ADDED VALUES OF SOCIAL CRM: THE EXAMINATION OF CUSTOMER PERSPECTIVE

Amila Pilav-Velic*, Anes Hrnjic**, Ljubica Milanovic Glavan***, Azra Hanic****

ABSTRACT

Background: Social media allow companies to create more "friendly" and personal interaction with their customers on an individual basis affecting the relationship development. Generally, people have more confidence in their friends' recommendations. On the other hand, companies prefer this type of direct and targeted communication considering its reasonably lower costs, greater ability to target specific categories of visitors, the speed of response, etc.

Objectives: This paper aims to investigate the characteristics and benefits of using Social Customer Relationship Management (or abbreviated SCRM) for developing relations that many customers nowadays perceive as the most valuable component of the business offer.

Methods/Approach: The most important characteristics of SCRM were examined using factor analysis and logistic regression in order to explore how respondents' gender and variables with highest weight from each factor relate to customers' choice of social media-based interaction. Sampling technique was applied via an online questionnaire containing four sections of questions with a link posted to ensure a greater response rate for analysis.

Results: This study indicates that the most significant added values of SCRM compared to traditional CRM, of often called classic CRM, are: customers' mutual collaboration and interactions, customers' engagement and interactions with company, available and flexible interaction, and customers' involvement. The final logistic model indicates that two variables were statistically significant for the probability of making decision on further interaction.

Conclusions: Paper provides some important practical contributions, offering managers a framework of important factors that need to be considered when planning and implementing their CRM strategies. Precisely, they can establish and adjust their social-media based interaction in line with identified added values from customer perspective.

Keywords: social CRM (SCRM), social media (SM), two-way interaction

JEL classification: M1, M15, M3

1. INTRODUCTION

An enormous and vastly growing number of social network users, including increasing amount of time that they spend using social media, reveal innovative possibilities in business offer improvement as well as companies´ market positioning. Social networks threw back the conventional methods of corporate communication, specifically marketing communication such as print media and television, due to their reasonably lower costs, greater ability for targeting specific categories of visitors, speed of getting response as well as direct and interactive communication with targeted audience. Previous research on social media show that they are appropriate for communicating with specific customers, particularly young adults, since 57% of social network users are in

*School of Economics and Business, University of Sarajevo Email: amila.pilav-velic@efsa.unsa.ba

**School of Economics and Business, University of Sarajevo Email: anes.hrnjic@efsa.unsa.ba

***Faculty of Economics, University of Zagreb Email: ljmilanovic@efzg.hr

****Belgrade Banking Academy, Email: azra.hanic@bba.edu.rs

the age range from 18 to 29 years and usually have accounts on several social media websites (Lenhartet al., 2010).

Same research also revealed the fact that majority of college students are ˝consuming˝ some sort of social media, while almost half of college population use social media networks at least once a day. These contemporary younger people behavior patterns enable companies to reach out easily to its potential customers or obtain feedback from current customers. In addition, the word of mouth is an especially significant feature of social media. Explicitly, friends and members of the same virtual group exchange information and their positive experiences, including their interactions and satisfaction with business entities, which represent a solid basis for creating company's more effective customer relationship strategy. Social channels capture both official and unofficial customer conversations and hence they represent a valuable interaction tool. Unofficial web platforms are becoming one of major drivers in growing online discussions and their popularity has grown considerably in the last few years. For example, in the United Kingdom almost one quarter of football fans are utilizing unofficial social media websites as their main source of information rather than assembling information that is published on the official sites (McCarthy et al., 2013).

The philosophy of customer relationship management is aimed at crafting competitive edge for the company´s capacity of generating positive impact on its performance in today´s extremely instable and mostly turbulent business environment, in which change has been the only constant (Gholami& Rahman, 2012).The use of social media in customer relations has resulted in appearance of Social Customer Relationship Management (SCRM), a specific form of strategy enabled by the use of social networks that redesigns and improves overall customer relationship management with the primary objective of ensuring that the most profitable customers remain loyal to the company. However, existing literature does not provide adequate insights of SCRM strategy benefits for the company, thus neglecting crucial customers´ role in value creation process that customers can experience through social-media based interaction. This particular fact can be designated as paradoxical, considering that CRM philosophy is based on customers' interaction, feedback and their experiences.

2. LITERATURE REVIEW

Internet and web-based channels have replaced call centers and phone as the principal contact points. The electronic era has made substantial modifications in communication and interaction with customers, creating novel modes of direct response and online advertising through variety of Internet features. Another shift in the new millennium was the development of Web 2.0 applications that facilitated enhanced interactivity online and user-generated content highlighting leverage customer-operated services and data management to reach out to the entire Web, not only the center, but edges as well (O'Reilly, 2005). Today, major social media are evidently Facebook, Twitter, YouTube, LinkedIn and recently Instagram. However, Internet through Web 2.0, due to its interactive nature, transformed majority of websites into social places (Harrigan& Miles, 2014). Web 2.0 also enabled the birth of blogs, wikis, podcasts, virtual reality, social bookmarking, photo and video sharing (Caravella et al., 2009). These web creations are seen as potential CRM tools and thus social media provide the opportunity for companies to become more "personal", allowing communication with customers on a one-to-one basis. Companies that executed social CRM philosophy include websites of Amazon, TripAdvisor and Google (Chau & Xu, 2012).

Customer engagement represents a broader form of marketing, suggesting that interaction between business entity and customers should be a two-way path and that value should be co-created in the process in the contemporary environment (Verhoef et al., 2010). Therefore, marketer and customer get to know each other well enough to trust each other. Social media also enable creation of "anytime and anywhere" relationships, which is essential if characteristics of modern lifestyle are taken in consideration. In this so-called new age of marketing communications, individual consumers prefer and require greater intimacy with the companies they buy from and precisely social media support "friendly" approach to customers,

which is the key advantage compared to other types of marketing communication channels (Spiller et al., 2011). Woodcock et al. (2011) further explain that companies have never before been able to get so close to their customers and engage with them in such a timely and relevant manner. In line with this, SCRM is based on interdependent relationships and cooperation, but also technological features of social media provide measurable direct response capability, including different tools for relationship acquisition and maintenance. While 43% of customers say that businesses today should custom some sort of social media to resolve customers' problems and complaints, a test for many organizations is concerned with adaption and evolution in order to meet the needs and requirements of these social media friendly customers. Unfortunately, many companies still do not comprehend the value of SCRM and social media in general (Morgan, 2010).

The use of social media in customers' acquisition and retention has resulted in a specific strategy invention that is often called social CRM. This form of strategy consists of any tool or business process that helps establishing a strong, positive and transparent relationship between customer and company, while utilizing social channels of communication. Collecting and gathering ˝fresh˝ information, based on almost immediate response from customers before an issue becomes over-thought or media-exposed, represents a unique capability of social media usage (Henderson, 2011).

This instant responsiveness permits company to manage its customer retention (and acquisition) rates more efficiently boosting customer satisfaction and reputation. SCRM is often determined as a process of engaging and managing relationships with current and potential customers across the Internet, social networks and digital channels. While traditional CRM systems tend to ignore communication dimensions, integrated marketing communications incorporate these data-driven qualities of CRM emphasizing interactive communication (Phelps & Milne, 2009). Traditional CRM implies one dimensional business communication that includes processes and technologies in sales, marketing and other customer facing departments and this out-of-date interaction

type does not require individual approach and direct two-way communication with customer, but facilitate targeting, predicting response rates and adopting buying modalities.

Quinton (2013) outlines that original and up-to-date knowledge about consumers can be obtained and created for both acquisition and retention phases of CRM via social media networks. CRM acquisition process via social media can be aided through unblemished identification of target groups of consumers and their preferred specific Internet platforms as well as the extension of usage and participation habits.

The analysis of social networks that would be most effective to approach certain customers is identified through examination of patterns of usage which is a strategy adequate for economic and other resources saving. Meanwhile, determining possible consumers´ motivators for interacting with company´s brand via social networks, an action that could be conducted through discussion forums, might provide a better understanding of constructive triggers for customer engagement. Collected data could demonstrate various levels of personalization that can be used to appropriately categorize groups of existing consumers and which might then be implanted within forthcoming interactions to deliver what consumers expect, want and require. Actions of customer research described above that are carried out using social media establish the ability of company to listen to its core consumers and react in a proper manner, would develop a relation value of interaction with customers (Porter et al., 2011).

However, there are too many misunderstanding of SCRM concept. The general perception is that SCRM represents just another channel. It is true that social CRM prefers social networks to interact with customers and distribute content, but SCRM implies connection of social data with the existing customer database, enabling companies to provide comprehensive customer insights and relevant context as well. The development of information technology solutions allows creation of customer-oriented (or customer-focused) organizations that have the capacity to manage customer information more effectively gather via various contacts of interaction, including social media, which provides

a solid ground for understanding unique needs of market enabling exploration and delivery of strategic answers that would help in meeting those customer requirements (Rodriguez et al., 2014). In order to maintain competitive advantage over its competitors, customer-oriented organizations might find it critical to add a social media strategy to their existing CRM technology, which involves creation of social media tools such as LinkedIn, Facebook or Twitter within their standard business processes, thus enabling direct communication with current and potential buyers. However, with the purpose of benefiting from these present technologies, professionals must accept and employ social media knowledge and competencies in their job function often requiring additional training in case of elder employees who do not use social media regularly in their private lives (Venkatesh et al., 2003).

Nevertheless, the intention of this new channel communication is not to replace traditional CRM, but provide some additional benefits and enrich traditional systems. Educated and well-informed customers (that usually nowadays are users of social networks) demand lower prices, enhanced products and services with some sort of value added as well as direct communication with a company often exploring and consulting social networks for information in both pre-sale and post-sale phases, but they also require a higher quality of services and post-sales technical support, which inevitably forces businesses to continuously expand and improve CRM strategy in order to reduce the risk of outflow of customers to competitors (Rahimic & Hrnjic, 2014). SCRM supports the whole customer management strategy and lifecycle and it should lead to increased sales through increased awareness and engagement as well as decreased costs. Probably one of the most comprehensive definitions of SCRM specifies that social CRM is focused on engaging the customer in a collaborative conversation in order to provide mutually beneficial value in a trusted and transparent business environment. In other words, it represents a response of the company to customer's ownership of the conversation and interaction in the current dynamic business environment (Greenberg, 2010a). Social media technologies can also increase the efficacy of a company´s sales force

by providing a broader understanding of the underlying social networks between customers and prospects and by enabling internal and external collaborations that lead to better customer solutions (Trainor et al., 2013). Various theoretical concepts of SCRM indicate different aspects as the most prominent, but they can be summarized into the following advantages:

• Building a network of the company or, more specifically, brand followers who promote company's products and services. Brand advocates are the best promoters of companies as they do it from their own beliefs. Widgets, surveys and applications on social networks are distributed in an "organic" way and they do not require a lot of resources. On the other hand, distributed applications, users' experience and recommendations from their friends significantly contribute to building a close and confidential relationship. Social media exposure is important in building open and honest relationship with communication that could be transformed into core competitive value (Greenberg, 2010b).

• SCRM enables better search engine positioning (Search Engine Optimization or SEO). In fact, sharing content through social media is free advertising, which increases company's online visibility and promotes business on the world's top search engines such as Google, Yahoo, Bing, etc. For example, Facebook features such as ″likes″ and ″shares″ or Twitter´s ″tweets″ and ″re-tweets″ are useful in creating solid social signals with potential reach out to millions of Internet users (Saravanakuma et al., 2012).

• Social media provides tools for brand monitoring. Using analytical tools for brand monitoring and direct communication, companies receive feedback on what users think about their products and brand. The feedback is immediate as well as a possibility of company's reaction and involvement in communication. In addition to tracking and influencing on attitudes of "opinion makers" and their followers, the company demonstrates its continuous orientation toward customers, which ultimately affects the positive public attitude toward its business (Kupper et al., 2014).

• SCRM also helps in attracting new customers. Due to ever-growing number of social network users, companies have the opportunity to con-

nect with many organizations and individuals. They open new markets and potentially expand customer base. Strategically, founding populations around products and services has been a well-known method of building brand loyalty, establishing exit barriers and facilitating viral marketing through self-emergent customer testimonials. Therefore, it is desirable that businesses do not ignore the opportunities to jump in to spread out customer base (Assad & Gomez, 2011).

• More relevant information for sales and marketing teams is obtained via SCRM. Sales and marketing teams can collect more confident information about their customers considering integral view of customers and communication enabled through online conversation and digital channels (such as website, e-mail, mobile and so forth). However, recent examination of information value of virtual communities found evidence that informative content is more highly valued versus opinion-based message content leading to co-production of value with customers (Archer-Brown et al., 2013).

• Direct communication with product teams via social CRM creates added value. Product designers directly collaborate with customers regarding product design prototyping and testing that provide customers' satisfaction, advocacy and loyalty. Convenience of unrestrained communication between consumers in which they share their experiences alarmed strategists in creating two-way communication (Abdulrahman& Bach, 2013).

The most of these advantages are related to companies, however this paper aims to address this gap and investigate the most significant added values of social CRM from the customer perspective and explore their benefits in interaction with business entities via social media.

3. METHODOLOGY

The main purpose of the research was to examine the most important characteristics of social CRM. Scientific methods that are applied for data analysis include factor analysis and logistic regression with aim to better understand how respondents' gender and variables with highest weight from each factor relate to customers' choice of social media interaction.

The following subsections of the paper explain in detail sampling and process of data collection, survey instrument that was used and, in the end, methods of analysis are described.

3.1 Sampling and Data Collection

The data for this study was collected using a survey research method. In the sampling process, the guidelines of similar researches are followed in terms that respondents should be individuals sufficiently familiar with the subject of analysis. The sample is comprised of users who have already experienced interactions with companies via social media such as Facebook, Twitter, etc. Most respondents were in the age group ranging from 20 to 30 years old (precisely 61.9%). Also this study indicates that the majority of the respondents (precisely 82% of the surveyed population) are students as the most frequent users of social networks. Unlike elder population, they have more confidence in using these communication channels and usually visit social media websites on a daily basis.

Customers were asked to respond to an online questionnaire based on their experience with social media-based interaction. A total of 80 questionnaires were submitted, out of which 50 were responded. Hence, the response rate of the survey is 62.5%.

3.2 Survey Instrument

The research was conducted via an online questionnaire with a link posted to ensure a greater response rate and a substantial research base.

The questionnaire comprised four sections of questions. In the first section, respondents were asked to assess the advantages of flexible and available interaction, creation of relationships with anywhere and anytime access, etc. The questions in the second section were aimed to evaluate how easy it is to use the social media contents (in terms of navigation, organization and the form of the contents) as well as how easily and quickly all the necessary information can be found, etc. In the third section, questions relate to the scope and quality of interaction between company and customers as well as among the customers themselves, including

examination of the feeling of intimacy and belonging to an e-community, etc. The questions in the final section were related to creation of demographic profile of the surveyed population and respondents were asked to answer general demographic questions such as age, gender, employment status, place of residence. This section also contained questions about computer and Internet usage, but also questions regarding their intentions to continue with social media-based interaction with companies in the future. All items used a five-point Likert scale (in which 5=fully satisfied and 1=not satisfied at all). The results of the completed questionnaires that were submitted were entered into an MS Excel document, and were processed with the Statistical Package for Social Science (SPSS) Version 21.0 software.

3.3 Method of Data Analysis

This paper employs combination of dependence and interdependence multivariate techniques, including factor analysis and logistic regression. Factor analysis is primarily applied with a goal to extract as many latent variables (factors) as necessary to explain the correlations among the items (Reise et al. 2000). The most important characteristics of social CRM were examined using this particular analysis method, aiming to summarize the data and determine their common dimensions and interdependence. Using this particular statistical method enables extraction of a smaller number of variables which are most important, but also interpretable. Therefore, the R factor analysis was performed as well. As factor extraction method, principal component analysis is used with respect to the goal of summarizing data in a relatively smaller number of factors.

As criteria for the number of factors to extract, latent root criteria was used with respect to the four extracted and most important factors whose eigenvalues are larger than or equal to one. The initial extraction of factors did not give intelligible, clear and interpretable factors, therefore orthogonal rotation – Varimax was used. This rotation method has isolated four factors that were named as customers' engagement and interactions with company, collaboration and interactions with other customers, availability and flexibility and customers' involvement. In order to examine appropriateness of factor analysis application, Barlett's test of sphericity was performed as well as Kaiser-Meyer-Olkin. Barlett's test results (p<.001) and KMO score (higher than .07) show a satisfactory level of correlation between the variables. Therefore, using logical reasoning it can be concluded that factor analysis is applicable and appropriate for the collected data.

Then, logistic regression as dependence technique is applied with the purpose to investigate how respondents' gender and variables with the highest weight from each factor (obtained from the previously run factor analysis) are related to customers' decision to continue with social media interactions with company according to their previous interaction and experience. The model is constructed, which is based on these variables and gender of customers as set of predictors and customers' intention for further interaction as binary dependent variable. The dependent variable is coded with 0 for those who have intentions to pursue with interaction and 1 for those who will not continue further interaction. Also, gender as an independent categorical variable is coded. Males are assigned by 0 and females by 1. The goodness-of-fit for this model is assessed by using "R-like" measures: Cox & Snell and Nagelkerke R squares. These values can range from 0 to 1 and higher values of these measures indicate greater model fit. As a measure for predictive accuracy, Chi-square was used. This measure is based on dependent variable predictions and that is customers'intention for further interaction.

Finally, it is important to note that before the factors identification, on individual plots was one or no missing data. These missing data (only two observations) were replaced with the mean value of the variable calculated from all the 50 respondents. As imputation method an average value of the variable is employed, because in this case we will accomplish the least change of statistical parameters. In order to test the existence of outliers, the Mahalanobis distance has been applied for all respondents. The results show that the respondent has no distance that exceeds 16.27 (p = 0.001). The greatest distance was 14.74. This means that there is no unique observation that could be

identified as an outlier. In line with this, in logistic regression analysis the Casewise plot has not been produced because no outliers were found in the prior analysis.

4. RESULTS

4.1 Factor Analysis Results

Factor analysis was used to determine the additional values of social CRM that customers perceive as most important. Four factors with eigenvalues greater than one were extracted.

The extracted factors explain 61.55% of variance of all components. Namely, the first factor, customers' collaboration and interactions with other customers, explains 17.1% of variance of all components thus representing the most significant value of SCRM as perceived by customers. The second factor (customers' engagement and interactions with company) explains 16.02% of variance of all components and represents the second most significant benefit of social CRM. Availability and flexibility represent the third most significant factor, explaining 15.27% of variance of all components and customers' involvement-related aspects are the fourth most important factor, which explains 13.15% of total variance of all components. In the overall sum, the listed results represent constructive scale value of 61.55% which is presented in Table 4.1. shown below.

Table 4.1. Results of Principal Component Analysis

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Eigenvalue	Percentage of variance	Cumulative percentage	Eigenvalue	Percentage of variance	Cumulative percentage
1	10.083	43.838	43.838	3.934	17.103	17.103
2	2.588	11.251	55.089	3.685	16.022	33.124
3	2.021	8.789	63.878	3.512	15.271	48.396
4	1.342	5.836	69.714	3.026	13.156	61.551
5	1.227	5.336	75.049	2.361	10.266	71.817
6	1.040	4.523	79.572	1.784	7.756	79.572

Source: own

Varimax rotation was performed in order to identify interrelated set of the variables that can be named and explained. All statistical significant factor loadings are bold and presented in Table 4.2. shown below. There are coefficients that relate variables to the four rotated factors. This table shows factor structure and correlation coefficients of individual variables with customers' collaboration and interactions with other customers, customers' engagement and interactions with company, availability and flexibility, and customers' involvement as the most significant four factors that were extracted.

Table 4.2. Varimax Rotated Component Matrix

Variable	Comm-unality	Factor			
		1	2	3	4
Scope of collaboration and interaction with other customers	.891	**.859**	.251	.152	.128
Quality of collaboration and interaction with other customers	.798	**.801**	.146	.217	.246
Diversity of available collaboration tools	.735	**.783**	.141	.096	.063
Discussions (exchange of opinions, experience, information, etc.)	.716	**.651**	.315	.124	.365
Scope of interactions with company	.765	.081	**.803**	.275	.026
Quality of interactions with company	.758	.322	**.762**	.208	.167
Responsiveness to customers' needs	.875	.186	**.723**	.085	.501
Intimacy	.807	.290	**.610**	.003	.319
Feeling as a part of a community	.638	.358	**.576**	.303	.151
Possibility of accessing information from anywhere (home, work, café, etc.)	.939	.118	.129	**.914**	.011
Possibility of accessing information at all times (time flexibility)	.913	.112	.199	**.896**	.155
Possibility of selecting with whom (which company) to interact	.763	.357	.282	**.613**	.305
Feeling (satisfaction) of customer's involvement	.876	.124	.102	.133	**.895**
Feeling of enjoy in social media environment	.910	.394	.243	.166	**.803**

Source: own

It is obvious that the first two factors (customers' collaboration and interactions with other customers and engagement and interactions with company) mostly contribute to the additional explanation of the original component variance. But in order to make a better and more detailed explanation of total variance, the four factors with eigenvalues greater than one were extracted (latent root criteria).

Also in factors extraction proceeds, as additional criteria, total communality and interpretability of factors have been applied.

Ultimately, we have four interpretable factors: customers' collaboration and interactions with other customers, engagement and interactions with company, availability and flexibility, and customers' feeling of involvement and enjoying as final results of this factor analysis. Reliability was tested by computing Cronbach's α. The Alpha coefficients were calculated for each of the factors to access each factor's internal consistency (factor 1: Cronbach's Alpha = .885; factor 2: Cronbach's Alpha = .883; factor3: Cronbach's Alpha = .876; factor 4: Cronbach's Alpha = .816).

4.2 Logistic Regression Results

The purpose of logistic regression use is to examine how respondents' gender and variables with the highest weight from each factor (obtained from the previously run factor analysis) are related to customers' decision to continue social media interactions with company. With this aim, a model is developed which includes independent variables (gender, scope of collaboration and interaction with other customers, scope of interactions with company, possibility of accessing information from anywhere, feeling of customer's involvement) and dependent/predicted variable. Gender is considered as categorical variable and it is coded (males-0, females-1). Dependent variable is customers' commitment to continue this type of interaction (based on a question that is part of questionnaire in the last section with demographic data). This variable is coded with "0" for those who have intentions to pursue with interac-

tion and "1" for those who will not continue. In accordance with the already indicated, the purpose of this study is to identify the social CRM added values that determine customers' commitment and intentions to continue social media interactions.

Accordingly, Null hypothesis has been set as follows:
"There is no statistically significant relationship between respondents' gender and the most significant added values of social CRM as predictors and probability of commitment and making decision about further interactions."

H0: Null hypothesis H0: $\beta_i=0$
This implies that if β-s are equal to zero, there will not be any relation between social CRM added values, gender and probability of customers' decision to continue social media interactions. The alternative hypothesis has been set as follows:
"There is at least one predictor (added value and/or gender of respondents) that has a significant impact on the probability of making decision about further interaction."

H1: Alternative hypothesis H1: $\beta_i \neq 0$
This alternative hypothesis implies if there is at least one predictor (social CRM added value and/or gender) that is not equal to zero, the null hypothesis will be rejected. Regarding the fact that estimated coefficients for the independent variables in logistic regression are estimated using the logit value or the odds value as the dependent measure, our model formula can be shown as:

$Logit_i = ln($probfurther interaction decision $/ 1-$ probfurther interaction decision$) = \alpha + \beta_1 X_1 + ... + \beta_n X_n$
Or
$Odds_i = ($probfurther interaction decision $/ 1-$ probfurther interaction decision$) = e^{\alpha + \beta_1 X_1 + ... + \beta_n X_n}$

Both models are equivalent, but, depending on which formula is applied, coefficients will be estimated in a proper manner. In these formulas, probability of making decision about further social media-based interaction is presented by probability of further interaction decision. Furthermore, α is the Y intercept, β-s are regression coefficients, and X-s are predic-

tors-independent variables (social CRM added values and respondents' gender). As estimation technique, the maximum likelihood procedure is applied. This technique is used in an iterative manner to find the most likely estimates for the coefficients. Also, as in factor analysis, the sample consists of 50 customers. Out of these 50 respondents, 68% (34) emphasized that they will continue with their further interaction, and 32% (16) of them will not continue interaction (Table 4.3).

Table 4.3. Classification Table

Analysis sample	Further interaction (coded as 0)	No further interaction (coded as 1)	Total Sample
Customers	68% (34)	32%(16)	100% (50)

Source: own

The base model is estimated to provide a standard for comparison and it is statistically significant at 0.05 level. The following table shown below (Table 4.4.) includes intercept-only and base model with data for all the previously proposed variables.

The stepwise logistic regression model is estimated to calculate the log likelihood value. Because the stepwise procedure selects the variable with the highest score statistics, "scope of customers' mutual interaction", which is statistically significant at 0.1 level (p=0.093), should

Table 4.4. Base Model

	B	S.E.	Wald	Df	Sig.	Exp(B)
Constant	.754**	.303	6.182	1	.013	2.125

Variables not in the Equation

		Score	Df	Sig.
Variables	Scope of interaction with company	.733	1	.392
	Availability and flexibility	.612	1	.434
	Scope of customers' mutual interaction	4.175**	1	.041
	Customers' involvement	.694	1	.405
	Gender	2.118*	1	.078

Note:*p<.10,**p<.05   Source: own

be the variable added in the first step. In the next step, gender was selected for entry. This variable is statistically significant at 0.1 level (0.097). Thus the two-variable logistic model including "scope of customers' mutual interaction" and ″customers' gender″ will be the final model. Wald test is used as a measure of the model improvement.

Goodness-of-fit measures show improvements in both steps. The log likelihood value (-2LL) for overall model is 54.843, Chi-square is 7.844, Cox and Snell and Nagelkerke R squares as "R-like" measures were used for model fit examination and have values .203 and .145, respectively. They were significant at .10 level. Furthermore, hit-ratio improvements are no-

Table 4.5. Final Logistic Model

Variables	B	S.E.	Wald	Df	Sig.	Exp(B)
Scope of customers' mutual interaction	-.208*	.124	2.818	1	.093	.812
Gender	-.965*	.724	1.778	1	.097	.381
Constant	2.397*	2.187	1.202	1	.099	10.992

Note:*p<.10   Source: own

ticed in both steps. The final overall hit-ratio calculated was 72.0 %. This means that using predicted model, 72.0% of the customers' deci-sions about further interaction were correctly predicted.

Table 4.6. The Observed and the Predicted Frequencies for Decision to Continue
with Interaction by Logistic Regression with the Cutoff of 0.50

Observed	Predicted		
	Yes	No	% Correct
Yes	31	3	91.2
No	11	5	31.3
Overall correct			72.00

Note. Sensitivity = 31/(31+3)% = .91%. Specificity = 5/(11+5)% = .31%.
False positive = 11/(11+31)% = .26%. False negative = 3/(3+5)% = .37%.

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False positive = 11/(11+31)% = .26%. False negative = 3/(3+5)% = .37%.

Accordingly, we will use these results to classify our two groups in those who will continue their social media-based interaction and those who will not. This classification provides practical significance of the research. In this case, it will be useful to find out how many customers are interested in further interactions and commitment indicating their satisfaction with social CRM. According to SPSS default threshold=0.5 and when the probability of the event is greater than or equal to threshold, we will predict that the event will happen. We are able, more precisely, to classify 31/(31+3)%=0.91% of customers where the predicted event was observed. This is sensitivity of prediction and it shows the percentage of occurrences correctly predicted. Also, 5/(11+5)% = 0.31% of respondents were classified, where the predicted event was not observed. This is known as specificity of prediction and it shows the proportion of correctly classified non-events.

Our predictions were correct with successful rate of 72%. Before this, the rate was 68%. The false positive rate is 11/(11+31)% = 0.26% and indicates that prediction was incorrect in 11 times for false positive rate of 0.68%. The false negative rate is 3/(3+5)% = 0.37% and it means that prediction was incorrect in 3 times for false negative rate of 0.37%.The final logistic model is defined as follows:

Logit (probfurther interaction decision) = ln (probfurther interaction decision / 1- probfurther interaction decision)
= 2.397- .208* (Scope of customers' mutual interaction) - .965*(Gender)
Or

Odds(probfurther interaction decision) = (probfurther interaction decision/1-probfurther interaction decision)
= e 2.397- .208* (scope of customers' mutual interaction) - .965*(Gender)

4.3 Results Interpretation

The final logistic model indicates that two variables were statistically significant for the probability of making decision on further interaction. These variables are "scope of customers' mutual interaction" and ″customers' gender″.

The negative sign of original coefficient indicates a negative relationship between independent variable and predicted probability. In our logistic model, both independent variables "scope of customers' mutual interaction" and ″customers' gender″ have negative relationship with the dependent variable. The β coefficient of "scope of customers' mutual interaction" has value of -.208 and it means that increase of this predictor is associated with a decrease of the probability to continue with further interaction. However, direction of this relationship can be specified by exponentiated coefficient.

For interpreting magnitude of the relationship, exponentiated coefficient is more appropriate and useful. The exponentiated coefficient for "scope of customers' mutual interaction" is .812 (below 1), and it indicates the negative relationship with predicted probability. Also, exponentiated coefficient for gender predictor is .381 (below 1) and it indicates a negative relationship between predictor and predicted probability. For providing information of percentage change in odds, we will use the following formulation: Percentage change in odds = (Exponentiatedcoefficienti – 1.00)* 100.

Given that, we used dummy variable that represents a gender of customers as predictor and

it is defined as representing females (female customer=1, male customer=0), exponentiated coefficient represents percentage of the odds ratio of female customers compared to male customers. Therefore, .381 as value of exponentiated coefficient for gender predictor means that odds for female customers are 61.9% less (.381-1.0= -0.619) than for male customers. Since the exponentiated coefficient for "scope of customers' mutual interaction" is .812, a one unit positive change in this variable will decrease the odds of "further interaction" by 18.8% (.812-1.0= -0.188), and vice versa.

5. DISCUSSION

This study indicates that the most significant added values of social CRM compared to traditional CRM include: customers' mutual collaboration and interactions, customers' engagement and interactions with company, availability and flexibility, and customers' involvement. Comparing to other types of electronic communication, social media enable customers to connect and collaborate with each other. Social CRM covers both official and unofficial customer conversations, including emotional state, humor, anger, etc. Customers as social human beings prefer discussing with other group members through social channels. They have more confidence in their friends' and colleagues' recommendations than in official corporate advertising.

Thoughts, opinions, ideas, jokes, confidences, experiences, photos and videos are shared by individuals to small networks and can be rapidly amplified into larger networks of people, within a location, nationally or globally (Woodcock et al., 2011). This factor indicates "friendly" dimension of social media application in CRM.

In this environment, people are more open and relaxed and thus they are honest in their opinions and beliefs. Hence, customers are important more than ever before, but in order to serve them well, companies need not only to collect and analyze all the existing forms of related knowledge in an information system, but also to engage in relevant conversations that would occur in customer communities anyway. Social media websites development en-

ables these user communities accessible to the company as never before and, thus, creates opportunities for development of comprehensive and innovative CRM framework that will incorporate social CRM strategy within it (Pavicic et al., 2011).

In addition, quality of collaboration and interaction with other customers and diversity of available collaboration tools significantly enhance customers' satisfaction. Related tools include pick lists, popularity filters, story applications, reviews and recommendations, user forums, deal directories, deal feeds, group buy applications, and "ask your network" tools.

These discussions are relevant and extremely valuable for the company. They should be recorded and used for improvements in relationships with customers in order to achieve their engagement and loyalty. In this context Data mining and Business intelligence enable companies to offer products and services to the right customers, to predict consumer shopping patterns but also to nurture customer relationships (Phan & Vogel, 2010).

The research findings show that 60.1% of customers indicate their complete satisfaction with the mutual customers' interactions. Sharing their experience, consumers have the feeling of importance because of their potential influence on opinions and buying decisions of other consumers. But this feature is more familiar to the latest factor and will be discussed further.

The second important factor or additional benefit is the customers' interaction with company. The customer relationship management concept reaches its full development by the emergence and expansion of electronic commerce, especially Internet. Possibility of direct and targeted contact with consumers, by creating a database and monitoring their activities, has led to personalized relationships with customers. Therefore, the future of relations is based on cooperation between companies and consumers on the principles of creating shared value. In this, a particular role belongs to social media. Social networks "listen and react to customer comments and continue to interact with customers beyond the sale" (Spiller L., Tuten T., & Carpenter M., 2011). Any other interaction channel does not provide so high degree

of personalization and direct response. Moreover, other causes for the increasing popularity of social networks in CRM include: lower costs, greater ability to target visitors as well as long-term customers' loyalty, the speed of response, strengthening the brand, market research, etc. Flexibility and availability of social media channels are the third significant value and factor which has a remarkable influence on customer's decision for this form of interaction with company. Namely, the research results indicate that over 50% of respondents expressed their satisfaction with flexible and available interaction and communication among themselves, but also with company. This factor includes possibility of accessing information from anywhere (home, work, café, etc.); possibility of accessing information at all times (time flexibility) and possibility of selecting with whom (which company) to interact. The research findings show that customers significantly evaluate the fact that they can access information from anywhere, in anytime and in any way they like.

The fourth extracted factor is feeling of involvement and influence but also enjoyment in this communication environment. People prefer the social nature of shopping. They like to interact with each other and share product information, opinions with friends and family.

The strength of "word of mouth" recommendations is particularly evident in social networking (Habul&Pilav-Velić, 2010). People like to be socially recognized and consulted regarding their experiences and opinions. They tend to be "opinion makers".

After extracting the four most significant factors of the additional benefits of Social CRM, the correlation between respondents' gender, variables with the highest weight from each factor (obtained from the previously run factor analysis) and customer's decision to continue with social media-based interaction was examined. The final logistic model indicates that two variables were statistically significant for the probability of making decision about further interaction. These variables are "scope of online interaction" and customers' gender. Both of them have negative relationship with the dependent variable. Accordingly, we can emphasize that increase of "scope of online interaction" predictor is associated with a de-

crease of the probability to continue with further social media interaction and odds for female customers are 61.9% less than for male customers. These results are also in line with factor analysis results.

6. CONCLUSION

Research results: The research findings indicate that customers' mutual communication, their engagement and interactions with company, availability and flexibility of that interaction as well as their involvement are factors which represent the most significant additional benefits of Social CRM from customer perspective. Since the research results indicate that at least one predictor (added value and/or gender variable) has a significant impact on the decision related to further social media-based interaction, the null hypothesis can be rejected. In this way the alternative hypothesis is confirmed.

"Scope of customer mutual interaction" and "customer gender" are indicated as the most influential predictors of the "further interaction".

This implies that creating an interactive online atmosphere in terms of direct, two-way and almost immediate communication between customers and company but also among customers themselves, as well as constant availability of SM content represent the most prominent reasons for which customers opt for this type of interaction. On the other side, companies also prefer this mode of communication considering its lower costs, greater ability to target visitors, as well as customer engagement and loyalty, speed of feedback, brand building, market research, etc. Customer's intention for SM-based interaction is also motivated by access to information "anytime, anywhere".

Practical implications: Our paper also makes some important practical contributions, offering managers a framework of important factors that need to be considered when planning and implementing their CRM strategies. They can use these research findings in defining their social-media plans and improving their customer relations. Precisely, they can establish and adjust their social-media based interaction in line with identified added values from customer perspective.

Limitations and further research: The research was applied to social network users (mostly student population) from Bosnia and Herzegovina and results should not be generalized to other countries and different types of markets and industries. Also, sample size is one of the research limitations. However, this study serves as a good foundation for further research providing practical implications and findings that can be used especially in targeting customers via social networks. The research findings can be tested using bigger and different samples (e.g. users of specific product or service) and even different methodology. Definitely, this is a much easier place to start a more detailed analysis of social media benefits in customer relations and whether these benefits are properly perceived by customers increasing their satisfaction.

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