

THE SYMBIOSIS BETWEEN INTEGRATED DISTRIBUTION SYSTEMS AND CONTEMPORARY INFORMATION TECHNOLOGIES

Head Assist. Prof. Vanya Petkova Grigorova, PhD

Abstract: Distribution systems as we know them today are the result of their interaction with business environment factors and information technologies. Based on the conceptual characteristics of integrated distribution systems and the role of information technologies to their development, this paper aims to present a new concept about the relationship between them as a symbiotic, bidirectional and stimulating one. We have outlined in detail the major aspects of that relationship; the short-term and long-term effects, which it produces, as well as the prospects for their further symbiosis.

Key words: distribution; integrated distribution system; information technologies.

JEL: M31.

Introduction

The introduction and development of modern information technologies is an essential feature of contemporary distribution. Information technologies are employed at each level of distribution systems. They thus facilitate and accelerate the pace of distribution activities and their management, and

THE SYMBIOSIS BETWEEN INTEGRATED DISTRIBUTION SYSTEMS...

influence the development of those systems at a micro-, mezzo- and macro-level.

Scientific papers dealing with the subject matter approach distribution systems and their integration separately from the information technologies introduced in distribution processes. Contemporary processes and trends in distribution result in new dependencies between these elements. It is therefore necessary to apply a new approach to the analysis of existing correlations. Hence, the main objective of this paper is to contribute to conceptual and management theories in the sphere and present the symbiosis between integrated distribution systems and information technologies from a different perspective, i.e. as a relationship, which simultaneously promotes the further development of integrated distribution systems and information technologies.

1. The Characteristics of Integrated Distribution Systems and the Role of Information Technologies to Their Development

Contemporary distribution processes are influenced by a number of factors at a macro-, mezzo- and micro-economic level, such as the appearance of a global network economy; complex relationships; high competitive pressure; unpredictable business environment; changing customer interests; new modes of distribution and communication; new competitors; customization; new management concepts; new standards; shorter terms of launching new products on the market; low returns on innovations; rapid loss of comparative advantages; increasing importance of the Internet as a source of information and a means of direct selling, etc.

This is the environment, in which distribution systems designed to distribute products and services operate. In its essence, a *traditional distribution system* consists of multiple distribution channels for delivering goods and services from manufacturing companies to the consumer or industrial market for which they are produced. A distribution system may be established by one or several business entities, i.e. it may be a corporate distribution system or a distribution network. A traditional distribution system can generally be defined as 'an open socio-economic system which consists of different components, structural elements and relationships integrated towards accom-

plishing a common objective through their operation' (Blagoev, Tonkova, Vasilev, Demetrova, Blagoeva and Zhelyazkova, 2009, p. 275).

Being a complex of methods and instruments (production and software-technological ones) which are integrated along a technological chain, *information technologies* in a traditional distribution system act as a unit that integrates its constituent subsystems – economic distribution, physical distribution and communication, information and management. Information technologies are employed to collect, store, process, generate and disseminate information and to process and communicate primary and secondary data in order to provide high-quality information (or information product) about the condition of distribution processes. Information technologies are used for communication and support in these systems, their role being mainly in terms of infrastructure development and maintenance, ensuring the information required for distribution processes and documents; gathering information about the market and creating the necessary database for conducting marketing analyses and forecasts.

In the contemporary business environment, distribution systems are subject to different changes under the influence of external and internal factors and gradually evolve into *integrated distribution systems* (IDS). There seems to be no single definition of integrated distribution systems. Some authors, like Bozarth and Handfield for example, consider a distribution system to be identical with a supply chain and approach integration as an essential feature of distribution systems. According to them, the management of a similar chain refers to the activities and relationships along that chain so as to increase the value to customers to a maximum and to ensure sustainable competitive advantages. This implies conscious effort on behalf of a company or a group of companies to design and start supply chains that will operate most efficiently and effectively (Bozarth & Handfield, 2006, p. 8). Lambert develops the concept further by specifying that the management of such supply chains integrates key business processes through suppliers who provide products, services and information that add value for customers and other stakeholders (Lambert, 2008, p. 2). A supply chain is a broader concept than a distribution system, though, since in addition to the distribution of ready products it also refers to the supply of input resources for the production system. A number of Bulgarian authors have also developed the concept of inte-

THE SYMBIOSIS BETWEEN INTEGRATED DISTRIBUTION SYSTEMS...

gration of all activities related to the transformation of products from raw materials into end products, as well as the related information flows, in order to gain sustainable competitive advantages (Blagoeva & Kehayova, 2008). Some authors refer to them as supply chains (Milkova, 2010, p. 58-59), while others approach them as logistics activities conducted by vertically related companies (Sheffi, 2010, p. 11-17; Dimitrov, 2013, p. 84), yet this approach, too, fails to define the nature of a distribution system precisely.

Hence, a more specific definition of *an integrated distribution system* would be the one that *it is an economic market entity, which consists of consolidated channels for distributing goods and services to end users; it is governed by a common strategic objective and operates through integrated management and infrastructure*. In essence, integrated distribution systems are distribution networks, which have evolved into different varieties – vertical, horizontal, or multichannel (hybrid) ones.

A key factor to the success of these systems is the phase of integrated planning, interpreted as ‘an updated process of distribution planning (by applying a standard framework) in order to maintain a reliable, efficient and stable network in a dynamic (and unpredictable) future; it is also a process that should be planned in coordination with resource and transmission planning and could involve scenarios about providing planned information to stakeholders’ (Lange, Twite & Schuerger, 2015). The elements of an integrated infrastructure are shared resources, a logistics system (warehouses, transportation, etc.), a management system, marketing, an information system, personnel, financing, etc.

The symbiosis between contemporary IDS and IT is bound to develop further, resulting both in the rapid change in the nature of distribution operations and in the improvement of the distribution paradigm. The most obvious effect is overcoming the traditional inertness of distribution channels, which causes long-term management problems. The relationship between contemporary IDS and IT is thus becoming a dyadic, mutually beneficial, ‘give-and-take’ one, inherent to processes and systems and resulting in the appearance of electronic management distribution systems – physical and virtual.

Presently, information technologies play a *key role* to the development and performance of IDS as they have several major functions (adapted after Rushton, Croucher & Baker, 2006, p. 529; Bowersox, Closs & Cooper, 2010,

p. 95): * storing and processing relevant data; * making managerial decisions and facilitating the distribution process; * assisting the process of monitoring and control over executed distribution operations; * supporting initiatives about new, additional, distribution and logistics activities; * exercising monitoring on data related to the distribution process; * providing opportunities for creating simulation systems; * generating useful information through data analysis; * facilitating communication between different devices, employees and business entities involved in distribution; * supporting the design of IT distribution systems; * generating innovations. The conceptual features and the contemporary design of IDS, as well as the strong presence of IT in their development, are evidence of the symbiosis between IT and IDS, which is demonstrated through their interdependence and the effect they have on each other.

2. The Correlation between Integrated Distribution Systems and Information Technologies

There are two aspects to the correlation between IDS and information technologies - the influence that information technologies as a factor have to the development and updating of IDS and the opportunities provided by IDS as an environment, a new sphere and a factor stimulating the development of information technologies.

In terms of the first aspect, this correlation is materialized through the introduction of modern information and communication management applications to the performance of IDS, thus exercising both a direct and an indirect impact.

The direct impact is exercised through:

➤ ***State-of-the-art integrated management systems*** in two major aspects:

- The management of resources through complex distribution systems by relating them at a software level. An example is the *Enterprise Resource Planning System* (ERP). Integrating a specialized module for Deliveries in that system reduces costs for solving integration problems and ensures greater functionality and flexibility.

THE SYMBIOSIS BETWEEN INTEGRATED DISTRIBUTION SYSTEMS...

- The optimization of certain distribution functions or the improved visibility of the distribution channels within a system. IT solutions include: * A *Warehouse Management System* (WMS) which is a software application designed to support and optimize warehouse (distribution centres) management through the operational organisation of receiving, sending, monitoring, transporting and storing inventory in and outside warehouses. Another feature is branch expertise and real-time management of deliveries with GPRS, wireless WAP applications, etc. * A *Customer Relationship Management System* (CRM) allows personalized service of customers and is employed by distribution systems engaged in e-trade. * A *Corporate Performance Management System* (CPM) focuses on logistics activities, the main idea being to lower the price of provided services. * A *Transportation Management System* (TMS) is usually a module within the Enterprise Resource Planning System or the execution of orders and the WMS module which offers customers alternative solutions in terms of optimized delivery routes; generates electronic tenders, monitors shipments with a particular operator and conducts freight audit and payment. As a management subsystem of IDS for transportation, it could be part of the resource planning system of partners. * *Technological tools for executive solutions* refer to electronic data exchange, internet and radio-frequency identification.

➤ **Internet technologies** improve distribution functions by accelerating the rate at which information is received and transmitted, enhancing communication between IDS members, ensuring access to customers around the world, making end customers accessible to global suppliers, providing better services which are tailored to Internet applications employed for each distribution function. This provides opportunities for receiving information of various analytical, current or proactive significance to the execution of contemporary distribution processes by employing search engines (e.g. Google, Bing, Ask, Yahoo!), data web-servers (e.g. Ics world, Apache, Lighttpd), interactive online commerce shops (e.g. Alibaba Group Company), browsers for opening and viewing hypertext documents (e.g. Opera), mail programmes (e.g. MS Outlook, The Bat), communication programmes (e.g. Skype, iPhone), etc.

➤ **Electronic data interchange technologies** relate to international standards on computer data exchange and enable the automated genera-

tion, exchange, processing and integration of electronic documents with business applications. They help overcome disadvantages of traditional documents exchange, such as the low rate of receiving and confirming orders, lack of flexibility upon changes in the coordination of IDS, high variable costs.

➤ **Computer modeling** is employed in IDS projects to prevent inefficient investment of capital, poor location or design of warehouses, as well as problems related to the exploitation and utilization of the potential of the logistics base.

The indirect impact of information technologies upon the development of IDS relates to:

➤ **Electronic marking of goods.** Information technologies have a major role to the design of the structural elements of marking: texts, graphic symbols on goods and information tables, as well as to the process of registering and monitoring merchandise. This raises the efficiency of their processing, ensures the safety of goods and end users, indicates the quality of products, guarantees compliance with national and international standards and ensures control along all stages of the distribution chain.

➤ **Technologies for contactless identification of goods** include * technical tools, organizational measures and steps which guarantee the recognition and registering of objects and rights; *entering data into computer applications in real time without using keyboards. Examples include smart card readers, biometric and barcode scanners, etc. An *International Automatic Identification System* (EAN UCC) has been designed to identify items through a unique global identification number (GTIN – Global Trade Item Number). The *EPC global network* ensures the common global standardization of products through the Electronic Product Code technology, which is expected to turn business systems for mobile radio communication into the backbone of the future global delivery chain. Such technologies are also useful for spotting the location of end customers.

➤ **The Concept of Efficient Consumer Response** relates to the management of product flows by tailoring the distribution process to consumer demand and reducing extra costs. It is materialized by employing the *Just-in-time* approach that enables suppliers to reengineer their methods, reduce the time of delivery, increase the quality of their service, reduce the volume of shipments and guarantee maximum reliability. The entire distribu-

THE SYMBIOSIS BETWEEN INTEGRATED DISTRIBUTION SYSTEMS...

tion system is integrated and operates towards accomplishing common objectives by applying common principles.

The second aspect of the symbiosis between information technologies and IDS relates to the development of contemporary distribution as a sphere where the full potential of the state-of-the-art technologies can be revealed. It results in the design of virtual IDS, which operate on developing **digital markets** via the World Wide Web. On the one hand, such markets are the environment in which distribution develops and, on the other hand, they act as an intermediary in distribution channels that ensures the efficient communication of data along the entire supply chain. The role of these markets is to prevent the generation of redundant databases; to facilitate access to databases via the universal hypertext coded language (HTML), scripts and web sites with management systems, which are integrated into the corporate information system (Kitova, 2009, p. 145) and to create the necessary conditions for optimum resource planning. Furthermore, digital markets provide an extremely convenient electronic environment for delivering and selling goods and services in which the Internet is employed as a medium, a business and a distribution network (Yankov & Goranova, 2009, p. 423). Such markets solve a problem faced by large IDS with multiple partners scattered around the world, namely, that of timely and accurate monitoring of inventories, distribution flows and distribution activities of partners.

In terms of IDS development, some of the trends on contemporary digital markets are:

➤ **Accelerated communication processes.** Electronic data exchange between IDS members is reformatted through common formats for exchange of electronic documents between the computers used by distributors, thus achieving greater transparency. This solves the issue of establishing multiple bilateral relationships between companies and the large number of transactions, and at the same time digital markets are becoming a universal connection and a medium for electronic data exchange. Reduced costs, increased functionality, access to a larger number of business partners and faster communication are some of the advantages in this aspect.

➤ **Global standardization of distribution services.** There is a global trend towards unification in distribution in order to facilitate distribu-

tion processes. One aspect of that trend is the effort to find solutions for uniform tariffs for distribution services – a task which GS1 has already undertaken through the *GS1 Cloud platform* (<http://www.bcci.bg/news/13661>). The organisation is developing a strategy for the global standardization and development of distribution services¹ and global interest in that strategy is continuously growing. One of the major effects of applying GS1 standards is expected higher efficiency of sales, especially in international commerce.

➤ **Higher efficiency of e-commerce.** Being a continuous cycle of data processing and exchange, e-commerce provides uniform integrated data to entities involved in commercial transactions as part of virtual internet distribution. It establishes a new type of relationships along the 'production-consumption' chain. E-commerce is part of the overall system of e-services on digital markets, which involves new varieties of services provided by remote electronic devices upon individually placed customer orders. It is conducted in different formats – through electronic shops, deliveries, auctions, malls, virtual societies, suppliers, integrated value chains, data brokerage, etc. and employs technologies for online and offline integrated electronic commercial catalogues, for maintaining data bases about products and services through standard office programmes, internet and CD applications that are run by a single data source. Distribution-related data, which is generated by specialized financial, organizational, warehouse and shipping software is integrated with the Web-contents management system FACE Control and multi-media CD-presentations. These applications give customers continuous access to up-to-date information. In addition, data bases are generated, large datasets are processed, projects for specialized software design are developed. There are two major trends in this aspect: enhanced performance of providers and customers in e-commerce and lower prices of goods and services in e-shops in comparison to those in physical stores.

Some of the key factors to the *efficiency* of e-commerce are the integration of data flows, the standardization of procedures and the open-

¹ The strategy was employed by Alibaba Group that introduced a new online-offline model of retail in the 'Hema Fresh' chain in China by using uniform barcodes on products. When scanned with a mobile application, these codes provide detailed information about all parameters of an item (<http://www.bcci.bg/news/13661>).

THE SYMBIOSIS BETWEEN INTEGRATED DISTRIBUTION SYSTEMS...

ness of commercial transactions to all participants. The efficiency of e-commerce is evaluated by employing a set of indicators that aim to measure the impact which e-business has on the ultimate results achieved by individual distributors and by the entire IDS. There are two groups of indicators employed (adapted after Novakova, 2014, p. 67):

- Responsiveness indicators evaluate the capacity of an IDS or a distribution organisation to grow and to generate guaranteed revenue;
- Financial efficiency indicators are mainly applied to the costs incurred by an IDS or a distributor. In terms of financial efficiency, e-business has a positive impact upon all aspects of distribution: inventory stock-taking, facilities, transportation and information. The efficiency of IDS is predominantly ensured by employing information technologies, which lower the cost of distribution services. Investments in such technologies are therefore evaluated via modern systems for corporate management that include methods, metrics, processes and systems for efficiency monitoring and management (Novakova, 2014, p. 10).

➤ **Appearance of virtual IDS (networks).** This modern form is created by united virtual distribution organizations engaged in e-commerce that apply new patterns of thinking, operation and management. The main objective they seek to accomplish is to fully meet market demand by combining key technologies and competencies. The main activity they engage in is knowledge management in terms of moving products to the market and constantly improving the qualifications of employee, which is a typical requirement to the sector. Their personnel is located in different spots and takes part in a common distribution process via computer networks.

The underlying principles of the activity conducted of virtual IDS are: * virtual integration; * irregularity of operations; * relationships and management actions based on integrated information systems and telecommunication; * agreements and contracts regulating partnership relationships along the distribution channels; * informal coordination, mutual confidence, commitment; * joint partial ownership on property; * fragmentary short-term integration; * temporary alliances set up by organizations engaged in similar activities; * contractual arrangements between employees and the administration in all units along the channel; * the need to en-

sure information which is transparent in addition to being reliable and secure.

The materialization of this two-aspect symbiotic relationship between IDS and information technologies produces a series of short-term and long-term effects, which result in their increasing integrated potential in distribution.

3. Effects of the Interaction between Information Technologies and Integrated Distribution Systems

The aspects of the relationship between IT and IDS we reviewed above result in a series of long-term and short-term management effects (benefits). **Short-term effects** include (adapted after Alesinskaya, 2010):

- Better quality of distribution processes and their management;
- Real-time decision-making in management;
- Greater transparency of distribution processes in result of the dynamic and interactive engagement of partners;
- Lower distribution costs;
- Higher labour productivity of commercial and logistics staff;
- Reduced number of errors and wrong decisions;
- Shorter periods of delivery;
- Opportunity to plan in advance the optimum deployment of transportation, warehouse storage, shipments loading and unloading, and other specific activities over time;
- Lower inventories due to the lower risk entailed;
- Rational utilization of resources;
- Smaller number of inefficiently organized units in the distribution system;
- New market opportunities.

From a **strategic point of view**, the development of information technologies in distribution results in the following long-term effects in IDS:

- Accelerating the processes of supply, logistics and shipment and minimizing costs;

THE SYMBIOSIS BETWEEN INTEGRATED DISTRIBUTION SYSTEMS...

- Exercising control and strategic management in terms of the entire IDS;
- Flexibility of individual customer processes owing to the optimum connections between the data flows used by distribution operators and by their customers through integrated online and/or offline platforms;
- Standardized management of distribution processes and projects, data exchange, processes related to maintenance and design, and the hardware that is used;
- Improved IDS in compliance with IT infrastructure catalogues and applying common standards or individual customer interface;
- Raising the competences and information know-how of experts engaged in distribution;
- Creating a wider IDS portfolio by including the entire range of IT services in distribution, for example, operations traditionally performed by computing centres, employing electronic applications, consultancy and management of customer distribution projects;
- Opportunities to restructure and expand distribution systems or flexibly consolidate IDS in order to accomplish various strategic goals;
- Development of IDS on digital markets.

In addition to the benefits outlined above, several other futuristic impacts can be expected as a result of the symbiosis between information technologies and IDS (adapted after 6 Key Supply Chain and Logistics Trends to Watch in 2017, 2017):

- *Blurring the line between logistics and technologies.* Logistics 3PLs and 4PLs² are increasingly identified as technology providers as they continue to leverage IT platforms as their major service-selling points. The phenomenon known as 'logistics control tower' is mainly pervading B2B marketplaces and is becoming synonymous with modern software solutions for managing supply chains and providing logistics services. This is, in fact, melding of software and distribution services in warehouse management, procurement and supplies. This type of software makes cloud decision-

² These are modern logistics outsourcing companies, 3PLs being engaged in all kinds of distribution activities, while 4PLs carry out logistics activities which are integrated with resources and functions to the design and development of distribution networks.

making possible with integrated technical support services and self-help capabilities, which saves in-house IT resources. Thus, vehicle and vessel owners and oil shippers registered on a software application post their available capacities, while freight shippers post their needs on the internet cloud. The application then searches for the most efficient solutions to meet the requirement of both parties (suppliers and users) and enables direct transactions without brokers.

- *The race for the last mile*³ relates to the improved management of online and physical processes in distribution channels and systems. The number of suppliers of goods and service providers in this zone is increasing as innovative shippers are seeking for alternatives to parcel deliveries by buying or creating their own parks. There is also a growing number of 'smart lockers' where deliveries can be made for later collection by consumers. This helps streamline the process of returns and results in changes in shopping patterns.

- *The Rise of Virtual Logistics Teams*. The trend appeared and has become pervasive in the commercial sector as it enables providers of distribution services to access customers and employees globally, thus cutting down their operational and shipping expenses as well as the need to lease or purchase real estate. This results in new roles of the staff that has been traditionally based in centralized logistics centres of distribution companies. For example, online access to specialized planning and communication software enables route planners to perform in real-time all necessary activities from any physical location. The same is true of purchasing, administration and management roles; the two effects, which are thus simultaneously achieved being reduced labour costs and real-estate investment with a focus on maintenance, rather than purchase.

Creating contemporary multifunctional integrated distribution systems, which adopt innovative information technologies is a complex process that requires substantial investment. It is large-scale IDS with significant technical, financial and technological potential that undertake such initiatives.

³ The 'last mile' concept refers to the last, most cost-intensive part of the supply chain from the distribution centre or the retailer to the end consumer.

Conclusion

The views presented in the paper lead to the following conclusions: on the one hand, current ongoing processes in integrated distribution systems would be unthinkable without the employment of modern information technologies; on the other hand, the effort to customize and improve these systems poses a challenge to modern information technologies and offers new prospects for their development. The increasing symbiosis between them results in mutual benefits and upgraded distribution systems.

References:

- Alesinskaya, T. (2010). *Osnovay logistiki. Funktsionalnaye oblasti logisticheskogo upravleniya Chasty 3*. Taganrog: TTI YUFU. Retrieved on 05.07. 2018 from http://www.aup.ru/books/m193/5_5.htm
- Blagoev, B., Tonkova, E., Vasilev, Yu., Demetrova, V., Blagoeva, S., Zhelyazkova, D. (2009). *Stopanska logistika*. Varna: Nauka i ikonomika.
- Blagoeva, S., Kehayova, M. (2008). Verigi na dostavkite v balgarskata praktika. *Godishnik* (Tom 80). Varna: IU Varna.
- Bowersox, D., Closs, D., Cooper, M. (2010). *Supply chain logistics management* (3rd edition). MCGraw-Hill Education.
- Bozarth, C., Handfield, R. (2006). *Introduction to Operations and Supply Chain Management*. New Jersey: Pearson Education, Inc.
- Dimitrov, P. (2013). *Logistikata v Balgariya, problemi i perspektivi na razvitie*. Sofiya: IK-UNSS.
- Kitova, O. (2009). *Upravlenie effektivnostyyu marketinga: metodologiya i proektnoe modelirovanie*. Moskva: INFRA-M.
- Lambert, D. E. (2008). *Supply Chain Management: Processes, Partnerships, Performance, Supply Chain Management*. Florida: Institute Sarasota.
- Lange, N., Twite, A., Schuerger, M. (12 05 2015). *Building a Minnesota Conversation on Grid Modernization With a Focus on Distribution Systems*. Retrieved on 07. 06. 2018 from <https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&document>

- Id=%7BF00CBB10-D59B-4A8B-9917-A5768CCC35BD%7D&documentTitle=20156-111156-01
- Milkova, T. (2010). Snabditelni verigi, sashtnost, osobenosti i obhvat. *Izvestiya na sayuza na uchenite*, 1, 58-62.
- Novakova, G. (2014). *Moderno upravlenie na verigata za dostavkite*. Sofiya: SU.
- Rushton, A., Croucher, Ph., Baker, P. (2006). *The Handbook of Logistics and Distribution Management*. Kogan Page.
- Sheffi, Y. (2010). *Logistics intensive clusters*. EPOCA 20.
<http://www.bcci.bg/news/13661>. (n.d.). Retrieved on 05. 06. 2018
- Yankov, N., Goranova, P. (2009). *Integralen marketing*. Svishtov: AI 'Tsenov'.
- 6 Key Supply Chain and Logistics Trends to Watch in 2017. (19.12.2017). Retrieved on 08.06.2018 from <https://www.logisticsbureau.com/6-key-supply-chain-and-logistics-trends-to-watch-in-2017>

Editorial board:

Krasimir Shishmanov – editor in chief, Tsenov Academy of Economics, Svishtov Bulgaria

Nikola Yankov – Co-editor in chief, Tsenov Academy of Economics, Svishtov Bulgaria

Ivan Marchevski, Tsenov Academy of Economics, Svishtov Bulgaria

Irena Emilova, Tsenov Academy of Economics, Svishtov Bulgaria

Lubcho Varamezov, Tsenov Academy of Economics, Svishtov Bulgaria

Rumen Erusalimov, Tsenov Academy of Economics, Svishtov Bulgaria

Silviya Kostova, Tsenov Academy of Economics, Svishtov Bulgaria

International editorial board

Alexandru Nedelea – Stefan cel Mare University of Suceava, Romania

Dmitry Vladimirovich Chistov - Financial University under the Government of the Russian Federation, Moscow, Russia

Ioana Panagoret - Valahia University of Targoviste, Alexandria, Romania

Jan Tadeusz Duda – AGH, Krakow, Poland

Mohsen Mahmoud El Batran – Cairo University, Cairo, Egypt

Nataliya Borisovna Golovanova - Technological University Moscow , Moscow Russia

Tadija Djukic – University of Nish, Nish, Serbia

Tatiana Viktorovna Orehova – *Donetsk National University*, Ukraine

Yoto Yotov - Drexel University, Philadelphia, USA

Viktor Chuzhykov - Kyiv National Economic University named after Vadym Hetman, Kyiv, Ukraine

Proofreader – Anka Taneva

English translation – senior lecturer Zvetana Shenkova, senior lecturer

Daniela Stoilova, senior lecturer Ivanka Borisova

Russian translation - senior lecturer Irina Ivanova

Technical secretary – Assist. Prof. Zhivka Tananeeva

Submitted for publishing on 12.09.2018, published on 21.09.2018,
format 70x100/16, total print 40

© D. A. Tsenov Academy of Economics, Svishtov,

2 Emanuil Chakarov Str, telephone number: +359 631 66298

© Tsenov Academic Publishing House, Svishtov, 24 Gradevo str

BUSINESS management

D. A. Tsenov Academy
of Economics, Svishtov

Year XXVIII * Book 3, 2018

CONTENTS

MANAGEMENT theory

ASPECTS OF RATIONAL BEHAVIOUR IN ORGANISATIONAL MANAGEMENT

Head Assist. Prof. Elena Yordanova, PhD..... 5

MARKETING

THE SYMBIOSIS BETWEEN INTEGRATED DISTRIBUTION SYSTEMS AND CONTEMPORARY INFORMATION TECHNOLOGIES

Head Assist. Prof. Vanya Petkova Grigorova, PhD 14

INFORMATION technologies

APPLYING THE ARCHITECTURAL APPROACH TO THE DESIGN OF A DIGITAL PLATFORM: THE CASE STUDY OF AN AVIATION HOLDING COMPANY

Evgeniy Zaramenskih 29

MANAGEMENT practice

THE EVOLUTION OF THE REGULATORY FUNCTION OF THE STATE IN THE ECONOMY AND THE 'INVISIBLE HAND' OF THE MARKET

Hristo Borissov Tsvetanov, PhD student 44

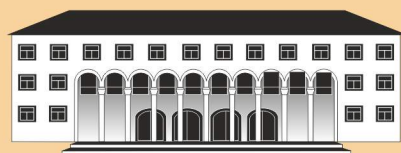
THE ROLE OF FUNERAL DIRECTOR

Alexandre Krassimirov Barboukov, Bartosz Marcinkowski 61

ISSN 0861 - 6604

BUSINESS management

BUSINESS management 3/2018



PUBLISHED BY
D. A. TSENOV ACADEMY
OF ECONOMICS - SVISHTOV

3/2018

TO THE READERS AND AUTHORS OF “BUSINESS MANAGEMENT”

The journal of “Business Management” publishes research articles, methodological articles and studies, review articles, book reviews, commentaries and good practices reports.

1. Volume:

- Articles: between 12 – 20 pages;
- Other publications (review articles; book reviews, etc.): between 5 – 10 pages.

2. Submission of materials:

- On paper and electronically at one of the following e-mail addresses:
bm@uni-svishtov.bg or zh.tananeeva@uni-svishtov.bg

3. Technical requirements (the article template is can be downloaded from the webpage of the journal):

- Format – Word for Windows 2003 (at least);
- Font – Times New Roman, size 14 pt, line spacing 1,5 lines;
- Page size – A4, 29–31 lines and 60–65 characters per line;
- Line spacing 1,5 lines (at least 22 pt);
- Margins – Top – 2.54 cm; Bottom – 2.54 cm; Left – 3.17 cm; Right – 3.17 cm;
- Page numbers – bottom right;
- Footnotes – size 10 pt;

4. Layout:

- Title of article title; name, scientific degree and scientific title of author – font: Times New Roman, 14 pt, capital letters, Bold – centered;
- Employer and address of place of employment; contact telephone(s) and e-mail – Times new Roman, 14 pt, capital letters, Bold – centered.
- Abstract – up to 30 lines; Key words – from three to five;
- **JEL** classification code for papers in Economics (<http://ideas.repec.org/j/index.html>);
- Introduction – it should be from half a page to a page long. It should state the main ideas and/or objectives of the study and justify the relevance of the discussed issue.
- The main body of the paper – it should contain discussion questions, an outline of the study and research findings/main conclusions; bibliographical citation and additional notes, explanations and comments written in the footnotes.
- Conclusion – it should provide a summary of the main research points supported by sufficient arguments.
- References – authors should list first references written in Cyrillic alphabet, then references written in Latin alphabet.
- Graphs and figures – Word 2003 or Power Point; the tables, graphs and figures must be embedded in the text (to facilitate language correction and English translation); Font for numbers and inside text – Times New Roman, 12 pt;
- Formulae must be created with Equation Editor;

5. Citation guidelines:

When citing sources, authors should observe the requirements of **APA Style**. More information can be found at: <https://www.uni-svishtov.bg/default.asp?page=page&id=71#jan2017>, or: <http://owl.english.purdue.edu/owl/resource/560/01/>

6. Contacts:

Editor in chief: tel.: (+359) 631-66-397
Co-editor in chief: tel.: (+359) 631-66-299
Proofreader: tel.: (+359) 631-66-335
E-mail: bm@uni-svishtov.bg; zh.tananeeva@uni-svishtov.bg;
Web: bm.uni-svishtov.bg
Address: “D. A. Tsenov” Academy of Economics, 2, Em. Chakarov Str., Svishtov, Bulgaria