium sized construction companies functioning on the market within the general construction sector are presented. A pilot survey conducted using the direct survey method (questionnaire) was used. During the research both the skill of identifying the barriers for a specific enterprise, the relations with the shareholder as well as the assessment of human capital in the company were verified. The measured collectivity is rather small – it is aimed to extend the research on small enterprises and those executing projects apart from the function of maintaining other services than general construction services, but in the scope of the research, companies providing transport services and delivery of goods will not be taken into account. The main aim of this research was to verify the research hypotheses connected to both the ability of the management to

identify the barriers to entry and to strengthening the position of the company in the market on the basis of the theory and the analysis of the environment of the company as well as the initial correlation of the existence between particular elements of intellectual capital of an enterprise to be able overcome the barriers to entry and strengthening the position of the company in the market.

In order to be able to assess the life cycle of an organization, the L. Greiner model has been applied, meaning that it comprises phases such as the creation phase, the formalization phase, and delegation, coordination, and cooperation phases. While conducting research one enterprise refused to take part in the survey which may indicate an ongoing crisis in one of the phases. It has been assumed that in the next survey the interviewer will try to obtain data connected to identifying risk and its strength as well as a means of overcoming it.

The issues connected to the influence of the organizational life cycle on the organizations' market behaviour constitute a challenge for the management of the company, mainly due to the necessity of getting to know and choosing the proper model of assessment. The methods of identification presented in the article create intrinsic barriers and limitations which have been defined by the author as:

► having no connection with methodology with the construction sector.

The building market is characterized by much variability, resulting mainly from macroeconomic factors as well as the intensity of rivalry in the sector. This has a significant influence on the market behaviour of the company with regard to the manner of running the business and the ability to set barriers for competition.

In general the companies go through a cycle of birth, development, and death; however, in a more detailed exploration these phases undergo growth. Adjusting one of the existing models or the creation of a new life cycle model dedicated strictly to the building sector can lead to improvements in decision making and forecasting for management;

existing models do not define the barriers of transition between phases.

The enterprises which were taken into account when conducting the research have been functioning in the building sector for 10 years, concurrently the results indicate that there is a discrepancy between the time the organization has been in the market and the unambiguous identification of the phase which they are in. The assumed and presented research model in the article is based on available data which has been grouped and was subject to analysis. After having conducted the analysis, the author indicates that in order to be able to appropriately use the model it is necessary to conduct a deeper analysis of every enterprise, which would constitute in the further stages a basis for building a temporary working table and an unambiguous indication of crises as evidence of going through the particular phases. With regard to the sample tested there was no opportunity due to the managements' fear of providing too much information, which indicates another conclusion about the need to create an even more detailed analysis tool directed at only identifying the phase of the life cycle of particular enterprises;

▶ lack of retrospective analyses.

When conducting the research a key factor was the absence of retrospective analyses, which would allow a comparison of newly obtained data with those obtained in the past. Entering the building sector requires overcoming financial and legal barriers as well as those connected to enlisting new suppliers of goods and investors. This research was directed mainly at medium sized enterprises, which itself constitutes a barrier to preparing the management to create a model and delegating a person responsible for drawing up the matrix;

• fear of the researcher's objectivity.

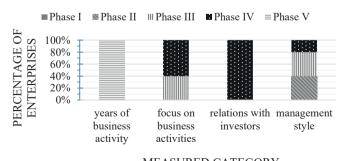
The model board should have a person responsible for it, who will on a regular and daily basis analyse the market behaviour of the company and observe the organization from the inside, which would lead to the identification of going through the particular phases. The interviews conducted with the management indicate a high level of caution in providing answers to the questionnaire, although the aim of the questionnaire was known to those being questioned. This leads to a primary conclusion that the researcher should be a person within an organization; however, not dependent on the board in order to be able to maintain his or her impartiality.

By presenting the selected primary results of pilot studies in the context of a theoretical definition of the life cycle, its role and meaning for the competitiveness of a building enterprise, an identification of both the limitations of analysis as well as an indication of the key meaning of the connection of the organisational life cycle with the competitive behaviour of a company in the building sector is possible.

The analyses and identification of the Organisational Life Cycle by single primary research is rather complicated in order to be able to assess the life cycle according to the scheme proposed by L. Greiner, which has been extended by the identification elements included in the imprint of the primary research.

According to the abovementioned method of identifying the life cycle the diagram presents the following results.

On the basis of the research conducted, a difficulty was encountered in connection with the unambiguous definition of the phase of the organisational life cycle. This discrepancy



MEASURED CATEGORY

Fig. 2. Identifying the organisational life cycle on the basis of the criteria selected

may be the result of the methodology of the research assumed, i.e. the enterprises which were being researched for the first time gave no opportunity to refer to previous results. The results obtained may also indicate that the companies are not developing linearly, meaning that they are not going through the particular phases on every level of their business activities simultaneously, but rather they try to complete their competences depending on market needs, which moreover is also concurrent with Abraham Maslow's model.

When it comes to the life cycle of an organisation the most important issue is the assessment of the competitive position of a company functioning in a given sector. In this research an assumption has been made that the starting point for identifying the competitive position of a company may be the recognition of the components of the micro environment and assessment made by the management, if they play an important role in the choice of strategy of the development of the company. While conducting the research eleven factors in the micro environment were taken into account, indicated in the diagram below, rating the ability of assessment and indication by the company management of the areas which have an influence on the company's development strategy.

With the usage of a key for coding each obtained answer a score has been defined (the answers ranging from definitely not important to definitely important have received a score from 1 to 5) and next the average was calculated, the results are presented in the diagram below.

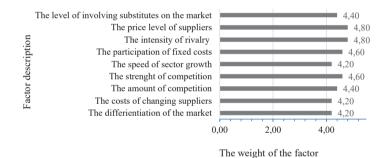


Fig. 3. The identification of the factors from the micro environment

5. Summary

The aim of the paper was to make an assessment of the influence of the phase of a medium sized building company's life as a general entity on its market behaviour, taking into account the theoretical assumptions connected to competition. In order to achieve, the aim in the first part of the article a critical review of literature was comprehended connected to the organizational life cycle as well as competitiveness which constitutes the basis for the analysis of the primary results from pilot studies.

During the research, a difficulty was encountered in connection to the unambiguous definition of the phase of the organisational life cycle. The author intends to continue observing

the aforementioned phenomenon in the main research studies as well as by expanding the number of companies tested to conclude the identification of the phase of a given company's life.

In the research it has been assumed that the starting point for identifying the competitive position of the company is the recognition of key components of the microenvironment and the assessment conducted by the management, as long as it is significant in terms of the choice of business development strategy.

The results indicate that enterprises identify the level of rivalry among the companies within a given sector as the most crucial barriers for conducting business. This factor together with the strength of the competition and a very high level of cost factors are rated by the enterprises tested as high and may lead to an intense price war in the sector and to building new barriers precluding the access of new companies onto the market.

The high fixed costs which are incurred by the company due to running the business when trying to achieve the best price for the investor may lead to the fall of an enterprise or in the best case to cost cutting be it the redundancy of highly qualified staff or the delegation of the employees to many projects at the same time. As a result there may be a significant drop in the quality of goods produced or services provided.

By presenting the primary results of the pilot studies in the context of a theoretical definition of the life cycle, the role and meaning of the phases of the life cycle for the competitiveness of a building company, an identification of both the limitations of the analysis and the key meaning of the connection of the phase of the life cycle with the competitive behaviour of a company in the building sector is possible.

Identifying which phase of the life cycle a company is in may be slightly complicated by the absence of an unambiguous assessment model.

Moreover such an analysis should constitute an element of a company's strategy and be subject to recurrent assessment – only then only then will it be possible to take steps aimed at verifying the competitive strategy in connection to the phases of the life cycle. This connection appears to be the key element in the functioning of an organisation with regard to the relationship between the internal crises and the behaviour of the competition in a given sector.

In order to verify the presented hypotheses the author plans to extend the test group and add more questions to the questionnaire connected to life cycle and competitive strategy.

References

- [1] Drucker P.F., Ten New Society of Organization, Harvard Business Review, 9/10, 3–17, 1992.
- [2] Leonard–Barton D., Wellsprings of Knowledge. Building and Sustaining the Sources of Innovaion, Harvard Business School Press, Boston, 1995.
- [3] Shirokova G., Organisational life-cycle: The characteristics of developmental stages in Russian companies created from scratch, JEEMS 1/2009, 2009, 65–83.
- [4] Brzeziński S., Stefańczyk P., Use of enterprise growth theory in management of small and medium sized enterprises, Polish Journal of Management Studies, 2013, 315–325.

- [5] Hanks S., An Empirical Examination of The Organizational Life Cycle in High Technology Firms, Doctoral Dissertation, University of Utah, 1990.
- [6] Ul Hassan F. S., Shah B., Khan N., Ikramullah M., Zaman T., Exploring the relationships among organizational life cycle stages and different traits of organizational culture, Business and Management Review, Vol. 1(7), September, 2011, 103–112.
- [7] Lippitt G.L., Schmidt W.H., Crises in a Developing Organization, Havrard Business Review, no. 45, 6, 1967, 102–112.
- [8] Lester D.L., Organizational life cycle and innovation among entrepreneurial enterprises, Journal of Small Business Strategy, Vol. 19, No. 2, Fall/Winter, 2008/2009, 38–40.
- [9] Mintzberg H., Mintzberg on management, NY: The Free Press, New York 1989, 296.
- [10] Quinn R.E., Cameron K.S., Organization life cycles and shifting criteria of effectiveness: Some preliminary evidence, Management Science, 29 (1), 1983, 33–51.
- [11] Wyrwicka M.K., *Endogenne przesłanki organizacyjne rozwoju przedsiębiorstwa*, Rozprawy nr 374, Wydawnictwo Politechniki Poznańskiej, Poznań 2003, 45 –47.
- [12] Doubience J., Corporate entrepreneurship in organizational life-cycle, Economics and management: 2013.18(3), 2013, 584–592.
- [13] Greiner L., Evolution and Revolution as Organizations Grow, Harvard Business Review, 50(4), July–August, 1990, 37–46.
- [14] IMD World Competitiveness Yearbook 2003, IMD, Lausanne, Switzerland, 2004.
- [15] Porter M.E., The Competitive Advantage of Nations, New York: Free Press, 1990.
- [16] Bossak J., Bieńskowski W., International Competitiveness: Basic Concept, Warszawa 1990.
- [17] Henricsson J.P.E., Ericsson S., Flanagan F., Jewell C.A., *Rethinking competitiveness for the construction industry*, School of Construction Management and Engineering, University of Reading, PO Box 219, Reading, RG6 6AW, UK, 2004, 335–344.
- [18] Scott B. R., Lodge G.C., US Competitiveness in the World Economy, Boston: Harvard Business School Press, Boston, Massachussets, 1985, 13–70.
- [19] Aldington Report Report from the Select Committee of the House of Lords on Overseas Trade. HMSO, London 1985.
- [20] Šiškina A., Juodis A., Apanavičienė R., Evaluation of the competitiveness of construction company overhead costs, Journal of Civil Engineering and Management, 15(2), 2009, 215–224.
- [21] Prahalad C.K., Hamel G., *The Core Competence of the Corporation*, Harvard Business Review, May–June 1990, 70–90.
- [22] Mazurkiewicz A., Frączek P., Kluczowe kompetencje a konkurencyjność przedsiębiorstw, Zakład Ekonomiki Inwestycji i Zarządzania Strategicznego Uniwersytet Rzeszowski, Publikacja opracowana w ramach grantu nr N N115 408840, 96–97.