

CRM & SOCIAL NETWORKS

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ABSTRACT

This paper focuses on CRM (Customer Relationship Management) applications and social networks. Caring for customers is an important activity in companies and information about customers and their experience are of everyday interest. It is expected that social network integration into CRM applications is similarly of importance as customers sharing experiences and needs via these networks which create a wide human community of potential customers. There is controversy, however, and CRM applications have latent potential in social network integration. The same lower interest is visible in available analyses and top lists of CRM applications. There are only several analyses that select social networks as one evaluation criteria. This paper presents a recommendation for a solution to an existing controversy (problem) based on a realized overview in CRM applications and social networks, and more detailed analyses of selected CRM applications. The presented recommendation is based on integration of four activities: (1) Recording of needed information about contacts and leads, (2) Linking to specified social networks to share information, (3) Integration of other applications for better orientation and, (4) Finally sharing special places such as chatter. The benefit is focused on better social network implementation in CRM applications, and increased interest in social networks in the realized analyses and top lists.

Keywords: Customer Relationship Management, Data, Information Technology, Marketing, Social Networks.

INTRODUCTION

CRM (Customer Relationship Management) industry is one of the big businesses with great potential for the future based on CRM trends. The growing business affects customer contacts. Statistics show revenue from CRM applications between 2010 and 2017. In 2011, it was USD 16.08 billion, and increased annually by approximately USD 2-3 billion to USD 26.29 billion in 2015 (Global CRM software revenue 2010-2017). The big jump occurs in 2016 and 2017. In 2016, the revenue from the CRM market was approximately USD 33.7 billion, and in 2017 it was approximately USD 39.5 billion. Similarly, Gartner claims that CRM will be the fastest growing IT (information technology) market in 2018. (Bamiduro & Rob, 2018). Finally, it is estimated that the global CRM market will be approximately USD 81.9 billion in 2025. Reasons are focused on leadership, contact and service management, customer voice support with over 20% growth.

The CRM industry influences rapid changes in information technology and there is also room for social networks. Major trends in CRM are visible in automated workflows, IoT (Internet of Things) integration, self-service, mobility support, and integration of social networks (media such as Facebook, Twitter and many others) (Chapalamadugu, 2018). Social media play an important role in these trends and it is estimated that approximately 67% of customers are communicating with social media accounts (Anastasia, 2018). Social media integration into CRM delivers social CRM with the benefit of providing customer support online (customers are

now using these media very well) with quick customer-to-chat and real-time conversation, feedback on customer experience and quick response to getting customer confidence. CRM applications have many channels for communicating with customers, such as social campaigns, sales calls, and mobile marketing. These IT-based trends play an important role in CRM industry to improve customer experiences and the implementation must be optimal for everyday use with common trends.

CRM and social media are in the interest of many authors of scientific works, books, analyzes, and blogs. Integrating social media into CRM creates the right solution for marketing with great potential (Top 2018 CRM Trends For Businesses, 2018). This integration offers better customer retention by 26% based on the fact that customers spend time on networks. In this state of affairs, it is natural that the future of CRM is closely related to social media, and CRM applications will integrate social media. The main reason is that it helps to communicate with customers through social networks to deliver customer loyalty (Srivastava et al., 2018). These solutions use customer profiles for marketing and sales to improve service and journey to customers. Many social media experts predict key trends for social media and their integration into CRM for use in marketing (with Facebook Messenger), diversified network ads (with Twitter and Pinterest), and information sharing (with Snapchat, Messenger, Facebook or Instagram). From the overview, social media is playing an increasingly important role in CRM-based performance (Kamboj et al., 2016).

There are many specialized applications for customer relationship management from complex information systems to easier tools to business success (Greenberg, 2009). These CRM applications are available in many forms as an open-source and commercial solution. Orientation can be difficult due to the large volume of available CRM applications. Optimal selection may be realized with the help of surveys, analyses or top lists to evaluate CRM applications (Chavdarov, 2015). Their authors try to evaluate selected CRM applications by defined criteria, but there is not a particular interest in links to social networks and their integration into adopted CRM applications. This topic is mentioned only marginally with a few words. It is a controversy with regards to the requirements of business (Alharbie, 2015). They need to work with all the available information about customers and social networks create a unique source for this information (Diffley & McCole, 2015).

This paper therefore focuses on integration of social networks into CRM applications and searches for public recommendation for optimal implementation based on inspiration from adopted solutions in various CRM applications. For this purpose, the paper is divided into several chapters. The second chapter is dedicated to an overview of the available CRM applications and social networks. The third chapter describes the existing problem in detail. The adopted method of solution is also mentioned. The fourth chapter consists of the basis of this paper, as it describes the realized analyses of selected CRM applications to collect data which are used for other recommendations for optimal implementation of social networks into CRM applications (the fifth chapter). Finally, the last chapters are focused on the conclusion, acknowledgements and references. The references provide a current overview of CRM applications, social networks, realized analyses and top lists for CRM applications; they are also of interest in relation to this topic and business. These references are from scientific journals, books and the Internet.

CRM APPLICATIONS AND SOCIAL NETWORKS

Information technology provides numerous implementations in the area of operating and database systems, information systems, knowledge databases, management information systems, desktop publishing and also customer relationship management. There are important connections with intelligences such as business, competitive, or customers because they help in searching out unexpected links between various data and hidden gaps on the market. The first CRM applications begin in the 1980s (Flory, 2013). This was a period when database systems provided a good solution for data storage and default operations such as orders, invoicing, warehouses and accounting. This support was verified by the required methods and methodologies in the implemented information systems. There were also questions about the further development of database systems and their use. In this situation, CRM applications and various intelligences provide a new challenge for information technology for better support of company architecture (Banaeianjahromi & Smolander, 2017). CRM development is dynamic and there are several stages.

Customer service automation occurred in the form of call centers over the years 1980-1990. Companies used customer relationship records to understand stored records for customers, based on a centralized data management system, from 1990 to 1995. The time period 1995-2000 was focused on creating value for customers by improving the value of the products on the basis of customer preferences, and diversification customer programs by specific applications. There were changes in companies moving toward a culture involving a customer-oriented company from 2000-2005, where there was space for development of management, based on customer relationship management. Finally, from 2005-present, the creation of a structure and processes of a customer-oriented company, that brings an effective customer-based organization, is apparent; where the customer is viewed as a relationship entity and various models are developed involving customers (Peppers & Rogers, 2016).

The interest in CRM applications has an impact on their diversity and available options. Solutions for individual companies, specialized solutions, as well as general applications, help in customer relationship management have been created. A positive reality is that competition is high and many developers offer an adopted solution as open-source, or in the form of demo and trial. The reason is obvious; they like to share the positive benefits from their CRM applications between IT users and facilitate the first acquaintance with the application. The list of available CRM applications is amazing, although good orientation is provided by the magic quadrant from Gartner (Gartner, 2017). This quadrant works with two axes focused on the ability to execute and the completeness of vision.

This quadrant is divided into four rectangles which are dedicated to CRM applications on the level of niche players, visionaries, challengers and leaders. Niche players have a lower ability to execute as well as a completeness of vision. Visionaries have a lower ability to execute, but their completeness of vision is larger. Challengers have a greater ability to execute, but have lower completeness of vision. Leaders have both, a greater ability to execute and a fuller completeness of vision. Niche players are CRM applications such as Eptica, ServiceNow, Freshdesk, or SugarCRM. Challenger is SAP, and leaders are Microsoft, Oracle, or Salesforce. This is just a fragment of all CRM applications (CRM Software, 2018), and there are, for example, CRM applications such as 1CRM, AB Client Care, Basic Online CRM, Call Center CRM, Darzin, Easi-CRM, FastTrack, GetScorecard, HaystackCRM, incomplete CRM, junariCRM, Kapture CRM, Lead Closer, MagicCRM, NEHANET CRM, Odoo, Pega CRM, QuickDesk, Radium CRM, Sales Infinite, T3 CRM, UGRU, Valai CRM, WakeUpSales,

X2CRM, Yetiforce, ZeyOS, and many others are mentioned in Annex 1.

There are many different CRM applications that are focused on the same CRM field. They provide support for customer care and better services by means of their preferences. Forecasting, business intelligence, customer intelligence, and competition intelligence have important tasks here as well. The reason is natural in that it assists in searching for a gap in the market and optimal goods and services for sale. These tasks are also closed to social networks. Social networks (Collin et al., 2011) create a digital world where humans talk about needs, wishes, experiences, or requests. This is a place for individual discussion with friends around the world and for a concentrated intention on promoting stamped intentions among followers and friends. From this point of view, social networks provide an interesting extension and inspiration into CRM applications and marketing aims. Marketing also plays a unique role as a factor in the development of SMEs (Small and Medium-sized Enterprises) (Bagautdinova, 2016), which accounts for 99% of all businesses in the EU (The European Union) and has close links to customer relationship management.

Almost all humans are familiar with Facebook, Skype and Twitter. The benefit is the possibility to send short tweets and posts for existing followers and groups of friends. Professionals high evaluate LinkedIn for connections for support careers. Another site is YouTube, this being one of the largest search engine for watching videos. Many companies use this site to share educational courses and presentations for better contact with customers. IT users also certainly know Pinterest which collects images with a growing influence in social shopping (Moreau, 2017). This is not all, however. There are other social networks, such as 43 Things, Academia.edu, Bebo, CafeMom, DailyBooth, Elftown, Facebook, Gaia Online, Ibibo, Jaiku, Kaixin001, LaiBhaari, Meettheboss, Nasza-klasa.pl, Orkut, PatientsLikeMe, Qapacity, Raptr, ScienceStage, Tagged, Untappd, VK, Wattpad, Xanga, Yammer, and Zoo.gr. This is only a fragment from all the available social networks and others are mentioned in Annex 2.

Social networks such as Facebook, Instagram, Twitter, Skype, Google+, Pinterest, and LinkedIn have active users in billions (Internet Live Stats, 2017). There is a great volume of customers and potential customers for CRM with active reaction based on texts, pictures and videos inserted into these social networks (Abedin, 2016). It is only one step further to question whether these social sites influence CRM applications and whether they also are inspirational for CRM applications. The first idea is to search for help in existing surveys, analyses and top lists of CRM applications with the hope that the social networks play a role in the rating of the CRM application evaluated. Additional work is focused on further analyses for selected CRM applications and information from vendors concerning benefits and the unique features of their applications. Based on detailed research, there is a lack of information about social network integration, for their better implementation into adopted solutions of CRM applications with links to these social networks. Companies and business people actively work, however, with social networks and search for IT support for these tasks.

THE EXISTING PROBLEM AND THE ADOPTED SOLUTION TO THE METHOD

The existing problem is linked to natural relations between CRM applications and social networks based on customer activities, but it lacks information. Billions of customers use social networks in everyday activities, where they discuss preferences, needs and experiences. If care about customers is the focus of CRM applications, then there is also a focus on their activities on social networks. From this point of view, CRM applications have to work with data from social networks and are also inspired by these social networks in the adopted solutions, which are

implemented into CRM applications.

Practically all companies and organizations use social networks such as Facebook, Twitter, InkedIn, Instagram, Pinterest and YouTube actively for marketing and communication with fans, clients and customers. Messages, posts, tweets, pictures, and videos are dedicated to sharing information about new goods, services, innovations and events. Marketing and these processes need optimal IT support in the implemented CRM applications. There is still possible potential, however, in optimal support based on information technology, because CRM applications have potential in implementation of work with social networks. The current situation is exhibited well by the available analyses. Many vendors, independent groups and analysts or visionaries have published analyses, surveys and top lists of CRM applications every year to provide improved orientation in CRM applications. Many of them focus on analytics such as the top CRM software (CRM Software, 2018), 10 best CRM software (10 Best CRM Software, 2018), top CRM software vendors (Top CRM Software Vendors, 2018), the top 10 mobile CRM applications (Schaeffer, 2017), top 41 free CRM apps (Top 41 Free CRM Apps, 2017), find out more about CRM software (Financesonline, 2017), top 10 CRM software vendors and market forecast 2015-2020 (Pang, 2016), the 25 best CRM apps for every business (Zapier, 2015), the top 10 customer relationship management services (Blattberg, 2014).

These analyses try to find the best CRM application by defined preferences and interests. CRM applications are evaluated with various criteria, filters and features. Ordering is determined by rating reviews, visits and requests. Useful criteria are dedicated to the most appropriate solution such as accessibility, availability, cooperation with selected applications or third-party integration, easy installation or setup, free CRM application, innovative, popular, small business, startup, unique feature, user-friendly, market-proven, and very small business. There are also other filters such as the number of users (1-9, 10-49, 50-99, 100-499, 500-999, 1000+), deployment (cloud, installed, mobile, web-based), and features (Call Logging, Campaign Management, Contact Management, Customer Support, Document Management, Email Marketing, Interaction Tracking, Lead Management, Lead Scoring, List Management, Marketing Automation, Product Catalog, Project Management, Quotes/Proposals, Referral Tracking, Sales Forecasting, Sales Pipeline Management, Territory Management, Multipurpose), industry (Accounting, Banking, Consulting, Distribution, Education, Food, Medicine, Not-Profit, Public Sector, Software, Utilities, Other), platform (Windows, Linux, Mac OS). A number of the available analyses show more information about the CRM applications mentioned. This is of great benefit because IT users obtain initial information and compare this with other CRM applications. This information focuses on the starting price, pricing details, links to free trials, deployment, training (based on documentation, videos), support (very often as online), and vendor details. There are also available as videos, demos or screenshots.

There is a lack of information about security, open access and social networks integration. IT users need software with an optimal security strategy because stored data is a valuable wealth for companies. Open access supports the additional development of adopted implementation based on the growth of a company in the future. Social network integration is necessary because everyday communication uses these sites, with a great potential for use in marketing and customer relationship management. For optimal social network integration, sophisticated social media management is needed. This is mentioned only in several analyses, as one criteria Social Network Integration (Best CRM Software, 2017), top 5 social with links to Salesforce, InsideView, Nimble, DemandBase, Lithium and Jive (Top CRM Software Vendors, 2018) or the best social media software (Financesonline, 2017), which mentions CRM

applications such as Pipedrive, Hubspot CRM, Freshsales, bpm'online CRM, Zoho CRM, Nutshell CRM, Base CRM, Salesforce CRM, Insightly, Nimble and PipelineDeals. This controversy between everyday use social networks and the low level of implementation of social networks into CRM applications mirrors the study from Ruder Finn (Schaeffer, 2017). It is apparent that 91% of mobile phone users go online as compared to only 79% of desktop computer users. Users with mobile phone are 1.6 times more likely to manage a business with this device in comparison with traditional desktop users (62% against 39%). CRM applications have to use all the capabilities of information technology to support the growth of businesses and increase quality services for all customers (Tseng & Wu, 2014).

A number of the available analyses do not provide more information about the adopted method or methodology, or use the highest-rated apps for CRM from the Google Apps Marketplace (IT Business Edge, 2017); mentioning only the results. The adopted methodology is often based on a request to find the best CRM software for the specified category of business (small business, very small business) which influences the defined criteria for evaluation (what the IT users need, like, dislike, think and what experience they have with CRM applications). An additional interest focuses on the available CRM applications based on review sites, business websites and online sources. Finally, there is testing by specified criteria *via* business accounts, software demos, downloading mobile apps, watching videos and contacting vendors with questions as business people (Angeles, 2017). There is again a lack of interest about social media integration. Default criteria include cost, ease of use, contact-management features, lead-generation tools, sales and marketing tools, employee-tracking capabilities, customization options, automation capabilities, third-party integration, reporting and analytics, mobile access, service limitations and customer service.

Based on this inspiration, this paper presents a solution to the specified problem (controversy) and the method divided into five steps is used. First, you need to have an overview of the available CRM applications and social networks that can be used for CRM marketing. Secondly, it is a good idea to look for an up-to-date CRM analysis focusing on integrating social networks into CRM applications. Thirdly, there is a need to explore in detail the active work with selected CRM applications in order to evaluate the accepted social networking solutions. Fourth, the data obtained is used to compare social network integration into CRM applications for public recommendation and final result (conclusion). Finally, for the fifth time, recommendations are set for optimal social networks integration into CRM applications.

A detailed overview of available CRM applications and social networks has been mentioned above in chapter dedicated CRM Applications and Social Networks. The first part of this chapter is dedicated to developments in the CRM field. There is information about CRM applications from 1980 to the present with links to Gartner's magic quadrant and available CRM applications which create an impressive list. The second part of this chapter focuses on social networks and the relationship between CRM applications and social networks. Current analyses and top lists are described in this chapter. The following chapter (Realized Work and Analyses for Public Recommendation) consists of the key part of the presented paper. Analyses are described which are based on active work with selected CRM applications in detail. The purpose is to monitor the adopted solutions for work with social networks or inspiration. These analyses are used to specify recommendations for optimal implementation of social networks into CRM applications.

REALIZED WORK AND ANALYSES FOR PUBLIC RECOMMENDATION

The realized work is based on the above described method to solve the current problem, which focuses on CRM and social networks. This chapter is dedicated to working with selected CRM applications for data collection for further analysis and public recommendation. For this purpose, CRM applications were selected as agents such as Freshsales, Hubspot CRM, Insightly, NetSuite CRM, Nimble, Pipedrive, Salesbox CRM, Salesforce CRM, SugarCRM and Zoho. To test the CRM, you need to download a trial (demo) version or create an account for signing in to cloud systems. Some CRMs offer free downloads, but only a limited number of days (for example, 14 or 30 days). It is not easy to navigate through individual CRM applications; that is why good newsgroups, blogs and guidance documents on the appropriate use of CRM are also helpful. There are places where you can share experiences, proven methods and advice from individual suppliers. Emphasis has been placed on social networks and activities that support work with them - items in profile of contacts and leads, links to social network, integration of other applications and special solutions. It was easy to see social networking information entry (items) about accounts from social networks in profiles of contacts and leads, but some the difficulties caused MailChimps, Trello or Yesware applications to represent other CRM-integrated applications. You must have some data and optimal settings. This is why newsgroups and blogs have been very useful. A comprehensive description of the accepted solution for social network integration into CRM is given in Table 1.

Order	Selected CRM Applications	Social Network Implementation	Description of the Adopted Solution
1	Freshsales	X	Freshsales uses a link in Google Calendar. Google and LinkedIn are integrated to find information. There is also a place for Twilio.
2	Hubspot CRM	X	Hubspot CRM uses LinkedIn, Facebook and Twitter links to share information. You can find more links on Google+, Xing, YouTube, and Pinterest.
3	Insightly	-	Insightly uses emails and websites (items) for leads.
4	NetSuite CRM	-	NetSuite CRM also implements emails and websites (items) for leads like Insightly.
5	Nimble	X	Nimble uses Skype ID, Twitter, Facebook, LinkedIn, Google+, Foursquare and other social networks as mentioned, as well as an email and a contact phone.
6	Pipedrive	X	Pipedrive implements links to Google Apps, Google Drive, Google Maps, MailChimps, Trello, or Yesware.
4	Salesbox CRM	X	Salesbox CRM has Facebook and LinkedIn in contacts (leads) and link to MailChimps.
8	Salesforce CRM	X	Salesforce CRM uses the unique Chatter concept, as well as email for contacts and links to Google Search and Google Maps.
9	SugarCRM	-	SugarCRM uses emails and websites (items) for leads.
10	Zoho	X	Zoho uses Skype ID and Twitter items for leads. Twitter, Facebook and Google+ links are also

			available for lead and contact profiles.
Total number of active implementations			7

Source: Authors' Own work

The rows of this table consist of records of these CRM applications. Each record is divided into 4 columns containing information about the order, the CRM application selected, and an evaluation if this application works with the social networks with a description of the adopted solution in detail. The first column is the order which creates a standard one-step linear series. The second column represents the name of the selected CRM application. The third column has two values (X, -). The symbol "X" indicates that the CRM application has implemented social networks into the application and symbol "-" indicates that the CRM application has no social networks implemented into the application on a user-friendly level, and that there are barriers in easy use CRM applications; this reality is therefore evaluated with the symbol "-". The last column provides a description of the adopted solution.

Out of the realized analyses, the most popular solution for social network integration involves adding several items focused on customer accounts from social networks. This information is integrated into the list of items for contacts and leads. Default items are dedicated to Facebook, LinkedIn, Twitter, but there also are links to Google+, Skype. Some CRM applications provide unexpected links to Foursquare (with the user id and screen name), Avatar (Avatar URL) and User ID (User Name) for a user account from a specified social account. The values are username and profile URL from these social networks. Based on this information, monitoring of the realized activities for existing contacts and leads is available. Unfortunately, there are CRM applications that only provide email, phone, and website contact information. In this situation, IT user may add other items *via* setup or record the needed information into notes. This solution is not so user-friendly and there is still potential in the optimal implementation of CRM applications.

The next positive benefit is provided by the ability to share information with customers directly from a CRM application *via* social networks. The most popular is again Facebook, LinkedIn, and Twitter. Some CRM applications provide sharing of information with Google+, Xing, YouTube, and Pinterest. These options are needed for interactive communication between customers and companies. In addition, there are inspirational integrations with Google Calendar, Google Search, Google Maps, Google Apps, Google Drive, or MailChimps, Trello and Yesware. All these integrations help with quick orientation and due to the current conditions and the IT user cannot use another application. There are also unique concepts such as chatter. Chatter is from Salesforce CRM and consists of a place for sharing the experiences of users (followers) in the given company taking inspiration from Facebook or Twitter.

From the view of benefits, CRM activities are easier if there is the ability to shift to accounts from social networks and the IT user can share information *via* social networks with followers. There are useful solutions to integrate with maps, emails and the phone system to have all the needed information and conversation in one application. For an objective description of the selected CRM applications, mention must be made of the fact that all the applications provide a particular support of social network integration, but not in an optimal implementation. There are links to emails, websites, and notes at the basic level. These items may be used for links to social networks or there is the ability to add additional items by preferences *via* setup. This reality is therefore evaluated with the symbol "-" in the above-mentioned table.

RECOMMENDATIONS FOR SOCIAL NETWORK INTEGRATION IN CRM APPLICATIONS

For contact and lead records, default items include the contact name, organization, phones and fax, address, lead status, lead source, industry and description. Unfortunately, there are important items that provide benefits and are not a default part of the adopted solutions. Such items and links are dedicated to Facebook, Twitter and Skype. They are useful for social network integration into CRM applications. Some of them are also missing in the complex solutions such as SugarCRM, Netsuite CRM or Insightly. These solutions are more sophisticated and are special implementations for sales manager, controller, operative manager, support representative or chief information officer. Their benefit is in the excellent design of forecasting, dashboards and business intelligence. Additional needed information may be stored in notes or there is a way of adding other items *via* setup.

Referring to the recommendations, social network integration is based on four activities: (1) Record contacts and leads with social networking items (CRM_ACTIVITY1). (2) Links to the social network for publishing information to customers (CRM_ACTIVITY2). (3) Integrate other applications for better calendar, search, or map orientation (CRM_ACTIVITY3). (4) Sharing information through places like chatter in the company (CRM_ACTIVITY4).

There is a specification of the public relations between social network integration (SOCIAL_NETWORK_INTEGRATION) and activities that support this integration into CRM applications:

$$SOCIAL_NETWORK_INTEGRATION = \prod_{i=1}^4 CRM_ACTIVITY_i \quad (1)$$

Where, CRM_ACTIVITY_i for i=1 to 4 creates recommended activities for the optimal solution. A great variability is also visible in the composition of individual CRM activities for social network integration. There are the following relations:

$$CRM_ACTIVITY_1 = \prod_{j=1}^{12} ITEMS_j \quad (2)$$

Where, ITEMS_j for j=1 to 12 creates recommended items for recording information for contacts and leads about Facebook, LinkedIn, Twitter, Google+, Skype, Foursquare, Avatar, public User ID (User Name), and also email, phone, websites and notes.

$$CRM_ACTIVITY_2 = \prod_{k=1}^7 LINKS_k \quad (3)$$

Where, LINKS_k for k=1 to 7 creates recommended links for Facebook, LinkedIn, Twitter, Google+, Xing, YouTube and Pinterest.

$$CRM_ACTIVITY_3 = \prod_{l=1}^8 OTHER_APPLICATIONS_l \quad (4)$$

Where, $OTHER_APPLICATIONS_l$ for $l=1$ to 8 creates recommended integration with other applications such as Google Calendar, Google Search, Google Maps, Google Apps, Google Drive, or MailChimps, Trello and Yesware.

$$CRM_ACTIVITY_4 = SPECIAL_SOLUTION \quad (5)$$

Where, $SPECIAL_SOLUTION$ creates the idea of chatter.

This recommendation helps implement social networks in customer relationship management. There are useful activities for actively integrating social networks. In addition, each activity is described for better understanding. Unfortunately, there are no CRM applications that provide integration with all the activities (based on variables) and full compositions. These variables are targeted at IT and social media (networks) professionals. Optimal care also has marketers and salespeople on the subject. Social media has great potential as it is a place for sharing information around the world with many potential customers. There are also statistics on the number of social media users around the world. In 2019, it is estimated at 2.77 billion social media users around the world, and in 2017 it was about 2.46 billion (Number of social media users worldwide from 2010 to 2021). The largest social networks are Facebook with 1.9 billion users, WhatsApp with 1.2 billion users, Messenger with 1.2 billion users, YouTube with 1 billion users, QQ with 869 million users, Instagram with 700 million users, Twitter with 328 million users, or Weibo with 313 million users (Sparks, 2017). So it is a unique place where it is easier to find customers and offer them communication based on good experiences.

The weakness of CRM applications is that they often offer only half the solution. This solution lacks the depth and breadth of social network integration. The reasons are two. The first, solution accepted does not support the optimal volume of activities (from information entry (items) for contacts and leads, through links on social networks and integration with other applications to special solution). They focus only on some of them, for example, there are no social network links or integration with other applications. Secondly, the solution accepted does not support the optimal diversity of the activity. You can only work with several items to record information for contacts and leads, links to different social networks, low integration of other applications, and the absence of a special solution according to the preferences of IT users. For example, Facebook and LinkedIn are default social network links, but there are other social networks like Google+, Xing, or Pinterest, and they are often omitted. It is not good because information technology has to inspire work with customer relationship management, and information technology must also respect the diversity of work with social networks.

In this situation, it is possible to add new items and links according to preferences as an administrator, but it is not an instant IT solution to support automated processes that work with social networks. It is also a problem for SMEs with limited resources and lacking IT professionals. They do not have the time and skill to set up CRM application according preference. The first variable focuses on items in contacts and leads. Contacts and leads are in the interest of selling more with CRM and recovering lost leads (Xplenty, 2017), defining criteria for campaigns with optimal communication strategy (Feldman, 2018), or responding quickly to customer requirements (Virgillito, 2016). To work with social networks, if you need to know customer account on social networks then it is necessary to store such information in the appropriate entry (item). These $ITEMS_j$ for $j=1$ to 12 specify the recommended entries (items) for capturing information for Facebook, LinkedIn, Twitter, Google+, Skype, Foursquare,

Avatar, public User ID (User Name), and email, phone, websites and notes.

The second variable focuses on social network links for their active use. It is impractical to move to a web browser and type the required link there. These links are very easy to implement in CRM without any restrictions. The advantage is instant sharing of presentations and documents with customers and potential customers directly from CRM. This is the listening; so there is recommendation to prefer $LINKS_k$ for $k=1$ to 7 for Facebook, LinkedIn, Twitter, Google+, Xing, YouTube and Pinterest as the most useful social networks for marketing and customer contact. In this respect, there is an interest in social media intelligence with automatic links to profiles (Gittlen, 2017) or effectiveness of wealth of social media based on return on investment (ROI) (Teso, 2017).

The third variable recommends integration of useful applications into CRM. The advantage is that IT users have a lot of good experience and it is also easy to use them. So the variable $OTHER_APPLICATIONS_l$ for $l=1$ to 8 determines optimal integration with other applications, such as Google Calendar, Google Search, Google Maps, Google Apps, Google Drive, or MailChimps, Trello and Yesware. This integration brings a great advantage in the form of the necessary addition of CRM functionality and productivity enhancement from CRM (CRM Integration, 2017), which will solve unique business problems (Saptarshi, 2017) without the need for coding.

The fourth variable $SPECIAL_SOLUTION$ focuses on special concepts that CRM applications must offer for active social networking. In many cases, these ideas are inspired by social networks, and this working style is also used for internal CRM communication. A good example is the idea of chatter from Salesforce CRM that draws on social network experience. Based on Facebook, chatter is designed to manage feeds and received notifications. This special solution helps you learn more about CRM and develops CRM concepts with deep personalization (Kowalke, 2017) or improves the impact of social media communication perception with brand confidence (Khadim et al., 2018).

CONCLUSION

The market with information technology contains CRM applications which are concerned with data for customer relationship management. These CRM applications provide call logging, campaign management, contact management, customer support, document management, email marketing, interaction tracking, lead management, lead scoring, list management, marketing automation, product catalog, project management, quotes, proposals, referral tracking, sales forecasting, sales pipeline management and territory management. The default behavior of customers is that they share experiences and needs on social networks. From the point of view of CRM, there is also a needed optimal interest concerning social networks where other relevant information is available. Perhaps all companies have contacts with fans, potential customers and customers with Facebook, Google+, LinkedIn, Pinterest, Skype or Twitter. Good example is websites with links to such social networks. Based on the realized overview, the analyses indicate that there is a lack of interest about optimal social network integration into CRM applications.

For an active solution to this controversy (problem), a recommendation is presented for optimal social network integration into CRM applications. This solution is based on the realized analyses of various CRM applications. The realized analyses focus on practical work in available trial versions, demos, documentations and training videos for data collection for further analysis and public recommendation. Freshsales, Hubspot CRM, Insightly, NetSuite CRM, Nimble,

Pipedrive, Salesbox CRM, Salesforce CRM, SugarCRM, Zoho were selected as CRM applications for monitoring social network integration. For optimal social network integration, this recommendation is created by four activities: (1) The activities have to record the needed information about contacts and leads, (2) To link to the specified social networks for sharing information, (3) To integrate other applications for better orientation and, (4) Finally to share special places such as chatter. Relations for individual activities are also specified in order to describe their composition. The purpose is to increase interest in social networks and their better integration into CRM applications of sufficient depth and breadth.

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ANNEX 1: LIST OF AVAILABLE CRM APPLICATIONS

1. 1CRM, 360 Enterprise Suite, 3GBusiness, 4ASoft Agenda, 90degree Team Task
2. AB Client Care, absoluteBUSY, ACE Contact Manager, Achiever CRM, AcuityCRM, ADAPTcrm, adeptcrmsales, Affinity, AgencyOrganizer, Agile CRM, Align, AllClients, AllProWebTools, amoCRM, Amphis Customer, Apis CRM, AppShore, AppStacks Workflows, Apptivo CRM, Aptean Pivotal CRM, AquaCRM, ArdexusWebMODE CRM, Artemis CRM, Attentive, Automational, Avature, Avidian
3. Basic Online CRM, bCommunities, bexio, billage, Bios CRM, Bitrix24, Bizns Tool CRM, Bizwinger, Bizzy, Black Ice CRM, BlueCamroo, BlueRobin CRM, Bluwave CRM, Boréal Application, Borneosoft Online Forms & CRM, Boulevard, BPA CRM, BSI CRM, BuddyCRM, BusiBI CRM, BusinessMan Enterprise, BuzzFlow
4. Call Center CRM, Callbox Pipeline, Capitán CRM, Capsule, CAS genesisWorld, Celframe CRM, Centra CRM, CentralStationCRM, Cerillion Enterprise BSS/OSS, Cirrus Insight, Clevertim CRM, Client Book CRM, ClientSpace, CLIM8.NET, Close.io, Clouderac CRM, CloudYogi CRM, CollaBrill, Comarch CRM for Telecoms, Comidor, COMPLETExRM, Composity, ConcourseSuite, Connector, Conrep, CONTACT MANAGER CRM, ContactEase, Conversocial, Core4 CRM, CounterBalance, CRM, CRM, cRM, CRM Billing Software, CRM Express, Crm on clouds, CRM software, CRM24x7, CRMadar, CRMBOOST, crmConnect, CRM-Express, CRMGRID, CRM-gx, CRMlet, CRMnext, CRMPRO, CRMrus, CROSS-CRM, Crowdkout, CrowdTwist, CustomAnswers, Customer Relationship Management, Customer Relationship Manager, Customer Service Software, CustomerFirst, CVenture, CxCRM, CXRM
5. Darzin, Data2CRM.Migration, Daxko Engage, DealCloud, DebtPayPro, Deltek Vision, Diinsy CRM, Dolphin CRM, DivyaCloud CRM, DotAlign for Outlook, Dynamics CRM
6. Easi-CRM, Easy Simple CRM, EBIS II, eComlog, E-DEAL CRM, edrone, eNetCRM, EnquireLEADS, EPESI BIM, ePowerCenter, Erpisto CRM, eSalesTrack CRM, EspoCRM, Evolumi, eWay-CRM, eWebLife, eXcediant, eXert CRM, Ezeassist, eZnet CRM
7. FastTrack, Fat Free CRM, Fieldbook, FieldForce, FileMaker Pro App for CRM, Finaeo, Five CRM, Flightdeck, Flowlens, Focus, Focus CRM, FPS GOLD Relationship Management, Freshdesk, FundEngine
8. GetScorecard, Gift and Loyalty, Gifttag, GleanView, GlobiMail, Globitel Retail Quality Management (RQM), GMP CRM, GoSquared, Grace, GreenRope, Gro CRM, Grow in Cloud
9. H, HaystackCRM, Healthcare CRM, Heap, Honcho CRM, Honeybee, HUB CRM, Hvantage CRM, HyperOffice CRM, HyperTeam CRM for Office 365
10. icomplete CRM, iCRM, iGlobe CRM for Office 365, iGov CRM, i-linked, Impel CRM, InfiniteCRM, Inigo, Inova, Insight Selling Suite, InStream, IntelliPad CRM, Intellistant, Interakt, InTimeCRM, InTouch, Intrabench,
11. Intrix CRM, Introhive, InvisibleCRM, ioGrow, iRewards, IRIS CRM, itracMarketer, Ivinex CRM junariCRM, Junxure Cloud, Just-Contact
12. Kapture CRM, KEA, KeiCRM, Kool CRM, KulaHub, Kustomer
13. Lead Closer, LeadOrganizer, LeadPro CRM, Leads 365, LeadsLive, LeadTrac, Legrand CRM, Lexicata, Liid, Lime, LinxCRM, List Master CRM, Logical Office, Lunar CRM, Luxor CRM, Lynkos
14. MagicCRM, MAP.CRM, MasterSales, MasterStream, MaxiClient CRM, MedExpert CRM, melssCRM, MergeWare CRM, MGW CRM, Mia, MiAgent, Money Advice + CRM, Monkey CRM, Mothernode CRM, MyBusiness
15. NEHANET CRM, NetHunt CRM, netPeople, NextSky Sales, Nexxus Mobile Intelligence, Nimble, Ninjodo, NOWTIS, Nutriadmin
16. Odo, Okout CRM, OM.Net, OMNITRACKER, ONDiGO, OnSite CRM, OpenCRM, openCRX, Oracle CRM, Oracle Sales Cloud, OrangeCRM, Orax SDI, OROCRM, Oscar, Outfield, Outseta, Oxygen CRM
17. Pega CRM, PeopleTray, PeopleVine, Peppercan, PharmaCODE, Pipedrive, PipelineManager, Pipz, PISA Sales, Planner Dale, PlanPlus CRM, Platformax, PlaybookIQ, PlayMaker CRM, Ploiter, Plum CRM, PMAM CRM, PRIAM ERP/CRM, ProfiCRM, Project Pipeline, Prolocus CRM, Prospect Sleuth CRM, ProSTART, Push It
18. QuickDesk, QuinataCRM, Qwikkr
19. Radium CRM, Rainbow CRM, Rapidtrade, Raw CRM, RAYNET CRM, RealTime CRM, RedHorse CRM, Reflect, Relationally, Relenta, RepairShopr, Resco Mobile CRM, REST, Rethink, Revamp CRM, Riptide Cloud, River CRM, ROLLER, Rollio, Routzy, Rova, Rubi CRM
20. Saarif CRM, Sage CRM, Sales Infinite, SalesBabu CRM, SalesBase CRM, Salesboom CRM, Salesbox,

- SalesCRM+, SALESFOKUZ, SalesGrow, SalesIn4 CRM, SalesJunction, Saleskit, SalesMetric, SalesNexus Online CRM, SalesOptima Stratus, SalesOptimize, SalesOutlook CRM, SalesPage, SalesPro CRM, SalesRadar, salestar, Salestrakr CRM, Saleswah CRM, Saleswit Pinnate, SalezShark, Salpo CRM, SAP Hybris, SAP CRM, SAS Customer Intelligence, Second CRM, SEI CRM, Sellf CRM, Service007 CRM, Servitium CRM, SevenRooms, SignupLab, Simple CRM System, Simple Sales Tracking, SimpleCRM, simpleview CRM, Simplicity CRM, Simply CRM, SIS CRM, Skyward CRM, Smalution CRM, SmartCompany, SmarterSMB, SmartOffice, SmartRoom CRM, SmartStart CRM, SmartTouch CRM, SnapCRM, Snapforce CRM, Sobia Canyon, SoulCRM, SP Sales Portal, Sparkcentral Customer Engagement Platform, SplendidCRM Enterprise, SprinxCRM, StarterCRM, StayinFrontTouchCG, Streak, SugarCRM, Sugeste, SuiteCRM, Suntico, SuperOffice CRM, SwiftCRM, SwingBusiness, Swyft Interaction Hub, Synap
21. T3 CRM, Tabillo, Tactile CRM, Talisma CRM, Talisma CRM, TangoCRM, TCS CRM, TecArt, Techsysplus CRM, Teckst, The Layer, The Newspaper Manager, TLD CRM, Totally Mobile Office CRM, Trustfuel, Tuo 360, Tustena CRM
 22. UGRU, UpChannel Platform, update.CRM, UPilot, Upsales CRM
 23. Valai CRM, VC Connect, Veeva CRM, Vela CRM, Veloxly, Vergify, Viabl, Virtuous, Vitalblocks CRM, Vite CRM, Vivo CRM, VTC CRM, vtiger CRM
 24. WakeUpSales, WCN Talent Acquisition Suite, webCRM, WintoucheCRM, WiredContact Enterprise, WizSame, Workforce Manager, Worldsoft Business Suite
 25. X2CRM, XRM Webkit Yetiforce, Ysura
 26. ZeyOS, ZIRA CRM, Zoho CRM, Zoomaworks, Zurmo, Zypr

ANNEX 2: LIST OF AVAILABLE SOCIAL NETWORKS

1. Academia.edu, About.me, Advogato, aNobii, AsianAvenue, aSmallWorld, Athlinks, Audimated.com Bebo, Biip.no, BlackPlanet, Bolt.com, Busuu, Buzznet
2. CafeMom, Care2, CaringBridge, Classmates.com, Cloob, ClusterFlunk, CouchSurfing, CozyCot, Crunchyroll, Cucumbertown, Cyworld
3. DailyBooth, DailyStrength, delicious, DeviantArt, Diaspora, Disaboom, Dol2day, DontStayIn, Draugiem.lv, douban, Doximity, Dreamwidth, DXY.cn
4. Elftown, Ello, Elixio, English, baby!, Epernicus, Eons.com, eToro, Experience Project, Exploroo
5. Facebook, Fetlife, FilmAffinity, Filmow, FledgeWing, Flixster, Flickr, Focus.com, Fotki, Fotolog, Foursquare, Friendica, Friends Reunited, Friendster, Fuelmyblog, Fyuse
6. Gaia Online, GamerDNA, Gapyear.com, Gather.com, Geni.com, Gentlemint, GetGlue, Gogoyoko, Google+, GovLoop, Grono.net, hi5, Hospitality Club Hospitality, Hotlist, HR.com
7. Ibibo, Identi.ca, Indaba Music, Influenster, Instagram, IRC-Galleria, italki.com, Itsmy Jaiku, Jie pang
8. Kaixin001, Kiwibox
9. LaiBhaari, Last.fm, Late Night Shots, Lifeknot, LinkedIn, LinkExpats, Listography, LiveJournal, Livemocha Makeoutclub, MEETin, Meetup, Meettheboss, MillatFacebook, Minds, mixi, MocoSpace, MOG,
10. MouthShut.com, Mubi, MyHeritage, MyLife, My Opera, Myspace Nasza-klasa.pl, Netlog, Nexopia, Ning
11. Odnoklassniki, Open Diary, Orkut, OUEverywhere, PatientsLikeMe, Pingsta, Pinterest, Plaxo, Playfire, Playlist.com, Plurk, Poolwo
12. Qapacity, Quechup, Quora
13. Raptr, Ravelry, Renren, ReverbNation.com, Rooster Teeth, Ryze Business
14. ScienceStage, Sgrouples, ShareTheMusic, Shelfari, Sina Weibo, Skoob, Skyrock, Smartican, SocialVibe, Sonico.com, SoundCloud, Spaces, Spot.IM, Spring.me, Stage 32, Stickam, Streetlife, StudiVZ, Students Circle Network, StumbleUpon
15. Tagged, Talkbiznow, Taltopia, Taringa!, TeachStreet, TermWiki, The Sphere, TravBuddy.com, Travellerspoint, Tsu, tribe.net, Trombi.com, Tuenti, Tumblr, Twitter, Tylded
16. Untappd, Uplike
17. VK, Vampirefreaks.com, Viadeo, Virb, Vox
18. Wattpad, WAYN, WeeWorld, We Heart It, Wellwer, Wepolls.com, Wer-kennt-wen, weRead, Wooxie, WriteAPrisoner.com
19. Xanga, XING, Xt3 Yammer, Yelp, Inc., Yookos Zoo.gr