

THE USE OF SOCIAL NETWORKS BY WORKING PEOPLE

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Abstract

In the dynamically developing market environment of today it is very difficult to do successful business and lead a firm towards long-term prosperity. Owners of firms are well aware of the necessity to incorporate tools using the concept of Internet social networks into business, promotion and communication equipment. Thanks to the development of modern technologies, the increase in the use and sharing of multimedia and never ending changes in purchase behaviour the utilization of social networks keeps increasing. The objective of this article is to analyse and define a specific behaviour of working people as users of online social networks, while focusing on the utilization for marketing purposes. The article's beginning is dedicated to the theoretical basis and to the short introduction of online social networks. The practical part analyses data obtained on the basis of an executed questionnaire survey, the definition of a specific use of social networks by working people and subsequently the statistical verification of two hypotheses via statistical formulas and correlation analysis. The conclusion sums up the entire issue, including the executed survey, with recommendations for how to use social networks for marketing purposes correctly.

Introduction

Changes generated by globalization, contemporary trends and intensive technical developments lead to the establishment of new communities, cooperation and the synergic effect via established amounts of connections and influences. Although markets still exist their role in the human and business environment is diminishing. The physical capital is, from the economic viewpoint, being pushed to the margin [1]. On the other hand, the intellectual, knowledge and customer capital is highly appreciated. Success is related not only to the amount of property, it also comes from the customer potential and from the ability of the firm to swiftly respond to changes and the expectations of customers. Marketing employees need to be in touch with their customers and potential customers, and it is the websites of social networks that provide for such contact with increasing regularity [5].

Within the period of three years Internet social networks have become a popular activity on the Internet. The most frequently used social network in the Czech Republic is Facebook.com with 3.8 million registered users, with a huge start on LinkedIn.com with 250 000 registered users or Twitter.com with 100 000 registered users [2]. Therefore if an entrepreneur is to manage their firm successfully, they should use these social networks in an efficient manner. The reason for setting up a corporate profile is, in the first place, online presentation on social networks and the option of better targeting, so-called hypertargeting [4]. Feedback from customers is of utmost importance for entrepreneurs/marketing employees and conversation and the possibility to discuss and respond through a social network can subsequently be used to obtain required information and data with the assistance of statistical analyses.

In the Internet era of today successful firms no longer rely exclusively on traditional forms of communication, for instance promotion limited to TV commercials. New technologies offer

new possibilities, while it should be emphasized that it is especially the quality of relationships that matters, and not only technology as such. Signing up with a social network is not enough, the efficient administration of the corporate profile requires constant evaluation, responding to feedback, planning further developments and large amounts of time and energy.

1 Aims

The objective of this article is to analyse and define a specific behaviour of working people in the use of Internet social networking. The research takes into account the current analysis of the behaviour of users of online social networks and the habits in the use thereof. The emphasis is put on the possible use of the results for marketing purposes fitting for the planning and administration of campaigns.

2 Metodology

The article presents results obtained from the questionnaire survey, when the return rate on questionnaires was 63%. Based on assumptions defined in advance and on the basis of general theoretical methods, two hypotheses have been formulated. To confirm or refute the set hypotheses formulas for statistical evaluation and correlation analysis were used with the objective to prove a mutual (non-)correlative relationship between defined variables. For evaluation, the statistical functions of the programmes MS EXCEL and STATISTICA were used.

3 Research

Quantitative investigation was performed on the sample of 125 users registered in social networks in the Czech Republic using the method of self-completed questionnaires. Questionnaire forms, including the enclosed letter, were provided and spread via Internet social networks. The research involved a wide range of users of social networking as to their age, education and variety of registrations in social networks.

One of the research's objectives was to find out why individuals signed up with concrete social networks, whether the time they spent on social networks was increasing or decreasing, what information they published, whether they made use of chats with entrepreneurs, what their attitude to adverts was like and what their overall gain from social networks was.

In the first phase, the data were rearranged and divided into groups. In this article, the emphasis is placed on the 'working people' group.

3.1 Results from the survey

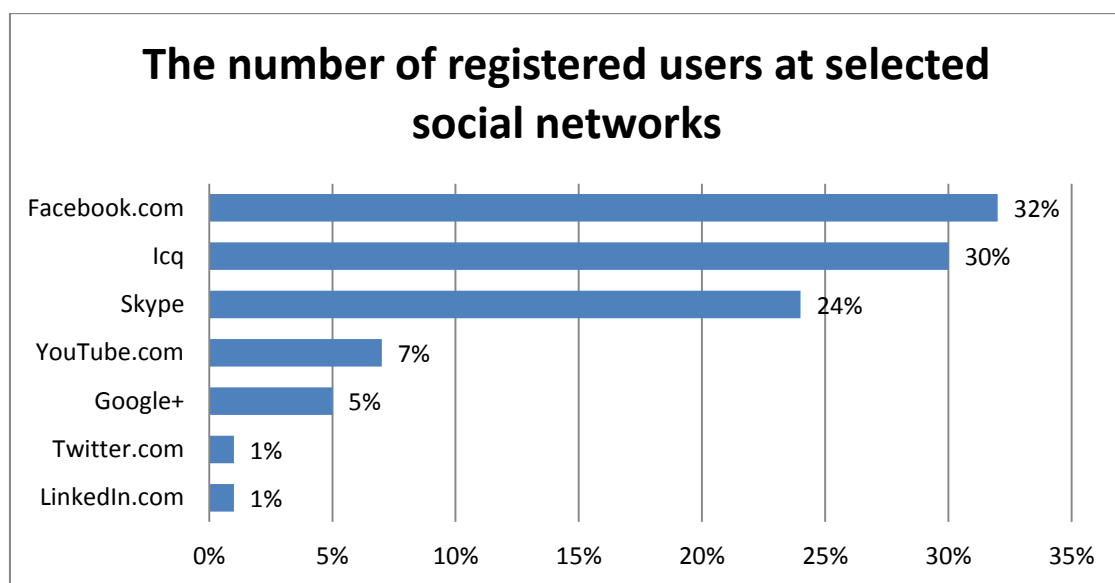
53 working respondents took part in the questionnaire survey. The composition of the examined sample was as follows:

- women: 37 respondents,
- men: 16 respondents,
- age category 21-30 years: 42 respondents,
- age category 31-40 years: 2 respondents,
- age category 41-50 years: 7 respondents,
- age category 51-60 years: 1 respondent,
- completed education – primary: 4 respondents,

- completed education – secondary with apprentice certificate: 6 respondents,
- completed education – high school with school leaving exams: 21 respondents,
- completed education – specialized education after high school: 9 respondents,
- completed education – university: 17 respondents.

3.1.1 Registering in social networks

84% of all respondents have signed up with the social network Facebook.com. Most owners of the account at Facebook.com also have an account at the ICQ social network (93%). Another popular communication network is Skype (64%, mostly women 75%). The less popular ones are YouTube.com (18% respondents, mostly women 80%) and Google+ (13%, mostly women 70%). Social networks Twitter.com and LinkedIn.com are not as popular (2%).



Source: Own

Fig. 1: The number of registered users at selected social networks

One reason why to sign up with Facebook.com was the possibility to make use of the potential of the largest base of contacts and friends. Another, though less frequent reason was the possibility to monitor economic information via adding and watching TV channels in the form of articles, women preferred the adding and watching of interesting channels from the sphere of fashion, cosmetics and cooking, while men preferred sports automobile channels and channels in the sphere of computer technology. As far as the social network Skype is concerned, the main reason for registration was the possibility to make phone calls with the family and friends for free. The most frequently used applications on social networks were chats, photographs and videos, contact search. Somewhat less popular were social groups and games. Games were a popular application with the age group 41-50 years.

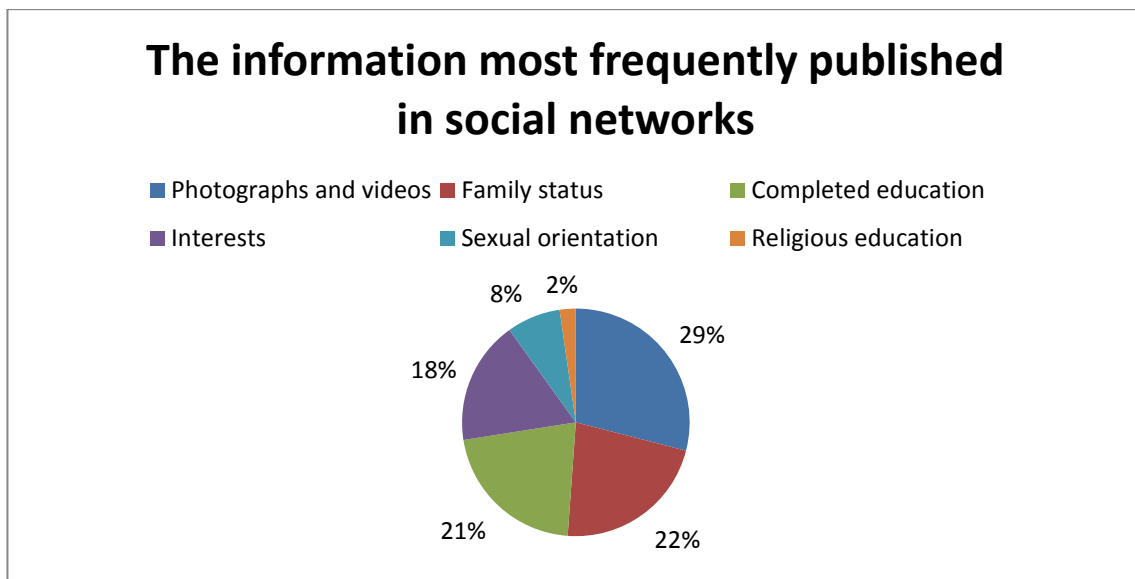
3.1.2 Time spent in social networks

On average, respondents spent two and a half hours in social networks a day; with women, this average was higher by half an hour. Still, 90% of the respondents perceived that they tended to spend less and less time in social networks, and that because of their workload and the decision to spend more time with the family and friends. This fact should be considered urgent by marketing employees and I recommend that hyper targeting be used to address the

group in question with specific information or otherwise it would be fitting to choose another target group. During working hours 58% of the respondents did not use social networks, 28% of the respondents were allowed to sign in to their accounts and 14% signed in, even though they were not allowed to do so.

3.1.3 Data published on personal profiles

The most frequently published data on personal profiles were photographs and videos, completed education, marital status and interests; the opposite applies to sexual orientation and religion, as shown in Image 2. The ban to display the profile to the public provided in the setting was selected by 52% respondents, 28% respondents protected their information partially and 18% not at all (especially respondents with secondary education).

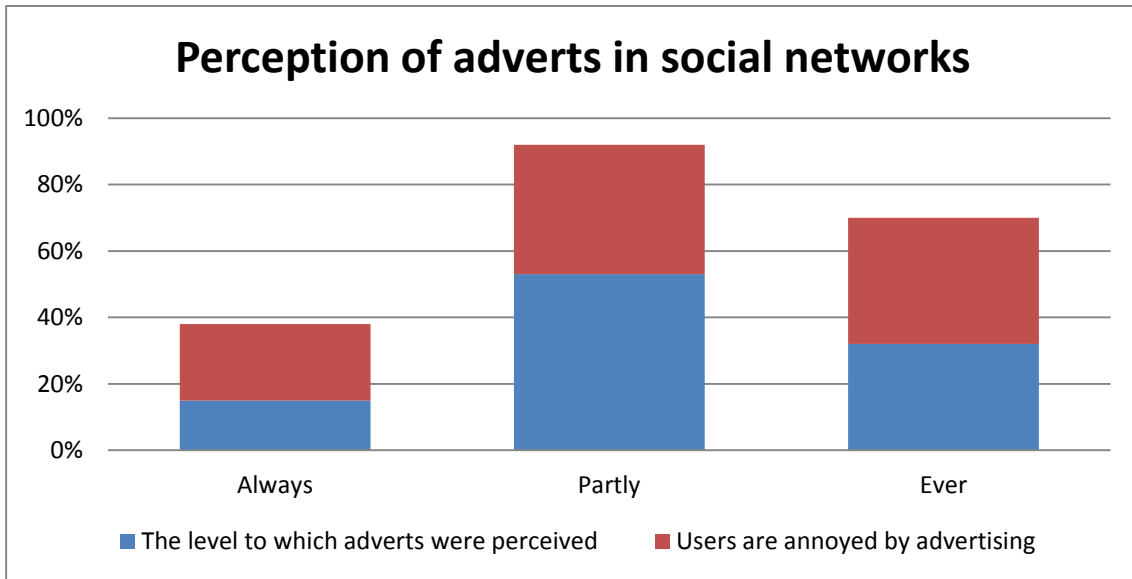


Source: Own

Fig. 2: The information most frequently published in social networks

3.1.4 Perception of marketing stimuli by working people

A half of the respondents used chatting with friends, some occasionally with public media and firms (16%). Moreover, they stated that as far as adverts were concerned they were sometimes aware of them (58%) or never aware of them (33%), 52% of the respondents were partially aware of advertising pages of firms, 39% of them partially minded these adverts, 37% of these respondents did not mind them at all, and 22% of the respondents stated that they always minded adverts, as shown in Image 3. The entire 26% of the respondents were captured by some of the adverts placed in social networks and only 3 of the respondents (women) bought the product thanks to this advert (cloths, gift vouchers). Women were mostly attracted by adverts promoting clothes for adults and children, cosmetics, discount campaigns, gifts, jewellery, relaxation and adventure holidays, restaurants and animal foodstuff, including supplements for pets. The attention of men was mostly captured by adverts promoting betting on sports, machines from electrical engineering, cars and technical novelties in computers and mobile phones.



Source: Own

Fig. 3: Perception of adverts in social networks

The majority of the respondents (69%) have never so far aired their (dis-)satisfaction with a product directly on the web profile of the firm in question, the remaining ones (mostly women) used voting about the satisfaction level, open discussion and commentaries. As confirmed by Table 1 the respondents most often seek information before a planned purchase of a product thanks to references and discussions. Occasionally the respondents used corporate profiles where they learnt required information about the product and contact information for sales branches.

Tab. 1: How often users search up information before a planned purchase of a product

	I often use	I use occasionally	I do not use
Corporate contact	12%	22%	20%
Corporate profile	4%	19%	23%
Product information	32%	19%	19%
References	36%	20%	18%
Discussions/chats	16%	20%	20%

Source: Own

3.1.5 The benefit and disadvantage of social networks for the working people

The respondents viewed these points as benefits they derived from social networks: a large base of friends, easier communication with colleagues from worker, procurement of references, the option to organize informal work-related events and entertainment. On the other hand, the loss of free time, privacy and the lack of concentration at work were perceived as negative aspects.

Men would welcome better graphics and interlinking to other social networks, women would welcome the option to divide friends into groups, and also an easier control of how to set the protection of privacy.

Three fourths of the respondents were able to imagine our times without social networks. However, they were not going to cancel their accounts at social networks because they could use them to stay in touch with friends and 32% of the respondents still enjoyed social networks.

3.1.6 Prediction about the development of social networks

For future, the respondents expected social networks to develop from the technical/graphic viewpoint and to get interlinked with other social networks. They saw the predicted trend in improving concrete existing networks, rather than in the number of newly created ones.

3.2 Discussion

The following 2 hypotheses were formulated based on the data stated above:

- Hypothesis I: *Users of social networks participate in discussions with firms at their corporate profiles in a social network and seek other information before a planned purchase of a product takes place.*
- Hypothesis II: *Users of social networks the attention of which was caught by adverts in their profile will buy the promoted product.*

The hypothesis I is based on the assumption that if users are interested to chat with firms at their corporate profiles, they will seek information yet before a planned purchase of the product takes place.

For the evaluation of the attitude related questions no. 9 (*To what level do you participate in discussions?*) and no. 16 (*How often do you use social networks to seek information yet before a planned purchase of a product?*) the following statistical formula was selected [3] (1).

$$X = \frac{(1 * X_1) + (2 * X_2) + (3 * X_3)}{N}, \quad (1)$$

where:

N is the number of respondents,

X_1 number of persons who answered with the variant provided,

X_2 number of persons who answered with the variant provided,

X_3 number of persons who answered with the variant provided.

The value scale was set for values <1-3>; namely 1 = I often use, 2 = I occasionally use, 3 = I do not use at all. A numeric interval <1; 1.5> was determined to verify hypothesis I. The calculation of attitude related questions no. 9 and no. 16 was as follows.

$$X_9 = \frac{(1 * 1) + (2 * 9) + (3 * 43)}{53} = 2,79 \quad \boxed{X_9 \notin \langle 1; 1,5 \rangle} \quad (2)$$

$$X_{16} = \frac{(1 * 1) + (2 * 13) + (3 * 39)}{53} = 2,72 \quad \boxed{X_{16} \notin \langle 1; 1,5 \rangle} \quad (3)$$

The calculations given above have not confirmed the validity of the hypothesis I. Users of social networks do not participate in chats at corporate profiles and do not search information before actually buying the offered products. Information obtained from references and chats with friends is considered as more valuable by them.

The hypothesis II is derived from the assumption that if the user's attention is caught by a displayed advert for a product the user will buy the product.

A statistical method based on correlation analysis was used to confirm or refute this hypothesis II. The selected X, Y were dichotomous values, i.e. the value was either 0 or 1. The method of tetrachoric correlation was selected. This method is more laborious but also more

reliable for the evaluation of how close the relations between the variables are. Firstly, the values were sorted out into arranged couples (X, Y). Table 1 shows that it was necessary to compose the so-called tetrachoric (four-field) table where A gives the number of pairs (0, 0), B the number of pairs (0, 1), C the number of pairs (1, 0) and D the number of pairs (1, 1). Moreover the condition $A + D > 20$ for the use of the coefficient of tetrachoric correlation R_{tetr} has been met.

Tab. 2: Tetrachoric (four-field) table

X/Y	0	1	Total
0	A 39	B 1	40
1	C 10	D 3	13
Total	49	4	53

Source: Own calculation in Statistica

The limit level of significance at which we would still refute the hypothesis II was set to $p_{tetr} = 0.11$ [3]. Moreover, the so-called tetrachoric ratio K in the amount of 11.7 was calculated according to the following formulas

$$K = \frac{(A * D)}{(B * C)} \quad (4)$$

$$K = \frac{(39 * 3)}{(1 * 10)} = 11,7 \quad (5)$$

The value of the coefficient of the tetrachoric correlation R_{tetr} has been identified to be 0.75792; the calculation was based on the following formula [6]:

$$R_{tetr} = \cos\left(\frac{\pi}{1 + \sqrt{K}}\right) \quad (6)$$

$$R_{tetr} = \cos\left(\frac{\pi}{1 + \sqrt{11,7}}\right) = 0,75792 \quad \boxed{p_{tetr} 0,11 < R_{tetr} 0,75792} \quad (7)$$

The calculations displayed above have verified the hypothesis II. There is a close relationship between an ad captivating the attention of the user and the purchase of this product by the user registered in a social network. The verification of the hypothesis II only confirms the theoretic recommendation that products promoted on social networks should be as impressive and attractive for a concrete user as possible.

Conclusion

Social networks on the Internet may be a very useful communication and promotion tool. It shall be emphasized that the technical task of setting up a profile is not sufficient in itself. If a firm requires an effective return on invested finances, work and time, it is necessary to monitor specifics, preferences, opinions and chats of users of social networks continuously. If the firm supports such information with results of various marketing analyses, statistics and investigation, they obtain almost a complete overview of the issue in question. The firm may use these results to react flexibly to changes in purchase behaviour, innovate products and processes and continuously improve the overall attitude of the firm to its customers. The objective of the article was to analyse and define specific behaviours of working people as users of social networks. Therefore the questionnaire survey has been evaluated in detail, thus arriving at the specifics stated above. On the basis of theoretical assumptions two hypotheses

were determined. The hypothesis I, which assumed that users of social networks take part in chats with firms at their corporate profiles at a social network and in this way search information before a planned purchase of a product takes place, has not been confirmed. The hypothesis II, which defined the assumption that users of social networks who have been attracted by an advert at a social network will buy the promoted product, has clearly been confirmed. It will certainly be useful to keep monitoring the developments in the use of social networks by working people in future.

Acknowledgements

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VYUŽÍVÁNÍ SOCIÁLNÍCH SÍTÍ PRACUJÍCÍMI

V dnešní tržně dynamicky se rozvíjejícím se prostředí je schopnost úspěšně podnikat a vést firmu dlouhodobě k prosperitě velmi obtížné. Současní majitelé firem si velmi dobře uvědomují nutnost začlenit nástroje využívajících koncept internetových sociálních sítí do firemního, propagačního a komunikačního řízení. Díky rozvoji moderních technologií, nárůstu používání a sdílení multimédií, neustálé změně kupního chování, se využívání sociálních sítí neustále zvyšuje. Cílem článku je analýza a definování specifického chování pracujících jako uživatelů online sociálních sítí se zaměřením na použití pro marketingové účely. Začátek článku je věnován teoretickým východiskům a stručného představení online sociálních sítí. Praktická část se věnuje analýze dat na základě provedeného dotazníkového šetření, definování specifického užívání sociálních sítí pracujícími a následně statistického ověření dvou hypotéz pomocí statistických vzorců a korelační analýzy. Závěr shrnuje celou problematiku, včetně provedeného výzkumu s doporučením pro správné využívání sociálních sítí k marketingovým účelům.

DIE NUTZUNG SOZIALER NETZWERKE DURCH ARBEITNEHMER

In der heutigen, sich dynamisch entwickelnden Umgebung ist es sehr schwierig, erfolgreich zu unternehmen und eine Firma langfristig zu Prosperität zu führen. Die heutigen Firmeneigentümer sind sich sehr gut der Notwendigkeit bewusst, Werkzeuge und Konzepte der sozialen Netzwerke im Internet in die Firmen-, Werbe- und Kommunikationsprozesse mit einzubeziehen. Dank der Verbreitung der modernen Technologien, einer wachsenden Nutzung und Beliebtheit der Multimedien und dank stetiger Änderungen des Kaufverhaltens werden die sozialen Netzwerke immer stärker genutzt. Das Ziel des Artikels ist eine Analyse und Definition des spezifischen Verhaltens der Arbeitnehmer in der Rolle von Anwendern der sozialen Netzwerke im Internet, mit besonderem Augenmerk auf die Nutzung für Marketingzwecke. Die Einleitung des Artikels ist theoretischen Ausgangspunkten und einer kurzen Vorstellung der online Sozialnetzwerke gewidmet. Der praktische Teil behandelt die Analyse von Daten aus einer durchgeführten Umfrage und definiert die spezifische Nutzung sozialer Netzwerken durch Arbeitnehmer. Abschließend werden die zwei Hypothesen mithilfe von statistischen Formeln und einer Korrelationsanalyse statistisch geprüft. Der Schluss fasst die gesamte Problematik einschließlich der durchgeführten Untersuchung zusammen und bringt Empfehlungen zur richtigen Nutzung der sozialen Netzwerke zu Marketingzwecken.

WYKORZYSTYWANIE SIECI SPOŁECZNOŚCIOWYCH PRZEZ PRACUJĄCYCH

Współcześni właściciele firm bardzo dobrze uświadamiają sobie konieczność wdrożenia narzędzi wykorzystujących koncepcję internetowych sieci społecznościowych w zarządzaniu firmą, promocją i komunikacją. Celem niniejszego artykułu jest przeprowadzenie analizy i zdefiniowanie specyficznego zachowania pracujących jako użytkowników sieci społecznościowych online z ukierunkowaniem na ich wykorzystywanie do celów marketingowych. Na wstępie opisano zagadnienia teoretyczne oraz krótko przedstawiono sieci społecznościowe online. Część praktyczna poświęcona jest analizie danych w oparciu o przeprowadzone badania ankietowe, zdefiniowaniu specyficznego wykorzystywania sieci społecznościowych przez pracujących a następnie statystycznemu sprawdzeniu dwóch hipotez za pomocą wzorów statystycznych i analizy korelacji. W zakończeniu całe opisywane zagadnienie oraz przeprowadzone badania podsumowano, wskazując właściwe wykorzystywanie sieci społecznościowych do celów marketingowych.