

THE ROLE OF SEGMENTATION IN E-MAIL MARKETING

FILIP ŠINKO MORANDINI, mag. oec.

Faculty of organization and informatics Varaždin, University of Zagreb
fsinko@foi.hr

Associate professor **DAMIR DOBRINIĆ**, Ph. D.

Faculty of organization and informatics Varaždin, University of Zagreb
damir.dobrinic@foi.hr

ABSTRACT

E-mail marketing is considered the fastest growing form of communication technology in history, while the globalization and the accelerated development of technology have managed to bring Internet and e-mail services to a broad range of the world population. The latest trends show that the importance of e-mail marketing will grow even further with a significant usage of personalization in promotional campaigns. Thus, a quality segmentation of existing and potential customers is highlighted as a necessary element of today's marketing activities. Segmentation represents a process of dividing the market on different groups (segments) of customers considering some of their common characteristics. Many studies have shown that well segmented campaigns generate greater return on investment and achieve better open rates, click through rates and conversion rates. As two popular analytical segmentation techniques, RFM method and customer lifetime value (CLV) are presented in this paper. RFM method is a three-dimensional way of ranking customers according to the time since their last purchase, frequency and total value of their last purchases. Customer lifetime value (CLV) is the net present value of all future profits generated by the existing or potential customers of the company. The goal of this paper is to present the theoretical assumptions of the role of segmentation in e-mail marketing and to show the results of the research about the use of customer segmentation in e-mail marketing at Croatian companies.

KEYWORDS: personalization, segmentation, marketing, e-mail, direct marketing

1 INTRODUCTION

According to Vasudevan (2010) e-mail marketing is considered as "the promotion of products and services via e-mail." It is pointed out that e-mail marketing is a form of direct marketing that uses e-mail as means of communication with an audience for commercial purposes. Every e-mail message sent to a potential or existing customer can be considered as e-mail marketing. According to Chaffey (2009) some of the forms of e-mail marketing are:

- Conversion e-mail - the user visits a web-site, expresses interest in a product or service by registering and providing their e-mail address without buying anything. Then it is possible to send an e-mail message to that address to convince the user to try the product or service for which they showed an interest.
- Regular e-newsletter - sent periodically (on a monthly or a quarterly basis, etc.) and with different content for different publics and segments.
- House-list campaign - periodic e-mail messages sent with different objectives, e. g. encouraging trial of a service, repeated purchases or reactivation of customers who no longer use a service.
- Event-triggered - they are not regular and are sent out perhaps every 3 or 6 months containing news about a new product or service.
- E-mail sequence - various software can send out series of e-mail messages in intervals determined by a marketing expert.

Considering the nature and the availability of today's Internet communication, relatively low costs are considered the primary advantage of e-mail marketing (especially compared to other forms of direct marketing). Several authors, including Chaffey (2009), Ružić et al. (2014), Dobrinić et al. (2005), Vasudevan (2010), Bawm and Nath (2014) state low costs as the primary advantage of e-mail marketing. Including the speed and the above mentioned low costs, the advantages and the disadvantages of e-mail marketing according to Chaffey (2009) are shown in the Table 1.

Table 1. Advantages and disadvantages of e-mail marketing

ADVANTAGES OF E-MAIL MARKETING	DISADVANTAGES OF E-MAIL MARKETING
1. Direct response encourages immediate customer action.	1. Problems with sending e-mail messages because of different Internet providers, corporate firewalls and different web-mail systems.
2. Rapid development of the marketing campaign.	2. Difficulties with showing creativity within different e-mail readers.
3. Simpler personalization.	3. Decline of answers.
4. Ability of testing.	4. The difference between the communication preferences of recipients.
5. Ability of integration and combination with other marketing forms.	5. The need for additional work resources.

Source: adapted from Chaffey D. et al. (2009), *Internet Marketing: Strategy, Implementation and Practice*, 4th edition, Pearson Educated Limited

Just like any other marketing or business activity, e-mail campaigns should be monitored and evaluated and acted upon to improve their future results. Every organization defines itself which metrics it will focus on, but there is one common guideline for every organization - metrics used to monitor e-mail campaigns must match the business goals of the campaigns they are part of. Therefore, enterprises should define their key performance indicators (KPIs). In order to increase the relevance of those indicators, it is necessary to combine them in a systematic model for monitoring e-mail campaigns performance. The key performance indicators are divided into generic and specific ones. According to Charlesworth (2009), Chaffey et al. (2009), Ružić et al. (2014) and Kolowich (2016), the generic key performance indicators of an e-mail campaign are:

- Delivery rate
- Open rate
- Click through rate (CTR)
- Conversion rate
- Viral rate
- Comparison of e-mail campaigns

Charlesworth (2009) also mentions the specific key performance indicators of e-mail campaigns: the number of units sold, the number of orders placed, the average order amount, total profits, the number of downloads, response rate of opened messages and clicks on the ad inside the message, and the mailing list growth rate.

2 SEGMENTING CUSTOMERS IN E-MAIL CAMPAIGNS

"Marketing segmentation is the process of aggregating individuals and businesses along similar characteristics that pertain to the use, consumption, or benefits of a product or service." (Strauss, El-Ansary, Frost, 2003) The procedure of segmentation is present in all marketing activities, mostly with a goal to increase the effectiveness of marketing campaign, that is, to reduce the cost of actions conducted towards customers who are not interested in particular offers, products or services. Segmentation has its application also in the e-mail marketing by determining and decomposing market segments and sending and acting towards them with more personalized messages. Although current technology allows e-mail marketers to send bulk e-mail messages, this so called generic segmentation can lead to irrelevant e-mail campaign and in the worst case to marking the sent message as spam (Bawm, Nath, 2014). Analyzing different authors it can be concluded that segmentation represents the procedure of dividing the market on different homogenous groups of users (segments) according to their common preferences, patterns of behavior and other characteristics which are the foundation of further process of targeting and choosing the right strategy for each segment. In that context, the most notable methods of segmentation are the RFM analysis and determining the customer lifetime value. Kotler, Keller and Martinović (2012) define four main variables of segmentation: geographical,

demographical, psychographical and behavioral, while Ružić, Biloš and Turkalj (2014) mention also the segmentation according to user status, segmentation according to usefulness and segmentation of industrial markets (B2C).

Both academic researches and practices pointed out the importance of applying the segmentation strategy, so Hiziroglu (2013) states that segmentation strategy is “an important method to achieve more targeted communication with customers“. According to Green and Krieger (1991) marketing segmentation is based on several basic presumptions:

- Market segmentation presupposes customer heterogeneity.
- Heterogeneity of preferences for products or services is linked with 1) personal variables (e. g. demographic and psychographic characteristics, loyalty towards a certain brand etc.) and 2) situational variables (e. g. gift purchasing vs. buying for yourself) and their interactions.
- Companies can react to the heterogeneity of preferences by modifying the characteristics of existing products or services, distribution and promotion.
- Companies are undertaking actions mentioned above if they estimate that it will bring them greater net benefit.

According to Hughes (2006) segments are groups of customers with similar interest in products or services that are based on their demographic characteristics and lifestyle; while Kotler, Keller and Martinović (2012) state that the market segment consists of a group of consumers that share a common set of needs and desires. According to Hughes (2006) an ideal segment is the one which:

- has definable characteristics in terms of behavior and demographics (e.g. students, families with small children etc.),
- is large enough in terms of potential sales to justify a marketing strategy,
- encompasses customers who can be motivated to modify their behavior in ways that are profitable for the company,
- makes efficient analysis of available data,
- can be measured and monitored in performance.

The question is how many segments a company should have. According to Hughes (2006), a company should have as many segments as it can successfully manage and that for most of them ten segments are sufficient.

After reviewing and defining various potential segments, marketing experts should decide on the best approach towards each segment. This requires an optimal balance between market environment and company's expertise and resources. Then they decide about the strategy while Strauss, El-Ansary and Frost (2003) mention four different approaches:

- 1) Mass marketing - one marketing mix for the entire market.

- 2) Multisegment marketing - two or more segments and designed marketing mix strategies tailored to each segment.
- 3) Marketing niche - one segment and one or more marketing mixes developed to meet the needs of that segment.
- 4) Micromarketing – a part of or entire marketing mix adapted to a very small number of people (in an extreme case, marketed to a single person).

After selecting the segmentation strategy, the company must ensure an adequate infrastructure for the implementation of the segmentation plan. After selecting the right strategy and ensuring sufficient infrastructure, the next step is the development of the action plan which represents a guide for the development and implementation of the segmentation strategy and shows how to get from one point to another. According to Hughes (2006), the action plan includes:

- a roadmap showing what will happen and when it will happen,
- a budget for the infrastructure and for the marketing segment plans,
- standard application of segmentation - how to maintain consistency and control while providing flexibility and localized power,
- an organigram showing responsibilities for each segment,
- specific goals to be achieved with milestones for measurement of success.

As the e-mail marketing function is correlated with the goals of the company, such as increasing the revenues, cost reduction or market positioning, companies are looking for different ways to increase their own effectiveness and the effectiveness of their e-mail marketing campaigns. In this context, the segmentation is a powerful mechanism. In the context of e-mail marketing, we talk about the mailing list segmentation, or the segmentation of the lists of subscribers who gave permission to be included on that lists. The goal of segmentation in e-mail marketing is to identify groups of customers with biggest tendency of forming online relationship (Chaffey, 2003). Then each segment is accessed with the chosen marketing strategy. According to Chaffey (2003), some simple analytical tools like category analysis and determination of the customer lifetime value with the RFM method are used to identify segment.

Bawm and Nath (2014) present a model for effective e-mail marketing consisting of two main components: 1) Collecting subscribers' activities data, and 2) Subscriber segmentation. Before the start of the segmentation process, every subscriber is marked as a general subscriber, and their basic data is stored in the database. These raw data will be used for further segmentation. During the segmentation, subscriber's activities are tracked according to two key variables: the open rate and the click rate of the e-mail messages. After finishing the first component, the grouping and segmenting the data starts. Segmentation is executed according to the similarities of subscribers' activities throughout the marketing campaigns rather than according to their gender, location or response rate. To segment subscribers based on their interests and activities, Modified K-Means Clustering Algorithm is used (Nath et al., 2010). Subscribers' open rate, click through rate, purchase rating and impression on products are used for clustering

subscribers. This research is conducted with the assistance of an Internet marketing expert who owns a list of several thousands of subscribers. At the end of the experiment, the overall percentage of activities such as open rate and click rate increased by as much as 10 % and using relevant clustering the researchers were able to increase ROI by 43 % with the highest result of 77,80 % in June, which is very significant.

Segmentation of e-mail marketing lists achieves higher e-mail messages open rates and click through rates. In that context, Mail Chimp, one of the most popular e-mail marketing services, conducted a research in 2016 on a sample of 2 000 users who use list segmentation tools and send about 11 000 segmented campaigns to almost 9 million recipients. The results are shown in Table 2:

Table 2. Comparison of results of segmented and non-segmented campaigns

Opens:	13,07 % higher than non-segmented campaigns
Unique Opens:	9,68 % higher than non-segmented campaigns
Clicks:	51,92 % higher than non-segmented campaigns
Bounces:	1,70 % lower than non-segmented campaigns
Abuse Reports:	8,67 % lower than non-segmented campaigns
Unsubs:	8,28 % lower than non-segmented campaigns

Source: adapted from Mail Chimp (2016.) Effects of List Segmentation on Email Marketing Stats, available at: <https://mailchimp.com/resources/research/effects-of-list-segmentation-on-email-marketing-stats/> [1.8.2016.]

2.1. RFM ANALYSIS

RFM is a model developed by the direct marketing experts by monitoring purchases according to certain variables with a goal of classifying (or ranking) their best and worst customers. RFM model represents an acronym of English expressions that define customers' behavior - "recency", "frequency" and "monetary". Within that model, customers are ranked according to the recency of their last purchase, how often they purchase (frequency) these products or services and how much they spend on them. The model is based on the Pareto principle which states that 80 % of revenue comes from 20 % of (best) customers. According to Dobrinić, (ed.) (2011) the RFM analysis is the oldest analytical technique of customer behavior prediction and has been used for more than 50 years. This fact alone points out the importance and applicability of this model which some authors highlight as "the most powerful and simplest model to implement CRM." (Khajvand et al., 2010)

"RFM analysis is a three-dimensional way of classifying or ranking customers to determine the top 20 % or best customers. It is based on the 80/20 principle that 20 % of customers bring in

80 % of revenue" (Aggelis, Christodoulakis, 2005). The three-dimensionality marks ranking customers according to three attributes: recency - time since their last purchase; frequency - how often they purchase; and monetary - total value of their purchases. RFM analysis is also applicable in e-mail marketing and is used as a model of customers' behavior prediction and as a segmentation technique as well. This is especially important for selecting the right target groups and sending them the right content. The following Table 3 shows how RFM attributes can be adapted in e-marketing and e-mail marketing:

Table 3. Examples of RFM attributes e-marketing and e-mail marketing

Recency	Frequency	Monetary
- date of the last purchase - date of the last visit to the web site - date of the last open e-mail message	- number of purchases in an interval - number of visits to the web site in an interval - number of messages opened - number of web sites logins	- total amount spent in an interval - total number of points awarded based on web site activity (commenting, reviewing, recommending, etc.)

Source: adapted from Dobrinić D. (2011.) Marketing and databases, Faculty of Organization and Informatics Varaždin

Some authors, like Stone, Jacobs (2001), and Chuang, Shen (2008) recommend in their researches the WRFM - weighted RFM analysis. They suggest that, depending on the industry the company operates in, higher weight is assigned to the R, F or M attribute. Using the AHP method, relative weightiness of RFM attributes is determined. On the other hand, Cheng and Chen (2009) suggest the model that connects RFM attributes and k-means clustering algorithm (one of the popular clustering algorithms known as Forgy method) into RS theory not only to increase the classification precision but improve company's CRM as well. Additionally, the theory effectively corrects the deficiencies in data mining. Other researchers expand and develop the RFM model, and add additional attributes. Yeh et al. (2008) introduce an expanded RFM model called RFMTC model (Recency, Frequency, Monetary, Time since first purchase, Churn probability) which can estimate the probability that the customer will repeat the purchase and the expected value of the total number of purchases in the future. The findings have shown that the proposed model provides more predictive accuracy than RFM model. Also, because of the increased importance of e-mail communication, Coussement and Poel (2008) presented an extended RFM model by adding socio-demographic and other transactional variables (eRFM) and a model adding emotional variables to eRFM (eRFM-EMO model). The findings have shown that eRFM-EMO model has better results in predicting customers' behavior.

2.2. CUSTOMER LIFETIME VALUE (CLV)

Alongside the already mentioned RFM analysis, customer lifetime value (CLV) represents one of the most popular and most widely used segmentation techniques. Using this technique, customer's future purchases can be predicted, which is one of the most important reasons CLV is used so often. Many authors define this technique and they all agree in several defining points. Hughes (2016) points out that CLV is the net present value of all future profits generated by a specific number of new or existing customers throughout a specific number of years. Customer lifetime value is the current value of all future profits generated by company's customers and clients (Khajvand et al., 2010). According to the same author, the calculation of CLV is widely applicable, and several authors developed models for its application, such as performance measurement, customer targeting, allocation of marketing resources, product offer, and customer segmentation. The CLV determination can help marketers to determine the effects of adopting a marketing strategy and in making a more informed pricing policy. (Berger and Nasr, 1998)

3 RESEARCHING THE SEGMENTATION IN E-MAIL MARKETING

3.1. INTRODUCTION AND METHODOLOGY

The goal of the research was to complete the findings of the way the sales/promotional activities via direct marketing, especially e-mail, are done in Republic of Croatia, whereby the validity and purposefulness of using segmentation from the aspect of enhancing response (action) rates was considered.

The methodology of the research is based on a survey and the analysis of its results. The sample used in this research consists of 74 companies with CEOs or heads of marketing departments responding. E-mail addresses of the surveyed entities were collected using the Kompas platform database. E-mail messages that contained the URL leading to the survey were designed with Google Forms and were sent to 1,876 e-mail addresses on a weekly basis. The survey was sent in six campaigns via Mail Chimp, an e-mail marketing system for sending bulk e-messages.

3.2. RESEARCH RESULTS

Analyzing the obtained results from 74 respondents, we can conclude that the most usual respondent is a small enterprise (45,90 %) operating in the ICT sector (22,97 %) on both B2C and B2B markets. E-message is the primary form of sale/communication with their customers for 58,10 % respondents.

Furthermore, the most common reason for using e-mail is the sale of products and services and informing customers (83,90 %), followed by customer relationship development (79,00 %) with use of e-mail, as a form of sales communication, for more than 5 years (77,40 %). While using e-mail, respondents mostly use their own mailing lists (79,90 %) and they generate them mostly directly from their customers (28,25 %) and through their own contacts (15,22 %). Respondents' opinion of the support to forming a legal customers' information database market in Republic of Croatia is divided, with 37,10 % of respondents supporting and 30,60 % not supporting the formation of the database market, and 32,30% abstained from responding.

74,20 % of respondents have formed databases of their customers inside their company, with most databases up to 1,000 names (39,10 %), followed by the database size 1,000 to 3,000 names (28,30 %). The information included in the databases is most frequently name and surname, or the name of the business subjects, followed by the type of the purchased product or service (69,60 %), type of the customer (60,90 %), number of all purchases (43,50 %), and the amount of all previous purchases (41,30 %).

Most respondents (73,90 %) use that information for market segmentation, while the primary purpose of the market segmentation is targeted selection (76,50 %) and different treatments of customers (64,70 %). The most commonly used variable/criterion for segmentation is the customers' interest (79,40 %), followed by geographical criteria, the amount of purchases in a specific time period and the value of purchases in a specific time period with 26,50 %. The success of the segmentation process is best evidenced by the fact that 32,40 % of the respondents increased their response/reaction rate of their customers in e-mail marketing activities by up to 2 %; 29,40 % by 2-5% and by more than 5%, by some other percentage rate 5,90% of respondents, while 2,90% of respondents did not have an increase in the rate.

From all the respondents that use segmentation in their operations, only 11,80 % of them use it to track their customers' lifetime value, while 23,50 % of them use it sometimes for some customers. From the respondents who don't use segmentation to track customers' lifetime value, only 13,00 % of them plan to use it in the future, while 43,50 % of them abstain from responding. 8,80 % of the respondents completely agree with the statement "E-mail marketing campaigns based on tracking of customers' lifetime value contribute to a greater response/reaction rate of customers.", while 2,90 % of the respondents completely disagree. It should be pointed out that $\bar{x} = 3,12$; $\sigma = 0,96$, and $V = 30,89$ %. According to these results we can conclude that, regarding the deviation in the results, the differences between respondents are obvious because the absolute and relative measures of variation are somewhat more significant. The most frequent response is $M_o = 3$.

47,50 % of the respondents do not create profiles of their good/bad customers based on the segmentation, while only 9,10 % of them plan to create them in the future. 20,60 % of the respondents completely agree with the statement "Customer profiling enhances the success of

e-mail marketing campaigns", while no one completely disagrees. $\bar{x} = 3,88$; $\sigma = 0,72$, and $V = 18,49$ %. Relative deviation (V) indicates a noticeable homogeneity of the respondents. The most frequent answer is $Mo = 4$.

27,00 % of the respondents completely agree with the statement "Customer segmentation can increase the response rate (reaction/action) of customers in an e-mail marketing campaign.", while 1,40 % of the respondents completely disagree. With this statement $\bar{x} = 3,91$; $\sigma = 0,87$, and $V = 22,34$ % which also indicates that the respondents are approximately equal in their responses and that they do not significantly differ. The most frequent response is $Mo = 4$.

As the reasons why they do not conduct segmentation, 41,50 % respondents marked a relatively small market they operate on, 39,00 % of them marked incomplete databases, and 31,70 % of them marked insufficient logistical support.

Only 9,50 % of the respondents are familiar with the RFM technique which is used to identify profitable customers; it is not used by any of the respondents and only 4,10 % of the respondents plan to use it in the future. From the respondents that use the RFM technique, 70,00 % find it a very useful analytical technique. From all the respondents, 14,90 % have formed opt-out lists (spam or Robinson's lists) with the addresses of the customers that do not accept the direct sales communication form.

3.3. RESEARCH CONCLUSION

Analyzing the results we can conclude that using e-mail as a form of sale communication is in line with the business trends worldwide and that the e-mail is extremely present in the respondents' business processes. Most of the respondents have formed customers' databases which they use for market segmentation and customer targeting so that they can treat their customers differently. The respondents have stated that the use of such segmentation has increased their customers' response rate in e-mail marketing activities. However, according to analyzed results, it can be concluded that the respondents are not sufficiently familiar with the analytical techniques like customer lifetime value (CLV) and RFM method. Although the respondents are quite homogenous and agree that those analytical techniques are useful and that they contribute to a better efficiency of the marketing campaigns, they do not plan to use them in the future.

3.4. LIMITATIONS AND FUTURE RESEARCHES

The basic problem which the researchers have encountered is a relatively small response rate of the companies, although the e-mail message with the survey link was sent to more than 1,800 addresses only 74 completed surveys were received. Using the Kompas database enabled allowed the selection of the companies and the responsible persons which have received a

personalized e-mail with the survey. In that sense, this research can be considered relevant although the number of received answers does not suggest it. The author's intention was to perceive the perception of the application of the concept of the marketing management of the information and the level of the application, both the generic and personalized segmentation in e-mail campaigns. Future researches, relying on the results of this research, should be directed to the conclusions of the validity of using generic in relation to using personalized segmentation.

REFERENCES

- [1] Aggelis V., Christodoulakis D. (2005.) Customer Clustering Using RFM Analysis, Proceedings of the 9th WSEAS International Conference on Computers, Article No. 2
- [2] Bawm Z. L., Nath R. P. D. (2014.) A Conceptual Model for Effective Email Marketing, 17th International Conference on Computer and Information Technology (ICCIIT), pg. 250-256
- [3] Berger P. D., Nasr N. J. (1998) Customer lifetime value: Marketing models and application, *Journal of Interactive Marketing*, vol. 12., Number 1., pg. 17-30
- [4] Chaffey D. (2003.) *Total Email Marketing*, 1st edition, Butterworth-Heinemann
- [5] Chaffey D. et al. (2009.) *Internet Marketing: Strategy, Implementation and Practice*, 4th edition, Pearson Education Limited
- [6] Charlesworth A. (2009.) *Internet Marketing: A Practical Approach*, 1st edition, Butterworth-Heinemann
- [7] Cheng C.H., Chen Y.S. (2009.) Classifying the Segmentation of Customer Value Via RFM Model and RS Theory, *Expert Systems with Applications*, pg. 4176-4184
- [8] Chuang H.M., Shen C.C. (2009.) A Study on the Application of Data Mining Techniques to Enhance Customer Lifetime Value Based on the Department Store Industry, *The 7th International Conference on Machine Learning and Cybernetics*, pg. 168-173
- [9] Coussement K., Poel D. V. (2008). Improving customer attrition prediction by integrating emotions from client/company interaction emails and evaluating multiple classifiers, *Expert System with Applications*, 36(3): pg. 6127-6134
- [10] Dobrinić D. et al. (2005.) *Izravni marketing*, TIVA Varaždin
- [11] Dobrinić, D., ed. (2011.) *Marketing and databases*, Faculty of organization and informatics Varaždin
- [12] Green P. E., Krieger A. M, (1991.) Segmenting Markets with Conjoint Analysis, *Journal of Marketing*, Vol. 55, pg. 20-13
- [13] Hiziroglu A. (2013.) A Neuro-fuzzy Two-stage Clustering Approach to Customer Segmentation, *Journal of Marketing Analytics* 1, pg. 202-221
- [14] Hughes A. M. (2006.) *Strategic Database Marketing*, 3rd edition, McGraw-Hill
- [15] Hughes A. M. (2016.) *How Lifetime Value is Used to Evaluate Email Customer Marketing Strategy*, Database Marketing Institute, available at:

- <http://www.dbmarketing.com/2010/03/how-lifetime-value-is-used-to-evaluate-email-customer-marketing-strategy/> [02.08.2016.]
- [16] Khajvand M. et al. (2010.) Estimating Customer Lifetime Value Based on RFM Analysis of Customer Purchase Behaviour: Case Study, *Procedia Computer Science*, Vol. 3, 57-63
- [17] Kolowich L. (2016) Email Analytics: The 6 Email Marketing Metrics & KPIs You Should Be Tracking, HubSpot.com, available at: <http://blog.hubspot.com/marketing/metrics-email-marketers-should-be-tracking> [12.07.2016.]
- [18] Kotler P., Keller K. L., Martinović M. (2012.) *Marketing Management*, 14th edition, MATE Zagreb
- [19] Mail Chimp (2016.) Effects of List Segmentation on Email Marketing Stats, Mail Chimp, available at: <https://mailchimp.com/resources/research/effects-of-list-segmentation-on-email-marketing-stats/> [1.8.2016.]
- [20] Nath R. P. D., Lee H., Chowdhury N. K., Chang J. (2010) Modified K-means clustering for travel time prediction based on historical traffic data, *Knowledge-Based and Intelligent Information and Engineering Systems*, Springer Berlin Heidelberg, pg. 511-521
- [21] Ružić D., Biloš A., Turkalj D. (2014.) *E-marketing*, 3rd edition, University of Josipa Juraja Strossmayera in Osijek, Faculty of economics in Osijek
- [22] Stone B., Jacobs R. (2001.) *Successful Direct Marketing Methods*, 7th edition, McGraw-Hill
- [23] Strauss J., El-Ansary A., Frost R. (2003.) *E-marketing*, 3rd edition, Prentice Hall
- [24] Vasudevan R. (2010.) E-mail Marketing, *Journal of Contemporary Research in Management*, Vol. 5, No. 3, October-December, 2010, pg. 37-42
- [25] Yeh I. C., Yang K. J., Ting T. M. (2008.) Knowledge discovery on RFM model using Bernoulli sequence, *Expert System with Applications*, 36: pg. 5866-5871