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SPECIFIC FEATURES OF EDUCATIONAL SOFTWARE
PROMOTION AT UKRAINIAN MARKET

This article analyses the specific features and legal requirements to the promotion of educational software. The focus is made on the investigation of the current market of these products in Ukraine, key factors that influence its development, and the reasons to use marketing systems by software developers along with the basic strategies for optimal marketing and promotion of educational software development enterprises.

Keywords: educational software; promotion; marketing; Ukrainian market.

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ОСОБЛИВОСТІ ПРОСУВАННЯ ПЕДАГОГІЧНОГО
ПРОГРАМНОГО ЗАБЕЗПЕЧЕННЯ НА РИНКУ УКРАЇНИ

У статті розглянуто особливості й законодавчі вимоги до просування педагогічного програмного забезпечення, а також сучасний стан ринку цих продуктів в Україні; основні чинники, що впливають на його розвиток; причини, які зумовлюють використання системи маркетингу розробниками програмного забезпечення; маркетингові й рекламні заходи, що сприятимуть оптимізації маркетингових комунікацій підприємств-розробників педагогічного програмного забезпечення.

Ключові слова: педагогічне програмне забезпечення; просування; маркетинг; ринок України.

Табл. 2. Рис. 1. Літ. 10.

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В статье рассмотрены особенности и законодательные требования к продвижению педагогического программного обеспечения, а именно современное состояние рынка этих продуктов в Украине; основные факторы, влияющие на его развитие; причины, обуславливающие использование системы маркетинга разработчиками программного обеспечения; маркетинговые и рекламные мероприятия, способствующие оптимизации маркетинговых коммуникаций для предприятий-разработчиков педагогического программного обеспечения.

Ключевые слова: педагогическое программное обеспечение; продвижение; маркетинг; рынок Украины.

Introduction. A key component of information technology is software. Software development in many countries is the foundation of hi-tech industries that are driving the globalization of the world economy.

The objective reality of current markets is that equipment and advanced production technologies for creating different types of software are not enough; software developing enterprises must also focus on efficient marketing, aimed to stable market positions and competitiveness of products.

Literature review. Domestic scientists, such as O.V. Spivakovsky et al. (2010), L.F. Yezhova (2002), O.O. Karpischenko (2011), V.S. Kruglik (2011) and others,

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research software promotion at Ukrainian market. The prospects and issues associated with the development of communication technologies to promote and distribute educational software in Ukraine are extremely relevant and require further research.

Problem statement. For enterprises and organizations focused on strategic objectives of developing and distributing educational software, it is important to use integrated marketing communications to achieve the maximum results. Nowadays, communication serves as the central tool in practical realization of these goals of market entities (Yezhova, 2002).

To convey the necessary information to target audience, to create consumer demand, to manage this demand, as well as to reduce price instability, software developing enterprises use complex marketing communications, the role and importance of which is growing in Ukraine.

The purpose of this article is the research on the current market conditions of software products in Ukraine, in particular, the characteristics and conceptual approaches to the dissemination and promotion of educational software.

Key research findings. Today, the software industry, along with nanotechnology is the most hi-tech and highly profitable sector of Ukraine's economy. Its key feature (and difference from other IT areas) is that it does not require significant investments, public or private. Furthermore, it does not require large amounts of natural resources, is environmentally friendly, and promotes academic, intellectual and technological potential of the country.

The software industry is well developed in Kyiv, where we can find more than 50% of all employed professionals in this field; it is rapidly growing in Lviv, Kharkiv, Dnipropetrovsk, Donetsk, Simferopol and other cities of Ukraine (Recommendations of the parliamentary hearings on "Creation of Favorable Conditions for the Development of the Software Industry in Ukraine", 2012).

According to most recent statistics, the IT market in Ukraine amounts to 2 ths companies employing over 150 ths people. According to experts opinions, the companies' gross income in this industry is over 15 bln UAH, with the average annual growth rate of 30–40%. Each year, up to 30 ths university graduates specializing in IT services are hired (Recommendations of the parliamentary hearings on "Creation of Favorable Conditions for the Development of the Software Industry in Ukraine", 2012).

According to "Annual Global Outsourcing Report GS100," Ukraine is ranked 11th in the Top 20 of the largest world centers by the number of employees in IT (Annual Global Outsourcing Industry Analysis GS100, 2012). Ukraine is the first in the list of Central and Eastern Europe, ahead of Russia, Belarus and Poland.

The current market conditions of the software industry are characterized by the following key trends:

- increased competition and price wars between the companies involved in the development and implementation of software;
- changes in business strategy of software manufacturers;
- preference for reusable software.

Price competition first appeared at the hardware market and then subsequently moved to software. Competition among software products is more focused because it favors leading manufacturers of computer engineering and impacts the activity of

small firms. As a result of price competition, software producers often lose money, although these losses are significantly lower than those of hardware manufacturers.

Changes in business strategies of software manufacturers focus on product delivery strategy to end users, pricing and sales systems. Firms engaged in the development and sales of software products usually work in one of the following 3 areas:

- 1) applications development;
- 2) applications sale;
- 3) service.

The profitability of these areas varies because by reducing the costs of marketing and distribution, software vendors get additional income and functions from marketing and distribution, which are often transmitted to distributors and other organizations involved in their subsequent commercial implementation.

Distribution between developers and distributors of software is the most efficient and cost-effective way to make new products quickly available, as the costs associated with market research, shipping, advertising, and other measures are implemented through the budget of distribution enterprises. At the same time, today's leading software vendors serve both as developers and distributors.

The question of reusable software development was put to professionals a long time ago, as it produces significant cost and resource savings. To this end, object-oriented applications and mobile objects to avoid duplication (which is typical for any large program) were created. But users refused to invest heavily in untested programming methods which hadn't received any support. So now developers offer users only original object-oriented systems, and the creation of working modules for multiple usages is left up to users.

Thus, the software market today has seen a steady decline in prices for mass-produced products, and suppliers seek to use more effective channels to expand their presence in certain market sectors. This causes an increased interest in the business sector to optimize the marketing system in the field of software, particularly to promote these products in the marketplace.

In the countries with market economies, software used in education is considered to be a commodity that is subject to intellectual property rights. Today, its most active consumers in Ukraine are teachers and principals, followed by the parents of pupils in secondary schools.

The main developers of educational software in Ukraine are presented in Table 1.

The specificity of educational software is its creation for direct use in educational processes. Thus, according to the order of Ministry of Education, Youth and Sport of Ukraine from 08.02.2012 No. 882 "On the use of study materials in secondary schools," secondary educational institutions are only allowed to use those curricula, textbooks and teaching manuals that are approved by the Ministry, or approved by a committee of the Scientific and Methodological Council on Education.

This is an important feature of the distribution of educational software at Ukrainian market that slows the introduction of software and complicates the distribution progress to final consumers.

In 2008–2012 Kherson State University (The Department of Support for Academic, Informational and Communication Infrastructure and The Department for Economic and Contractual work and Exhibitions) took a survey of 400 representa-

tives of secondary schools concerning the use of educational software. 89% of the respondents expressed the need and desire to use educational software. Approximately 35% of the secondary schools representatives had heard about the available software, and only 10% were actually involved in the search and purchase of such software.

Table 1. The main developers of educational software in Ukraine, authors'

Developers of educational software in Ukraine		% of software market
1. Scientific and educational institutions	- Institute of Artificial Intelligence of the Ministry of Education and Science and National Academy of Sciences of Ukraine in Donetsk	11% of software
	- H.S. Skovoroda Kharliv National Pedagogical University	
	- The National Technical University of Ukraine "Kyiv Polytechnic Institute"	
	- Kherson State University	
2. Commercial institutions	- Closed joint-stock company "Kvazar-Micro Techno"	89% of software
	- "Karvali" Ltd.	
	- Closed joint-stock company "Malva"	
	- Private company "Kontur-Plyus"	
	- Kyiv Institute of Advanced Technologies	
	- E.A. Shestopalov	
	- Closed joint-stock company "Transport Systems";	
	- Closed joint-stock company "Institute of Advanced Technology"	
	- "Diez-Produkt Company" Ltd.	
	- RGdata	
- "Ukrpryborservis" Ltd.		

Unfortunately, we have noted the low activity of these representatives after the survey and offered to provide free copies of educational software for testing. For example, Kherson State University donated to schools for use in the educational process some kind of educational software products of its own production: TERM 7.9 (Algebra 7–9 classes); Videointerpreter; System of Linear Equations; Equations Library of Electronic Visual Aids (Algebra 7–9 classes).

As a result, Kherson State University expected some reviews concerning the use of educational software products. No reviews were received, indicating a low level of interest by the teaching staff.

The analysis of market trends for educational software in Ukraine shows that the actual implementation of educational software occurs slowly. The key factors that affect the educational software market in Ukraine are:

- 1) limited access to computers in schools;
- 2) lack of funding for schools to purchase ES;
- 3) lack of a systemic approach by the State to educational process;
- 4) lack of teachers' motivation to use software products;
- 5) the high level of piracy;
- 6) low level of IT competency on teachers' side;
- 7) limited demand for ES at the open market;
- 8) low return on investment for educational software products, increasing the relative costs of development and thus inhibiting the development of the market of this software and its implementation.

The main negative factor in the development of educational software market in Ukraine is piracy. According to the survey by the Business Software Alliance, which covered more than 100 countries, the global level of piracy in 2010 was 43%; in Ukraine this level is much higher: 85% of Ukrainian computer users use software obtained from illegal sources (BSA, 2010).

Systems of marketing communications include different specific measures and techniques, with the direct task of relationships formation with targeted audiences. Means and approaches of marketing communications are very different. The main areas are as follows: creating demand; sales promotion; advertising; promotion.

Effectiveness of sales promotion depends on the properties of a product, firm's capabilities, the chosen marketing strategy, and the stage in the life cycle of a product (Figure 1).

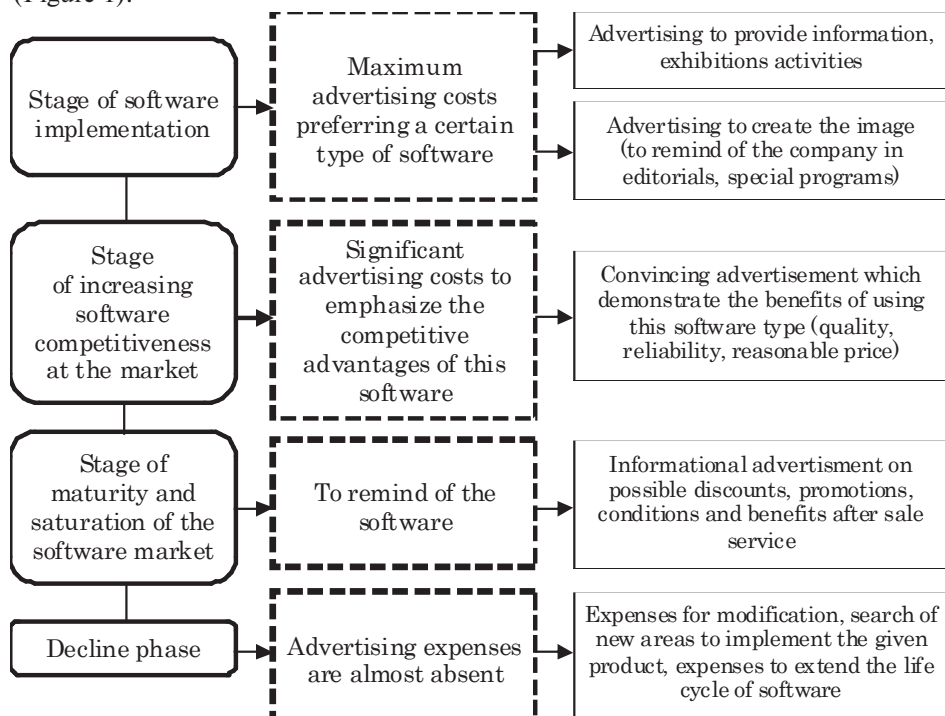


Figure 1. Sales promotion depending on the stage of software life cycle, authors' construction

Waiting periods, claimed features and benefits of software, deadlines before commercial distribution, the expectations degree of experts and leading professionals published in media or other means are all features of methods to create a demand for software products, raise company's image, and, consequently, increase profits.

Taking into consideration the given properties of software products as a special type of intellectual property, let's consider the basic means of its sales promotion and advertising (Table 2).

One of the features of information products and services is that their implementation is impossible without prior advertising and persuading buyers they need it.

Table 2. Means of sales promotion and advertising for software, authors' construction

Group	Promotion Direction	Means
1. Means of impersonal sales	Advertising on the Internet, announcement in media	Website of a manufacturer or a distributor of software, its optimization by keyword search queries Direct advertisement, topical promotional mailing
2. Means of personal sales	Website providers Direct sales Relationships with customers	Implementation of the developed software through dealers, websites providers Oral presentation of the product during conversations with one or more potential buyers Personal contacts with existing and potential customers or groups of customers via personal selling
3. Public relations – formation of public opinion and goodwill promoting sales	Participation in exhibitions, conferences and other public events Participation in exhibitions, conferences and other public events Industry relations Public relations Relations with existing and potential investors and funds Sponsorship	<ul style="list-style-type: none"> - International industry exhibitions the agenda of which covers the whole field of science and technology. - International specialized exhibitions the agenda of which covers specific directions of science and technology; exhibitions held during congresses, conferences and symposia. - National exhibitions organized in accordance with intergovernmental agreements on scientific, technical, and cultural cooperation. - Days (weeks) of science and technology, career days, jubilee exhibitions of institutions. - Exhibitions and workshops, during which organizers provide lectures, research reports, accompanied by software demonstration. - Exhibitions held at the suggestion of certain companies to increase sales in a certain market. - Exhibition presentations of certain types of software, projects, companies. - Participation in tenders of the Ministry of Education and Science; participation in the development of scientific topics ordered by the Ministry of Education. - Relationships with potential buyers within the industry, public agencies. <p>Relations with business grant makers, banking and credit institutions etc. Assisting the implementation of software for noncommercial institutions, distribution of free promotional versions Disseminating information on the company-sponsor, reminding potential clients about the already known company, creation or strengthening a favorable image of a sponsor, associating own image with the image of the party given subsidy Formation of favorable public opinion about the company-sponsor, demonstrating its financial power and reliability and stability as a partner; communications directed to company staff for motivating employees; create a positive atmosphere for employees.</p>

This requires costs that 5–10 times exceed the cost of developing software products, and these costs are essential because nobody would buy unknown software.

That is why it is recommended to start advertising at the initial stage of product development, meaning the demand formation will successfully predict the stage of commercial distribution, creating the waiting stage inbetween.

Conclusions. The point of distribution of educational software at the Ukrainian market that slows down the implementation and complicates the process of moving to end users is the legal requirement to use only the software approved by the Ministry of Education and Science of Ukraine, or approved by a committee of the Scientific and Methodological Council on Education.

The survey results of the main consumers of educational software initiated by Kherson State University indicate a low level of interest of teaching staff in the use of educational software.

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