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## OMNICHANAL STRATEGIES OF TRADE ENTERPRISES: INFORMATION SUPPORT

*The use of different channels interaction with consumers by trade enterprises of Ukraine was reviewed. Data that the enterprise receives when the consumer interacts with different channels have been identified. There was characterized the relationship of input and output information flows and the use of information technologies when implementing omnichannel strategy at the trading enterprise.*

*Keywords:* information flows, information support, multichannel strategy, omnichannel strategy, information technologies in trade, marketing strategy

*Савчук А. Омниканальные стратегии предприятий торговли: информационное обеспечение. Проанализировано использование предприятиями торговли Украины разных каналов взаимодействия с потребителями. Определены данные, которые предприятие получает при взаимодействии потребителя с разными каналами. Охарактеризована взаимосвязь входящих и исходящих информационных потоков и использование информационных технологий при реализации омниканальной стратегии на предприятиях торговли.*

*Ключевые слова:* информационные потоки, информационное обеспечение, мультиканальная стратегия, омниканальная стратегия, информационные технологии в торговле, маркетинговые стратегии.

**Background.** Globalization processes in economy of Ukraine and the whole world, dissemination of Internet-technologies in all spheres of society life predetermine considerable growth of volumes information which are received by enterprises during interaction with consumers. According to the forecasts of research company IDC (International Data Corporation), until 2025 year amount of digital information that is generated by enterprises, will grow in 10 times, but interaction between human and devices which produce different data, will grow in 4800 times a day [1]. Ordering this information and its effective using with engagement newest technologies in modern conditions is not a simply important, but necessary condition of providing competitiveness of trading enterprises. It is important to establish and maintain contact with the consumer in different channels of interaction with enterprise (stores, online-stores, mobile applications, social networks)

with providing mutual integration these channels in an uniform system, i.e. omnichanneling. When combining a few channels a relevant problem appears: management of informational traffic, because for enterprises critically important is abilities to select from big amount data valuable information which can be used for making decisions.

**Analysis of recent researches and publications.** Omnichanneling and its specialty of implementation in activity of enterprises were considered in national works and foreign scientists, in particular O. Jagus [2], O. Zozulyov, M. Levchenko [3], V. Lysytsa [4] studied different approaches to definition of the concept "omnichanneling". Scientists P. Vergoef, P. Kannan, J. Inman [5], J. Hu, M. Rahman [6] are determined the main differences between multichanneling and omnichanneling. But insufficiently investigated remains a question of regulation informational traffic of trading enterprise at implementation omnichannel strategies and determination of efficiency separate channels and its interaction.

The **aim** of article is determination of essence omnichannel strategies and research of informational traffic of trading enterprises at its realization.

**Materials and methods.** Research was carried out with using methods of analysis, synthesis and theoretical generalization. When writing an article was used materials of State Statistics Service of Ukraine, Kyiv International Institute of Sociology, International company "SapientNitro", national and foreign works of scientists.

**Results.** During the analysis about world trends of development retail trade, one of main trends is using omnichannel strategies. It is due to that in modern conditions consumers choose those enterprises, which give ability make a purchase through sales channels that is more convenient for them (through website and stores of enterprise, by using social networks, mobile applications, e-mail, etc.) and providing interaction all channels. According to research of international company "SapientNitro" (USA), 53 % consumers among all channels prefer to make purchase through the stores, 81 % – prefer an interaction with stores through smartphones, 61 % wish to use any device (smartphone, tablets or PC) for buying things [7].

In Ukraine, the relevance of introducing omnichannel strategies is due to the growth in the share of online trade in the total of Ukrainian retail trade and the number of Internet users: for 2012–2016 period from 2.2 % to 6.6 % [8]. According to the research of Kyiv International Institute of Sociology, the proportion of Ukrainians who use the Internet is 63%. At the same time, mobile phones (39 %), home laptops (31 %) and stationary computers (30 %) are most often used for searching through the Internet among Ukrainians. 41.6 % of Ukrainian adult population as of May 2017 at least once a month use the Internet on their mobile devices – mobile phones or tablets [9]. The growth in the number of Internet accesses via smartphones confirms the feasibility of introducing omnichannel strategies that involve the use of mobile applications for the sale of enterprise goods.

There is a significant part of traders which use different channels of interaction with consumers. According to the survey conducted by the State Statistics Service of Ukraine in 2016, the share of traders that have their own site was 45 %, of which 72.4 % of enterprises' sites contain product catalogs or price lists, 33.3 % – provide the opportunity to place orders or book products online, 18.9 % – make payments online, while 27.4 % use personalized content for regular customers. In addition, trade enterprises use social networks, in particular: 28.4 % – blogs or microblogs, 51.4 % – sites with multimedia content, 48.7 % – knowledge-sharing tool. Among enterprises that use social networks: 93.1 % use social media to advertise the enterprise, 65.5 % – to receive feedback from customers and 46.2 % – attract customers to the development of the enterprise [10].

According to A. Zozulev's definition, omnichanneling is a process of the organization and sale of the enterprise's products, in which the integration of communication and marketing takes place independently of a separate distribution channel, its objective is to unite them and create conditions for a continuous process of acquiring goods, even providing changeover from one sale channel to another [3].

Now for then, omnichanneling is identified with multichanneling, but the difference in these terms is that *omnichanneling* involves the integration of all sales channels, while *multichanneling* means giving consumers the opportunity to buy a product or a service through various channels that do not interact with each other. Multichanneling provides establishment, development, coordination and evaluation of various sales channels with a view to strengthening the experience of consumers from interacting with the traders, attracting new consumers, retaining them and developing relations with them [5]. The difference of omnichanneling is the absence of barriers between sales channels, which helps by capturing the attention of the consumer in interaction through one channel, continue to influence through other channels [6].

Thus, it is proposed to consider the *omnichannel strategy* of trade enterprise as a set of measures aimed at using additional sales channels, ensuring the integration of information traffic from all available channels according to the preferences of consumers of different market segments and the dynamics of their purchases.

In the context of information support for the marketing of trade enterprises, omnichanneling is a technology of integration the information transfer of the enterprise entering its information system from different sales channels of goods. Therefore, it is important to regulate such information transfer for making management decisions.

From the economic point of view, the information transfer is a stable data movement directed from the source of information to the recipient, determined by the functional relationships between them [10].

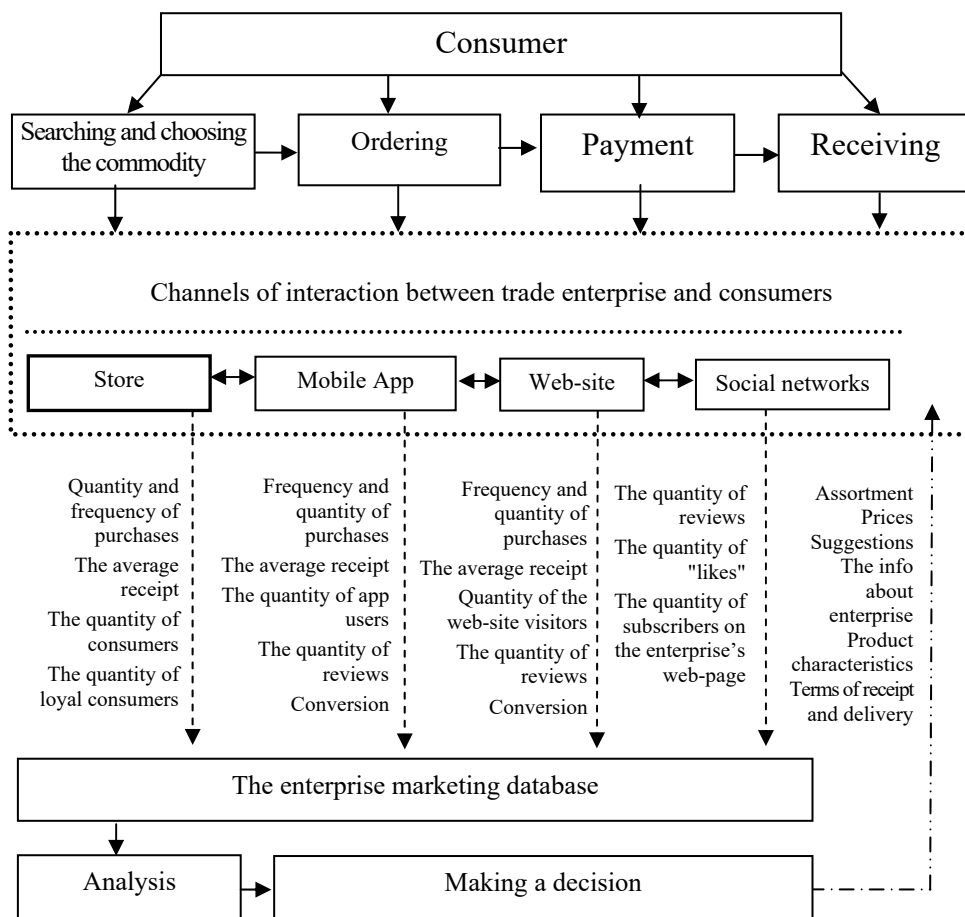
Information transfer management does suppose creating an information structure, finding out the receiving channels and consumer identification, i.e. those who use this information. In the context of investigation information transfer of enterprises, scientists use such terms as "generator" and "receiver".

Thus, information transfer is considered as a way of internal and external communication of the enterprise, intended for the purposeful and organized movement of a certain amount of information, that is carried out by communication channels of data distribution from its generator to the receiver for the purpose of providing an operative and quality information support of economic processes [10]. During the implementation of omnichannel strategies, consumers become the generators of incoming information which flows into the enterprise, and as channels, through which the data are received, possess the company's website, a traditional store, an online-store, a mobile application, and pages on social networks. An enterprise becomes a generator of outgoing informational transfer. Consequently, incoming informational transfer, arising during the implementation of omnichannel strategies, are the data that the company receives about the consumer when he interacts with the sales channels, used by an enterprise, and the outgoing data is the data that company provides to consumers with regard to prices, assortment, discounts, stocks etc. (*figure*).

Most of the data that comes to the company's information base from online interactive channels, is similar, but the special value belongs to the results of data analysis of different channels and the determination of interconnections between them. By obtaining personal data, history of views and purchases of a particular consumer, the enterprise can find an individual approach and more quickly respond to changes in consumer preferences.

As the figure shows, the information is received about the time of the consumer's presence, transitions, views, comparison of goods, average check through the website and online store to the company. The consumer can use the site and online store to study the features of different products, to compare prices, to make a purchase decision, while the purchase takes place directly in a traditional store.

In order to obtain additional information about the consumer, enterprises use such tools as "push-messages" with proposals for news subscription bonuses, which include the indication of gender, age, the consumer's place of residence and it allows the company to obtain demographic data, the analysis of which in the interconnection with the history of views and purchases you can form a personalized message. As bonus a trade enterprise often provides a certain sum of money which you can spend on shopping at the store. In the case of purchasing through an online store, the data on the chosen method of payment and delivery of the goods are sent to the company, on the basis of which subsequent proposals for the additional service are formed.



Designations:

- > Incoming information flows;
- - -> Outcoming information flows.

**The scheme of information transfer from different channels of interaction with consumer during the realization of the omnichannel strategy of trade enterprises**

Source: developed by the author.

Online purchases can be made in the process of communicating through social networking sites, as well as the personal visit to a traditional store [11]. The advantage of social network is the ability to be alert to the consumer's feedback and preferences, to have an instant answer to the question. Reviews of existing customers of the company are of special value because they not only allow us to identify shortcomings in company's business, but also they form a certain image of the enterprise for potential customers who can read these reviews. The analysis of the demographic data of the page's subscribers allows you to identify the target audience; the number of preferences and extensions of individual company posts is an issue that is of interest to consumers.

Smartphone applications have not gained such popularity as online stores, but they are already being used by most of the major trade network enterprises in Ukraine. The advantage of phone applications is the possibility of constant contact with the consumer by means of announcements in the form of offers of discounts, recommendations of related products or special offers, if the consumer is in the process of choosing a product, as well as monitoring its location.

With introducing omnichannel strategies, the consumer should have the opportunity to order goods in different ways, in particular: to order online by filling out a form with the type of goods and payment method or by calling the contact center, contacting the company and ordering the goods. In the process of interaction of the buyer with the enterprise it is important to track his actions and moving through channels. The ability to analyze the behavior of consumers passing through one channel to another is complicated by the fact that the company's customers are not always willing to register and provide personal information. According to a survey conducted by the research company "Retail dive", 31% of consumers are ready to share personal information for receiving individual offers, 61 % for discounts and special offers, 61 % for bonuses in loyalty programs [12]. Consequently, bonuses and discounts will stimulate consumers to provide personal data that will allow companies to receive valuable information.

By analyzing the data from the specified interaction channels, the company receives information about which channel is convenient for the purchase, which is used for the search, which are used more often to make an order. On the basis of the data that a trade enterprise receives, initial information flows for assortment, prices, communications, promotional offers and others are formed. An analysis of the spending time on the site and the history of the goods' views of a potential buyer make it possible to draw conclusions about his interest and to determine the expediency of sending individual messages to lower prices for the revised goods, special conditions of payment, and offers of related goods. The study of consumer reactions to company publications in social networks (number of preferences, links to a page) and the analysis of reviews are influenced on the choice of communication means and the content of further advertising appeals. The sales volumes of different product categories of an enterprise allow you to determine which ones are mostly implemented through online or offline channels and, based on this information, to determine the need for a more detailed presentation and description of their characteristics in each of the channels. The chosen method of delivery and payment by the consumer also is influence don the proper message content of a trade enterprise; in particular, it can be advertising services, individual products, etc.

The outgoing information flows should be formed after collecting and analyzing consumer information. When forming the outgoing information flows, it is important to indicate the actual price of the goods, to update the

information on their availability, to ensure its identity across all channels of interaction, to use the obtained data in the formation of individual messages for consumers.

The choice of software is important in the implementation of omnichannel strategies, so the integration of information flows is ensured by the availability of appropriate modules for collecting and processing data from online and offline channels in software products.

The main functions of such software products should be synchronization of the catalog of goods from the online store and enterprise accounting system; synchronization of prices and information about the availability of goods; the ability to add and edit content on different channels; to collect and to analyze data on consumer behavior, etc.

When choosing software, an important feature is the ability to integrate with other enterprise information systems, as well as statistical analysis and finding relationships between data coming from different channels of consumer interaction.

Among the software products of this type is to allocate programs to study the history of customer interaction and the program of providing service to consumers. "IBM Unica" is the software which is used to analyze the history of relationships and to identify individual customer interaction strategies; it allows collecting purchases and customer contact data through online channels. "SAP Hybris Mobile Commerce" analyzes the history of purchases from mobile devices. "SAP Hybris B2C Commerce" allows you to analyze online and offline customer relationships for all sales channels. "SAP Hybris Marketing" provides the opportunity to receive real-time customer information and to use this knowledge to integrate purchasing experience in the various sales channels functions. "SAP Hybris Order Management" is the software which provides customer service and the ability to control the execution of online orders. In this case, the execution of actions on registration, rejection and delivery of the order is ensured in the condition of any available channel using, informing the buyer about the status of his order [13].

The systematic accumulation and analysis of data can analyze the overall effectiveness of the implementation of omnichannel strategies in the process of simultaneous usage of several channels for consumer's purchases. To assess efficiency, it is advisable to compare such indicators as: turnover, enterprise revenue, average check, the number of re-purchases, the index of completeness of purchases, the number of consumers before and after the implementation of the omnichannel strategy, etc. At the same time, it is important to analyze not only the change in the performance indicators of the trade enterprise, but also to determine the ratio of financial results of the enterprise to the cost of implementing an omnichannel strategy.

**Conclusion.** The usage of omnichannel strategies in the current conditions of the development of trade enterprises is an objective necessity, given the growing trend of online trade in Ukraine, the number of Internet users and smartphone users. It is determined that the implementation of such strategies allows integrating the information flows entering the information system of the enterprise from online and offline sales channels of goods. On the basis of this, the scheme of information flows in the implementation of the omnichannel strategy is proposed, and the data that the business enterprise receives when interacting with the consumer through various channels is described. Analyzing data on these channels, the enterprise has the ability to determine the effectiveness of individual marketing activities and the convenience of various channels for the purchase. Thus, preconditions for improving marketing activities are created by identifying existing consumer interests, forecasting future needs, and using personalized marketing communications based on the information received.

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**Савчук А. Омніканальні стратегії підприємств торгівлі: інформаційне забезпечення.**

**Постановка проблеми.** Впровадження мультиканальних та омніканальних стратегій, які передбачають використання багатьох каналів для взаємодії підприємства зі споживачем є актуальним напрямом розвитку підприємств торгівлі. При об'єднанні декількох каналів набуває актуальності проблема управління інформаційними потоками, оскільки для підприємств критично важливим є уміння виділяти серед значних обсягів даних цінну інформацію для прийняття управлінських рішень.

**Метою** статті є визначення сутності омніканальних стратегій та дослідження інформаційних потоків підприємств торгівлі при їх реалізації.

**Матеріали та методи.** Дослідження проведено з використанням методів аналізу, синтезу та теоретичного узагальнення. При написанні статті використано матеріали досліджень Державної служби статистики України, Київського міжнародного інституту соціології, міжнародної компанії «SapientNitro», а також праці вітчизняних та зарубіжних науковців.

**Результати дослідження.** Більшість даних, які надходять до інформаційної бази підприємств торгівлі з онлайн-каналів, при реалізації омніканальних стратегій є подібними, проте особливу цінність мають результати їх аналізу та визначення взаємозв'язків між ними. Аналізуючи дані щодо історії купівель, переходів між каналами та поведінки споживачів, підприємство отримує інформацію, використання якої при формуванні вихідних інформаційних потоків надає можливість використовувати індивідуальний підхід до кожного клієнта та оперативно реагувати на зміни споживчих вподобань.

**Висновки.** Запропоновано схему інформаційних потоків при реалізації омніканальної стратегії та охарактеризовано дані, які підприємство торгівлі отримує при взаємодії зі споживачем за допомогою різних каналів. Визначено, що, аналізуючи дані за зазначеними каналами, підприємство має можливість удосконалення маркетингової діяльності завдяки виявленню існуючих інтересів споживачів, прогнозуванню майбутніх потреб та використанню персоналізованих маркетингових комунікацій на основі отриманої інформації.

**Ключові слова:** інформаційні потоки, інформаційне забезпечення, мультиканальна стратегія, омніканальна стратегія, інформаційні технології у торгівлі, маркетингові стратегії.