

## Advergaming: Application of Knowledge in the Process of the Competitive Advantage Improvement

Pavel Mráček, Martin Mucha

### Abstract

**Purpose of the article** The paper is involved in the utilization of the knowledge in the process of the competitive advantage improvement by means of the perspective marketing tool - advergaming. The objective of the article is the informing on the possibilities of the use of the knowledge in the field of the advergaming as the possible tool in the marketing communication, leading to the improvement of the competitive advantage of the companies.

**Scientific aim** Research objective was to identify how knowledge management is used in the Czech companies with respect to their size. Specific aspect of our research was an influence of knowledge management on a decision making process. On the base of results we have identified the requirement of usage of knowledge management in the area of advertgaming. We argue that this is a possible approach improving competitiveness of companies.

**Methodology/methods** Data for this paper are the data from the research carried out in the Czech companies. This survey focuses on the share of the application of the knowledge management in surveyed companies. 265 companies from the whole Czech Republic, various segments and industries, starting with the tourism, building industry, hotel industry, transport and ending with the manufacturing and distribution of the detergents and the distribution of the medical materials, were involved in the research. The companies were selected randomly. The necessary data were collected from the total number of 265 companies by means of the questionnaire research, and in certain cases the structured interview was used. The synthesis from the individual parts was made, on the basis of which the following conclusions were based.

**Findings** The paper identifies the method of the use of the knowledge in the advergaming as a possible starting point for the potential model of the utilization of the knowledge in the marketing communication.

**Conclusions (limits, implications etc)** For the improvement of the competitiveness of companies we recommend using of the advergaming for the promotion of both product and company itself. Either in the form of the embedment of the advertising billboard, advertising wallpaper (photograph or any other key element identifying the product or form) in the game background or the building of the puzzle, or embedding of the plot of the game into the realistic environment transferred into the electronic form (downhill skiing, car races etc.). Nevertheless, strong emphasis should be placed on the attractiveness and playability of the game itself so as to guarantee the positive perception of the advertising message of the product or company, which should influence the behavior of the receiver of the message, thereby the promotion would meet its purpose. The competitive advantage then depends on the level of the utilization and the level of concinnity of the knowledge management in the individual companies and its correct application into the advertising game. The theoretical model, proposed by the authors, should serve in the company practice as the support of the decision making process in the fields of the strategic marketing and knowledge management. The application of the model should represent the competitive advantage.

**Keywords:** Advergaming, Competitiveness, Competitive Advantage, In-Game-Advertising, Knowledge.

**JEL Classification:** L10, L21, M31, M37

## Introduction

All available instruments and tools should be utilized in the present supercompetitive environment for the maintaining of the competitiveness of the company. Thus, the focus on the unconventional methods of the marketing communication hand in hand with the exploitation of the knowledge is necessary. The advergaming can represent one of them. With regards to the originality of such tool there is a reasonable assumption of its development and utilization. Thanks to the knowledge applied to the advergaming the individual companies can better address potential customers and target groups. Another advantage is then the deepening of the knowledge of the demands of the users of the advergaming and, consequently, the strengthening of the competitive position.

### 1 Definition of term Advergaming

The term “advergaming” covers the marketing instruments based on the creation and utilization of the computer games, making brands or products visible (Dahl, Eagle & Báez, 2009). Řehoř (2008) explains the term as the integration of the advertising principles directly into the computer games.

According to Kanth (2010) the advergence (advertising game) is a game established on the attributes of the brand. The game should aim at the target, which the brand manager wants to hand-over to the public. The brand is then becoming the hero of the game; however, the customer should entertain himself/herself at the same time. After the finishing of the game, the player should learn something about the brand/product (Kanth, 2010). According to Schulze, Jöckel and Will (2007) the main intention of the game-playing is the entertainment, and not the search for the information on product or brand. Identically, Wise et al. (2008) assert that the remembering of the placed brand is not on the first place, as the primary focus of the attention is on the game. Moreover, he states that a careful attention should be paid to the relevance of the placement of the advertising message and the intention what we want to achieve by the placement of the brand or product with regards to the subject of the game itself.

Svahn (2005) postulates that the advergaming is a phenomenon covering the games, which completely, or partially, transfer the

messages proposed for the persuasion of the player to the change of his/her behavior also outside the circle of the game itself.

### 1.1 System/forms of the advergaming

Svahn (2005) identifies a three-step systematization of the advergaming, according to Jane Chen and Matthew Ringel.

- a) Associative – connection of the lifestyle with the logo of the brand in the game subject. The search for the combination of the subjects of game and brand comes up. This is linked with the competition of two points of view. Both the perception of the brand image by the customers (players) and the aesthetics of the game itself. The products or brands are not prepared for the real game-playing. The best is then the placement such as for example to the billboards in the game.
- b) Illustrative – the function of the product directly in the game in such a way that the player directly co-operates with the product in some way.
- c) Demonstrative – designing of the playability and story for the revealing of the attributes of the individual products, f.e. a digital basketball game, where the success depends on the selection of the shoes (Svahn, 2005).

Not necessarily these three categories are downright independent – they can be mutually combined. (In the realistic game, where we can drive virtual vehicles of the real brand, the game is demonstrative as well as illustrative; with regards to the theme of the game also associative). (Svahn, 2005).

Schulze, Jöckel and Will (2007) describe the general classification of the digital games as the so-called in-game-advertising and so-called advertising games (also adgames/ advergaming).

Under the term “advergaming” can be understood the brand on-line games as the promotional tool, where the main objective of the game is the handing-over of message of the brand. The games then represent the advertising material, designed for the support to the product or brand (Schulze, Jöckel & Will, 2007).

In-game-advertising is mainly the placement of the advertising in the digital games, identically to the product placement in the movie or TV (Winkler & Buckner, 2006). More specifically, it is a planned, systematic and by the game inventors paid integration. The in-game advertising operates as a new communication

tool, which tries, identically to the traditional advertising media, by means of planned and systematic utilization to influence the approaches and behaviors of the recipients. Thanks to the ingame advertising the companies are provided with the opportunity to present their products in the virtual integrated environment (Schulze, Jöckel & Will, 2007).

### 1.2 Why the advergaming

Should we understand the advergaming as the part of the viral marketing, the advergaming gains the advantage when compared to the most common current type of the viral (videos). At present time, one of the most famous viral video channels, YouTube, is rather oversaturated. Thus, making oneself visible just through this "classic" form is harder and harder. In case of the viral spreading, the lower costs are the considerable advantage; owing to a.m., such a method of promotion can become appropriate also for the companies which in the time of the crisis reduce their marketing and promotional activities.

There are relatively many servers, involved in the online games, or supporting the game playing free-of-charge. The fact that in this particular field the competition is not so strong means that the game can win (and wins) far more views than the viral advertising videos (Walklate, 2009).

According to Walklate (2009) the integration of the direct links into the viral games represents one of the advantages. It is far more probable that the player would click just when playing the game - in consideration of other advertising banners and links.

Thanks to its interactivity the advertising games strongly enhance the chance of the attracting of the interest of the customer in the product. Just the interaction of the viewer is important for better introduction and remembering of the brand. Besides classical advertising message there is also the possibility of the repeated playing - repeated perception of the brand (Walklate, 2009).

Another advantage is- according to Walklate (2009) – an easy method of the monitoring of the visitors by means of the monitoring services (for example also Google Analytics). Owing to it the monitoring of the success and spreading of the viral campaign (including the

number of the clicks to the product web pages) is possible.

Moreover, the advergaming can be also beneficial for the maintaining of long-term good relations with the customers. The long-term good relations then influence the customer satisfaction (Šimberová, 2010). The advergence can be even perceived as a sort of the supplement to the product or service. So as to strengthen the relationship with the customers, the quality of the advertising game (advergence) itself should be paid the attention, too.

The problem in the advergaming application in certain companies can be the fact that these companies usually do not have sufficient level of knowledge and practical experience with the utilization of the tools for the crisis management (Koleňák and Milichovský, 2010) and we can assume that they will not be able to use untraditional tools of the advergaming type. Nevertheless, certain researches prove that in spite of the fact that the companies in the period of the crisis reduce f.e. the advertising costs, for all of them this activity remains important.

The indicator of the use of computer games for the promotion can be also the fact that the receipts of the computer game vendors in the Czech and Slovak Republic in the year 2010, despite computer piracy, increased for 17% (ČTK, 2011), which clearly refers to the popularity of the computer games. Moreover, the popularity is also confirmed by the increase of the financial means, invested in the world game market in the year 2010, for 36% (O'Malley, 2011).

### 1.3 Product placement in the advergaming

While creating the "advertising games", the model AIDA should be followed, similarly as in the creation of every marketing communication (Jakubíková, 2009). It means that firstly the game should be able to attract the attention so as the viewer would notice it. Afterwards, when playing the game, the game should awaken the interest in the particular product, service or company, followed by the desire to use the product or service; finally, some action should happen. Therefore, the completion of the game with data, clearly showing the recipient where to introduce himself/herself with other details or with the place where he/she could buy (use) the product or service, is advantageous.

Various game genres can be utilized for the creation of the advergimes. These can be adventures, puzzles, action games, arcades, strategies, simulators, RPG games or their various combinations. Product or advertising message can be then integrated into the game, such as for example billboard, the product itself used as the part of the game, clothing of the main hero, color of vehicles or only as the picture or wallpaper of the puzzle. Appropriateness of selected genre and factual location of the product depend on the addressee of the game itself (as the advertising message) in combination with the financial budget to the game.

On the basis of above mentioned assumptions various proposals can be presented, which should be the combination taking into account what we want to attract new visitors to. Then it depends what is the objective of the campaign. The important issue is the willingness of the recipient to start the game itself, to play it and to feel its message positively. Another essential precondition for the correct application of the advergaming is the meaningfulness and playability of the game. Should not the "player" see any meaning in the game, then the playing of such a game is wasting of his/her time. The same result can occur also in the event that the game could not be practically playable based on its difficulty (Mráček & Mucha, 2010).

#### **1.4 Spreading of the advergimes**

Most of the advertising games are available free-of-charge in the internet, promising a strong link between consumer and product. Very rarely the advertising games are offered for sale (f.e. "Mercedes-Benz World Racing") (Schulze, Jöckel & Will, 2007).

The classical distribution chains are used for the spreading of the paid games, identically to the software sale. In case of freely spread game the use of either own or partner web pages, various servers specializing in the free-of-charge games, different traveler's pages or the placement of the advertising banner with the direct link can be used. The connection of the social networks is possible and advantageous nowadays, too.

Another possibility of the spreading can be the use of the bluetooth marketing (Čábyová, 2009). The sale support, show events etc.

can be then suitably completed with the form of BT marketing.

While placing the free-of-charge games in the internet in the combination with the possible free spreading of the game, the advertising game promoting product or service can become a viral. Similar situation can happen in principle in the form of the mobile marketing (the use of bluetooth technologies).

#### **2 Occurrence of the knowledge management in the Czech Republic**

Knowledge is classified according to the various criteria and the individual authors understand it from several points of view. It represents a complex term, attractive for many scientists from various fields (Greiner, Böhm, Krcmar, 2007). The most important segmentation is the classification into two groups of knowledge (Polanyi, 1966), (Nonaka et al., 2000) and (Truneček, 2004):

- explicit
- tacit

According to Grant (1997) the knowledge is recognized as the main source of the competitive advantage. The knowledge is a potentially important source for the company as it bears inimitable, unique and valuable properties, especially if possessing tacit feature (Hall & Sapsed, 2005). Each company has the possibility to work with the contemporary trends in the field of the management. Effective communication, sharing and handing over of the information and knowledge result - as the final consequence - in the improvement of the competitiveness (Zvejšková, Mucha, 2010). In case of the link to the advergaming the explicit knowledge is taken as a source, recorded in the customer databases. These databases serve as the support to the better addressing of the customers. Based on this reason the survey was carried out in the Czech companies so as to identify whether the companies already introduced the knowledge management and whether the knowledge influences their behavior.

#### **2.1 Methodology and information on research**

We used both empiric and logic methods for the finding of our intentions. From the group of the empiric methods we applied quantitative and qualitative research, by means of which we acquired the primary data.

The applied procedures included for example structured interview, selection of the sample and statistic procedures of the data treatment. The qualitative research identified the reasons and motives of the behavior of people.

265 companies from the whole Czech Republic participated in the research, involved in various fields and industries, starting with the tourism, building industry, hostelry trade, transport, and finishing with the manufacturing and distribution of the detergents, manufacturing and distribution of the sanitary material. A representative selection of the companies was carried out, reflecting the structure (size of company, production or business company) of all companies within the framework of the Czech Republic. The support was the database of Czech companies, serving for the selection of the representative sample. The companies were selected randomly. The collection of data was the first task, followed by the evaluation and determination of criteria.

From the total number of 265 companies we collected necessary data by means of the questionnaire investigation and in certain cases also by the structured interview. We classified

the companies into small, medium-sized and large, according to the following criteria:

1. small companies – less than 49 employees,
2. medium-sized companies – 50 to 249 employees,
3. large companies – more than 249 employees.

We sorted the companies as manufacturing and commercial ones. We set the criterion that if at least from 80 % prevails the activity manufacturing or commercial, than the company is ranked among manufacturing or commercial.

**2.2 Results of research**

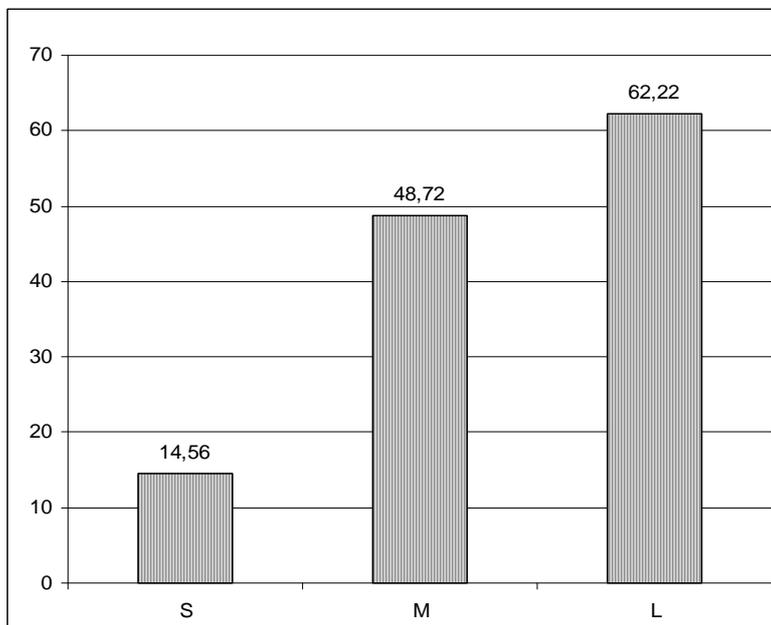
From the total number of 265 companies, in the research participated:

- 103 small companies (39%)
- 117 medium-sized companies (44%)
- 45 large companies (17%)

Out of them 35 % manufacturing companies and 65 % commercial companies. For the purposes of this article we consider this classification as informative. Following questions then aim at all questioned companies together.

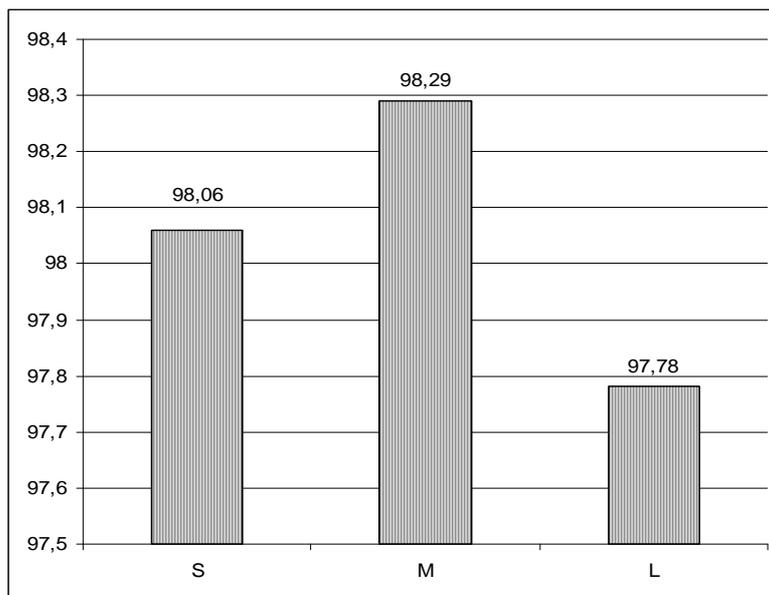
Moreover, we were interested in the answers to the following question:

- How many companies already implemented the knowledge management? (Graph 1)



**Graph 1** Companies with implemented knowledge management

Source: Own work



**Graph 2** Knowledge influences decision-making process

Source: Own work

From the total number of 103 small companies only 15 of them already implemented the knowledge management, i.e. 14,56 %. From the total number of 117 medium-sized companies only 57 of them already implemented the knowledge management, i.e. roughly 48,72 %. From the total number of 45 large companies only 28 of them already implemented the knowledge management, i.e. roughly 62,22 %.

The criterion for the classification whether the company uses (or not) such form of the management was also the delimitation of this term by the responsible respondents and in what factual way it is applied in their working places.

Moreover, the following was investigated:

- Level of the influence of the knowledge on the decision-making process in the company (Graph 2)

From the total number of 103 small companies 101 of them assume that the knowledge influences the process of the decision-making, i.e. roughly 98,06 %. From the total number of 117 medium sized companies 115 out of them assume that the knowledge influences the process of the decision-making, i.e. roughly 98,29 %. From the total number of 45 large companies 44 of them assume on the influence of knowledge to decision-making, i.e. roughly 97,78 %.

From the results it is obvious that the knowledge is an important factor in the decision making process of the companies. The applica-

tion of the knowledge is necessary for the successful marketing communication. Therefore, there is a need of the collecting and classification of data and information on market, customers, competitors, suppliers, distributors etc. These data are then becoming the knowledge base for the support in the company decision-making. For the effective use of the advergaming is more than suitable to apply knowledge and methods of the knowledge management. Thus, the possibility of the attracting of new customers as well as better spreading of the knowledge about the brand or product is rising. Thanks to facile method of the monitoring of the game users the knowledge can be further broadened and thus, can be better focused in the future.

### 3 Advergaming and competitive advantage

Provided that the competitiveness is generally understood as an attribute to the company, facilitating it to achieve the success in the competitive environment with the perspective of the long term development, then such competitiveness is established by the competitive advantages (Zich, 2010). For such advantages can be accepted Porter's characteristics that as such they offer the company the advantage before the competitors (Porter, 2004).

Nevertheless, according to Zich (2010) such delimitation represents only a certain logical framework, in which the competitive advantage can be perceived. The competitive advan-

tage is perceived as a factor, which helps, resp. facilitates the company to achieve the success, but it is not necessarily its guarantee. We can not understand and identify the competitive advantage unless watching the company as a complex. Its source is the quantity of the independent activities, which the company performs when designing, introducing to the market and supporting its product (Porter, 2004). These individual activities can be drawn (according to Porter) in each company by the so-called value chain, characterized by the depicting of the historical development, strategies, approaches to these strategies and the economy of the individual activities. One of the primary activities is the marketing and sales, being defined by the activity which should enable the customers to buy a particular product and to attract them for the buy, for example advertising, promotional events, activity of the sales managers, various offers, distribution routes etc.

Based on this reason the authors propose the advergaming as the competitive advantage. As stated above, the environment of the viral videos, for example YouTube, is rather over-saturated. The target orientation should then point at freely distributed games, used by the potentially large group of people. These are not purely the players of the computer games, deeply persuaded, but also various groups of people at homes and work places, should we omit the ethics of the work activity, who can - through such freely distributed games; for example relax. In this moment, the advergaming is becoming the competitive advantage for the particular company. The company then uses a new communication tool for the promotion of the particular destination, which increases its competitiveness. The probability of the "click" to the link is higher in comparison to the standard banner, placed for example in the video YouTube and the application, i.e. the technical method and form of the promotion is already an individual solution according to the assigned requirements.

From the point of typology (Zich, 2010) such a competitive advantage falls into the so-called purely competitive advantage, characteristic by absolutely legal and ethical way, not in any way negatively influencing or limiting the competitive advantage. On the contrary, these advantages strengthen the particular company and are based on the internal ability of the com-

pany to form and maintain them. The competitive advantage, resulting from the application of the knowledge in the advergaming, is also the possibility for the establishment of the virtual discussion rooms, in which the recipients can informally talk, thus supporting the transfer of the tacit knowledge (Nonaka, Takeuchi, 1995).

Application of knowledge for the advergaming can be delimited as follows:

On one hand there is a company, utilizing classified knowledge of its target group for its marketing communication (advergaming). The company shall embody such knowledge into the advertising message; in this particular case into the advergence. The knowledge is then used in such a way so as the recipient could perceive the advertising message positively and could gather from the advertising the information on company, product or service. On the other hand there is a customer (consumer of the advertising message; player). Thanks to the possibilities of the current technique the company is provided with very important information by means of the monitoring and feedback. With the help of the information the company can gain another new knowledge, which it can further apply into its products and other advertising messages. Thus, the "cycle" of deepening of knowledge and its subsequent application into the advertising message for the purpose of the informing of the recipients on products and gaining of the new knowledge just on these recipients comes into the existence.

### **Conclusion**

We recommend applying of the promotional computer games for the increasing of the company competitiveness. These games can be utilized in the form of the advergaming as well as the in-game-advertising. The companies, which take advantage of the advergaming as a component of the marketing communication, should also focus on the method of the utilization of the knowledge, which should delimitate a specific competitive advantage to them. Should it be the company with already implemented knowledge management, the question is then solved by the applicability to the particular field, whereas the enormous sources do not have to be used. Should not the company use the knowledge management, it does not have to search for large sources for the application of

the principle, as presented by the authors, and can use it.

As clear from the research, the knowledge is utilized in the overwhelming majority of all investigated companies, though not all of them already implemented the knowledge management. Based on this reason we recommend small and medium-sized companies the utilization of knowledge, which is not financially demanding. The utilization of knowledge in combination with the advergames will result in the increasing of the competitive advantage. In the advergames the company can also informally

communicate with the recipients, thus acquiring new necessary knowledge about them. The company can collect the information actively or can passively monitor the discussion and reactions of the recipients, thus gaining the vital message. The method of the utilization of the knowledge for the advergames, as mentioned by the authors above, can be considered as the starting point for the potential model of the application of the knowledge in the marketing communication.

### References

- ČÁBYOVÁ, L. (2009) Bluetooth marketing a jeho kreativne možnosti. In Matúš, J., Čábyová, L. & Ďurková, K. Nové trendy v marketingovej komunikácii : zborník z medzinárodnej vedeckej konferencie. Trnava : Fakulta masmediálnej komunikácie UCM v Trnave. 45-53.
- ČTK. (2011) Tržby z prodeje počítačových her stouply o 17 pct na 2,2 mld. Kč. Finanční noviny [online]. Available at: <http://www.financninoviny.cz/zpravodajstvi/zpravy/trzby-z-prodeje-pocitacovych-her-stouply-o-17-pct-na-2-2-mld-kc/635261>. (accessed 16 May 2011).
- DAHL, S., EAGLE, L., BÁEZ, C. (2009) Analyzing advergames: active diversions or actually deception. An exploratory study of online advergames kontent. In Young Consumers. vol. 10 no. 1. 46-59.
- GRANT, R. M. (1997) The knowledge-based view of the firm: implications for management practice, Long Range Planning, Vol. 30 No. 3, 450-454.
- GREINER, M. E., BÖHMANN, T., KRČMAR, H. (2007) A Strategy for Knowledge Management. In . Journal of Knowledge Management. Emerald Group Publishing Limited, p. 3-15.
- HALL, J., SAPSED, J. (2005) Influences of knowledge sharing and hoarding in project-based firms, in Love, P., Irani, Z. and Fong, P. (Eds), Management of Knowledge in Project Environments, Butterworth-Heinemann, Oxford, 57-79.
- JAKUBÍKOVÁ, D. (2009) Marketing v cestovním ruchu. Praha : Grada Publishing, a.s. 237-240.
- KANTH, K. R. (2010) Business Standard. Catch them young with advergames. [online] available at: <http://www.business-standard.com/india/news/catch-them-youngadvergames/381926/> (accessed 18 October 2010).
- KOLEŇÁK, J., MILICHOVSKÝ, F. (2010) Trading tools for SMEs in hard times. TRENDY EKONOMIKY A MANAGEMENTU, Vol. IV, No. 7, s. 18-25.
- MRÁČEK, P., MUCHA, M. (2010) Využití advergamingu v destinačním marketingu. In Špecifiká regionálneho a neziskového marketingu. Trnava. 101-106.
- NONAKA, I., TOYAMA, R., KONNO, N. (2000) Seci, ba and leadership: a unified model of dynamic knowledge creation, Long Range Planning, Vol. 33, p. 4-34
- NONAKA, I., TAKEUCHI, H. (1995) The Knowledge Creating Company. New York: Oxford University Press.
- O'MALLEY, G. (2011) Game Face: Funding, Online Deals Surge 36%. MediaPost : Online Media Daily [online]. Available at: [http://www.mediapost.com/publications/?fa=Article.s.showArticle&art\\_aid=149592&nid=126283](http://www.mediapost.com/publications/?fa=Article.s.showArticle&art_aid=149592&nid=126283). (accessed 16 May 2011)
- POLANYI, M. (1966) The Tacit Dimension, Doubleday and Company Inc., New York.
- PORTER, M. E. (2004) Competitive Advantage. First Free Press Export Edition: Free Press.
- ŘEHOŘ, J. (2008) Advergames. Marketing Journal.CZ [online] Available at: [http://www.m-journal.cz/cs/marketing/nove-trendy/advergames\\_\\_s302x479.html](http://www.m-journal.cz/cs/marketing/nove-trendy/advergames__s302x479.html) (accessed 8 April 2010).
- SCHULZE, V., JÖCKEL, S., WILL, A. (2007) Menschen Märkte Medien Management. (Werbe-wirkungsforschung für Ingame-Advertising). Ilmenau.
- ŠIMBEROVÁ, I. (2010) Company strategic marketing management – synergic approach and value creating. Acta univ. agric. et silvic. Mendel. Brun., LVIII, No. 6.
- SVAHN, M. (2005) Future-proofing advergames: a systematisation for the media buyer. In ACM International Conference Proceeding Series; Vol. 123: Proceedings of the second Australasian conference on Interactive entertainment. Sydney : Creativity & Cognition Studios Press. 187 - 191.
- TRUNEČEK, J. (2004) Management znalostí, 1. vydání, Praha, C.H.Beck.
- WALKLATE, S. (2009) Technology Toolkit : Great, fresh technology articles. [online]. Is Viral Marketing Better With Videos or Games?. Available at: <http://www.technology-toolkit.com/market>

ing/is-viral-marketing-better-with-videos-or-games (accessed 18 October 2010).

WINKLER, T., BUCKNER, K. (2006) Receptiveness of Gamers to Embedded Brand Messages in Advergaming: Attitudes towards Produkt Placement. In Journal of Interactive Advertising, Vol 7. No 1. 24-32.

WISE, K., et al. (2008) Enjoyment of Advergaming and Brand Attitudes: The Impact of Thematic Relevance. Journal of Interactive Advertising. 9, 1, 27-36.

ZICH, R. (2010) Koncepce úspěšnosti a její pojetí strategie. E+M Ekonomie a management. vol. 1. 60-74.

ZVEJŠKOVÁ, M., MUCHA, M. (2010) What knowledge means in conditions of project management in Czech firms. In The 6th International Scientific Conference, Business and Management 2010. Vilnius, Litva: Vilnius Gediminas Technical University. 899-904.

**Author (s) contact (s)**

**Ing. Pavel Mráček**

Vysoké učení technické v Brně,  
Fakulta podnikatelská, Ústav managementu  
Kolejní 2906/4,  
612 00 Brno, Česká republika  
E-mail: mracek@fbm.vutbr.cz

**Ing. Martin Mucha**

Vysoké učení technické v Brně,  
Fakulta podnikatelská, Ústav managementu  
Kolejní 2906/4,  
612 00 Brno, Česká republika  
E-mail: mucha@fbm.vutbr.cz

**Doručeno redakci:** 31.3.2011

**Recenzováno:** 8.5.2011

**Schváleno k publikování:** 30.5.2011