

Utilization of Social Media Network in Automotive Industry in the Czech Republic: case-study

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Abstract. The paper deals with social networks, which have become natural part of our everyday lives; they significantly affect professional and private spheres for their influence and impact is still growing. The industries realize the power of that marketing tool and are developing new strategies and investing into the trendy and widely utilized social networks. The goal of the article is to present three producers and main players in the automobile industry in the field of personal cars in the Czech Republic in the connection with use of social networks. The sub-goal is to present how companies decide on the use of the optimal mix of platforms. Classification of social networks, social media and their purposes are solved and briefly described at the first theoretical part. Three main producers of personal cars and analysis of social networks that are used by producers in automobile industry in the Czech Republic are presented in the main part of the article. It is also analyzed whether producers of cars have direct links from web pages on the selected social networks. The last part is dedicated to selected social networks and how these interactive media are used and might be used by car makers and sellers of cars produced in the Czech Republic. It was found out that the most often used social networks by producers of personal cars are Facebook, YouTube, Twitter and Instagram. Not all the companies discussed in this paper put links on the used social networks.

Keywords: Automotive industry, Communication, Information, Social network Management, Use.

1 Introduction

Last year 2017 was exceptionally successful in the production of road vehicles in the Czech Republic and the same applies to the entire Czech automotive industry, including the subcontracting sector. These favorable results of the automotive industry are influenced by the positive development of the European and world economy and the growing consumer demand for vehicles in the Czech Republic as well as in Europe. The car industry plays substantial role in the Czech economy, last year in 2017, it

represented even essential part of the Czech economy due to its dynamic growth which was about 4.5% according to analysts. But 2017 is considered to be the top of the current economic cycle. It can be expected that this year, the growth rate of the Czech economy will weaken by about one percentage point, and we are expecting a slowdown in Europe and other markets as well. As for the Czech Republic, influencing factors causing pressure on the decline in the growth rate in 2018 there will be mainly the tensions in the labor market, where the Czech economy will face the limits of its production possibilities, and already mentioned supply reduction of the labor market. It can be expected that a number of automotive companies will also be significantly affected.

The dynamics of the Czech automobile industry will be high even this year but the growth of the production of motor vehicles by more than 5%, as it was in 2017, cannot be expected. Car manufacturers in the Czech Republic produced a total of 1,413,888 vehicles. The production of passenger cars thus again constituted the dominating part of the volume of manufactured motor vehicles. The biggest share of the total production in the Czech Republic was held by ŠKODA AUTO with 60.7%, the second place kept HYUNDAI with 25.2% and the third was TPCA with 14.1%. Production grew year-on-year by 5.2%. It was the best year in history of ŠKODA AUTO; they increased production by more than 12.2% (to astonishing record 858,103, which is almost 93,000 more than last year), HYUNDAI kept production at the level of the previous record year, with a year-on-year decline by 0.5 % reaching a total of 356,700 produced cars. TPCA in Kolín, whose production grew in 2016 and at the beginning of 2017, recorded a year-on-year decline by -9.8%, a total of manufactured cars was 199,078.

The graph in fig. 1 brings comparison of the yearly production of key car manufacturers which are discussed in the paper since the start of new millennium. The graph clearly illustrates the dominating position of ŠKODA Auto producer. In 2005 TPCA opened their production in Kolín. Yearly production isn't balanced its production history follows a wave line, see red bar. In 2008, HUNDAI unobtrusively entered on the car automotive scene in our country and was systematically and distinctively increasing their production until last year [1].

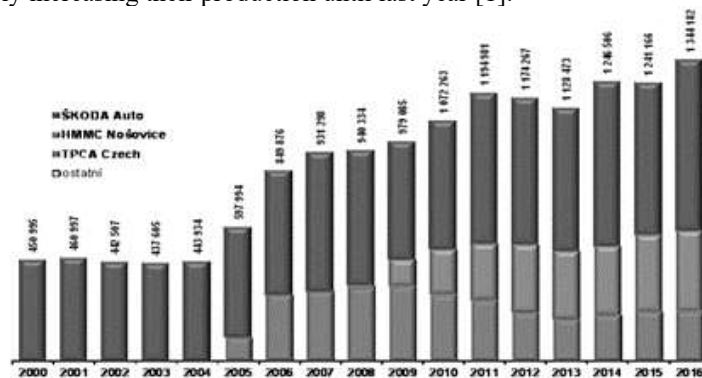


Fig. 1. Producers of personal cars in the Czech Republic [1].

Measuring and evaluation of company performance is carried out in companies through accountancy and other software. The goal of producers, including producers of personal cars is selling as many products as possible. The other vitally important and constant effort is an increase in efficiency and profitability which is interconnected with the main mission. Communication plays an irreplaceable role, in this point we mean communication with both current and new ones. At present time, a trendy and widely utilized channel of communication is the web offering a wide scale of social networks. Out of their undisputable beneficial features we can name: the opportunity to reach an “unlimited number” of people without time lag or the opportunity to update information when needed. Social networks do not serve only for private purposes, any more, their power has been found and is being developed in commercial sphere. The impact of the social media as a whole has an impact on the society. New forms of communication change the communication itself, online communication makes communication faster and sometimes more condensed or just the opposite more superficial, depending which platform is being used and for which purposes. Here the question that is relevant to the analyzed topic arises, whether the companies that produce personal cars in the Czech Republic use selected social networks for communication with their customers, potential customers, with wide audience. Businesses and individuals that would like to buy a new car take into consideration lot of criteria. Communication with a car producer via social nets, visualization a presentation of the car in the video channel, reading on-line forums, watching Instagram, etc. those are currently significantly influencing tools in the purchase of the car.

The organization of the paper is as follows. Firstly theoretical background to the issue is given. The core part of the paper discusses the evaluation of use of social networks by producers of personal cars. The paper contributes to the exploration of utilization of Web 2.0 phenomenon and social networks by companies and individuals in automotive industry. The area of research encompasses producers of personal cars and communication via social networks. These two parts are interconnected because companies and individuals are searching how to save money in all areas of doing business, earn more money, have a larger share on the market and other goals. Social media are very often perceived as the possibility how to save money in the communication with customers and how to gain and keep their interest. Contrary, people like to use social networks that are nowadays modern, popular and easily accessible.

2 Literature Review

2.1 Web 1.0, Web 2.0, Web 3.0

At its beginnings, the Internet was mostly used passively by users. It was called “Read only web” by Berners-Lee.

The most frequently cited name that is connected with the description and definition of Web 2.0 concept is Tim O'Reilly in 2004. He defined the main differences between classical Web site and a new generation web. In terms of software development Web 2.0 is characterized as a shift from centralized processing and services to

decentralization. Second generation web gave users the ability to handle their website and use social networks to converge with other users and attract potential [2]. Cormode and Krishnamurthy brought in 2008 interesting comparison of two stages in the development of the Internet. With the advent of the term Web 2.0, the internet has become interesting not only for personal but also for commercial use. Web 2.0 allows the user to create content, communicate with users online, and the pages are more sophisticated and clear than those of the classic Web site. The term "social media" is linked to the use of the term Web 2.0. Social media is the very place where a user can create content. Social media can be divided on the basis of their main mission and marketing tactics. Social media are social media networks. [3]

Pros and contras of Web 2.0 are described in the article "Best of the web and best of the web-Criticism" which brings an insight into the Web 2.0 platform which enabled user-generated content, and focuses on usability of the web, its ease of use by wide audience not only by experts, and interoperability. [4] All these characteristics play an important role in the social networks which are discussed in this paper, because the optimal utilization can significantly increase the performance of companies.

As for the 3rd stage in the Internet development platforms, Web 3.0 was described as the extension of Web 2.0. Connective intelligence is its main characteristics encompassing connecting data, concepts, applications and ultimately people. Web 3.0. is also called Semantic Web, see more [5], [6].

2.2 Social Networks

A sociologist J. A. Barnes (1954) is considered to be the author of the definition of the social network. The term social network is associated with the Internet and directly with the social networks on the Internet. But this is not the only connection there is a need to deal with the concept of social network from the sociological point of view, therefore, the social network can be described as a "map of the area near and distant surroundings where relationships of involved people are defined." [7]

Černá, Svobodová [8] presented in previous research the most often used social networks Facebook, Instagram and Twitter or Svobodová [9] use of YouTube.

Social networks have global popularity. One of the most common online activities in the EU-28 in 2017 was participation in social networking. More than half (54 %) of individuals aged 16 to 74 used the internet for social networking, for example using sites such as Facebook or Twitter in the EU [10]. According to Czech statistical office [11] 48.3% of individuals aged 16-74 use social networks in the Czech Republic.

2.3 Social Media

Social media are applications which become social networks via users' use.

Social media are a form of electronic communication (social networking and microblogging networks), through which users create online communities to share information, ideas, personal messages and other content (videos). [12] Social media can be divided on the basis to marketing tactics as Social networks (Facebook, MySpace, LinkedIn); Blogs, video blogs, microblogs (Twitter); Discussion forums, Q & A portals

(Yahoo Answers); Wikis (Wikipedia, Google Knol); Bookmarking systems (Digg, Delicious, Jagg); Shared multimedia (YouTube, Flickr); Virtual worlds (Second Life, The Sims). [13]

How Brand Actions and User Actions Influence Brand Value by use of social networks is solved in [14] and performance measurement system to quantify the contribution of social media is presented in [15]. Du and Jiang [16] find that company use of social media is associated with firm performance, measured by stock price and return on assets. When testing the individual association of the various platforms and firm performance, the authors find that only Facebook and Twitter has a statistically significant relationship. They observe that half of the firms use one or both of these platforms.

2.4 The Main Purposes of Selected Social Networks

The subchapter contains theoretical background of purposes of selected social networks.

- Facebook – Facebook for marketing allows businesses, organizations and public figures to connect with customers, fans and constituents through the website. Businesses and other brands create pages where they can post content, provide organizational news, offer deals, introduce products and manage customer service relationships. They also can reach a large number of people with targeted advertising, creating ads specifically for Facebook that are tailored to appear on the pages of specific groups of people they hope to reach. [17]
- YouTube - companies might gain a lot from short videos on YouTube showing the benefits of their products and also videos how to use products. YouTube is all about getting visitors to stay and consume video after video so that they can see ad after ad. According to one small study, conducted by Phil Nottingham of Distilled, only 0.72% of viewers of YouTube channels with URL's in the description clicked thru to the linked site. What that tells us is, if you are trying to get people to come to your website, YouTube might not be the tool to click thru to the linked site. [18]
- Twitter - it is a social networking and microblog provider that allows users to send and read posts sent by other users, known as tweets. The main purpose of Twitter is to make profits for those running the business (founders, investors, employees and more). From a user's perspective, it may serve many purposes including but not limited to: Keep an eye on trending events/news, Connect with like-minded people, Marketing or promotion of business, Stalk and spam, Vent out emotions or anger, Business Support, Finding and connecting with influencers. [19]
- Google+ - the purpose of Google plus is to provide a binder to the web experience of a user. It is one of the top components of Google ecosystem now solving a multitude of problems not only for google but for the whole web. It also helps provide a web identity to users. [20] Glusman presented [21] 7 Reasons Why You Should Be Using Google+ For Your Business.
- LinkedIn - it is a professional social network where professionals meet and discuss their work interests and they are also looking for new employees. LinkedIn is a

professional social media network, where users create profiles highlighting current and prior work experience. You can upload resumes, connect with colleagues and classmates and build a network that can help you advance in your career. [22]

- Instagram - the app allows users to upload photos and videos to the service, which can be edited with various filters, and organized with tags and location information. An account's posts can be shared publicly or with pre-approved followers. Users can browse other users' content by tags and locations, and view trending content. Users can "like" photos and follow other users to add their content to a feed. [23]

3 Methodology and Goal

The goal of the article is to present three producers and main players in the automotive industry in the field of personal cars in the Czech Republic in the connection with use of social networks. The sub-goal is to present how companies decides on the use of the optimal mix of platforms.

The article is based on primary and secondary sources. The secondary sources provide information about automotive industry in the Czech Republic, Web 1.0, 2.0 and 3.0, social media and networks, professional literature, information collected from professional press, web sites, discussions and previous participation at professional seminars and conferences related to the chosen subject. It was then necessary to select, classify and update accessible relevant information from the numerous published materials that provide the basic knowledge about the selected topic.

The main part of the article is based on the available resources of the most often used social networks and producers of personal cars in the Czech Republic. The last part is devoted to optimal use of platforms by companies producing personal cars in automotive industry.

4 Results

The results part at first contains the results of investigation that is focused on the use of social networks by automotive producers and by trademarks of personal cars that are produced in the Czech Republic. The second part contains information about social network Facebook, YouTube, Twitter, Instagram, Google+, LinkedIn and their use by producer of personal cars in automotive industry in the Czech Republic. Next topic is focused on the interconnection of social networks with web pages of selected companies.

4.1 Car Manufacturers

On the basis of gained results from the investigation a selection of the below discussed results have been made.

Three major manufacturing companies (Škoda Auto, TPCA Czech and Hyundai) were selected first and then the brands of specific carmakers in the Czech Republic were searched for. TPCA Czech brands are Toyota, Peugeot and Citroen.

4.2 Producers of Cars, Web Pages and Social Networks

In the next part of the research there were analysed social networks Facebook, Twitter, Instagram, YouTube, Google+ and LinkedIn in the connection with producers of personal cars in the Czech Republic. It was searched whether or not have the producers of cars account on the widely used social network Facebook or on others. Accounts of the individual brands were searched on the all mentioned social networks. Results are presented in table 1.

Table 1. Use of social networks and direct links between producers of personal cars www and social networks [24-35].

	Facebook		YouTube		Twitter		Google+		LinkedIn		Instagram	
	Use	Link	Use	Link	Use	Link	Use	Link	Use	Link	Use	Link
Škoda Auto	x	x	x	x	x	x	x	-	x	-	x	x
HMMC Nošovice	x	x	x	x	-	-	x	-	x	x	x	x
TPCA Czech	x	x	x	x	x	-	-	-	x	x	x	x

The data were distributed to car manufacturers and subsequently to brands that are produced in the Czech Republic in the field of passenger cars. All manufacturers and brands of cars use social networks as Facebook, YouTube and Instagram and have links to the first page of their websites. This is not the case for manufacturers. Peugeot, Citroen and Toyota have links on Google+ only in English. The pages in foreign languages, esp. English, are important because they make up the most important part of the sale. In the Czech Republic producers sell only small part of produced cars. The smallest connectivity between websites and social networks is on Google+ and LinkedIn.

Table 2. Use of social networks and direct links between trademarks of personal cars produced in the Czech Republic www and social networks [24-35].

	Facebook		YouTube		Twitter		Google+		LinkedIn		Instagram	
	Use	Link	Use	Link	Use	Link	Use	Link	Use	Link	Use	Link
Škoda Auto	x	x	x	x	x	x	x	-	x	-	x	x
Hyundai	x	x	x	x	x	x	-	-	x	-	x	x
Peugeot	x	x	x	x	x	x	x	-	x	-	x	x
Citroen	x	x	x	x	x	x	x	-	x	x	x	x
Toyota	x	x	x	x	x	-	x	x	x	x	x	x

4.3 Optimal Use of Platforms by Companies in Automotive Industry

Recommended optimal Social Media Network portfolio for companies in automotive industry and sellers of cars in the Czech Republic is use of selected social networks. They were selected due functions that they provide and also they are widely used by citizens and companies.

A decision tree was designed after elaboration of assessment and analyses of individual social applications. It had been inspired by the mind map since its processing is looser and doesn't fully respect all the principles and the range is less than normal.

The main element can be described as a decision node (What do you want to share?), which gets divided into individual branches - into solution suggestions (Twitter....) according to the response (Short text ...).

In case of multiple response, these suggestions converge back to one branch, which is unusual for the decision tree. The inspiration by mind map can be seen in that.

A variant of the decision tree, which is simplified by adapting of some habits from mind maps, has been chosen because there is no conventional diagram for such a small scale and convergence in the event that we need something from everything. For this reason, it is preferable to use the decision tree.

The draw.io website [37] was used to create the decision tree (see fig. 2).

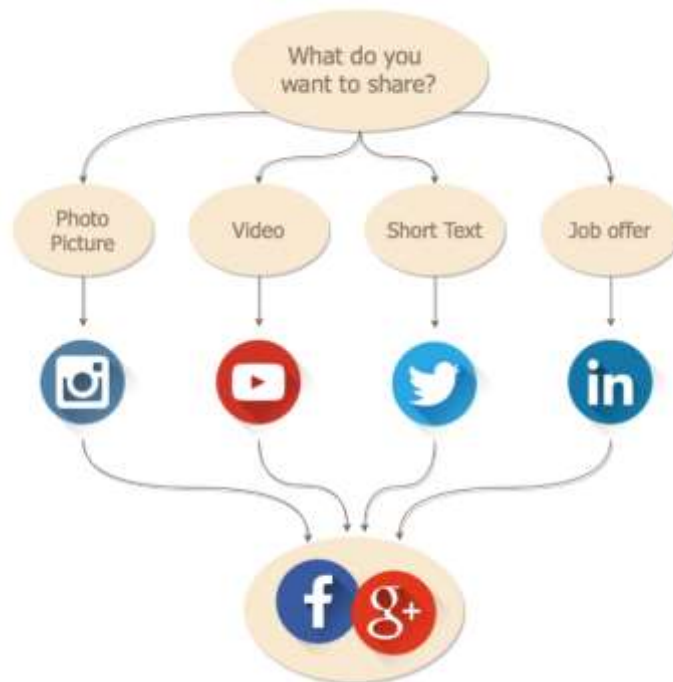








Fig. 2. Decision tree – use of social networks.

Recommendations based on the analysis and findings:

-  Facebook – fits for posting content, informing on organizational news, presenting offer deals, introduction of products and managing customer service relationships. It can be used periodically but *mostly when something is new in the area*. The official website could be connected to fan pages of car sympathizers.
-  YouTube – its main mission is sharing video. For the purposes of automobile industry it is used for presentation of new cars and their specifications but also as cars within a frame of wider concepts, e.g. cars in smart cities.
-  Google+ - is the social network that offers wide variety of tools and functionalities. It is recommended to use a user profile as a publicly visible account of a user that is connected to many Google properties. Circles enable users to organize people into groups or lists for sharing across various Google products and services. Companies can use also Stream, Identity service, +1 Button, Google+ pages, Communities, Events, Discover, Photography etc. This social net offers the alternative features to Facebook. It also enables connection between official pages or profile of the car company with the unofficial fan pages.
-  Twitter – enables short reports on latest news and launching new products. It can be used in case when the instant statement of producers on eventual affairs is needed.
-  LinkedIn – is predominantly used by companies in the staffing issue, so companies in the automobile industry should use this proven media for seeking of new employees.
-  Instagram – perfectly fits for posting of photo or video from the business environment as well as from the car followers

Companies may use also WhatsApp, Viber, Blogs and other social networks if necessary. Important is to connect social networks with the www pages of companies. The links should be placed clearly on the first page and then if necessary according to the individual topics.

5 Discussion and Conclusion

The intention of the article is to stimulate a conversation and proposes ways in which to frame early and future research. Social networks fit knowledge management as they open the door to new ways of communication, enable development, editing, sharing and storing materials on the virtual platform. Social networks are nowadays one of the most popular and most often used channels to inform and communicate not only in the private sphere but also at business environment.

The goal of the article was to present the most often used social networks by producers of personal cars and trademarks that are produced in the Czech Republic and links between web pages and social networks in the Czech Republic. Another goal was to create a decision tree and prepare a set of recommendations on utilization of individual social networks based on the analysis and findings.

In the Czech Republic, social media are more often used by individual brands than by car production plants. The least used social net by producers is Google+. The social network is not being used and it is expected that it will soon disappear due to security problems. This may be also the reason to lower activity on a given social network. HMMC Nošovice doesn't use Twitter. Google+ isn't used by TPCA Czech but on the other hand ŠKODA AUTO uses Google+ but doesn't have the link to this network from their website. Another thing that misses in the management of media in ŠKODA AUTO is the linking of company websites with the LinkedIn where new employees are searched for.

When it comes to the use of social networks by individual car dealers of cars that are produced in the Czech Republic, they all have links from their websites to Facebook, YouTube and Instagram. As for Toyota, a link to Twitter from their website is missing. As already mentioned, Google+ doesn't rank among the favourite social nets because most of missing links from websites concern Google+. An interesting fact is that information that is presented on Google+ is mostly in English even on Czech websites. All companies use LinkedIn services, but only Citroen and Toyota have a link to that net on their home page.

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