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THE ROLE OF VIRTUAL COMMUNITIES IN THE PROCESS OF CREATION OF KNOWLEDGE RESOURCES IN A COMPANY

Summary

Development of the Internet and social media allowed for creating and maintaining of social and business relations in cyberspace which resulted in dynamic growth of virtual communities whose members are very often stakeholders of a company including: customers, employees, suppliers, creditors and investors. These entities are differentiated by their knowledge potential and willingness to share this knowledge with other entities inside and outside the community. In contemporary companies where the foundation of competitive potential is knowledge the usage of diversified knowledge potential is not only a necessity but also a challenge. The main purpose of the paper is highlighting the possibilities to apply virtual communities in the process of goodwill creation. The research presented in the paper aimed at determining the reasons for using virtual communities among the citizens of Poland between 2008 and 2016 and the results of this research confirmed feeble utilisation of knowledge potential of virtual communities in the creation of knowledge resource in a company.

Key words: virtual community, relations, goodwill

Introduction -New World – New Challenges

In the age of information and knowledge building competitive advantage which brings extraordinary added value for the company is more and more difficult. The changes occurring in the company's environment are so dynamic and unpredictable that a new phenomenon of *new normality in economy* was coined and new type of competition in the so called *flat world*¹ emerged.

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¹ Ph. Kotler, J.A. Caslione, Chaos, *Zarządzanie i marketing w erze turbulencji*, MT Biznes, Warszawa 2009.

The first phenomenon is characterised by: unpredictability of economic cycles which, on the macro scale, used to be predictable; irregular and unexpected falls, recessions as well as rises and upturns which previously occurred every 10 months and every 7 years; prudent and oriented manner of investment which replaced the old expansive and multidirectional investment; avoiding market risks which used to be tolerated; shift from self-confidence to insecure consumer attitudes and preferences which used to be stable and evolving and are now characterised by fear and fight for security².

It can be easily noticed that modern enterprises conduct their activities in turbulent or even chaotic conditions which translate into growth of risks lurking in business environment. For the sake of a company's interests it becomes necessary to recombine its resources of competitive potential in order to offer products on the market whose value, in the opinion of consumers, is higher than of other similar products offered by competitors. This advantage will guarantee feeding of capital at least on the level of minimal expected rate of return. It should be emphasized however, that due to the above changes the following factors: increased efficiency of production processes, perfect norms and regulations, reduced terror ratio, maximum standardization, economies of scale or increased efficiency are no longer sufficient in order to succeed on the market³. Offering products of high quality parameters has become a prerequisite for each company in order to survive. Thus, creating and maintaining competitive advantage requires provision of a unique product which will be selected by the consumer from many others thanks to subjective and volatile criteria which go far beyond the mere essence of the product.⁴

² Ph. Kotler, J.A. Caslione, Chaos, *Zarządzanie i marketing w erze turbulencji*, MT Biznes, Warszawa 2009, p. 31.

³ T. Doligarski, *Wartość portfela klientów – aspekt teoretyczny* [in:] Dobiegała-Korona B., Herman A. (eds.), *Współczesne źródła wartości przedsiębiorstwa*, Difin, Warszawa 2006, p. 433.

⁴ H. Szulce, *Planowanie i strategia produktu* [in:] Mruk H. (ed.), *Podstawy marketingu*, Publishing House of the University of Economics in Poznań, Poznań 1996, p. 145; I. Bielecki, *Współczesny marketing, Filozofia, strategię, instrumenty*, Studio EMKA, Warszawa 2006, p. 257; P. Doyle, *Marketing wartości*. Felberg SJA, Warszawa 2003, pp. 270-272; W. Caputa, *Kapitał klienta w budowaniu wartości przedsiębiorstwa*, CeDeWu, Warszawa 2015, pp. 77-79.

A unique product, in the opinion of consumers, solves their problems better than other similar products offered by competitors.⁵ Development, delivery and communication of such a product on the market requires not only systematic identification of values important for the consumer, creation of innovative solutions, creation and implementation of new instruments of communicating the new value on the market but also development of such architecture of processes and activities which assures efficient allocation of resources in short and long term. In order to meet this requirement enterprises must assure superior quality of their products but also show sensitivity for volatile economic conditions, expectations of their stakeholders and product and process innovativeness which will secure the efficiency of operations. It becomes obvious then, that the substance of a unique product lies upon the awareness of an enterprise about the value which is determined by the satisfaction of the user.⁶

The above statement finds confirmation in the shift of competitive potential of a company to intangible assets understood as knowledge resources.⁷ It is commonly emphasized that these resources are developed by their utilization and exchange of experiences which may take place inside and outside the company as well as between the company and its stakeholders.⁸

In their attempt to win and maintain capital injection companies have been forced to compete in the so called flat world which is the second phenomenon mentioned in the beginning of the paper.⁹ It is the effect of the third era of globalization and is reflected in the triple convergence: critical mass, enabling technology, people and organizations able to

⁵ W. Caputa, *Koszt satysfakcji klienta jako wyznacznik siły konkurencyjnej przedsiębiorstwa* [in:] Figiel S. (ed.), *Marketing w gospodarce opartej na wiedzy*, the University of Warmia and Mazury, Olsztyn 2007.

⁶ W. Caputa, *Kapitał klienta w budowaniu wartości przedsiębiorstwa*, CeDeWu, Warszawa 2015, p. 54 and next.

⁷ W. Caputa, D. Szwajca, *Potencjał konkurencyjny przedsiębiorstwa w okresie globalizacji*, CeDeWu, Warszawa 2010, pp. 71-110.

⁸ S. Supeková, H. Janáková, *Interkultúrne aspekty medzinárodného marketingu*. Wolters Kluwer, Bratislava 2014.

⁹ Ph. Kotler, J.A. Caslione, *Chaos. Zarządzanie i marketing w erze turbulencji*, MT Biznes, Warszawa 2009, p. 31.

utilize new platforms and potential of the so called rising economies.¹⁰ These are the new driving forces which result in shifting the value creation processes from the real world to the virtual world:

- computerization and development of the Internet,
- information flow in real time and, as a consequence, dissemination of knowledge to everybody who is able to use Google search engine,
- *work flow software* enabling joint work on projects from any point on the planet,
- *outsourcing and offshoring* thanks to which organizations may relocate their operations and invest in overseas facilities,
- *uploading* offering possibility to contribute to a collective product such as for instance Wikipedia,
- *insourcing* whose effect is integrated logistics.¹¹

All the above translates into practically unlimited possibility to generate and obtain such information which may contribute to the process of value creation. Moreover, it becomes possible to establish and maintain relations based on cooperation which facilitates reduction of risks and increases probability of stable capital injection.¹²

As is clear from the above, the participants of the creation process of a unique product are not only employees of a company but also external users of virtual networks disposing of competences desired by the company. Mutual exchange of experiences and information, joint problem solving or communicating of the offered value opens chances for both parties not only to enhance their own competences but also to launch the resource leverage.¹³ The process can take the following paths:

- concentration, unconditional directioning of resources onto building of relations based on profitability and customer loyalty which requires focusing on creation such values which are considered important by the consumers,

¹⁰V.K. Fung, W.K. Fung, Y. Wind, *Konkurowanie w płaskim świecie, Budowanie przedsiębiorstw przystosowanych do płaskiego świata*, Przedsiębiorczość i Zarządzanie KOŹMIŃSKI, Warszawa 2008, pp. 24-25.

¹¹ Ibidem p 24.

¹² W. Caputa, *Kapitał klienta w budowaniu wartości przedsiębiorstwa*, CeDeWU, Warszawa 2015.

¹³ C.K. Prahalad, G. Hamel, *The Core Competence of the Corporation*, Harvard Business Review - May-June 1990.

- protection, avoiding reduction of own competence resources as the result of direct competitive battle,
- accumulating which is the effect of systematic learning through experiences, borrowing resources from other entities or searching for resources which the company already owns but has not identified yet,
- completing i.e. appropriate combining and systematic balancing of resources or their reusing for various purposes,
- recovery of resources which is in line with acceleration of processes of accumulating added value as the result of shortening of the time frame between the involvement of assets and the moment when they start to generate profit.¹⁴

Opening a business in the flat world of chaos in which resources of knowledge are the pillar of competitiveness is a challenge which forces many companies to undertake activities which aim at utilizing the potential of knowledge possessed by virtual communities.

1. Essence and meaning of virtual communities in creating of knowledge resources

The definition of virtual community is not uniform. In the process of explaining its essence two notions must be taken into account: community and virtual community which is often referred to as cyberspace. Community functioning in the real world is well defined by M.P. Effrat¹⁵ who looks at this category from three dimensions (Image 1).

¹⁴ W. Caputa, *Kluczowe kompetencje i dźwignia zasobów w procesie kształtowania wartości przedsiębiorstwa*, Scientific Journal of Silesian University of Technology No 13, Silesia University of Technology Publishing House 2003, pp. 275-297.

¹⁵ Effrat M.P. (ed.), *The Community: Approaches and Applications*. New York: The Free Press, 1974.

Image 1. Three-dimensional outlook on the community



Source: own elaboration based on: M.P. Efrat, (ed.) *The Community: Approaches and Applications*, New York: The Free Press, 1974.

In the first dimension community is defined and identified with such an institution whose pillar is solidarity of its members. Community members create mutual relations based on closeness, emotions, norms or roles they play (e.g. family, ethnic group, voluntary organization). The second dimension builds on the nature of collaboration and identifies a community as a certain network of informal relations of basic nature which connect people beyond what is necessary. In the third dimension communities consist of certain institutional groups of economic, political or social nature which come into being on the basis of affiliation with a certain social category. This kind of community although focused mainly on institutions, may also be created on the foundations of shared interests.

From the above definition one may formulate a number of elementary features which characterize the category. Regardless of attitude, each community is build upon social relations which can but do not have to be based on shared interests or any other formal relations. Additionally, communication established between members of the community may be realized through supporting devices thanks to which it is possible to transmit information from one person to many people simultaneously and also the other way round. It is also possible to broadcast interactively from a place distant from sender or receiver of the information. These features may be treated as universal attributes of each community. It should be observed, however, that the mere existence of the notion of virtual community calls for differentiating it from the

communities that exist in the real world. Thus an attempt should be made, to describe this reality and point to factors which differentiate the two kinds of communities. Virtual reality is for example defined as:

- a certain form of simulation of fragments of real world created by means of computer and appropriate IT infrastructure,¹⁶
- different kinds of various sensations generated through technical infrastructure e.g. audiovisual equipment or special software¹⁷,
- hypothetical three-dimensional visual world created by the computer which can be entered by the users by means of special tools and in which users establish interactions with other objects inside and outside the world,¹⁸
- a form of network collaboration with the following aspects: games, interactive theatre of improvisation, comedy and real challenges,¹⁹
- flexible and open architecture with next space always available to satisfy the needs of the users,²⁰
- attractive field, fulfillment of people's dreams about simulation and interaction, a new medium combining poetry with technology.²¹

Regardless of the definition, virtual world can be treated as a special open social area in which various human needs and phantasies are satisfied through interpersonal communication realized by means of computer. In this way new social forms known as virtual communities are created for which the indispensable tool of communication is computer.

With respect to the overview of definitions of virtual communities presented in Table 1, it can be assumed that these communities are social networks using computers for: establishing and creating relations within

¹⁶ Encyklopedia Internautica <http://encyklopedia.interia.pl> (access 16 April 2016).

¹⁷ D. Kalisiewicz, *Nowa Encyklopedia Powszechna PWN*, PWN, Warszawa 1998.

¹⁸ <http://www.hyperdictionary.com/search.aspx?define=virtual+reality> (access 8 March 2017).

¹⁹ <http://www.hyperdictionary.com/search.aspx?define=virtual+reality> (access 8 March 2017).

²⁰ C.A. Silva, *Liquid architectures: Marcos Novak's territory of information*, Louisiana State University LSU DigitalCommons, 2005, http://digitalcommons.lsu.edu/cgi/viewcontent.cgi?article=1901&context=gradschool_theses (access 7 March 2017).

²¹ P. Sitarski 2002, *Czy rzeczywistość wirtualna to odkrycie nowego świata?* [in:] M. Hopfinger (ed.) *Nowe Media w komunikacji społecznej XX wieku*, Oficyna Naukowa, Warszawa 2002, p. 399.

the group, building networks of relations within a community sharing certain common features connected with a specific need which the community members want to satisfy.

Table 1. overview of definitions of virtual communities

Author	Virtual community
Slouka (1996)	Groups of people sharing common interests and practices.
G. Bugliarello (1997) F. Scott (1989)	<i>Incorporeal</i> communities established on the basis of common interests which can be shaped and re-moulded by the participant thanks to appropriate electronic IT infrastructure which makes him think he really belongs to a new reality.
H. Rheingold (2000)	Social aggregations arising on the Internet when sufficient number of internauts meet on the same public discussion long enough and with sufficient degree of emotions so that personal ties can be born
B. Wellman (2001)	Networks of human relations as the source of social life, support, information, feeling of belonging and social identity
M. Castells (2007)	Self-defining electronic network of interactive communication focused around shared interests or goals but sometimes communication becomes an aim in itself
L. Albański (2010)	Online environments on the Internet where communication and relations between people is similar as in the real world

Source: own work based on: Albański, L. (2010) *Wybrane zagadnienia z patologii społecznej*. Kolegium Karkonoskie in Jelenia Góra, B. Wellman, *Physical place and cyber place: the rise of networked individualism*, International Journal of Urban and Regional Research 1/2001, pp. 227-252, Rheingold H. (2000). *The virtual community: homesteading on the electronic frontier*, Cambridge Mass., MIT Press; G. Bugliarello, *Telecommunities: The next Civilization*, The Futurist vol. 31/1997, pp. 23-26; M. Castells, *Spoleczeństwo sieci*, transl. M. Marody, Warszawa 2007, p. 362; M. Slouka, *War of the Worlds: the assault on reality*, London: Abacus 1996.

In virtual communities people not only satisfy needs such as: belonging to a group, solidarity, discussion or support,²² but also: communication, information, entertainment or transaction.²³ The initiation sources of the communities are also sought in the willingness to

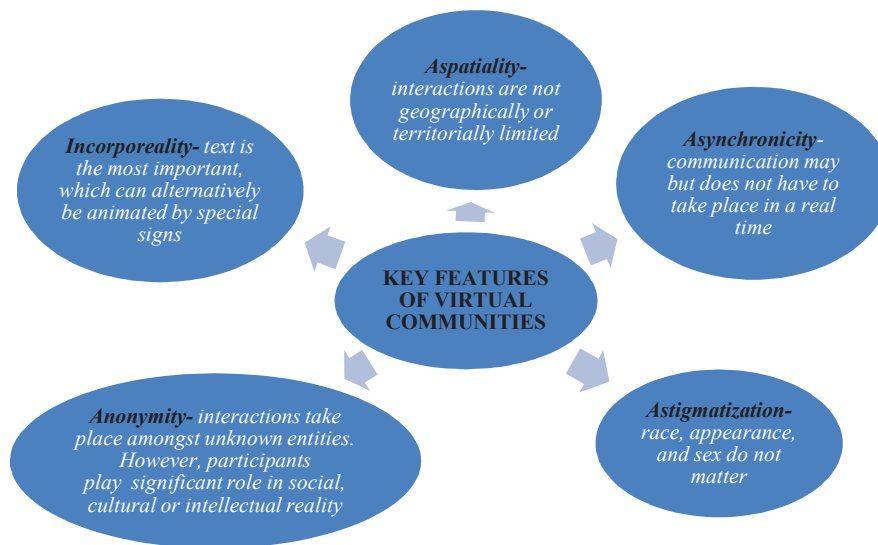
²² W. Burszta, *Internetowa polis w trzech krótkich odstępach* [in:] *Ekran, mit, rzeczywistość*, W. Buszta (ed.), Warszawa 2003, pp. 161-162, H. Rheingold, *The Virtual Community. Homesteading on the Electronic Frontier*, Reading, MA: Addison-Wesley, 1993.

²³ A. Wadhwa, S. Kotha, Research Associate Anu Wadhwa, University of Washington, 1999, <http://us.badm.washington.edu/kotha/internet/handouts/vc5.PDF>

come back to collaboration, intimacy and freedom and run away from hierarchy and control.²⁴

Unlike real world communities in which communication has face-to-face nature, or alternatively is established remotely by phone; members of virtual communities are incorporeal and invisible, and communication runs through channels such as e-mail, chat room or MUDs. These are not the only features that divide real and virtual communities. For instance M. Smith pointed to five elementary differences (as shown in Image 2). B. Wellman and M. Gulia in turn, emphasize application of computer in the process of establishing relations, lack of territorial boundaries, homogeneity of interests, values, beliefs and attitudes of members but heterogeneity with respect to age, social status and other related factors such as freedom of choice.²⁵

Image 2. Features of virtual communities



Source: Own description based on: M. Szpunar, *Spoleczności wirtualne jako społeczności – próba ujęcia socjologicznego* [in:] M. Radochoński, B. Przywara (ed.) *Jednostka – grupa – cybersieć. Psychologiczne, społeczno-kulturowe i edukacyjne aspekty społeczeństwa informacyjnego*, Rzeszów 2004, pp. 157-184.

²⁴Clayton L., *Are there Virtual Communities?* <http://www.abdn.ac.uk/philosophy/>

²⁵B. Wellman, M. Gulia, *Net Surfers Don't Ride Alone: Virtual Communities as Communities*. New York 1997, p. 15, <http://www.chass.utoronto.ca/~wellman/publications/netsurfers/netsurfers.pdf>

The features determine virtual communities value from the perspective of enterprise interests implementation, meaning that an enterprise may gain inter alia a possibility of:

- establishing transaction relations in cyberspace, which are not limited by countries boundaries, obtaining and transmitting information regarding offered products from and to many participants at the same time, which may result in desirable purchasing behaviour by a company. The example may be reading of Onet.pl portal, or recommendations to buy books, additional items, mostly purchased by customers e.g. Amazon bookshop,
- creating loyal community, resistant to entities' competitive actions, whose indicative message may support a process of goodwill creation. Such example are inter alia beer drinkers communities connected with brewing companies.
- creating a positive company's market perception, by using community to initiate such indicative message which contributes to start and develop relations based on cooperation and trust. The example may be IBM company of global GenO²⁶ business.
- community use inter alia to: solve problems, obtain new, creative ideas, test solutions, what can be found inter alia in a growing number of crowd sourcing platforms.

Mentioned above range of virtual community use indicates that members of virtual community may actively participate in each phase of goodwill creation process. They may have twofold roles:

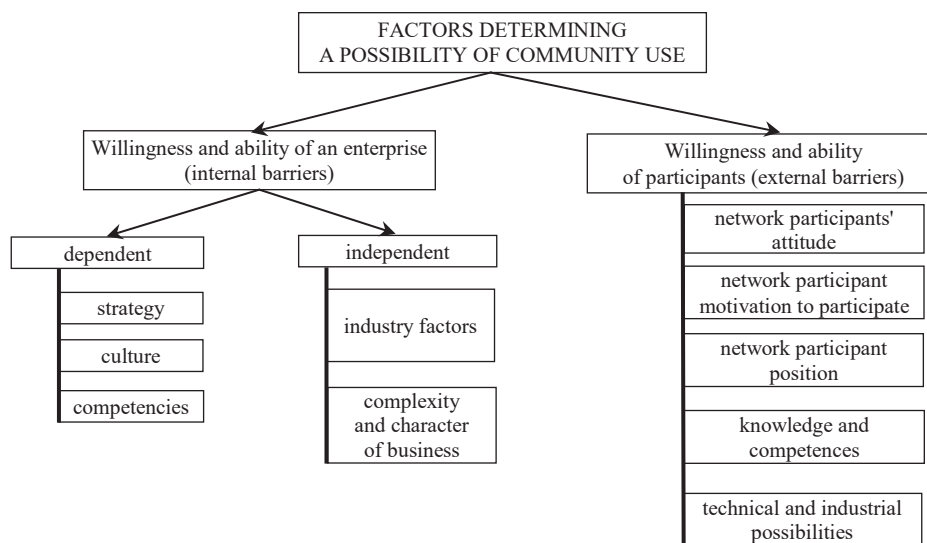
- as censors and communicators of an offered value, by starting indicative message inside a community, which includes product or tenderer's features, in a form of a reference or recommendation,
- as co-founders and creators of value by initiating a one- way or two-way indicative message, which may be employed as a contribution in goodwill creation process, at the stage of its creation, production and market delivery.

Thus, community described may help in the implementation of both a profitability strategy, achieved through activities aiming at cost

²⁶ IBM Global Business Services Executive Report, Working in the open. Accelerating time to value in application development and management, IBM Institute for Business Value <https://public.dhe.ibm.com/common/ssi/ecm/gb/en/gbe03283usen/GBE03283USEN.PDF>

structure improvement and increasing efficiency of assets use, as well as a development strategy, established through increasing a possibility to reach income or rise in customers' value in a life cycle. However, it should be noticed that the achievement of indicated benefits is determined by a number of factors, both dependent and independent from a company (Image 3).

Image 3. Determinants in using a potential of virtual communities



Source: Own work.

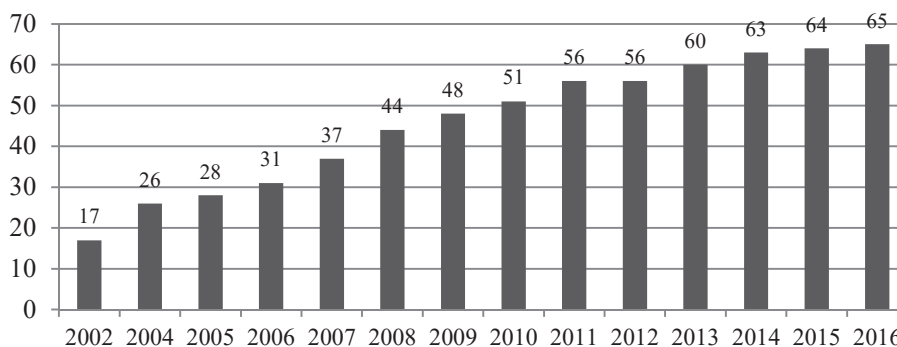
Attitude and motivation of a participant to initiate indicative message gain the fundamental importance. A capital company reinforcement may be expected only from a participant who possesses knowledge required from a perspective of a company's goals implementation, and presents willingness to share and develop the competences by use of a partner's knowledge and experiences.

2. The participation of Poles in social networks in the years 2002-2016

Analysing a position and a character of virtual communities in a company's knowledge creation process it is worth referring to the Public Opinion Research Centre (CBOS) findings, which were conducted in 2010, 2015 and 2016 respectively in a sample of 1056, 1048 and 1100 Poles. The survey was executed by means of computer- assisted personal

interview (CAPI). In the investigated period, both worldwide and in Poland, the number of people using the Internet has been increasing. As Figure shows the number of Poles using the Internet in 2010 exceeded one million of inhabitants, which accounted for over 52% of population. Six years later the involvement grew to over 65%. However, it should be noticed that compared to the first decade of the 21st century, the growth dynamics of people using the Internet is currently lower (Image 4).

Image 4. People using the Internet regularly (at least once a week)



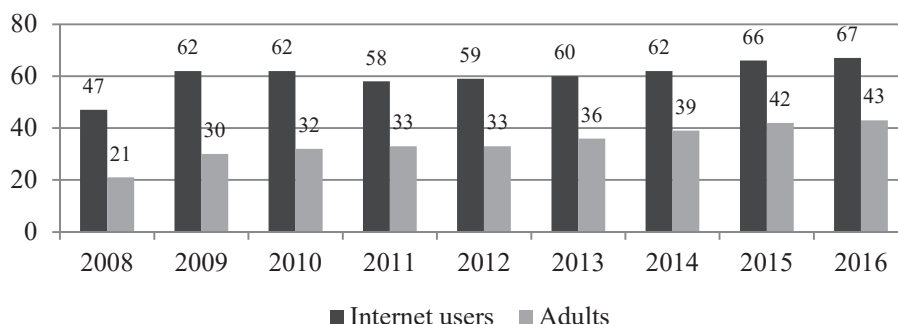
*In the years 2002-2008 the percentage of people using the Internet was indicated.

Source: *Korzystanie z Internetu, Komunikat z badań CBOS*, Warsaw 2016 http://www.cbos.pl/SPISKOM.POL/2016/K_092_16.PDF (access 10 March 2017).

While discussing the issues, it is important to determine whether the Internet users are willing to register at social networking sites? How often do they use them? and what is the purpose of the Internet use?

As Figure 5 shows, the number of users registered at social networking sites has been growing. Compared to 2010, in the year 2016 the participation of users registered at the sites increased by 15%. Slightly lower percentage was registered amongst adult Internet users, whose participation in the investigated period increased to 11%. As the respondents declared, 86% of registered at social networking sites members, regularly uses the sites. However, it should be noticed that the popularity of the mentioned networks is determined by sex. According to the findings in 2016, 70% of women and 63% of men use the described media. Though, the leading factor here differentiating the users activity is age.

Figure. 5 The number of people registered at a social networking site (in %)



Source: Own description based on http://www.cbos.pl/SPISKOM.POL/2016/K_092_16.PDF, (access 10 March 2017).

Social networking sites are the most popular amongst young people. Between 18-24 years of age, the percentage of respondents registered at social networks remains at the level of 92 % in recent years. In the next decades of life, the number of people registered at community sites has increased. However, it is definitely lower.²⁷

The last question concerned the purpose of social networking use. As Table 2 presents, in the whole analysed period, the highest percentage of answers regarded maintaining or renewing contacts with friends. Consequently, it means that the Internet users particularly employ social functions of the networks. A considerable number of respondents uses the Internet to watch films, listen to music or read. Definitely people who themselves post content into the Internet are a smaller group. Looking for a job, posting CVs, or business networking is considerably less popular amongst the Internet users, moreover, in the last year the percentage of answers is lower than in the previous year.

²⁷*Korzystanie z Internetu, Komunikat z badań CBOS, Warsaw 2016*
http://www.cbos.pl/SPISKOM.POL/2016/K_092_16.PDF (access 10 March 2017).

Table 2. The purpose of social networking sites use (in%)

THE PURPOSE OF SOCIAL NETWORKING SITES USE	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>Among the Internet users</i>									
Maintaining contacts with friends, group of friends	0	56	53	50	50	50	54	55	58
Renewing contact with friends	40	50	46	43	37	41	40	41	42
Listening to music, watching films or photos , reading	27	38	35	36	33	39	38	39	39
Discussing interesting subjects, participation in discussion forums	0	0	26	21	26	27	25	28	27
Posting own photos, music, texts	18	27	27	23	21	24	26	26	27
Gaining new social contacts	21	27	22	21	19	19	20	20	17
Looking for a job, presenting CV to potential employers	11	17	13	16	15	18	16	21	17
Professional and business networking	9	15	11	13	11	14	15	17	16
<i>Among adults</i>									
Maintaining contacts with friends, group of friends	0	27	27	28	28	30	34	35	38
Renewing contact with friends	18	24	23	24	21	25	25	26	28
Listening to music, watching films or photos , reading	12	19	18	20	18	23	24	25	26
Discussing interesting subjects, participation in discussion forums	0	0	14	12	14	16	16	18	18
Posting own photos, music, texts	8	13	14	13	12	14	16	17	18
Gaining new social contacts	9	13	12	12	11	12	13	13	11
Looking for a job, presenting CV to potential employers	5	8	7	9	8	11	10	13	11
Professional and business networking	4	7	5	7	6	8	10	11	10

Source: *Internauci 2015, Komunikat z Badań CBOS* Nr 90/2015, Warsaw June 2015, *Korzystanie z Internetu, Komunikat z Badań CBOS*, Warsaw, June 2016 http://www.cbos.pl/SPISKOM.POL/2016/K_092_16.PDF (access 10 March 2017).

Presented findings point out that social networking sites users activity is still based on gaining and maintaining social contacts. The networks are often a place of ideas exchange and entertainment search. Business objectives are definitely set aside.

Conclusions

Presented considerations confirm a possibility of using virtual communities in a process of a company's goodwill creation. The potential may be used at the stage of: creation, production and product delivery, as well as presenting an offered value at the market.

The research supports the argument that the Internet users' participation in Poland in social networking is most often combined with social ideas exchange, entertainment, and gaining and maintaining social contacts. Consequently, the knowledge potential of the Internet users, accounting for almost 2/3 of Poland's population, in the process of a company's knowledge creation is poorly exhausted. However, it should be emphasized that the youngest Internet users spend more time online and are more active in employing the Internet capability.

It should lead a company to pursue activation methods and employ them to the Internet users and members of virtual communities to initiate indicative message supporting the implementation of its goals.

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