Determinants of Customers Behavior in Online Group Buying Markets of the Western Balkans Countries
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ABSTRACT – The field of this research is a specific part of electronic commerce called group buying on the Internet or online group buying in terms of theoretical assumptions and key determinants of customers behavior in online group buying. The basic theoretical concepts of customers decision making in online group buying are analyzed: social exchange theory, equity theory and heuristic model. The basic characteristics of competitive environment are established and customer behavior in online group buying is analyzed in terms of website performance and heuristic factors of customer decision making within national markets of selected countries of the Western Balkans.

KEY WORDS: online group buying, customer behavior, heuristic model, Western Balkans

Introduction

Given that the group buying on the Internet or online group buying (OGB for short) is primarily a sales and marketing business model, for its success are especially important determinants of the market, such as customer behavior in group buying and market performances of suppliers and online group buying services in the context of a specific terms of competitive environment.

OGB is a specific form of electronic commerce where the products or services can be purchased with a significant discounts in the case that the offer reached a sufficient number of interested buyers. Although it seems like a simple business model, the nature, content and processes in the online group buying require a complex analysis of the competitive environment and the different aspects and relations between participants in online group buying.

Every business model produces a variety of specific customer behavior. The model of OGB uses different factors to influence customer behavior on the website, which offers services and products. The successful offers on the website must reach the required minimum number of customers.

OGB business model designers should understand the factors that determine the decision to purchase and use it to influence social intelligence about position of their offers. Social buying (and OGB) uses social intelligence (the ability to understand and manage the buyers) in order to create profitable opportunities for business (Erik Eliason, Yohanes Frezgi and Fatima Khan, 2010).

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In a significant number of cases, it is a first time that customers are confronted with a certain company (supplier, vendor) on the website of OGB service. Values and discounts determine the attraction level to consumers, although it affects the perception of the supplier’s product/service. Usually, consumers will first collect information about the supplier before they decide to buy, therefore it is crucial to have satisfied consumers that give positive feedback and comments. With better grades and comments about supplier’s product/service, the brand of the supplier becomes stronger, and the OGB service becomes less needed. Goal of each offer on the online group buying website is to attract the customer, who will eventually come back and purchase the product/service at full price in official market. (Alex Cohen, 2012)

For research on consumer behavior in OGB the most important questions are:

- What theoretical concept of customer decision making can be applied to OGB?
- How the customer accepts this form of shopping?
- Why does the customer accepts this form of shopping?
- What are the main reasons for making a decision to purchase?
- Besides economic, what psychological determinants are important (group effect, motives, expectations, security of transactions, etc.)?
- How competitive environment influences the behavior of customers?
- How much does the seller and online service impact the purchase?
- Is the OGB business model compliant to theoretical models? Etc.

Therefore, the subject of the study relates to the role, structure and intensity of the key determinants of customer behavior in a business model of OGB in the context of competitive environment and OGB service management in order to achieve long-term profitability to suppliers and OGB service, and to satisfy customers’ needs and desires. The purpose of the research is to identify and explain the competitive environment and key determinants of customer behavior in a business model of OGB. The purpose is also to determine the characteristics of the applied business model of group buying in terms of website performances and decision making factors of the customers within the national markets of selected countries of Western Balkans: Serbia, Croatia and Bosnia and Herzegovina.

Basic theoretical concepts of customers decision making applied to online group buying

Taking into account the specifics of e-commerce and OGB business model, customer behavior in group buying has characteristics of individual and group behavior in shopping. Due to this interaction, research and identification of patterns in customer behavior in OGB is more complex compared to traditional shopping.

Main motive for customers to participate in OGB is usually intent to save money, however, the studies have shown, motives tend to change and develop into more dimensions over time. Those changes were influenced by the development of online social networks and competition among online group buying services as well. With development of social networks the perception of information exchange, interaction and knowledge sharing among customers has changed. Customers have a feeling that they benefit from sharing and
exchanging the information (Wen-Lung Shiau and Margaret M. Luo, 2012). Therefore, customer satisfaction can be managed through OGB business model, so it is necessary to present different theoretical approaches and empirical results on decision making and customer behavior in group buying. In the literature, we can find three dominant theoretical concepts, as analyzed below.

**Theory of a social exchange**

In the research (Shiau and Luo, 2012) the factors that impact the intention of the customers to participate in group buying were studied. The level of reciprocity and reputation of social exchange, trust and creativity of a supplier that impact on customer satisfaction and intent to shop online were studied as well. The concept of the research was based on the theory of social exchange in terms of online group buying by applying factors such as reciprocity, reputation, trust and satisfaction. These factors were identified as very important in online and offline shopping.

Theory of the social exchange is a concept based on: expectations (prize, contribution and social association) and anticipation (unpredicted prizes and reciprocal relation).

Motives for knowledge exchange were identified as egoistic and altruistic. Egoistic motives imply that certain behavior is a result of the economical reward, while altruistic motives imply that one is willing to increase the welfare of all, not expecting anything in return.

This research used knowledge exchange factors (reciprocity, reputation and trust) in order to define factors that influence the intention of individual to participate in online group buying, but altruistic motives were omitted with assumption that participation in online group buying does not include motives to increase welfare of other customers, and it only includes motives for personal gain. However, online group buying participants share their knowledge and expect feedback from other participants, because of mutual benefits. Reciprocity, reputation and trust affect the perception of social prize. Results of the study show that intention of a customer to enroll into OGB can be predicted based on their satisfaction, trust and creativity of the OGB service. Satisfaction of the customer in the online group buying initialy is predicted by the trust customer is showing, then by the customer reciprocity.

**Theory of equity**

By the use of theory of equity as conceptual basis in the research (Tracy L. Tuten & Christy Ashley, 2011), it is studied how the customers evaluate the offers and how this value exceeds into future positive outcomes for suppliers, including the intention to purchase again and positive “word-of-mouth” marketing. The subject of the research is also how small companies can make the most of OGB market.

The theory of equity suggests measuring costs of participation of customer compared to achieved benefits which results in estimated value. In the context of group buying, perception of the transaction value is connected to three benefits:

- Practical - perception of monetary benefit
- Hedonistic - perception of research benefit
Symbolic - perception of social benefit.

This research has shown that small companies have to find a way to increase the perception of the transaction value. That can be achieved by noticeable price difference (discounts), by increasing the perception of research and social aspects of the offer. Other recommendations for small businesses that want to exploit the benefits of online group buying, to increase the transactions, and to build awareness about their offers and brand are following:

- Make sure that group buying market at particular geographical region matches the target market;
- Create product/service offer that assures brand promotion regardless of the customer demand;
- Plan the initial offer so the costs of attracting new customers does not exceed the revenue from the offer or has negative impact on transactions with current customers;
- Encourage satisfied customers to share their positive experience with friends, family etc.;
- Measure the success rate of the offer by counting sold offers and return of customers attracted by the offer on group buying website, and based on that, create future offers;
- Collect information about customer satisfaction and accept their suggestions in order to create better offers (emphasize that customer privacy is assured).

**Heuristic model of customer decision making**

This customer decision making model has six dimensions: popularity, authority, reciprocity, affiliation, consistency and scarcity. This model is used in case study (Eliason, Frezgi and Khan, 2010) of group buying and all six dimensions were taken into account. This approach provides useful frame to influence positive decision making of the customers under the psychological pressure. In the context of OGB the each of these six dimensions is explained.

**Popularity:** popularity is powerful tactic that impacts customer behavior. The popularity principle implies that group affects the individual. Traditional e-commerce websites do not show how many products have been sold or the popularity of certain offer, while OGB websites transparently give these information and use them to attract even more customers. Group buying websites also allow comments and questions from the customers relevant to the offer or supplier. Usually, comments are positive. Another successful tactic that increases popularity of the offer or supplier is sharing information on Facebook, Twitter or some other social network.

**Authority:** When it comes to decision making people often ask experts for their opinion. Experts with their knowledge reduce the users’ time needed for decision making. These decisions are affected by news reports, politicians or comments on social networks. Online group buying services apply relevance tactic by showing articles and news reports published by relevant media. They publish users’ comments from other websites, like Yelp and OpenTable (in USA) where these users were given a title of “local experts”. Actually, group
buying services create their own relevance through branding and claim that they are experts for offers, local businesses and things that people should visit or try out.

Reciprocity: reciprocity principle is applied to group buying through different methods, such as exclusive approach. Reciprocity represents certain procedure of individual or company, believing that other side will compensate their initiative. Customers usually believe that supplier rewarded them with discounts through online group buying.

Scarcity: online group buying services apply the principle of scarcity in order to encourage certain customer behavior. It is well known that products become even more attractive when they are less available. In practice this principle is constructed so it seems to customers that products or services are exclusive. Compared to popularity principle where it is what people gain by shopping, scarcity principle is based on what people lose by not buying. On group buying websites this principle is applied by creating time and quantity limitations on the offers.

Affiliation: affiliation principle shows the behavior where customers follow other customers, brands or products they like. This principle represents believe that customers like people, brands and products they are familiar with or similar to. Group buying services use this principle in order to increase quaintness and mutual interest among customers in same cities.

Consistency: when customers find their position, usually they tend to keep it. Offer published on group buying website contains information about the offer, terms, supplier, and about the customer as well. Customers want to be identified by the content of the offer and supplier activities. For example, fitness, sauna and gym offers usually attract trendy customers who live healthy life. Customers behave consistent and stay consistent to their actions from the past.

**Key determinants of customers behavior in online group buying**

Because group buying happens online, it has to be mentioned that the internet has made major changes in customers behavior. In OGB model customers behavior factors are: (1) individual factors of customers behavior in OGB, (2) group behavior factors, (3) social factors and (4) e-commerce factors.

**Individual factors of customers behavior in OGB**

Individual factors of customer behavior in group buying, besides the usual factors in theory of customer behavior, are ability to use the Internet, sensitivity to price and discount perception, and trust in the supplier and online service.

Most common factors used in research of customer behavior are: consumer resources and economic status, gender, age, education, profession, life style, psychological characteristics such as: motives, emotions, character, memory, knowledge, attitudes, preferences, habits, loyalty, shopping flow, impulsive shopping tendency etc. Examples are Groupon and LivingSocial, leading online group buying services in USA with over a million customers and subscribers. Research has shown that average user of OGB service is a woman at age of 28, with college degree and household revenue over $100K a year (Eliason, Frezgi and Khan, 2010).
In 2012, there was a research in Croatian GfK (GfK Croatia - market research center, 2012) on subject of online group buying. Research showed that 64% of online users are members of group buying and that they receive newsletter from 2-3 OGB services. More women (73%) than men (54%) receive newsletter. Around 50% of online users (80% members) have made at least one purchase through a group buying service. Although women are more often to be members of a group buying service, research has shown that men are more often to realize the purchase (88%:75%). These purchases were usually related to cosmetic services (haircuts, pedicure, manicure, and other treatments - around 24%). Purchases related to specific products and travel bookings come second (around 20% each), then gastronomic offers (around 20%), followed by purchases related to clothes, footwear and accessories (around 10%) (GfK Croatia - market research center, 2012).

Buying “invisible” goods, payment terms, shipping cost and time or service execution, and after sale services (complaint, service and maintenance) are important factors in making an attitude about online transaction. Although online group buying service communicates with customer and is considered as mediator, supplier is usually responsible for product/service quality and other terms of transaction in online group buying.

OGB is based on discounts (at least 50% off) and according to the author (Dragutin Gutić, 2006) customers perceive those discounts as shown in the following table 1. Theoretically, discounts can cause positive and negative reactions among customers. In the group buying the effects are similar, so discount perception can be a very important factor in purchase decision making.

<table>
<thead>
<tr>
<th>Negative perception</th>
<th>Positive perception</th>
</tr>
</thead>
<tbody>
<tr>
<td>• If the product was any good, it would be sold by now.</td>
<td>• It was about time they lower the prices.</td>
</tr>
<tr>
<td>• Obviously they have sales problems.</td>
<td>• Obviously they want to increase transactions.</td>
</tr>
<tr>
<td>• Probably product’s expiration date is closing up, so they want to get rid of it as soon as possible.</td>
<td>• That is my chance to buy that product.</td>
</tr>
<tr>
<td>• Probably there is a brand new similar product.</td>
<td>• It is expected since it is seasonal product.</td>
</tr>
<tr>
<td>• Suppliers made their commissions too high and now they are lowering them.</td>
<td></td>
</tr>
<tr>
<td>• Supplier is facing bankruptcy, so he made stock clearance.</td>
<td></td>
</tr>
</tbody>
</table>

Other elements can also cause a negative perception of the customer, such as the time limit of the offer. Offers on the OGB websites usually have time limit, and sometimes the offer is active only for one day. This practice is good because otherwise it could lead to counter effect and questions from customers like (Robert J. Kauffman, Hsiangchu Lai & Chao-Tsung Ho, 2010):
• What is the real price of a product or a service if it is offered for a long time with a significant discount?
• Why is it so hard to sell a specific product or a service, and why can it only be sold on the OGB market?

The decision to purchase products and services, in general, can occur in two ways: (1) mostly planned, especially if it is a product for daily use or products with brand, where customers behave routinely, and (2) impulsive or unplanned. Given the specifics of the OGB model and mostly unsegmented approach to the customers, their behavior in this model is very similar to the characteristics of customers who purchase in impulsively rationally manner. Impulsively rationally purchase is based on rational criteria. It means that the subject of purchase is not currently needed, but it is purchased because it is on sale and it is a special offer. OGB model exactly meets the characteristics of this way of purchasing. Of course with this type of purchase the other factors must also be taken in consideration, such as tendency to e-commerce, experimentation and innovation in purchasing, satisfaction of participating in group buying, satisfaction with the award (lower price and other benefits), the impact of the group, etc.

The study (Irem Eren Erdogmus and Mesut Cicek, 2011) based on the survey results explained the motives, behavior and perceptions of customers in online group buying in Turkey. Although the OGB expects customer satisfaction, loyalty and „word-of-mouth“ marketing, this study has shown that it often leads to a disappointment of customers due to price sensitivity and transactional orientation.

This study showed that discount rates are the main motive for participating in online group buying. However, searching for news, exploring and learning have also proved to be important factors for participation in OGB. Customers mostly perceive OGB as a way to enrich their experience and discounts enable them to buy something they wouldn't otherwise buy. In addition to the discount rates, the decision to purchase is usually affected by the location of provider of products or services, and the perceived value of the product/service.

The influence of groups and social factors on the behavior of customers in online group buying

Group factors of customer behavior in OGB are specific compared to the traditional approach to influences of group factors on behavior. In addition to groups, group status, group interaction, group norms, the role of leaders and followers is a little more specific in this purchasing model. In the OGB model the relevant and reference group have important influence on customer behavior (the principle of popularity), as well as aspects of social acceptability of some purchases.

The relevant or reference group includes a set of individuals who contact each other in a given period and who have common needs and goals (Stevan Vasiljev and Ljubomir Trufunović, 2006). The group in the OGB business model is a set of individuals gathered in order to buy a particular product or service at a discounted price, which have indirect contact with each other through the OGB service. These individuals don't need to know each other. Among these individuals there are some who are committed to promoting and
attracting new customers because they are expecting additional bonuses. This principle where customers follow other customers in OGB is called the principle of similarity.

Customers generally value opinions of other people, friends, family and other formal and informal groups, and that is usually based on the principle of popularity and similarity. The presence of groups in the purchasing situation encourages customers to behave in a way that benefits OGB.

Social factors that are important for e-business, and thus for online group buying include legal and political environment, the state of the economy, demographics, but the most important for OGB are the IT culture of the population and technical infrastructure. The following factors are crucial for the development of e-business market: computer literacy, adequate telecommunication networks, hardware and software support, the regulations for the use of Internet services and economic status of the participants as a prerequisite for the purchase of necessary equipment.

E-marketing and customer behavior in online group buying

E-marketing factors are used to directly impact and effect customer behavior. Those factors include the basic elements of the marketing mix 4P and 7P, online infrastructure, platforms and websites of OGB services.

Different tactics and techniques of e-marketing and social media can be used for the implementation of business strategies.

Tactics are generally associated with a marketing mix, while e-marketing techniques used in the OGB business model are (Božidar Radenković, Marijana Despotović-Zrakić and Zorica Bogdanović, 2011b): E-mail marketing, permission marketing, viral marketing, affiliate marketing, referral marketing, one-to-one marketing, etc.

Social media are online media for social interaction and they include social networks, online communities, creating groups, Internet forums, message boards, blogs, and every kind of sharing photos, audio and video clips. For example, the power of social applications in Groupon's business model consists of the following (Vinny Wu, 2010): integration with the Facebook account, so there is no need for additional registration, location-based business, every city has an independent Twitter or Facebook account, $10 bonus for a recommendation to a friend, subscription to a newsletter, RSS, and API. As the additional marketing methods Groupon uses: blog (one of the ways to communicate with customers and suppliers), Groupon Says/ Live Off, reward system for referrals and personalized service in order to increase trust and reduce the emotional distance and barriers.

"Word-of-mouth" marketing is especially important in online group buying. The key purpose of marketing is to manage demand, level of demand and timing (Philip Kotler, 2003). OGB marketing usually integrates all the factors that influence the decision to buy on the group buying website.

In the study (Erdogmus and Cicek, 2011) that analyzed Turkish market of online group buying, it is established that OGB is suited for companies that offer products or services and whose buyers are reluctant in traditional shopping. This study has shown that buyers are more interested in different services, like recreational activities, than products. When OGB service is posting a new offer, they should make sure that their target market, who lives nearby, hears about the offer, goes to a website and makes a purchase. The offer should also
contain the information about the supplier of products/services and it should be presented as a reliable, reputable and high quality so that buyers reduce perceived risks. OGB service should publish guarantee and compensation schemes for the buyers. As such, OGB service can gain the trust and loyalty of customers and competitive advantage on the market.

**Personalization and creating a consumer value in online group buying**

Personalization allows customers to personalize the content that is presented to them on the website based on their preferences (Božidar Radenković, Marijana Despotović-Zrakić and Zorica Bogdanović, 2011a). In online group buying it means that two users can be on the same website at the same time and see completely different offers. Personalization is implemented by using different technologies that enable web server to collect information about buyers and based on that to present relevant offers to a particular buyer.

There are three key elements in the process of personalization:

1. The mechanism responsible for personalization
2. The criteria for personalization
3. What exactly adjusts to user – content, design, functionality of a website, etc.

Personalization is usually realized by forming groups of users. Groups are formed based on different criteria, such as common demographic, geographic and other characteristics.

Modern web technologies enable automatic collection of data on each web user. The users can voluntarily leave information about themselves by filling out different questionnaires and forms on the website. Once the web server collects enough information about the user, it puts user in a particular group and displays the content intended for that particular group of users. It is necessary to clearly define which requirements a user must meet to be classified into the group. Depending on the size of a group, there may be different levels of personalization. Once the groups of buyers are identified, it must be defined what exactly on the website will adjust to what group of users.

OGB service collects information about customers that can be divided into:

- Information that customer voluntarily submits during registration or by filling out the form or questionnaire
- Buyer evaluates and ranks different offers, and based on that OGB service understands buyers preferences
- Information on previous purchases (type of offer, how often they buy, how much they spend, etc.)
- Information about buyers behavior on the website (clickstream, which offers they watch, etc.)

Group buying services use personalization to create a suitable situation for all participants in online group buying. Customers are satisfied because they have a personalized shopping experience, and they can see the offers they are most interested in. Suppliers are satisfied because they have the opportunity to approach the most relevant customers, while OGB service benefits when it effectively and efficiently meets the needs of customers. By doing this, OGB service builds a better relationship with customers and it encourages them to return to the website.
In the framework of personalization in online group buying it is important to give the customers the option to review offers, suppliers, products and services offered on the group buying website.

**Empirical research of the competitive environment and customers decision making model in online group buying market of the Western Balkans**

Competitive environment of the OGB business model represents the segment of the external environment (industry), which includes all OGB services that offer products or services by the principles of online group buying and the market where OGB services sell these products or services. The industry of OGB is characterized by products and services sold by the OGB service and customers who purchase these products or services.

In addition to technical characteristics, the content of a website can have a positive impact on customer decision making about participating in online group buying. OGB services create and present content on the website in the way that customers are often under psychological pressure to buy and social media is used for the same reason on OGB websites. Therefore, the adequacy of information presented on a website influences the intention of customers to participate in OGB, to say „yes“ under psychological pressure and social media are all crucial factors of the OGB website. These factors can be considered in the context of a theory, such as the theory of social exchange or theory of six heuristic factors. This second theory provides a suitable framework for determining the adequacy of the information presented on a website. Compliance of the information that influence customers decision making can be explained based on the indicators of a website content on the premise of six heuristic factors.

**Theoretical concept of empirical research**

The theoretical concept of empirical research is based on the premise that the characteristics of the competitive environment are important for understanding the customers behavior in OGB model. Important characteristics of the competitive environment in the OGB market are as follows: number of significant OGB services, OGB website rank, the dynamics of change in rank, market structure, spatial aspect of the market, strategic groups, etc. In addition to the competitive environment and the characteristics of the offer, the content of websites is an important factor in customers decision making about participating in OGB. The adequacy of information can be examined based on the website content and how it influences the intention of customers to participate in online group buying, which is the goal of heuristic model of OGB customer behavior.

Heuristic factors (variables) of customers decision making are identified based on the indicators of website content and related social media, including:

- Popularity: information on the number of sold offers, the popularity of a particular offer, the option to comment and ask questions about the offer or supplier, the option to share offer on Facebook, Twitter and other social networks, review of products or services;
Authority: displaying articles or reports published by authoritative media, user reviews from other websites (e.g. In USA Yelp or OpenTable), branding, claiming they are experts for offers, local activities and things to do and see in the city;

Reciprocity: exclusive access, the belief that customers are already awarer in the form of discount;

Scarcity: it is not about what customers gain if they make a purchase, it is about what they lose if they don’t buy a particular offer, offers on the OGB websites can be limited by time and sometimes quantity;

Affiliation: interest among buyers in the same geographical area, offering products or services to a large groups of customers;

Consistency: personalization, information about suppliers and products/services from the buyers’ perspective.

Performances of the OGB websites are identified in the context of heuristic model and they are divided into four groups of indicators, which is presented in Table 2.

Table 2. Performances of the OGB websites

<table>
<thead>
<tr>
<th>Indicators of the market and offers</th>
<th>E-metrics</th>
<th>Social media indicators</th>
<th>Mobile application indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of cities</td>
<td>Reviews</td>
<td>Facebook likes</td>
<td>Android</td>
</tr>
<tr>
<td>Rewards for buyers</td>
<td>Personalization</td>
<td>Google +1</td>
<td>iOS</td>
</tr>
<tr>
<td>Prize games</td>
<td>Average website load time</td>
<td>Twitter followers</td>
<td></td>
</tr>
<tr>
<td>Payment methods</td>
<td>Average time spent on a website</td>
<td>YouTube views</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>RSS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Google PageRank</td>
<td>Blog</td>
<td></td>
</tr>
</tbody>
</table>

Methodology of empirical research

The research covered the industry of online group buying in selected countries of the Western Balkans: Serbia, Croatia and Bosnia and Herzegovina. The time coverage referred to the second half of the year 2012.

There are no registers of OGB services on the observed markets, rather the data on the basic set (the list of OGB service on the selected market), their presence and performance were obtained from various sources. Significant presence on the market of group buying was found for the following services: in Serbia 37, in Croatia 31 and in Bosnia and Herzegovina 5 services of OGB. On the selected market a sample of five best rated sites of online group buying for each country were taken from the site (Alexa.com) and the sites of services (for Bosnia and Herzegovina).

Gathering the data was made by primary and secondary research. The primary data were gathered by the method of observation applying the analysis of the content from web pages, while the secondary data on research units were taken from their websites and the site
(Alexa.com) about buyers. Groupon – a website and business model of the most successful online service was used as a benchmark for websites in the sample.

The instrument for gathering primary data was a form for observation of websites of the selected OGB services which was used to gather the data on the presence or absence of various types of website performances, such as: system of rewards, prize games, comments on the offer and seller, personalization, review and so on. The rest of the data from websites are secondary ascertainments and they refer to: features of the offer (category, discount, savings, duration, efficacy), amount of sold offers, sharing information on social media, opinions and reviews of the media and buyers, savings for buyers, restrictions of the offer and offer category.

**Analysis of competitive environment on the markets of group buying in the Western Balkans countries**

Analysis of competitive situation in the branch of group buying in the countries of the Western Balkans was conducted by determining the key features of competitive environment, which is presented in table 2.

<table>
<thead>
<tr>
<th>Features of competitive environment</th>
<th>Bosnia and Herzegovina</th>
<th>Croatia</th>
<th>Serbia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of more significant services of OGB</td>
<td>5</td>
<td>31</td>
<td>37</td>
</tr>
<tr>
<td>Services of OGB according to the rank of the site</td>
<td>1 to the rank of 300</td>
<td>1 to the rank of 100</td>
<td>1 to the rank of 100</td>
</tr>
<tr>
<td></td>
<td>4 above the rank of 500</td>
<td>5 to the rank of 500</td>
<td>7 to the rank of 500</td>
</tr>
<tr>
<td>Dynamics of changes</td>
<td>Growth with undeveloped market participants</td>
<td>Growth</td>
<td>Stagnation of fall</td>
</tr>
<tr>
<td>Market structure</td>
<td>Monopoly to oligopoly</td>
<td>Oligopoly</td>
<td>Oligopoly</td>
</tr>
<tr>
<td>Spatial aspect of the market</td>
<td>Mostly national markets</td>
<td>Mostly national markets</td>
<td>Mostly national markets</td>
</tr>
<tr>
<td></td>
<td>Number of cities from 1 to 6</td>
<td>Families of services regionally present</td>
<td>Families of the services regionally present</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of cities from 6 to 23</td>
<td>Number of cities from 2 to 20</td>
</tr>
<tr>
<td>Strategic groups</td>
<td>Identified market leader and lower group</td>
<td>Identified market leader, corporative innovators and corporative followers</td>
<td>Identified market leader, corporative followers and low group to differentiation dreamers</td>
</tr>
</tbody>
</table>
Development of competitive environment in a branch of group buying may be evaluated on the basis of the number of OGB services. It is obvious that the branch of OGB in Croatia and Serbia is on a such institutional level that it enables the development of this branch (in Croatia 31 significant service was identified, and in Serbia 37), while this branch in Bosnia and Herzegovina is undeveloped (identified 5 significant services).

If we take into account the criterion of positioning the OGB service according to the rank of a site it can be noted that all three markets are not the most popular with respect to electronic markets. In Serbia and Croatia only 1 service is among the first 100, while in Bosnia and Herzegovina the most popular service is of the rank 201-300. Also a small number of OGB sites is among the first 500 sites, so that in Serbia there are 7 of those, in Croatia 5, and in Bosnia and Herzegovina merely 1.

If we observe the dynamics of changing the sites of OGB service it can be noted that both in Croatia and Serbia the market leaders strengthened their market position and improved their rank, while in Croatia the rest of the sites improved their rank, and in Serbia the sites of services mainly stagnated or considerably worsened their rank. In Bosnia and Herzegovina, which has an undeveloped market structure, the market leader has significantly improved his rank, and the follower has also improved his rank, however, other sites have significantly decreased their ranks.

The markets of group buying in the selected countries converge to approximately oligopoly structure (five competitors together have at least 75% of market participation), which is acceptable taking into consideration the level of development of these countries and development of the market of e-commerce. Oligopoly structure is characterized by the branch of OGB of Croatia and Serbia, while in Bosnia and Herzegovina prevails monopoly to oligopoly structure of the group buying market on the Internet. On the market of group buying in Croatia and Serbia this process is currently ongoing, while in Bosnia and Herzegovina the existing and new online services that will create stable oligopoly structure are yet to be recognized. Services of OGB are mainly oriented towards national markets in all three countries. It has been noticed that certain families of services of OGB are present on the regional market.

When it comes to strategic groups a classification was made for services in the following five groups: market leader (have many or enough resources and a large market participation), corporative innovators/differentiators (have enough resources and despite the low market participation, they try to differentiate, which puts them on a promising position), corporative followers (have enough resources, but low market participation and low level of differentiation), differentiation dreamers (have very restricted resources, low market participation, but an average or high level of differentiation) and low group (low level of differentiation and focus, low market participation, as well as resources and possibilities).

Seven significant competitors of group buying were identified in Serbia (by the popularity of website), which can be classified in the following strategic groups: market leader, four corporative followers and two services in low group to differentiation dreamers.

Five significant competitors were identified on Croatian OGB market, which can be classified in the following strategic groups: market leader, three corporative innovators/differentiators and one corporative follower.
Bosnian and Herzegovinian OGB market is undeveloped, so that the leader on the market does not have the features of a true market leader, but is closer to the features of corporative follower in the sense of following the basic business model of group buying.

Implementation of heuristic model of decision making of web users on the participation in group buying

Under the application of heuristic model for identification of factors of decision making of web users for group buying that refer to website OGB service features, an analysis was conducted for the content of websites of all services from the aspect of heuristic factors and indicators they are measured by. Tables 4 to 9 show the similarities and differences between the OGB services in the context of heuristic models in the selected countries of the Western Balkans: Serbia, Croatia and Bosnia and Herzegovina.

<table>
<thead>
<tr>
<th>Similarities</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>• All sites have prominent number of offers</td>
<td>• Smaller number of services in Serbia do not have the ability of commenting</td>
</tr>
<tr>
<td>• Presence on social networks (Facebook and Twitter)</td>
<td>• Larger number of services in Croatia do not have the ability of commenting</td>
</tr>
<tr>
<td>• They have the ability of sharing information on social networks</td>
<td>• Smaller number of services in Croatia do not have the possibility of sharing offers on social networks</td>
</tr>
<tr>
<td>• They have the ability of commenting offers and asking questions</td>
<td></td>
</tr>
<tr>
<td>• Most of the services do not have Android and iOS applications</td>
<td></td>
</tr>
</tbody>
</table>

When it comes to popularity only a small number of services do not satisfy the criteria defined by the indicators. Mainly all sites have prominent number of offers and possibility of sharing offers on social networks. The sites also have the possibility of commenting offers and asking questions.

Average time spent on the site in Serbia is from 2:52 minutes to 11:15 minutes, while all the sites have below-average value of Google Page Rank, on the level 4, with respect to the most popular sites with the value 10.

In Croatia the average time spent on an OGB site is from 3:05 minutes to 6:30 minutes. In Croatia one site has an average value of Google Page Rank 5, while the rest of the sites have below-average value.

For Bosnian and Herzegovinian OGB market it is in effect that the average time spent on a site is from 2:05 minutes to 3:32 minutes. All sites of group buying in Bosnia and Herzegovina have low value of Google Page Rank (from 1 to 3).

All of the services on the observed markets are present on Facebook and Twitter with different number of likes and followers.
Table 5. Similarities and differences of OGB sites with respect to the variable of authority

<table>
<thead>
<tr>
<th>Similarities</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Mainly do not show articles and reviews published by competent media</td>
<td>• In Croatia and Serbia strong branding of OGB services and suppliers</td>
</tr>
<tr>
<td>• Mainly do not show reviews of the users on concrete offers, sellers,</td>
<td>• In Bosnia and Herzegovina branding is inadequate since there are unsuccessful</td>
</tr>
<tr>
<td></td>
<td>products and services</td>
</tr>
<tr>
<td>• Services mainly do not give the possibility of review</td>
<td>• In Serbia there are services that give the possibility of review</td>
</tr>
</tbody>
</table>

The criterion of authority is not met by the vast majority of services. A small number of OGB services contain a link to reviews of diverse media related to that service. The users are partially enabled to value and write their opinion on concrete offers, sellers and services.

Table 6. Similarities and differences of OGB sites with respect to the variable of reciprocity

<table>
<thead>
<tr>
<th>Similarities</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Savings are mainly emphasized</td>
<td>• In Croatia and Bosnia and Herzegovina the savings are mainly shown</td>
</tr>
<tr>
<td>• Only participation in group buying means a prize in the form of discount</td>
<td>monetarily or in percentage</td>
</tr>
<tr>
<td>• System of prizes and prize games is present but not dominant</td>
<td>• In Serbia there are services which only show the savings in percentage</td>
</tr>
</tbody>
</table>

Reciprocity as a factor of decision making is on a satisfactory level with all services. Some services practice expressing savings for buyers in money and percentage, while some have decided for expressing only the percentage.

Table 7. Similarities and differences of OGB sites with respect to the variable of scarcity

<table>
<thead>
<tr>
<th>Similarities</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Offers mainly have temporal and/or quantitative restrictions</td>
<td>• In Serbia offers are present without temporal or quantitative restrictions</td>
</tr>
<tr>
<td>• Products or services look like exclusive (mainly successful offers)</td>
<td>• In Croatia and Bosnia and Herzegovina most of the services restricted the offers</td>
</tr>
<tr>
<td></td>
<td>temporally and quantitatively by coupons per person (buyer)</td>
</tr>
<tr>
<td></td>
<td>• In Bosnia and Herzegovina non-exclusivity is present due to unsuccessful</td>
</tr>
<tr>
<td></td>
<td>offers</td>
</tr>
</tbody>
</table>

Even though scarcity is one of more important factors effecting the behavior of buyers on a site of online buying, OGB services have not fully used the influence of this factor. Some of the services have not clearly restricted the offers neither temporally, nor quantitatively, while some also restrict offers by total amount and amount of coupons per person.
Table 8. Similarities and differences of OGB sites with respect to the variable of affiliation

<table>
<thead>
<tr>
<th>Similarities</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Most of the services do not build mutual interest between buyers in same cities</td>
<td>• In Serbia an average affiliation (more than 5 sold coupons)</td>
</tr>
<tr>
<td>• For the success of offer mostly needed small number of coupons</td>
<td>• In Croatia there is no, or it is a weak feature of affiliation (up to 4 sold coupons)</td>
</tr>
<tr>
<td>• Most of the services have offers that succeed only with one sold coupon</td>
<td>• In Bosnia and Herzegovina mainly weak affiliation (up to 2 sold coupons)</td>
</tr>
</tbody>
</table>

Services in the region have not used the influences the factor of affiliation has on buyers in the best way, so that there are considerable lags in implementation of this criterion. With respect to the system of reward and prize games, OGB services that apply them have similar approaches, most frequently a prize of a buyer when a friend to whom the buyer recommended the offer makes the purchase.

Table 9. Similarities and differences of OGB sites with respect to the variable of consistency

<table>
<thead>
<tr>
<th>Similarities</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>• All have presented content on seller and offer from the aspect of buyer</td>
<td>• In Croatia with smaller number of services the detailed content on the seller and offer is not present</td>
</tr>
<tr>
<td>• Personalization is present, but not dominant</td>
<td></td>
</tr>
<tr>
<td>• Same means of payment (cards, e-banking and deposit slips)</td>
<td></td>
</tr>
</tbody>
</table>

From the above stated it can be concluded that consistency as a factor of decision making with buyers is on a satisfactory level with all OGB services in the observed countries, except from personalization as a form of personalized offers that are shown on a site and personalized offers in newsletters, which is not adequately present on websites of services in the region.

Conclusive considerations

Behavior of a buyer in group buying is an important market determinant of business model in group buying. This market determinant is important both for supplier, and for the OGB service. Systematization and analysis of factors in behavior with buyers by the system of group buying have determined various aspects, structure and intensity of governing determinants of their behavior.

Theoretical concepts for analysis of buyers decision in the system of OGB are identified and clearly given. Theories of social exchange, theory of equity and heuristic model of buyers decision making are specially analyzed.
Particular factors of buyers behavior in group buying are analyzed in the context of perception of price reduction, behavior in a group and under the influence of e-marketing factors and personalization.

In the empirical part of the work it has been affirmed that market structure of group buying in Serbia and Croatia has oligopoly features, while in Bosnia and Herzegovina it is monopoly to oligopoly. The market of group buying in the period of observation in Serbia had stagnation or a fall, in Croatia growth, while in Bosnia and Herzegovina the growth of market was emphasized, but with undeveloped market participants both on the side of offers and the side of demand. Markets of group buying in the selected countries converge to approximately oligopoly structure that is acceptable concerning the level of development of these countries and the development of e-commerce.

The market of group buying in Bosnia and Herzegovina is on a low level of development, with respect to the number of present OGB services, observed needs of sellers for group buying, as well as education of buyers and encouragement of satisfaction of their needs with participation in group buying.

Structure of heuristic model buyers decision making implemented in group buying was analyzed. Indicators were identified that can measure each of these dimensions. Heuristic model is implemented in the OGB market of the countries of the Western Balkans. It has been determined that OGB services in the region have not used the influences that some of the factors from heuristic model have in adjusting their sites to the principle of their implementation, so that there is a lot of space for enhancement of functions and design of websites in the context of this model.

References


Determinante ponašanja grupe internet kupaca na tržištima zemalja zapadnog Balkana

REZIME – Područje istraživanja u radu je specifičan dio elektronske trgovine nazvan grupna kupovina na Internetu ili onlajn grupna kupovina s aspekta teorijskih postavki i ključnih determinanti ponašanja kupaca grupne kupovine. Analizirani su osnovni teorijski koncepti odlučivanja kupaca primenjeni na onlajn grupnu kupovinu: teorija društvene razmene, teorija pravičnosti i heuristički model. Utvrđene su osnovne karakteristike konkurentskog okruženja i ponašanje kupaca u grupnoj kupovini s aspekta performansi veb sajtova servisa i heurističkih faktora odlučivanja kupaca grupne kupovine unutar nacionalnih tržišta odabranih zemalja zapadnog Balkana.

KLJUČNE REČI: onlajn grupna kupovina, ponašanje kupaca, heuristički model, zapadni Balkan

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