# Towards to Enhancing Business Process Management in Corporate Environment: Emerging Markets View

Anastasia Pozdnyakova, Victoria Sheer, Yury Kupriyanov, Victor Taratukhin, and Joerg Becker

Abstract Social BPM (BPM) is widely discussed in the scientific and business community. While the interest to the topic is elevating, the potential and benefits of employing Social BPM remain vague and ambiguous. This paper discusses these problems and elaborates on two different approaches of Social BPM: external and internal. Internal approach is about designing and modeling business processes inside the organization by all employees, who are insiders to the processes, while external is about participating and listening to all stakeholders such, as employees, current customers, potential customers, competitors and suppliers. We examined emerging markets, particularly Russia, to evaluate the spread of Social BPM there. The practice of integrating such tools in National Research University Higher School of Economics (Moscow, Russia) is presented and the research was conducted to estimate stakeholders' attitude to the system.

 $\textbf{Keywords} \ \ \text{Social BPM} \bullet \ \ \text{BPM} \bullet \ \ \text{Social software} \bullet \ \ \text{Social media} \bullet \ \ \text{Knowledge}$   $\ \ \text{management}$ 

### 1 Introduction

The problem of value for commercial and public organizations is becoming more and more popular within academia and business environment. Numerous conferences and conferences' tracks are organized to discuss this topic. For example, Sandy Kemsley presented her work "Making Social BPM Mean Business" at the conference BPM 2012, where she talked about benefits, which social BPM can bring to business. Emanuele Molteni and Marco Brambilla hold a talk on "Social BPM", (BPM Europe 2012, London, June, 19), where they disguised the influence of Social Web and BPM combination on performance of an organization. Social

A. Pozdnyakova • V. Sheer • Y. Kupriyanov (⋈) National Research University Higher School of Economics, Moscow, Russia e-mail: yury.kupriyanov@sap.com

V. Taratukhin • J. Becker

European Research Center for Information Systems, WWU Muenster, Münster, Germany

Business Forum, which took place at Milan, 4–5 June, 2012 was totally devoted to this problem [1].

Management world have already known that the company's main resource is knowledge, since 1993 Peter Drucker in his book "Post-Capitalist Society" said, that the World comes into "knowledge society" where the main recourse is not capital, natural recourses or labor, and the main role in the company is performed by "knowledge workers" or knowledge employees [2].

It is a well-known fact that Web 2.0 helps companies to develop, evolve and to use this "knowledge" in a better way (McKinsey Global Survey, September 2009; [3]) [4]. The question that we want to investigate is how BPM can benefit from social software as one of the Web 2.0 instances. It should be mentioned, that a company, which can use Social BPM features usually represents innovative, fast developing market with non-standardized goods. It means that it is hard for such companies to "stay afloat" and it is "remaining in the dark", so almost all its processes are hard to define.

The purpose of this paper is to represent two different approaches of applying Web 2.0 to improve BPM at the company, what is known as Social BPM, and to examine specificity of its usage on the emerging markets (especially Russia). The tasks, which were set, are the following:

- Define and describe two approaches to Social BPM exploitation
- Highlight their weak and strong points
- Investigate the problem of Social BPM spread and use in Russia

The paper is organized into two parts. The first part consists of four sections:

- Section 1 gives definitions of considered aspects.
- Sections 2 and 3 describe two different approaches to the problem.
- Section 4 presents comparison of the approaches.

The second part represents an overview of the spread of Social BPM tools in Russia. Also, it was attempted to make some recommendations concerning the improvement of the Social BPM dissemination in emerging markets. Finally, the paper ends with conclusion, reflection and discussion of the further research.

# 2 Existing Approaches Analysis

# 2.1 BPM Meets Social Software

Business Process Management is a set of structured methods and technologies for managing the operations of an organization [5]. "The goal of BPM is to create a process-centric, customer-focused organization that integrates management, people, process and technology for both operational and strategic improvement"

[6]. Classically, the focus of BPM has been transactional, highly repetitive processes that can be predicted and executed according to a schema [7].

It is known, that this attitude supposes a top-down approach. Today, however, bottom-up and especially center-up-down approaches [8] are becoming more popular and communication among people can improve their applying and can help to exclude problems, which were identified above.

It is obvious that communication is inseparable from social software. Social software has been defined by Schmidt and Nurcan [3] as "software that supports the interaction of human beings and production of artifacts by combining the input from independent contributors without predetermining the way to do this". It can be asserted that social technology can support a more flexible, human-centric approach to BPM. That is what Social BPM is about. The movement to Social BPM is evidenced in the literature by Silva [9] who discusses the view that business processes should not hinder human intervention, and the social technology should be embedded within BPM initiatives.

Social business process management is an emerging concept that marries the flexibility and pervasiveness of social media with the management discipline of BPM [10]. Marco Brambilla from Politecnico di Milano (Italy), in turn, defines Social BPM as "the effort of designing and executing business processes collaboratively". On the basis of these two definitions, it can be said that social BPM can help companies to:

- Involve their informal knowledge to the working process
- Make all processes in the company more visible to the affected stakeholders
- Raise the awareness of the community about this processes
- Find appropriate performers for processes execution
- Elicit opinions that can contribute to make a right decision

The theme of social BPM is under discussion and there is no comprehension, what it is exactly, however academia and business communities have already understood the importance and efficiency of social BPM. Different experts see the realization of this concept in various ways. Some experts believe that a company should develop its own application (or to buy it) which connects Enterprise Social Network and BPM. Others suggest using already existing global social services and incorporating them into company's business processes. Two approaches were identified based on these opinions. The first approach will be called internal, because it includes only internal stakeholders of a company and support business process management itself. The second will be named external as it engages users of global social networks and serves as a mean for future development and improvement of the business processes and models.

## 2.2 Social BPM as Corporate Application

There are different issues connected with BPM and Social Software. During BPMS2 workshop some BPM phenomena were identified. They show the importance of adding Web 2.0 techniques to BPM.

- 1. Model-Reality Divide. This is the divide between abstract process models and the executed processes. It means that, in spite of the fact that business process models can be well designed, they are not used during the enactment of business process. Unsurprisingly, the employees do not accept such models but follow their own process. They just don't want to go deep into the model and continue repeating the process to which they are accustomed to.
- Lost innovation. Although there is knowledge in the organization about possible improvements of business processes, this knowledge is not applied and the possible optimizations are omitted. It happens because such knowledge does not reach the process owner.
- 3. Information pass-on threshold. The previous problem appears because it needs too much effort to the author of the improvement to pass it to the owner of the process. Further, processing is not transparent to employees or success is considered to be improbable.
- 4. Lack of information fusion. It means that stakeholders are not properly involved into business processes modeling; consequently they are only "consumers", who have to accept processes created for them. Moreover, the terms and concepts just imposed on the employees [9].

Thereby, combining social tools with BPM is necessary for improving organization's business processes and for making them more applicable. Different researches stick to this idea. They believe that social software can support involving employees, customers and other stakeholders in the BPM lifecycle. Professors from Queensland University of Technology consider that social technology can be applied to each phase of BPM process lifecycle [7]. They compared BPM phases of BPM lifecycle, which were assigned by Prof. Becker, Prof. Kugeler & Prof. Roseman in 2001 [11] to the framework of the list of characteristics that define what social technology can offer [12]. It is presented in the table below. This Table 1 shows how Web 2.0 concepts could be used for BPM lifecycle.

This comparison leads us to the understanding of importance of social technology for BPM. The question, which rises, is how to connect Web 2.0 with business processes of the company.

Social features can be introduced at multiple levels while designing BPM solutions. An evolutionary perspective on social BPM adoption model is presented on Fig. 1.

At the first (lower) level there are the conventional BPM solutions, which are implemented today very often. The main characteristic of this solution is a rigid task and no communication between process participants. The next step is collaborative process design, which allows people to design business processes

 Table 1
 BPM lifecycle and Web 2.0 patterns (Paul Mathiasen [7])

		O'Reilly's core patterns for Web 2.0 success	re patterns	for Web 2.0	saccess				
		Collective	"Intel		User	Pervasive	Perpetual	Long	
Lifecycle phase	Phase description	intelligence	inside"	Innovation experience	experience	software	beta	tail	Scalable
Process	Understand the process scope and eco-	X	X					×	
identification	system in detail								
Process	Represent the identified process via	X							
modeling	modeling language								
Process	Analyze process performance and	X	X	X					
analysis	issues								
Process	Identify and evaluate options for pro-	X	X	X	X	X	X	×	X
improvement	cess improvement, consider con-								
(to-be)	straints/resources								
Process	Embed improved process in the			X	X	X	X	×	×
implementation	Organization								
Process execu-	Perform the processes manually or			X	X		X	×	×
tion (to-do)	automatically								
Process moni-	Guiding and controlling the daily		X			X	X	×	
toring and	operations								
control									

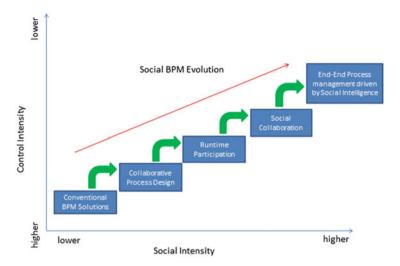


Fig. 1 An evolutionary perspective on social BPM adoption (Infosys Research, 2011)

collectively. It provides many benefits if the BPM team are geographically dispersed. After that comes runtime participation, which can help to extend collaboration from process design to process execution. It can be realized through the social tools, such as chat voting mechanisms etc., which are integrated into the BPM system environment. Next, there is a social collaboration, which involves participants in the process execution by the social media, who were not envisaged to be a part of that process during deployed time. At the last stage end to end processes are designed and managed by social intelligence, which includes the "feedback loop". After the consideration of this evolutionary perspectives of Social BPM it can be said that tandem of social tools and BPM has great opportunities for future progress. To achieve these levels of evolution, different approaches of business processes development are used. Below are introduced some methods of combining BPM with Web 2.0 techniques.

#### Model-Driven Method

The method for the design, fast prototyping and deployment of BPM solutions extended with social collaborations, which refer to the fourth stage of this evolution, was introduced by professors of Politecnico di Milano at their paper "A Model-driven approach to Social BPM applications" [13]. The core of the proposed approach is three-layered:

1. Methodological level. It provides a structure for deep understanding of the incorporate social interactions ways in business processes.

- 2. Notational level. Here they verify the capacity of a BPMN language in order to express social communications and cover Social BPM requirements (they call it BPMN 2.0).
- 3. Technical level. At this level they exploit model-driven software engineering techniques to produce applications. This technique helps to bring social process directly from the extended BPMN process schema.

This approach can be prototyping by the use of WebRatio service (it represents the model-driven software engineering technique, that was mentioned), which helps to build different innovative application, such as user-centric BPM systems and Social BPM. The team of WebRatio company declares that they are "focusing on the most challenging aspect of Social BPM: letting organization harness the power of the crowd by allowing selected and controlled social interactions within business process". WebRatio allows its customers to transform project idea into the functioning solution in three steps. Firstly, a model in BPMN and WebML has to be designed. Secondly, an environment needs to be customized. Finally, WebRatio is able to generate the web-based application. Moreover, this service can be used in many other cases, which refer to the Social BPM development.

#### Recommendational-Based Method

The other method for enhancing BPM with social features was suggested by Agnes Koschmider in her work "Social Software for Modeling Business Processes". It expresses a recommendation-based process modeling support system which is supplemented by the "social" features. In her work social networks from a process model repository and from a recommendation history are proposed. Through such social extension process builders "can gain insight into already selected and reused specific process models". As it can be seen such system refers to the last stage of the Social BPM evolution.

Such recommendation system can suggest process fragments to modelers by the use of their modeling intention as hatched from the user's interest. In order to use this system in practice developers offer a query interface and an automatic recommender component, which can predict necessary process model fragments. Of course, such application is suitable for standard processes with standard parts.

Agnes Koschmider in her paper [14] identified some benefits, which such system elaborates:

- Strategic colaboration support
- User trust behavior and mutual support encouragement (e.g. people can see in table-based results list which person belong to recommended process fragment, it meant that people can consult the social network if they have some doubt)
- · Process changes propagation

Moreover, this recommendation system allows users to estimate the degree of fitness of a b-p model part, which was recommended. In can be proposed, that the

prototype of recommendation system, which was described in Koschmider [14] relates to a sphere of society where process modeling is seen as "an act that is better performed collaboratively". It supports an enabling practice of extending a repository by building-in a feature of adding high-quality models with custom elements developed by users.

#### **Shared Spaces Method**

The method, based on the concept of shared spaces was introduced in the article "In Search of the Holy Grail: Integrating social software with BPM Experience report" by Ilia Bider. He described two systems, which realize this concept, and the latest system is based on the previous one. These systems refer to third stage of Social BPM evolution. Authors believe that shared space solves a problem with a decision about how much information needed to be sent to a person to allow him to complete the task. Therefore, in these systems there is no information flow, it means that a person is invited to visit a shared space and complete a task in it with the supposition that all necessary information is already there. The first application, called ProBis, allows users, which were invited by the other user, to join to the process's modeling and execution and to make changes in its model and in other documents, connected to the process. Also, it is possible to communicate with other participants of the process. The good thing about this system is that in saves the historical information about the process instance, and in future it can be used to model and execute similar processes.

iPB, the second application, is a tool for developing systems like ProBis, but with the following changes. In this system a shared space is divided into subspaces, which are placed in the recommended direction of movement. When a participant joins the shared space, he can click on the box, which embodies the part of the process, and find there necessary information.

Both these systems show the same method of integrating social techniques into BPM. The first application has a rich functionality, but has some problems with visualization of structured processes. Moreover, it requires training before employees would be capable of using it in practice. The second system, on the contrary, has highly visual interface, which is easy to understand, but today it lacks some functionality, which is available in the first system [15].

#### Resume

The methods, which were described above can be assumed as the basis of the corporate application for integrating social tools into BPM. It is of primary importance for every organization to develop its own system or changes and adapt the existing one due to the fact that organization has its own set of business processes; moreover the same business process in different organizations can be executed differently and can consist of different steps.

Business processes in commercial organizations can be enhanced by social tools. But is the developing of a corporate application for integrating social features into BPM the only way to improve it? The corporate system unites only the employees of the company, but some business processes can be enhanced by external stakeholders much more effectively than by internal. Some business process can be also improved by taking into account opinion of current and future consumers of the company's products. In the next chapter the methods of such improving and some examples will be illustrated.

#### 2.3 Social media and BPM

The growth of social media over the last 5 years has been spectacular. Demographically the users of social networks tend to be a younger generation—especially 17–30 age groups. As of July 2011, there were officially more than 750 million active users of Facebook alone (Statistics from the web-site socialnomics.net). Twitter and LinkedIn also have millions of active users. Therefore, the current young generation is growing up getting accustomed to communicate with each other via Social Networks. The business world, not to be left behind, is rapidly adopting social media platforms for various reasons, which range from having a social media presence aligned with the business strategy, end-consumer engagement, creating and enhancing the brand image and as an additional lever for revenue generation. It is explainable because today, 93 % of online consumers expect companies to have a social media presence [16].

External approach can improve BPM of the company through different methods. In the first method data from social networks such as Facebook, Twitter, LinkedIn, Foursquare, Google+will be analyzed. The other method is about developing social BPM community. The last method is about developing an Enterprise social network (ESN).

#### Social Networks

The purposes of using the first method can be different. Employees of particular departments can scan data from public social media, customer conversations about a product, and use this information to improve quality of their goods. For organizations such platforms enable to create a communication channel to their customers and to observe, listen and respond to the customer's feedback in real time. Roughly speaking, the customer can be engaged in the life of the company through three phases, which are shown on Fig. 2.

Customer Acquisition is the process of acquiring new customers. Customer Servicing is the process of addressing the customer's requirements. Customer Relationship Management is the process of handling any changes according to the customer's request.

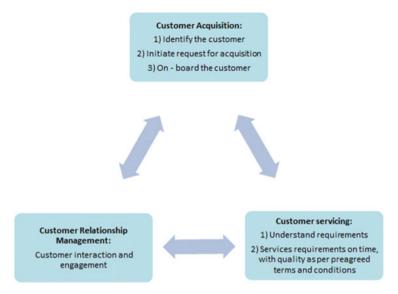


Fig. 2 The three phases of customer engagement [16]

The other processes, which can be enhanced by social media tools:

- 1. HR. The LinkedIn can enrich this process, because it contains millions of CV of different potential applicants. Also some recruiters also scan through the accounts at social networks of people, which they want to hire, to see some personal information, hobbies, and statuses. IT companies can also recruit people, who are strongly involved in IT forum, have their own opinion. Four of five companies today use social media in their HR processes [17].
- 2. Marketing. In social media web-sites it is possible to find the opinion of customers about your products. Nearly one third of bloggers regularly post their opinion about trademarks and brands [17]. Also company can add videos, mini-surveys, photos, some themes for discussion about their products and then explore the comments. For this purpose the best sites are: Facebook, different blogs and forums.
- 3. R&D. Some opinions of the customers can define the directions of future researches. The popularity of YouTube and the use of videos from these web-sites at social networks forced companies to download their commercial and instructional videos there. Also companies can read comments, which are left by consumers below these videos.

These processes are only examples of how operational processes can be enhanced by social networks. Any company can use it for any process it wants.

Using this approach, companies can capture feedback by creating new vectors for input. There are some examples of applying it.

- One financial institution changed its debit card policy. This policy was about denying the transaction instead of charging an overdraft fee. They looked through the social media web-sites and saw that their customers did not like it. The bank responded by changing its policy [18]
- One electronic company that produces accessories looked through the opinions
  of early iPad owners on social media, which were about their iPad. This
  company let these opinions drive their product strategy and it brought very
  strong results.
- KLM Royal Dutch Airlines identified their frequent Flyers by scanning the people, who use Twitter at the airport. To thank them for their loyalty KLM surprised them with the small present, which was based on their preferences, which were defined by their account at social media web-sites [10]
- One bank wanted to launch a new credit card, targeted at college students. To segment target audience it looked through students' accounts at Twitter. Then it examined their twits and sent adds to students, who might be interested in it. After that students' responses were analyzed [16]

### **Social BPM Community**

Social BPM community can be intended to be a vendor-neutral place, where people doing processes discovery will share ideas and collaborate on process discovery. There some documents, articles and there authors will be found. So business architects of a company will not be alone with their processes, trying to find some practice and books. In this community everybody will be able to find process they need and to talk to its developer.

There are already some examples of such communities:

- 1. The Aris business process modeling software online community, which has more than 100,000 subscribers, among which are heads of business architecture and repository management.
- 2. Accenture has the community of such type, BPM Champions, but it is internal. This portal contains links to process best practices and articles. There are tools for contacting other members of the community like blogs [10].

Using this method can improve all business processes of the company, because there information about any of them can be found.

#### **Enterprise Social Network**

This network can span both the employees and the clients; it has features like blogs, wikis, chat-tools. ESN can also unite all companies of the same industry or type globally or from one country [19]. This network provides the company a direct channel to connect with its customers. They can be quickly informed about new products; also their requirements and complaints will be quickly analyzed and

responded. It increases customer-centricity. The ESN platform for companies of the same industry can help them to get together and finalize the liability split, which can save a lot of back and forth communications between them and significantly enhance customer experience. The example of the realization of such method can be seen at the White paper by Infosys, 2012.

The use of ESN, which spans companies with their clients, can improve business processes, which are closely connected with the clients, such as sales, marketing, servicing and so on. The use of the ESN of the second type can enhance all business processes. This happens because companies of the same industry are able to exchange there their experiences of modeling and executing their business processes; and, of course, some of them can be similar to b-p of the company of the same industry.

Today to stay competitive company has to evolve fast; use contemporary hardware, software, SaaS; be well informed about constantly changing customers' preferences. The fastest and the cheapest way to do so is the using of Social Media, which provides enormous quantity of information. This information must be analyzed, for example using social mining techniques, and applied in the alteration of company's business processes. The methods of applying it range from business processes reengineering to only adding such boxes as "Twit about new product" in the model of the b-p. These measures will help company to stay competitive and increase customers' loyalty. The point above told about which Social networks can be used to do this.

#### **Approaches Comparison (Who Is the Winer?)**

In previous sections two different approaches were examined. The question, that rises, which approach the company should apply? To understand it, the weak and strong sides of the two considered approaches have to be identified. The comparison will be made through using the following criteria:

- Processes
- Trust
- · Ease of use
- · Ease of involvement
- Control

The first criterion provides information about processes which can be improved by using external or internal approach to Social BPM. The greatest benefit of introducing Social BPM gains the companies or departments, which produce non-standardized goods and services and opinion of the customers is very important for them, the best opportunities to take customers' opinion into account provides external approach. There are also benefits of using Social BPM when the modeling and executing of the process demand a high level of communication and collaboration among the performing actors, especially when two or more subdivisions are

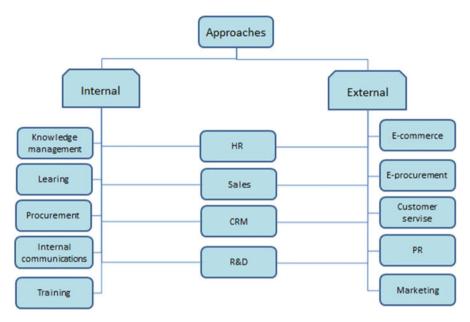


Fig. 3 Employment of social BPM approaches to business processes

involved, there the most effective will be internal approach. Figure 3 shows information about processes, which can be enhanced by Social BPM.

Trust is very important criterion. It represents the degree of trust between people, which are involved in the Social BMP employment. Heider's "balance theory" [20] suggests that individuals are likely to interact with fiends or with people, about whom they heard than with unknown people. Moreover, 80 % of people trust opinion of their on-line friends more than their real ones [17]. Hence, in the company the same tendency can appear. This is more about internal approach: users may be willing to trust and follow the advices of proved persons. In the external approach this problem is different: employees understand that the users are unlikely to provide them with accurate information, but they also know that if this information is well analyzed it can be very useful.

Ease of use criterion reflects the amount of time and qualification which would require employees to learn to work with the tool. While social media tools are easy to use for all types of users, social software tools require special knowledge and deep understanding of the b-p models. To make the understanding easier the internal systems have to be well visualized, company has to organize some training, the interface must be intuitively clear. However, the use of external approach raises the problem of finding the appropriate information.

Talking about the ease of involvement it is necessary to stress, that in the external social tools (especially in the communities) it is difficult to involve stakeholders, because they are accustomed to work in one way and they do not want to change anything. Moreover, they may not understand for what needs do

they have to use it, but the utility of communities depends on the amount of participants and if there are a few members it is not effective. Ease of involvement in the internal approach depends on the method. In the method of shared spaces there is no difficulty with the involvement, because people are invited there and they have assigned tasks. For recommendation systems it is not difficult too. In the model-driven method difficulties of involvement depends on the user's positions and personality.

The last criterion is control. External approach represents some obstacles with the control, because it have dynamic and open environment. Also, in this approach malicious users and competitors cannot be identified clearly and blocked. Inside the organization, there are a few difficulties with the control, for example some user can over-estimate their expertise and these users have to be identified.

From this comparison can be concluded that both approaches have strong and weak sides, and it can be said that they supplement each other. Therefore, the most beneficial way to use them is to apply them simultaneously. Here comes the problem of their integration and connection, it will be the point of our future research.

Today, the striking example of a company, which can offer a complete Social BPM system, is IBM Company. Moreover, they offer application which maintains not only the one approach (external or internal), but the two approaches at the same time. This application is known as Blueworks Live [21]. It is needed to be said that the most meaningful functions of this SaaS service are collaborative process discovery/analysis, business-processes template library, features of the knowledge community (blogs, forums), high-level process modeling, extended social teamwork and rapid, lightweight process automation (by creating 'Process Apps', in which people can carry out activities, add attachments and comment to the instance they are working on, and they can redirect work to other users). IBM team said, that the main purpose of the Blueworks Live is "to focus on helping tackle the many dozens or hundreds of lightweight processes that are not properly supported with IT today" [21]. As it can be seen all these features belong to internal approach. But this servise also creates the availability of public streams. It means that social collaboration within internal stakeholders is available. For example, IBM uses relevant Twitter updated from individuals and companies, which can have important BPM expertise.

Of course, the IBM product is one of the most functional Social BPM System today, but even this service do not involve all existing features of external and internal approaches. It is clear, that today the field of Social BPM is developing fast all over the World, and there is a hope, that soon we will have a real Social BPM systems market. There are some countries, however, in which the theme of Social BPM began to appear among academia and especially business sphere quite recently. In the next part of this paper, the Social BPM situation in one of such countries will be examined.

#### 3 Social BPM in Russia

Countries of emerging markets, such as BRIC countries: Brazil, Russia, India, China and South Africa have great prospects and opportunities for IT development and diffusion. However, new technologies adopt there more slowly, than in the USA or Europe [22]. In this paper the Russian situation in the Social BPM is analyzing.

Today in Russia the point of Social BPM has just appeared, consequently, information about this theme is almost unavailable. So as in the World there are even no complete Social BPM systems (instead of IBM Blueworks Live), in Russia it is no full understanding, what Social BPM and systems, based on this concept are.

Concerning this topic, it can be said that in Russia there are only concepts and ideas, but not the working applications. However, some aspects of social software can be found in different applications, which are used in companies. For example, there is a system known as "Comindware", which was developed by Russian scientists Maksim Chiplyaev and Petr Volynskiy in 2010, but it is sold out mostly in USA and Europe [23]. This system represents Social BPM application type (as IBM BlueWorks live, but its function is much poorer). It has some social features, which this application supports: comments, file stream, tasks management. In spite of the fact, that it is Russian product, in our country only a few people know about it. Another application from Russian developers is Alvex system. This product can be named as a type of Social BPM, because it is a BPM system (or even ECM/BPM) which provides an opportunity to develop ESN and it also supports Google Docs [24]. The system, which resembles Social BPM application was suggested and realized by the Russian company "IT" and HSE Center of Technologies of Information Management [25]. This system looks for experts in different fields inside the company and its decisions are based on mining e-mails and search requests of the employees.

There is no doubt, that in some Russian companies (frequently in IT companies) there are "hand-made" social applications, which can be build-in in different ERP, BPM, CRM systems, or which simply represent enterprise communities. Many international companies which have their branch in Russia also use applications, which involve social software and media features, for example SAP Company and its department University Alliances have their own communities, which allow employees and other stakeholders to communicate and solve their problems in this corporate social network. However such information is private. In Russia the best way to find out about such information is to participate in different BPM conferences.

Nevertheless we can give information about our own experience connected with Social BPM. We represent the Higher School of Economics, and it has its own social network, which can be considered as an example of internal approach. This social network is known as "HSE Educational Information Environment" or how students call it LMS. It has access to: the information about courses and timetables, required materials. There are tools to send email or have a chat with students and

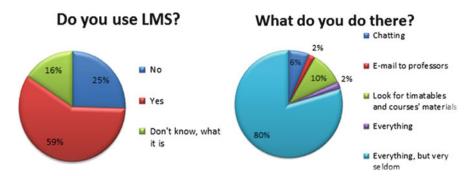


Fig. 4 Student LMS usage habits

46

professors. In addition, soon it would be possible to view your mark-book, to create group projects and comment all related activities, to pass different tests. For professors it would be possible to export the students' marks to Excel and analyze them. The office of the head of studies can easily interact with all students and lecturers using LMS. According to this information it can be said that many business-processes of HSE take place in this network. In spite of this range of possible activities this network is not popular among students, which was concluded from the represented below research, so they use for the same purposes other sources. It leads to the declining utility of this network as the application for the realization HSE's business-processes.

The research was conducted to find out students' attitude to LMS. The charts below represent its results. The charts at Fig. 4 reflect that developing a functional system is not enough; this system has to be convenient and widely-advertised. Stakeholders have to understand for what reasons they need this system, otherwise it won't work because the fewer people use such systems, the less effective it is.

The situation, concerning external approach is similar to the represented above. Social media is widespread in Russia. General situation in Russian social media market is the following [26]:

- The growth of social networks users has slowed down (from 19.4 % in 2010 to 11.2 in 2012)
- More than one third of social networks users in the Eastern Europe are Russian people.
- Total amount of social networks users in Russia is 51, eight million in 2012.
- Most often, old and middle-age people do not use social networks and services; they can only serve the Internet some times.

Russian companies use social media much more frequently if they sell or distribute products or services and their target audience are at the age of 15–30 years. There are also many companies, which help to advertise products through social media. Ninety percent of business-processes of such companies are at social media. The same HSE uses Vkontakte to improve its business-processes and connect with stakeholders. It has several communities in this social network,

where administrators can post some news, surveys, announcements and students are able to discuss it there. Using these communities, HSE collects information in which it is interested in and makes some resumes. Social services as Facebook, Twitter or LinkedIn are widely used in our country, but we have our own social networks which are much more widespread in Russia. For example, social networks known as Vkontakte and Odnoklassniki. They are very similar to Facebook, and these services have different audience. Service Vkontakte usually is used by younger people, and Odnoklassniki, in contrary, preferred by the oldest ones. At Vkontakte there are different communities of interests, where people discuss the current situation in their field. There are many IT communities, which have as its members both IT specialists and representatives of other fields. Such communities can be used as Social BPM communities. Also many companies have their communities at Vkontakte, where they advertise their products, discuss new feature and customers' wants, respond to customers' complains and requests. Social media is also used in Russia in HR. Many companies look through candidate's accounts at social networks before hiring him. Russian experts from the "Logika Biznesa 2.0" company suggest that Social BPM in Russia can be widely used in the freelancing market. This can be made by using, for example, crowdsourcing platform Openidea.pro.

Some managers of Russia companies, however, do not support the idea of integration social media into business processes. For example, General Manager of the company ELMA Andrey Budin supposes that internal commercial information cannot be mixed up with public information in the network [1].

It can concluded, that the use of social media in business sphere is rather widespread, but only a few people think about Social BPM as the tool for improving business-processes. Russian expert in this sphere Andrey Koptelov believes that Social BPM will become widespread only when economic crisis leads to the overabundance of labor force and therefore employees become more initiative (Cnews, 2012).

The analysis that was held in the second part brought us hope, that the first complete Russian Social BPM system do not make us wait and that business community will soon realize how many benefits can Social BPM bring them. It is very important to create a right communication scheme between business and academia in Russia to reach an appropriate degree of the Social BPM development.

### 4 Conclusion

Combining social software and media tools with business processes management allows company to receive a number of benefits by integration employees into BPM. The opportunity to involve all employees breaks the barrier of knowledge creation and diffusion. Social features have the potential to increase not only knowledge but collaborative intensive business processes; it can speed up decision making and improve the global reactivity of the company. To get this opportunity

company has to create the right corporate environment and trust culture, otherwise, social tools will not work.

BPM and social tools in tandem offer new possibilities for the business processes designing. In the company it has to be considered how b-p design can be realized and supported with the instruments provided by social tools. Different approaches of this realization have been discussed in this paper.

It was established that Social BPM can be effectively used internally to share information, knowledge, solutions within a company and externally facilitating new processes, their changes and reaching out external stakeholders. Moreover, it was recommended to use Social BMP in these two ways simultaneously to reach all possible benefits.

In this paper a view was expressed that Social BPM in all countries, especially in Russia, is a very nascent area and it has not been adopted widespread yet. Despite this World situation, some companies have already offered complete Social BPM systems. At the same time, in Russia some steps toward social tools in BPM were made and different discussions about this tandem on the BPM forums were conducted.

The goal of the future research will be concentrated on the analysis of the Social BPM practices. For this purpose the data warehouse will be created and information about companies' revenues and other KPIs after Social BPM implementation will be collected and analyzed in this DW using data mining techniques. However, to conduct this research some time has to pass until sufficient quantity of companies implement Social BPM tools.

Social BPM is a great and powerful concept for process-driven companies, where there no established in an explicit and concise manner processes. It can help such organizations to stay competitive and to become adaptive to changes.

#### References

- 1. BPM for Business. (2012). http://www.cnews.ru/reviews/index.shtml?2012/10/05/505579\_1. Retrieved on October 28, 2012.
- 2. Drucker, P. (1993). Post-capitalist society. New York: Harper Business.
- 3. Schmidt, R., & Nurcan, S. (2009). BPM and social software. *Business Process Management Workshops*, 17, 649–658.
- Sandy, K. (2010). Enterprise 2.0 meets business process management international handbooks on information systems 2010 (pp. 565–574). Berlin: Springer.
- 5. ABPMP. (2009). Guide to the business process management common bony of knowledge (BPM COK) 2 ed.
- Goeke, R. J., & Antonucci, Y. L. (2011). Antecedents to job success in BPM: A comparison of two models. *Information Resources Management Journal*, 24(1), 46–65.
- 7. Mathiasen, P. (2011). Applying social technology to business process lifecycle management. In *The 4th workshop on business process management and social software*.
- 8. Nonaka, I., & Takeuchi, H. (1995). The knowledge-creating company: How Japanese companies create the dynamics of innovation. New York: Oxford University Press.

- 9. Erol, S. (2010). Combining BPM and social software: Contradiction of chance? *Journal of Software Maintenance and Evolution: Research and Practice*, 22(6–7), 449–476.
- Franz, P., & Kirchmer, M. (2012). Social BPM. Engaging people in value-driven BPM. http://www.accenture.com/SiteCollectionDocuments/PDF/Accenture-Social-BPM-Engaging-People-in-Value-driven-BPM.pdf. Retrieved on November 27, 2012.
- 11. Becker, J., Kugeler, M., & Rosemann, M. (2001). *Business process lifecycle management*. White paper.
- 12. O'Reilly, T., & Musser, J. (2006). Web 2.0 principles and best practices. O'Reilly Radar.
- 13. Brambilla, M. (2012). Combining social web and BPM for improving enterprise performances: The BPM4People approach to Social BPM. In *Proceeds of the world wide web conference* (pp. 223–226).
- 14. Koschmider, A. (2010). Social software for modeling business processes. *Journal of Information Technology*, 25(3), 308–315, 322.
- Bider, I. (2010). In search of the holy grail: Integrating social software with BPM. Experience report. In BPMSD 2010 proceedings.
- Murphy, N., & Whelan, S. (2012). Social media and business processes management (BPM) enable customer-centricity. http://www.wipro.com/Documents/Social%20MediaBPM-Whitepaper.pdf. Retrieved on October 04, 2012.
- 40 Facts About Social Networks. (2012). http://www.adme.ru/research/40-faktov-o-socialnyh-setyah-433005/. Retrieved on October 28, 2012.
- 18. Olding, E., & Rozewll, J. (2010). Social BPM: Design by doing. Gartner.
- 19. Krishnamurthy, S. (2012). Social process design, execution and intelligence for a better customer experience. http://www.infosys.com/BPM-EAI/resource-center/Documents/social-design-execution-intelligence.pdf. Retrieved on October 10, 2012.
- 20. Heider, F. (1996). The psychology of interpersonal relations. Chichester: Wiley.
- 21. Ward-Dutton, N. (2010). Vendor insight. IBM breaks new ground with Blueworks live. Premium Advisory Report MWD Advisors.
- 22. Taratoukhin, V. (2012). How ICT influence on BPM in small and medium-sized enterprises of emerging markets. *Business-Informatics Journal*, 3.
- Comindware Free Intranet System for Task Management. (2012). http://www.intranetno.ru/ tags/COMINDWARE/. Retrieved on October 12, 2012.
- Alvex Russian software on the basis of Alfresco. (2012). http://www.intranetno.ru/tags/ ALVEX/. Retrieved on October 12, 2012.
- "IT" Company and HSE Center of Technologies of Information Management Have Developed the Freelancing-Search System. (2012). http://www.ural.it.ru/press\_center/news/AyTi\_i\_ NIU\_VSHE\_razrabotali\_korporativnuu\_sistemu\_poiska\_ekspertov\_. Retrieved on October 05, 2012.
- Growth of the Russian Social Networks Users. (2012). http://cossa.ru/news/247/25616/.
   Retrieved on October 14, 2012.