

# The breakthrough development of digital business

## Desarrollo empresarial digital innovador

NATORINA, Alona<sup>1</sup>

### Abstract

In this article, the author considered online buyers' reviews / comments as a starting point for qualitative changes and the breakthrough development of digital business. Based on the empirical study results, the author identified the impact of reviews / comments on the digital business with other key factors influencing online buyers' decisions, determined and proved their interrelations. Focusing on that, the author developed compilers of improving the work efficiency with reviews / comments for the breakthrough digital business development.

**Key words:** Digital Business, Online Buyer Reviews and Comments, Retail

### Resumen

El autor consideró las reseñas / comentarios de los compradores en línea como una base del desarrollo revolucionario de los negocios digitales. Según los resultados del estudio, el autor determinó y demostró el impacto de las revisiones / comentarios en el negocio digital con otros factores clave que influyen en las decisiones de los compradores en línea. Centrándose en esto, el autor desarrolló compiladores para mejorar el trabajo con revisiones / comentarios para el desarrollo innovador del negocio digital.

**Palabras clave:** Comentarios y Comentarios de Clientes en Línea, Negocios Digitales, Venta Minorista

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## 1. Introduction

In order to achieve qualitative changes and successful development of digital business in the modern context of globalization and the transformational economic shifts of the market, it is important to focus on a holistic understanding of the demands, needs and preferences of online buyers because they determine the scale of the digital business, and their reviews / comments serve as a starting point for qualitative changes and the breakthrough development of digital business. Therefore, for the digital business development, which includes trade through the online store, it is important to correct organize the work with reviews / comments of online buyers.

### 1.1. Literature Review

The systematic guides changes for the digital business development on the international markets in terms of digital transformation, as well as creating a positive reputation in the Internet based on the IT management and maximum satisfaction of online buyers, were described in the fundamental works of scientists: V. Nissen et al., (2018); F. Nwaiwu (2018); D. Sz wajca (2019); N. Vasic, et al.,(2019). Without diminishing the importance of

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<sup>1</sup> PhD (Economics), Head of the International Economics, Accounting and Finance Department, Academician Yuriy Bugay International Scientific and Technical University, Kyiv, Ukraine. Contact e-mail: alyonanatorina@gmail.com

scientific development, it should be noted that the questions related to the representation of the level satisfaction in published online buyers' reviews / comments is researched fragmentary, as well as the impact of these reviews / comments on the management and development of the digital business in the digital transformation period.

A wide range of leading scientist and experts in different marketing fields studied the characteristics of decision-making by online buyers and identified the factors of influence on their behavior (H. Dittmar, et al., (2004); Nguyen, et al., (2018)). In addition, Helversen, et al., (2018) noted the strong influence of buyer reviews on online purchasing decisions in the specific marketing segments. However, the symbiosis of factors influencing the behavior of online buyers in the terms of digital transformation requires detailed consideration.

The relevance and importance of online buyers' comments / reviews in online stores and at different marketplaces are highlighted in the articles by M. Mohanty, et al (2020); G. Lackermair et al (2013); P. Pavlou and A. Dimoka (2006). Also, it should be noted that despite studies of this problem, the interrelations between other factors influencing the behavior of online buyers and their decision-making are still not clearly and fully disclosed.

The aforementioned emphasizes the importance of conducting the study of the online buyers' reviews / comments impact on the digital business development. Taking these factors into account it will be possible to implement the qualitative changes in digital business and do breakthrough business development in the context of digital transformation.

## **1.2. The study purposes and the object**

The main purposes of the study are:

- (1) to identify the role and impact of reviews / comments on the digital business development along with the other key factors influencing the online buyers' decisions, and determine their interrelations;
- (2) to develop compilers of improving the work efficiency with online buyers' reviews / comments for the breakthrough development of the digital business.

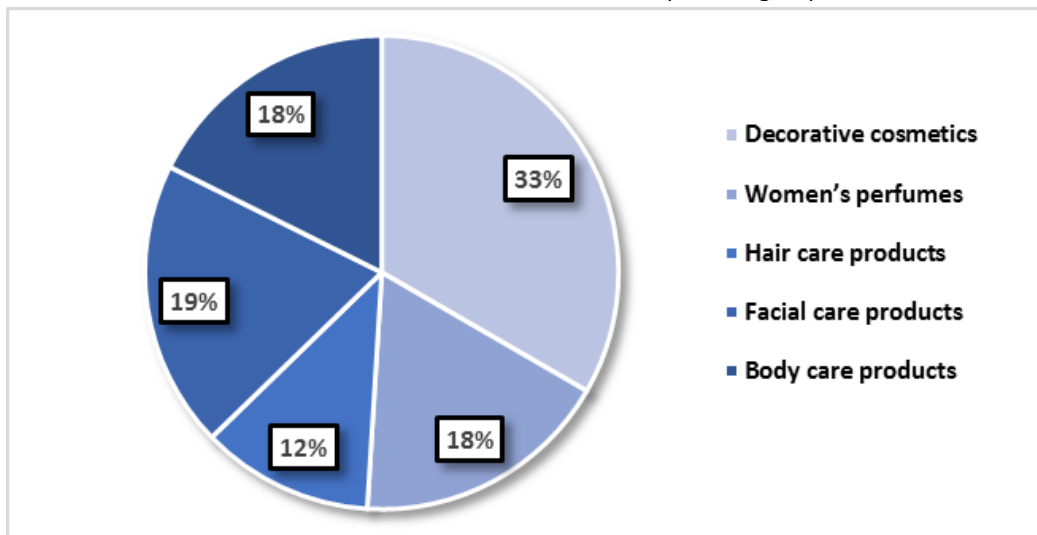
The object of the study is the digital business of one of the Ukrainian retailer-drogerie, which sells its products through the online store (as continuation of the study A. Natorina, 2019).

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## **2. Methodology**

Based on the generalization, systematization of literary sources and a comparative analysis of the empirical studies results of well-known companies at the national and international levels (All Retail, 2019; EVO, 2020; Kantar, 2020; Nielsen, 2019; Statista, 2020), it is determined the influence of online buyers' reviews / comments on the number of purchases in online stores. At the same time, it is justified the strong influence of the product price, its "star rating" (the average product rating) on the online purchases. Given the above, it is important and necessary to study the interrelations between the numbers of online purchases of products and online buyers' reviews / comments to them, as well as their average product rating in the online store. Therefore, it was carried out the monitoring and analysis of 51 products in the Ukrainian drogerie online store from 2019's Q1 to 2019's Q4 in five product groups with different product categories (Figure 1).

**Figure 1**  
The structure of the studied online store product groups



Source: Created by the author

It is important to note that in order to obtain objective research results, it was selected products in the online store whose prices and demands had been permanently changed during 2019, so there were no online buyers' reviews / comments to them, as well as the average product ratings as of January 1, 2019. Furthermore, most of those products were new in the online store product range. To systematize, standardize data and correctly interpret the research results, the following measures were implemented:

The average products prices in 2019's Q1-Q4 were calculated and scales with equal intervals that interpreted their price ranges in the structure of the corresponding product groups were developed (Table 1).

**Table 1**  
The price ranges of product groups

No	Product group	Price range	
		high ( <i>hp</i> )	low ( <i>lp</i> )
1	Decorative cosmetics	$335,5 \leq p \leq 595,0$	$76,0 \leq p < 335,5$
2	Women's perfumes	$929,5 \leq p \leq 1666,0$	$199,0 \leq p < 929,5$
3	Hair care products	$451,0 \leq p \leq 803,0$	$99,0 \leq p < 451,0$
4	Facial care products	$537,0 \leq p \leq 899,0$	$175,0 \leq p < 537,0$
5	Body care products	$298,0 \leq p \leq 551,0$	$45,0 \leq p < 298,0$

Note: *p* – price.

Source: Developed by the author

The number of online buyers' reviews / comments for each product in the online store range in 2019's Q1-Q4 was counted.

The number of online purchases of products in the online store during the four quarters of 2019 was identified.

The average product ratings in the portfolio of the retailer's online store were calculated in 2019's Q1-Q4. The average product ratings reflect a 5-point online buyer's score of: (1) the product efficiency; (2) the "price-quality" ratio of the product; (3) the pleasure of the product usage.

The type and characteristics of demand for the analyzed products set in the online store in 2019's Q1-Q4 were determined.

### 3. Results

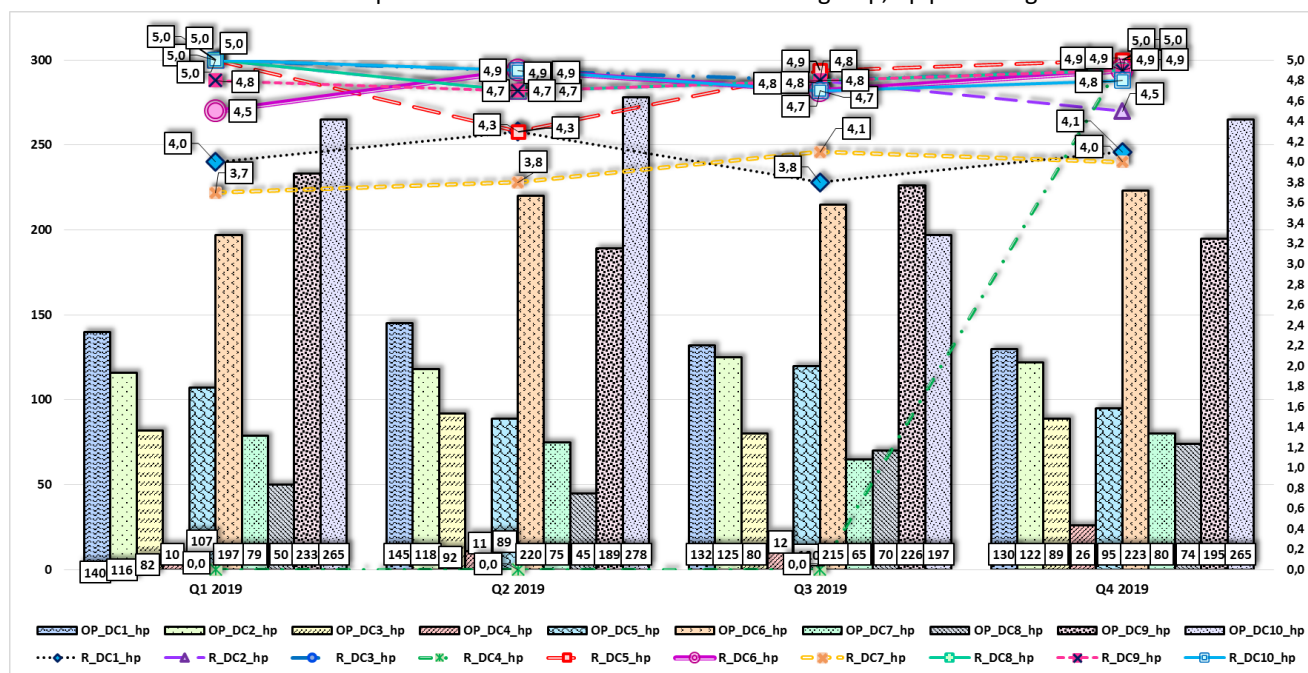
During the study, it was identified the features of the average product rating that influence the number of online purchases in various product groups. In particular, the determination of the interrelations between the number of online purchases in the online store and the average product ratings in the “Decorative cosmetics” group was carried out according to the study of 17 products from 11 product categories in different price ranges, the demand for which was systematically changing during 2019. In the *hp* price range, it was analyzed the interrelations among 10 products in 6 categories: the mascara (*OP\_DC1\_hp*, *OP\_DC2\_hp*, *OP\_DC9\_hp*, *OP\_DC10\_hp*), the powder (*OP\_DC3\_hp*, *OP\_DC5\_hp*), the face and eyes makeup palette (*OP\_DC4\_hp*), the lipstick (*OP\_DC6\_hp*), the concealer (*OP\_DC7\_hp*) and the corrector (*OP\_DC8\_hp*).

It was found that with a decrease in the average product rating in the “Decorative cosmetics” group there was a decrease in the number of online purchases. The maximum online sales of products in the *hp* price range was observed with the average product rating of 4.8 to 5 points. Whereas in most of the studied product categories in the Ukrainian retailer’s online store in the same price range, the maximum sales volume was achieved with the average product rating of 4.8-4.9 points. It is determined that this situation was due to high prices for decorative cosmetics in the online store compared to other priority competitors in the Internet during 2019. In addition, this was due to the online buyers’ feelings about the risk of making irrational choices and buying products, and that could not take into account their individual needs and preferences. The Figure 2 represents the interrelations between the average product rating and the number of online purchases in the “Decorative cosmetics” group in the *hp* price range.

The dependence of online purchases from the average product rating in the “Decorative cosmetics” group in the *lp* price range was revealed using 7 products from 6 categories: the lip pencil (*OP\_DC1\_lp*), the lip and cheek balm (*OP\_DC2\_lp*), the lip balm (*OP\_DC3\_lp*), the eye contour pencil (*OP\_DC4\_lp*), the mascara for eyebrows (*OP\_DC5\_lp*), the lipstick (*OP\_DC6\_lp*, *OP\_DC7\_lp*). According to the results of the study and its comparative analysis, it was found that with the average product rating of 4.8 and 4.9 points, the number of online purchases was the largest. The volume of online sales of *OP\_DC4\_lp* was the exception, where even with an increase in the number of online buyers’ reviews / comments, the average product ratings in 2019’s Q1, Q2 and Q3 were 5 points. These were due to the high quality characteristics of the product in the “Decorative cosmetics” group, which provided a steady demand among online buyers in 2019. In general, it can be stated that a decrease in the average product rating in the “Decorative cosmetics” group in the *lp* price range during the study period negatively affected the volume of the Ukrainian drogerie online sales – reduced the number of online purchases.

**Figure 2**

The interrelations between the average product rating and the number of online purchases in the “Decorative cosmetics” group, hp price range



Notes: *R\_DC1\_hp... R\_DC10\_hp* – the average product ratings in the “Decorative cosmetics” group, *hp* price range  
 Source: Created by the author

The consolidated results of the empirical study made it possible to identify the interrelations between the maximum number of online purchases, the average product rating and its price range (Table 2).

**Table 2**  
 The interrelations between the maximum number of online purchases, the average product rating and its price range

No	Product group	Average rating in different price ranges	
		<i>hp</i>	<i>lp</i>
1	Decorative cosmetics	4,8-5	4,8-4,9
2	Women’s perfumes	4,9	4,7-4,9
3	Hair care products	4,9	4,9-5
4	Facial care products	4,8-4,9	4,8-4,9
5	Body care products	4,8-4,9	4,8-4,9

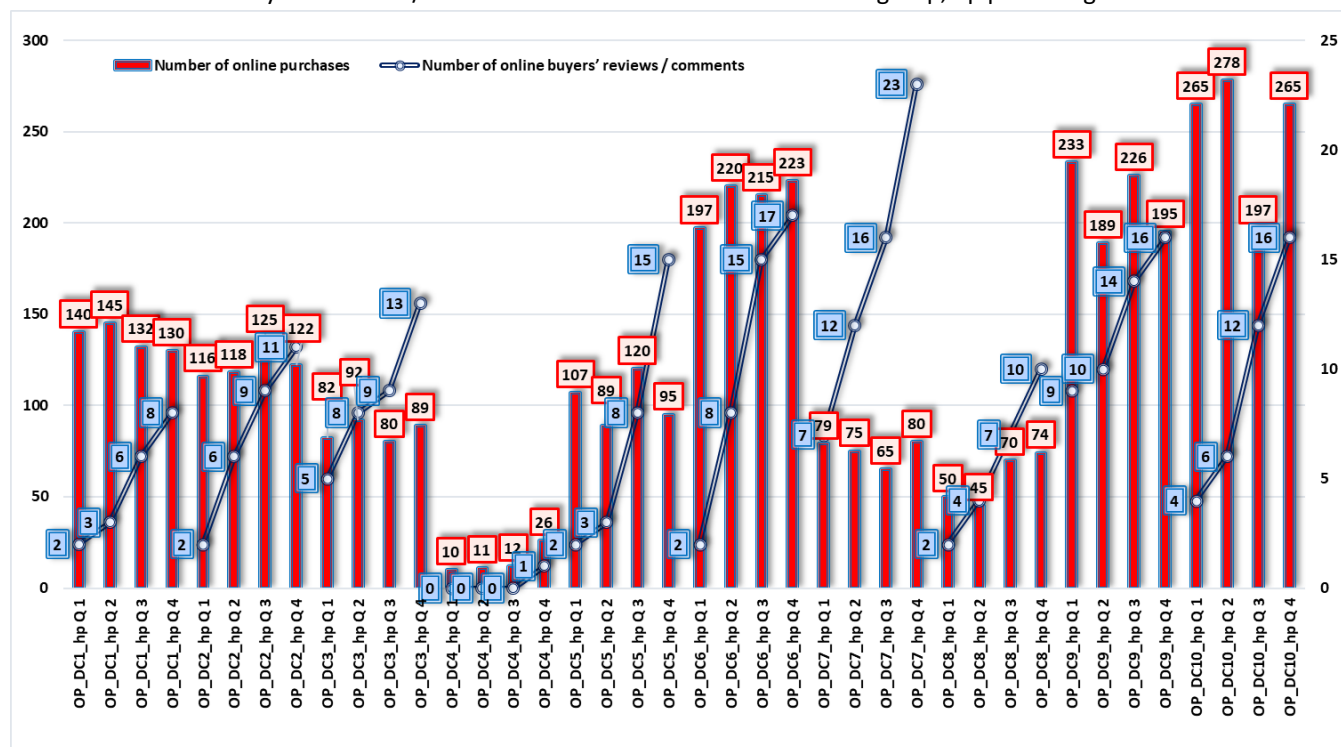
Source: Developed by the author

According to the Table 2, the optimal average product rating is one of the prerequisites for ensuring maximum sales in the online store. It varies depending on the product group and price range. It is proved that the average product rating of 5 points does not guarantee the maximum number of online purchases of products in the online store range, excluding products in two groups:

The “Decorative cosmetics” group in the *hp* price range. High prices for products compared to rivals in the online environment and online buyers’ risks perceptions of purchasing products that not take into account their individual needs, reflect the fundamental importance of the average product rating of 4.9-5 points for online buyers as a guarantee of the correct choice (Figure 3);

The “Hair care products” group in the *lp* price range. This is because of the stable demand of these products due to their high quality characteristics in the systematic updating absence in the online store product range.

**Figure 3**  
The interrelations between the number of online purchases and the number of online buyers’ reviews / comments in the “Decorative cosmetics” group, hp price range



Source: Created by the author

According to generalized data (Table 2), in all other product groups, the average product rating of 4.8-4.9 provides a favorable background for the maximum number of online purchases in the retailer’s online store.

During the research, it was determined the tendency in which the average product rating that based only on positive reviews / comments causes online buyers’ distrust and skepticism, and vice versa, negative reviews / comments increase the level of online trust and were perceived by online buyers’ as more reliable. Considering the above, the retailer needs to make sure that online buyers can see in the online store some negative and / or neutral reviews / comments about the products, which are not be able to change their decision about online purchases.

It was also determined that with the average product rating of 5 points, in the presence of positive and neutral online buyers’ reviews / comments and the low average price (for example, in the case of the retailer’s promotional offer within the implementation of an intensive marketing communication policy), the online sales of products were increase. Moreover, the summary data are showed that the negative online buyers’ reviews / comments were carried significant impact on the likelihood of online purchases of high-priced products in the online store, and the average product rating decrease was led to online sales reduce.

The set of reviews / comments about the product in the online store determines the average product rating and has a significant impact on the online buyers’ choice when they make the final decision about perspective online purchases. Therefore, in order to determine the features of the impact of reviews / comments on the online store’s sales, the interrelations between the number of online purchases of the studied set of goods in the

context of the respective product groups and categories, as well as reviews / comments on these products, were investigated.

According to the results of the systematization and synthesis of data from the study, it was found that:

- a large number of reviews / comments did not guarantee the maximum online sales of products in the online store;
- the review / comments affected the number of product's purchases in the online store if only the online buyers trusted to the authors who published these reviews / comments.

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## 4. Conclusions

### 4.1. The key factors influencing the online buyers' decisions

Based on the results of the study of Ukrainian retailer's digital business in the Internet, the key factors that influence on the online buyer's decisions regarding the purchase of certain products in the online store are identified:

1. The product price.
2. The risks associated with the online purchase of different products.
3. The stability of the product demand / demand seasonality.
4. The average product rating ("star" rating), which reflects the effectiveness of online buyer's product usage, the ratio of the product price and its quality, the nature of online buyer's experience as well as the degree of their expectations and satisfaction from the purchases.
5. The number, type and content of reviews / comments.
6. Online trust to the online store and the other online buyers, including those who registered in the online store, has the personal account and systematically publish reviews / comments about the products.

### 4.2. The compilers for the breakthrough development of the digital business

Online buyers' reviews / comments have a significant impact on the online store's sales and can be used by the retailer as a background for developing effective strategies to build and enhance its image and reputation in the Internet, as well as increasing short- and long-term online sales. Therefore, below the text, it is suggested and interpreted compilers of improving the work efficiency with online buyers' reviews / comments for the breakthrough development of the digital business.

The accumulation of efforts to collect positive and neutral reviews / comments that can positively influence the decision-making of online buyers, especially when they choose products with high prices.

The extraction the top of online buyers' negative reviews / comments about the product and making relevant management decisions to correctly respond to them and leveling out the possible negative consequences for the digital business reputation.

The generation and publication of timely responses to online buyers' reviews / comments, which will form the positive attitude to the digital business image in the online environment.

The inability to remove online buyers' negative reviews / comments about products, because their presence helps to the digital business form and increase the level of online trust and loyalty.

The permission to publish reviews / comments only to registered online buyers with simultaneous simplifying the registration procedure in the online store and the usage of authorization through a Google account and / or profiles in social networks.

The adding option “score of the online buyer review / comment usefulness” in the web site of online store and providing the opportunity for unregistered online buyers (visitors of the online store) to make a score.

The creation of the additional option for online buyers on the product web page that helps sort reviews / comments by the following parameters: (1) high and low utility; (2) the greatest and least popularity; (3) high and low “star” rating; (4) publication date (new, old).

The implementation of the individual / personalized approach to online buyers and maintaining analytics.

Thus, it is necessary and significantly important for the breakthrough development of digital business permanently update management strategic and tactical decisions in real time to increase the number of positive online buyers’ reviews / comments in the online store, due to the fact that its are crucial to the reputation and image formation in the Internet.

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