

READINESS OF SMALL AND MEDIUM ENTERPRISES FOR MARKETING AUTOMATION

Tereza Semerádová¹; Petr Weinlich²

Technical University of Liberec, Faculty of Economics, Department of Informatics,
Studentská 1402/2, 461 17 Liberec, Czech Republic
e-mail: ¹tereza.semeradova@tul.cz; ²petr.weinlich@tul.cz

Abstract

As the technological progress of online shopping and advertising advances with increased speed, marketing automation has been gaining more attention from both practitioners and academics. However, despite the growing popularity of this new marketing approach, there are many restrictions when it comes to its implementation by small and medium enterprises (SMEs). Due to the high requirements regarding the collection of customer data and advanced knowledge necessary to set up and operate marketing automation systems, many enterprises are not able to fully grasp the potential marketing technologies offer. This article describes the mechanisms of marketing automation, provides the state-of-art research overview and analyses current level of readiness of Czech SMEs to implement digital marketing tools and the obstacles that prevent them to do so.

Keywords

Marketing automation; E-commerce; Digital economics; Customer data; Personalization.

Introduction

The term marketing automation was first used by Professor John D.C. Little [1] at a lecture at the University of California, Berkeley. Little described marketing automation as a support for automatic marketing decisions in the Internet environment. With the help of data that users leave behind when using the Internet, he wanted to improve the entire user experience of purchasing products in the online environment, and thus increase their satisfaction with the service and loyalty to the company or product. Moreover, Little believed that this approach was to enable the creation of automated processes to improve their productivity, easier decision-making and greater return on marketing investment. However, the beginnings of marketing automation can be traced back to the past. Already at the end of the 1990s, database developers, in cooperation with marketers, tried to automatically segment customer databases into smaller units based on available data [2]. Later, these efforts evolved into an entire CRM systems industry including marketing automation [3]. On the other hand, other authors see marketing automation as an intersection of several areas, which, in addition to CRM, include database marketing, interactive marketing, emarketing and direct marketing [4] [5]. According to Swezey [2], marketing automation means a process using a centralized platform for tracking existing and potential customers, including a set of automated and personalized marketing activities with the ability to monitor and evaluate the effectiveness of all marketing channels. Heimbach, Kostyra, & Hinz believe that the core of marketing automation is the automatic adaptation and personalization of all outputs based on the marketing mix [5].

Important parts of modern automation are lead nurturing and lead scoring. The term lead nurturing describes a process in which automated campaigns are used to communicate with

potential customers and turn them into loyal customers. Each marketing automation platform includes a module in which these campaigns are created. Lead scoring is the process by which users within marketing automation software are automatically segmented by assigning points based on their actions performed [6]. For example, if the customer visits a marketer-defined web page with an offer for a particular product, the system will increase his value by adding ten points based on this action. Then the customer subscribes to the company newsletter using a web form. For this action, the system will increase his value by adding twenty points, because this conversion has a bigger value than just visiting the website. After some time, however, he unsubscribes from the newsletter and the system reduces its rating by 50 points because the customer performed a negative action. In reaction to the scoring, the marketing automation systems are able to trigger automated campaigns tailored as the response to the customer's actions.

Scientific literature describes five basic components of the marketing automation framework. The first component is the input data collected from previous interactions with the users. The second component is represented by real-time decision rules that evaluate user actions based on available data and implement response strategies. User interface of such systems represents the third component. Through this interface, the marketers are able to create and edit the automation rules. The fourth component provides feedback and performance information while the fifth element of the system is used for strategic planning. Modern marketing automation systems use both historical and user-generated data in real time. While the human factor is still very important, especially when it comes to creativity, the automated decision-making and recommendation of relevant offers created through machine learning are increasingly used [7].

Data is a critical part of marketing automation and all related processes are closely linked to their quantity and quality. Nowadays, companies collect large amounts of customer generated data. For most part, the data is obtained from the digital environment, such as visits to websites, downloads of mobile applications or interactions on social networks. However, it can also be data obtained from the real world, such as store visits, purchases, etc. The great importance of data in marketing is characterized by the concept of data driven marketing, or data-driven marketing [7] [8].

Software is the core of the entire automation process that is responsible for performing automated rules created by the marketers. Thanks to the user interface, rules can be created and managed even by users without technical knowledge or knowledge of programming languages. Through the interface, users can create reports providing information about the success or failure of marketing campaigns, making it easier for them to evaluate and decide which automation rules should be modified or suspended. Automation software generally includes a functionality for creating personalized content that guides the marketer through the process of creating new rules or campaigns while recommending them what channel or communication medium to use to reach the customer.

The software may also take care of the automatic personalization of the message based on the set rules. Personalization can modify the message both by structure, for example by coloring it in the customer's favorite color, and by changing the content itself. The message may contain, for example, products that are more likely to be of interest to the customer. When personalizing content, the input data is particularly important. The more the company knows about the customer, the better content it is able to offer to the customer [7] [8] [9].

Since marketing advertising systems and platforms are shifting toward easier, user-oriented interfaces that provide guidance even for beginners, marketing automation has become accessible even for companies and individuals with basic knowledge about marketing.

However, despite the accessibility, it appears that companies are rather reluctant toward these new tools and technologies. In this article, we analyze how companies perceive marketing automation, what their current knowledge about this phenomenon is and what the obstacles that disable them from using this new marketing approach are.

1 Research Objectives

The aim of this article is to investigate the readiness of small and medium-sized companies (SMEs) for the implementation of marketing automation tools that are nowadays accessible. For the research purposes, we define marketing automation (MA) as a set of technologies, rules, software solutions and online platforms that are used to improve the marketing processes through automated, personalized and data-based actions. In accordance with the definition used by Mero et al. [11], organizational structures and processes are also included in the research concept. The academic literature distinguishes two main trends in MA. While some companies invest in developing their own software [11], other prefer buying software solutions that are available on the market [11] [12]. However, there is one area of MA that is significantly neglected by the academic literature. Advertising systems such as Facebook and Google Ads also use machine learning and automated rules for delivering online campaigns. Therefore, these platforms should be included as well since they have significant protentional for SMEs to easily automate their marketing activities.

Tab. 1: Difference between causal reasoning and effectual reasoning

Causation	Effectuation
Predictive view of the future	Taking actions for the uncertain future based on data and predictions available.
Goal-based action	Making decisions based on available means and resources (means-based action).
Productivity view	Focusing on the cost of the new innovations and process changes (affordability view).
Protective attitude	Emphasizing partnerships and cooperative strategies (cooperative attitude).
Avoidance of potential threats	Looking for new opportunities.

Source: Own based on [11]

The research presented in this article draws from causal and effectual reasoning and the theory of organizational adoption of technologies. Academics [13] argue that companies do not necessarily always decide based rational, causal, models but rather tend to pursue business opportunities. According to Perry, Chandler & Markova [14], managers start with a potential idea they want to reach a then they look for resources for its implementation. This initial motivation is referred to as effectuation in the academic literature. Generally, the effectual reasoning consists of the following five behavioral traits (Table 1).

Some authors believe that effectual reasoning may be only a temporal strategy that is more characteristic for new companies in their early stages of development and they subsequently shift toward causal reasoning [15]. However, research shows that both approaches may be interrelated [14].

In addition to these reasonings, scholars also use technology acceptance theory to describe the company's inclination to technological innovation. Due to the technological development, business models are being reinvented, as well as products and services [16]. Mero et al. [10] distinguish 7 basic technology acceptance models based on current academic literature that include the original model by Davis (TAM) [17], its extensions presented by Venkatesh &

Davis (TAM2) [18] and Venkatesh & Bala (TAM3) [19]. Moreover, the authors include also the theory of planned behavior, the unified theory of acceptance and use of technology [20] and its extension [21]. While these models apply to individuals, diffusion of innovations model [22] technology organization environment model [23] were designed specifically to describe the behavior of companies. All of these models present the main factors and motivators that influence the behavior of enterprises when it comes to technological advancement and innovations.

Despite the slight differences in relationship modelling in the studies above, all of the models have in common the following three contexts: technological context, organizational context, environmental context. As summarized by Oliveira & Martins [24], technological context refers to technology readiness and technology integration. Organizational context includes company's size, expected benefits and obstacles, improved products, services or internal processes. Finally, the environmental context includes internet penetration and competitive pressure (Table 2).

Tab. 2: *Factors influencing new technology adoption by enterprises*

Context	Factor
Technological context	Technology readiness
	Technology integration
Organizational context	Company's size
	Expected benefits
	Expected obstacles
Environmental context	Improved products, services, processes
	Internet penetration
	Competitive pressure

Source: Own based on [24]

Based on the literature review of previous research on marketing automation and technological adoption, we formulate the following three research questions:

RQ1: *What is the current trend in MA adoption?*

RQ2: *What is the current level of MA adoption by SMEs?*

RQ3: *What is the readiness of SMEs to adopt MA?*

2 Methods and Data Collection

Data collection was carried out in three stages. The first stage consisted in acquiring information about the trend of marketing automation using the available statistics regarding search volumes of the term in Google and the sales in the marketing automation software industry. Secondly, previous surveys on MA adoption from 2012, 2014 and 2017 were reviewed to trace the development of MA implementation over the years. Finally, the third stage built upon the causal, effectual reasoning and technology acceptance models described above. Using the factors from Table 1 and Table 2, questionnaire items were formulated. The items were rated on a 7-point Likert scale.

The survey was carried out electronically and was distributed to small and medium-sized enterprises in the Czech Republic. E-mail addresses of the respondents were obtained from the MagnusWeb database from Bisnode that also guarantees the consent of the companies in the database to participate in research surveys. In addition, the questionnaire required additional consent from the respondents allowing the storage of their anonymized data for academic purposes to comply with the General Data Protection Regulation. A total of 15,000

companies were contacted and e-mailed with an electronic questionnaire via the Mailchimp mailing service. Overall, 612 questionnaires returned completed.

3 State of MA Adoption by SMEs

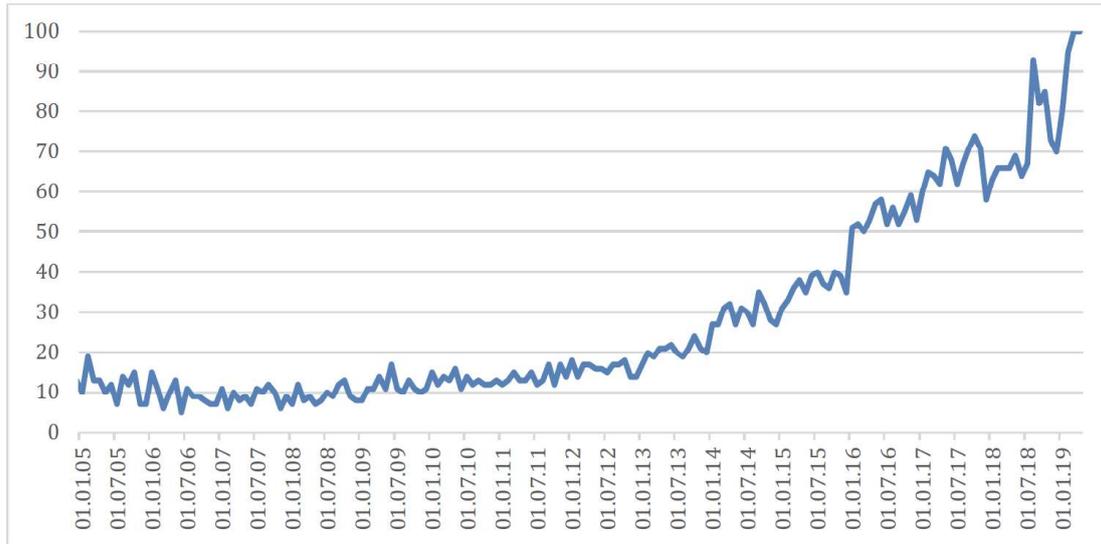
The paragraphs below present the preliminary results from the three research stages. Firstly, we describe the growing interest in the topic of marketing automation, then we review the past surveys and finally, we analyze the results from the online survey which was carried out in 2019 targeting Czech SMEs.

3.1 Growing Interest in Marketing Automation

Although the concept of marketing automation has been known since the beginning of the twenty-first century, it has become more popular in the last decade. Data from Google Trends confirms the growing awareness of this term, which shows the relative volume of searches for the term “marketing automation” over time.

In Figure 1, we can see that until 2013, the term “marketing automation” maintained an approximately stable level of search queries reflecting the current awareness of the companies about this trend. However, since then, the interest in this topic has grown exponentially. We may observe a linear connection between the importance of MA and the growing number of Internet users globally that is directly connected with the increasing amounts of user-generated data. In 2019, more than 51% of the world’s population had access to the Internet, compared to more than 81% in developed countries. In developing countries, more than 40% of the population used the Internet. At the same time, ten years ago, only 26% of the world’s population had access to the Internet, significantly predominating developed countries compared to developing countries, where the figure was 63% and 17% respectively [25].

As mentioned above, the percentage of people having access to the Internet is also related to how much data is generated on the Internet. More than 3 million GB of data flows through the Internet every minute [25], and this data represents valuable information about the users who generate them. This is the main reason why companies look for new ways to collect and use this data effectively, which marketing automation solutions can help them with. The growing interest in MA is also manifesting in the software industry. Thanks to this increased interest, the entire industry with software for marketing automation is also growing. In 2014, the value of the global market for specialized marketing software was 3.65 billion USD. By 2018, the market had grown to 5.1 billion, and data from Mordor Intelligence predict growth to 14.15 billion USD by 2024. The compound annual growth rate over the last five years has thus reached 6.92%, but it is expected to accelerate and according to the forecast, the market should grow by an average of 18.5% per year. The largest market for the sale of software for marketing automation is the USA with a share of 54% in 2017. Europe was at that time the second largest market with 24% [26].



Source: Own based on [26]

Fig. 1: Volume of searches of the term marketing automation

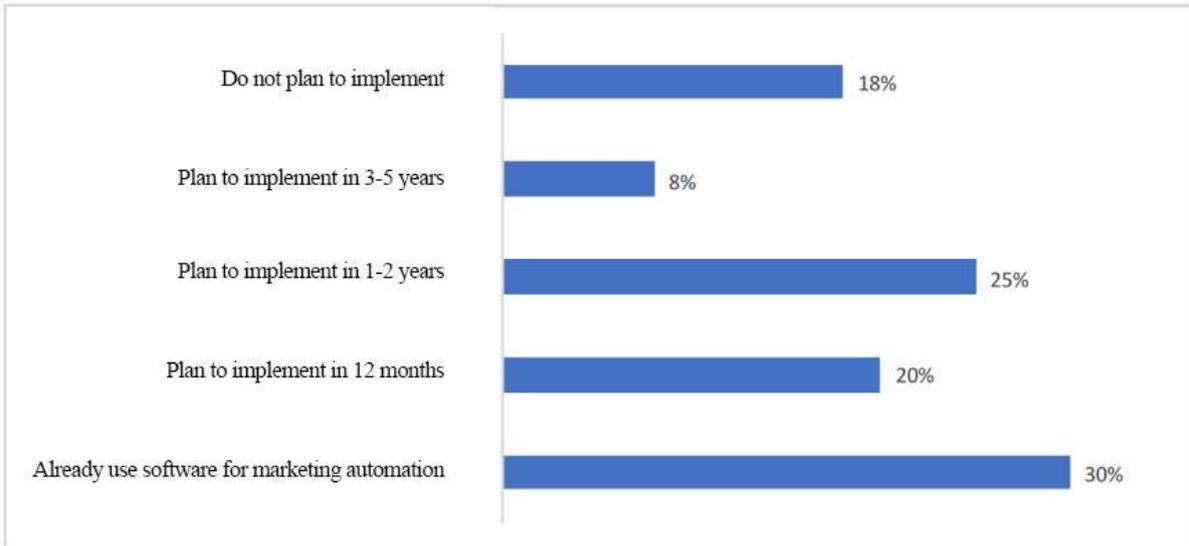
This statistical information confirms the importance of marketing automation and the growing awareness about the tools that facilitate it. The fact that an increasing number of individuals are trying to gain more knowledge in this area suggests that enterprises are trying to seize the opportunity for innovation and gain competitive advantage. It is thus important for companies to keep up with this new trend.

3.2 MA Adoption Rates in 2012, 2014 and 2017

In the last decade, several surveys have been conducted to find out the state of adoption of tools for marketing automation in small and medium-sized enterprises. The market research of the analytical company Techaisle from 2012 showed that the use of software for marketing automation was very low. The survey was conducted across various industries in the US, UK and Germany markets, and only 10% of small companies reported using marketing automation in at least one of the 16 criteria evaluated. For medium-sized companies, the adoption rate reached 28%. Of the entire sample, 36% of companies stated that they plan to deploy marketing automation [27].

Two years later, the analysis of the SMB Group presented more positive results. However, this analysis focused only on small and medium-sized enterprises in the USA, so a direct comparison with previous data is not possible. Of the small businesses, 20% said they had purchased or used a marketing automation software solution in the last two years. Of the medium-sized enterprises, it was only 25%. Another 22% of small and 26% of medium-sized enterprises, respectively, stated that they planned to purchase such a solution and put it into operation in the following twelve months [28].

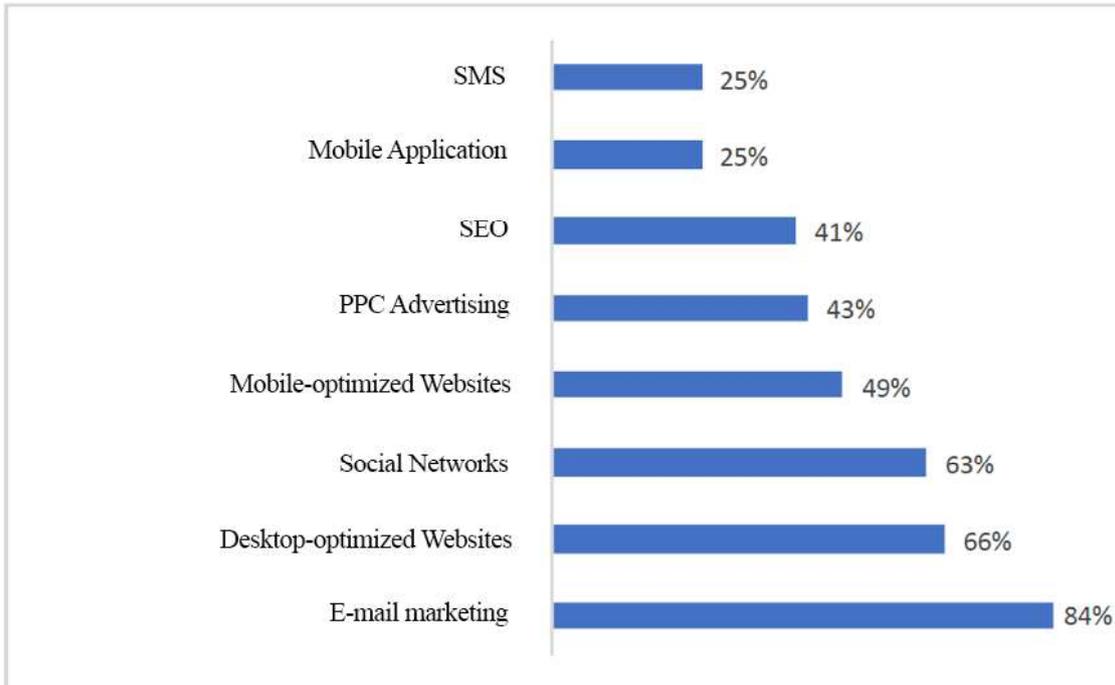
Another survey was organized in 2017 by ActiveCampaign. Over 300 companies participated to this survey that also focused exclusively on small and medium-sized enterprises based in the USA and using some form of online marketing. As shown in Figure 2, the survey data reveal that 30% of SMEs used some form of marketing automation in 2017, while 18% did not plan to use it in the future. Other companies planned to start using marketing automation within one to five years [29].



Source: Own based on [29]

Fig. 2: Attitudes of USA SMEs toward MA in 2017

The survey also provided several other important data on the situation of small and medium-sized enterprises. Of those who already use automation, 29% said they use one software solution covering all activities. The second most common response (28%) from companies was that they use several separate solutions, but they are integrated in such a way that they communicate with each other and exchange data. The third large group, comprising 20% of respondents, were companies that used several separate software solutions.



Source: Own based on [29]

Fig. 3: Usage of online marketing channels by USA SMEs in 2017

Figure 3 shows the most frequently used channels in marketing automation. By far the most common channel is email, which is used by 84% of companies. Other widely used channels are the company's presentation of the company's website and presence on social networks. On

the contrary, only a quarter of companies use SMS communication or their own mobile application. A close relationship can be observed between the price of a communication channel and its use. Sending an e-mail is free of charge, creation of a website is a one-time investment and you do not pay for publishing regular posts on social networks. In contrast, each SMS is charged and the development of a mobile application can also be costly. It is therefore clear that small and medium-sized enterprises are very sensitive to price or have limited financial resources.

The above-mentioned sensitivity to price is also reflected in another area, which is illustrated in Figure 4. This is the most frequently mentioned obstacle for respondents who have not yet started using marketing automation. The second most common cause is ignorance of marketing automation software, which may be due to a lack of general knowledge of marketing automation, but also to a lack of qualified experts who would be able to help companies implement this software. Other, less frequent options relate mainly to insufficient competencies, capacities and resources, or lack of interest in the use of marketing automation. The inability to integrate with other software is also a rare obstacle for small and medium-sized companies. Large companies are more likely to encounter this problem because they tend to have complex systems that were deployed many years ago and are often obsolete from today's perspective, and their integration with new systems incurs additional costs or does not even allow such integration. Small and medium-sized companies are generally more flexible in this respect, but 9% of respondents still see the possibility of integration as a blocker for the deployment of marketing automation.



Source: Own based on [29]

Fig. 4: Obstacles preventing implementation of MA

3.3 MA Adoption Rates in the Czech Republic in 2020

The results for the survey including Czech companies are organized into three groups according to the items from the questionnaire. The first set of questions investigated what MA tools the SMEs are currently using. Second set of questions analyzed the organizational level of knowledge and resources necessary for implementation of MA. Finally, the enterprises

were asked what their plans regarding the implementation of MA were and what obstacle they were facing in this area.

3.3.1 Implementation Rate of MA Tools

The survey results suggest that there is a relationship between the size of the company and the degree of implementation of online marketing tools. The research showed that small businesses use online marketing tools rather infrequently and without a clearly defined strategy. As expected, medium companies use the Internet for communication with customers more frequently. However, it appears that they also tend to use the tools at random. As shown in Table 3 and Table 4, website is a common communication media for 69% of small enterprises (SE) and 85% medium enterprises (ME), although only 44% of SE and 47% ME update the content regularly. In addition, only 5% of SE and 11% of ME have a monthly budget they spent on the website maintenance while 1% of SE and 5% of ME is doing it strategically. Surprisingly, only 14% of SE and 14% of ME communicate with their customers via newsletter. Regarding the basic marketing presentation on social networks, Facebook and Instagram were represented moderately. Facebook is used by 55% of SE and by 79% of ME, while Instagram stays behind with 35% and 60%, respectively.

Tab. 3: Use of online marketing tools by small enterprises

Small Enterprises							
Online marketing tool	Not at all	Occasionally	Regularly	Monthly budget		Marketing strategy	
				Yes	No	Yes	No
Website	31%	25%	44%	5%	95%	1%	99%
Newsletter	86%	12%	2%	0%	100%	0%	100%
Facebook	45%	22%	33%	22%	78%	3%	97%
Instagram	65%	25%	10%	7%	93%	3%	97%
Facebook sponsored posts	78%	11%	11%	11%	79%	1%	99%
Instagram sponsored posts	92%	6%	2%	2%	98%	1%	99%
Facebook Ads manager	98%	2%	0%	1%	99%	1%	99%
Google AdWords	98%	2%	0%	1%	99%	1%	99%
Google Analytics	85%	10%	5%	0%	100%	0%	100%
Remarketing	99%	1%	0%	0%	100%	0%	100%
Marketing automation software	99%	1%	0%	0%	100%	-	-
Marketing agency	83%	15%	2%	2%	98%	-	-

Source: Own

Unfortunately, more advanced online marketing tools that are essential for marketing automation were represented by a very low percentage. Payed advertising on Facebook is implemented by 22% of SE and 34% of ME and payed advertising on Instagram is implemented by 8% of SE and 21% of ME. Moreover, the tools that include MA principles and mechanisms (Facebook Ads Manager, Google AdWords, remarketing etc.) are used by even a lower fraction of SMEs. This level of adoption may be considered as alarming since the results reflect insufficient interest of Czech companies even in basic online marketing instruments.

Tab. 4: Use of online marketing tools by medium enterprises

Small Enterprises							
Online marketing tool	Not at all	Occasionally	Regularly	Monthly budget		Marketing strategy	
				Yes	No	Yes	No
Website	15%	38%	47%	11%	89%	5%	95%
Newsletter	86%	12%	2%	0%	100%	0%	100%
Facebook	21%	31%	48%	29%	71%	6%	94%
Instagram	30%	32%	28%	16%	84%	6%	94%
Facebook sponsored posts	66%	17%	17%	19%	71%	3%	97%
Instagram sponsored posts	79%	12%	9%	8%	92%	3%	97%
Facebook Ads manager	89%	5%	6%	5%	95%	2%	98%
Google AdWords	90%	8%	2%	6%	94%	3%	97%
Google Analytics	79%	16%	5%	0%	100%	0%	100%
Remarketing	93%	6%	1%	1%	99%	0%	100%
Marketing automation software	95%	3%	2%	0%	100%	-	-
Marketing agency	76%	18%	6%	6%	94%	-	-

Source: Own

3.3.2 Organizational Resources

The set of questions related to the organizational resources of a company focused on two main categories: human resources and available knowledge. The results, displayed in Table 5, indicate a rather low level of knowledge about the existence of advanced MA tools. Except the awareness that companies can promote their content via sponsored posts on Facebook and Instagram, the respondents had superficial knowledge. Although the level of knowledge was higher for ME, the difference with SE wasn't that significant.

Tab. 5: The level of awareness about MA in SMEs

Question	Small Enterprises		Medium Enterprises	
	Yes	No	Yes	No
Did you know you can boost your posts on Facebook?	52%	48%	67%	33%
Did you know you can boost your posts on Instagram?	38%	62%	52%	48%
Do you know what Facebook Ads Manager is?	0%	100%	7%	93%
Do you know what remarketing is?	1%	99%	6%	94%
Do you know how Google AdWords work?	1%	99%	3%	97%
Do you know what MA is?	5%	95%	11%	89%
Did you know you can automatically create personalized ads and newsletters?	1%	99%	8%	92%
Do you employ someone with the above-mentioned knowledge?	1%	99%	3%	97%
Do you employ someone who takes care of your social media?	2%	98%	4%	96%
Do you employ someone to take care of your online advertising activities?	0%	100%	1%	99%

Source: Own

Similar negative results were achieved on the level of human resources. Only 2% of SE and 4% of ME employ someone to take care of their social media. However, the employees do not

necessarily have knowledge about advanced tools that facilitate marketing automation. According to our results, 1% of SE and 3% of ME have an employee who is aware of the MA tools offered by advertising platforms.

3.3.3 Attitudes of SMEs Toward MA

Finally, we focused on SMEs attitudes toward MA and their future plans in this area. We thus examined how they perceived the potential benefits of the marketing innovations and whether they were planning to implement them in their current processes. The online survey showed that companies were lacking important information that would help them to better grasp the advantages of MA which reflects in their attitudes. Out of the 612 respondents, 81% of SE and 67% of ME answered that they did not plan to invest in MA in future. Despite showing interest in paid advertising on social networks, advanced tools seem to be of a lesser interest for them. In terms of future MA implementation plans, 92% of SE and 85% of ME do not consider to invest more in marketing activities in the two upcoming years. Interestingly, their prospects change for the five-year term when 24% of SE and 48% of ME consider to expand their marketing activities. On the other hand, the majority of SE (98%) and ME (91%) consider marketing automation as a tool suitable mostly for large companies and e-shops.

Conclusion

Technologies have a significant impact on functioning of the entire society including individuals, households and enterprises. Technological innovations have been changing all industries and pushing them toward automatization of many processes. Marketing is not an exception. In this article, we have examined the current trends in marketing automation adoption while primarily focusing on small and medium enterprises that are characterized by slower innovation behavior than large companies. The first section of the article defined the notion of MA and explained its basic principles. Subsequently, theoretical basis of technology adoption were introduced based on which research directions were proposed. The results from previous surveys and the volume of search queries confirm that marketing automation is a phenomenon that is becoming the center of attention of many companies. However, the readiness of SMEs for more advanced marketing tools is on the lower side. The results from the survey among Czech SMEs indicate that companies struggle to implement even the basic instruments such as sponsored posts on Facebook and Instagram. We have identified critically low awareness of the possibilities of MA offered by user-friendly platforms such Facebook Ads Manager or Google AdWords. In majority, the enterprises do not know about their existence and thus neglect the potential competitive advantage. Alarmingly, SMEs plan to invest only sporadically in marketing in the upcoming five years. The reason for this behavior may be the lack of funds of smaller companies, but also the lack of information about the potential, importance and accessibility of these tools. In order to increase the competitiveness of SMEs in the digital environment, there is a critical need of raising awareness of this topic.

The results described in this article represent a preliminary study of MA adoption behavior of SMEs. Further research will focus on modelling the causal relationships between the factors motivating adoption behavior in MA. Finally, it is important to note that this survey targeted only Czech enterprises and thus is locally specific which means that the behavior of SMEs may differ in other countries due to different economic, political and social conditions.

Acknowledgements

This work was supported by the Technology Agency of the Czech Republic under the Program of Applied Research ZETA through the Grant TJ02000206 – Developing the skills necessary for the digital business transformation.

Literature

- [1] LITTLE, J.: Marketing automation on the internet. [online]. In: *5th Invitational Choice Symposium*. UC Berkeley, 2001. [accessed 2020-06-14]. Available from WWW: <https://www.andrew.cmu.edu/user/alm3/presentations/choicesymposium2001/little.pdf>
- [2] SWEEZEY, M.: *Marketing automation for dummies*. John Wiley & Sons, 2014. ISBN 978-1-118-77222-5.
- [3] WOOD, C.: Marketing automation: Lessons learnt so far *Journal of Direct, Data and Digital Marketing Practice*. 2015, Vol. 16, Issue 4, pp. 251–254. DOI: [10.1057/dddmp.2015.31](https://doi.org/10.1057/dddmp.2015.31)
- [4] MONTGOMERY, A. L.; SMITH, M. D.: Prospects for Personalization on the Internet. *Journal of Interactive Marketing*. 2009, Vol. 23, Issue 2, pp. 130–137. DOI: [10.1016/j.intmar.2009.02.001](https://doi.org/10.1016/j.intmar.2009.02.001)
- [5] HEIMBACH, I.; KOSTYRA, D. S.; HINZ, O.: Marketing automation. *Business & Information Systems Engineering*. 2015, Vol. 57, Issue 2, pp. 129–133. DOI: [10.1007/s12599-015-0370-8](https://doi.org/10.1007/s12599-015-0370-8)
- [6] BENHADDOU, Y.; LERAY, P.: Customer Relationship Management and Small Data — Application of Bayesian Network Elicitation Techniques for Building a Lead Scoring Model. In: *2017 IEEE/ACS 14th International Conference on Computer Systems and Applications (AICCSA)*. IEEE, 2017, pp. 251–255. DOI: [10.1109/AICCSA.2017.51](https://doi.org/10.1109/AICCSA.2017.51)
- [7] JÄRVINEN, J.; TAIMINEN, H.: Harnessing marketing automation for B2B content marketing. *Industrial Marketing Management*. 2016, Vol. 54, pp. 164–175. DOI: [10.1016/j.indmarman.2015.07.002](https://doi.org/10.1016/j.indmarman.2015.07.002)
- [8] SUNDSØY, P. et al.: Big Data-Driven Marketing: How Machine Learning Outperforms Marketers' Gut-Feeling. In: *International Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction*. Springer, Cham, 2014, pp. 367–374. DOI: [10.1007/978-3-319-05579-4_45](https://doi.org/10.1007/978-3-319-05579-4_45)
- [9] SAHNI, N. S.; WHEELER, S. C.; CHINTAGUNTA, P.: Personalization in Email Marketing: The Role of Noninformative Advertising Content. *Marketing Science*. 2018, Vol. 37, Issue 2, pp. 236–258. DOI: [10.1287/mksc.2017.1066](https://doi.org/10.1287/mksc.2017.1066)
- [10] MERO, J.; TARKIAINEN, A.; TOBON, J.: Effectual and causal reasoning in the adoption of marketing automation. *Industrial Marketing Management*. 2020, Vol. 86, pp. 212–222. DOI: [10.1016/j.indmarman.2019.12.008](https://doi.org/10.1016/j.indmarman.2019.12.008)
- [11] ARDITO, L.; PETRUZZELLI, A. M.; ALBINO, V.: From Technological Inventions to New Products: A Systematic Review and Research Agenda of the Main Enabling Factors. *European Management Review*. 2015, Vol. 12, Issue 3, pp. 113–147. DOI: [10.1111/emre.12047](https://doi.org/10.1111/emre.12047)
- [12] ARDITO, L. et al.: Organizing for continuous technology acquisition: the role of R&D geographic dispersion. *R&D Management*. 2017, Vol. 48, Issue 2, pp. 165–176. DOI: [10.1111/radm.12270](https://doi.org/10.1111/radm.12270)
- [13] NATALICCHIO, A.; PETRUZZELLI, A. M.; GARAVELLI, A. C.: A literature review on markets for ideas: Emerging characteristics and unanswered questions. *Technovation*. 2014, Vol. 34, Issue 2, pp. 65–76. DOI: [10.1016/j.technovation.2013.11.005](https://doi.org/10.1016/j.technovation.2013.11.005)

- [14] PERRY, J. T.; CHANDLER, G. N.; MARKOVA, G.: Entrepreneurial Effectuation: A Review and Suggestions for Future Research. *Entrepreneurship Theory and Practice*. 2012, Vol. 36, Issue 4, pp. 837–861. DOI: [10.1111/j.1540-6520.2010.00435.x](https://doi.org/10.1111/j.1540-6520.2010.00435.x)
- [15] SARASVATHY, S. D.: Causation and Effectuation: Toward a Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency. *Academy of Management Review*. 2001, Vol. 26, Issue 2, pp. 243–263. DOI: [10.5465/amr.2001.437802.0](https://doi.org/10.5465/amr.2001.437802.0)
- [16] YANG, M.; GABRIELSSON, P.: Entrepreneurial marketing of international high-tech business-to-business new ventures: A decision-making process perspective. *Industrial Marketing Management*. 2017, Vol. 64, pp. 147–160. DOI: [10.1016/j.indmarman.2017.01.007](https://doi.org/10.1016/j.indmarman.2017.01.007)
- [17] DAVIS, F. D.: Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*. 1989, Vol. 13, Issue 3, pp. 319–340. DOI: [10.2307/249008](https://doi.org/10.2307/249008)
- [18] VENKATESH, V.; DAVIS, F. D.: A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science*. 2000, Vol. 46, Issue 2, pp. 186–204. DOI: [10.1287/mnsc.46.2.186.11926](https://doi.org/10.1287/mnsc.46.2.186.11926)
- [19] VENKATESH, V.; BALA, H.: Technology Acceptance Model 3 and a Research Agenda on Interventions. *Decision Sciences*. 2008, Vol. 39, Issue 2, pp. 273–315. DOI: [10.1111/j.1540-5915.2008.00192.x](https://doi.org/10.1111/j.1540-5915.2008.00192.x)
- [20] VENKATESH, V. et al.: User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*. 2003, Vol. 27, Issue 3, pp. 425–478. DOI: [10.2307/30036540](https://doi.org/10.2307/30036540)
- [21] VENKATESH, V.; THONG, J. Y. L.; XU, Xin.: Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. *MIS Quarterly*. 2012, Vol. 36, Issue 1, pp. 157–178. DOI: [10.2307/41410412](https://doi.org/10.2307/41410412)
- [22] ROGERS, E. M.: *Diffusion of Innovations*. Simon and Schuster, 2010. ISBN 9781451602470.
- [23] TORNATZKY, L. G.; FLEISCHER, M.; CHAKRABARTI, A. K.: *The Processes of Technological Innovation*. Lexington Books, 1990.
- [24] OLIVEIRA, T.; MARTINS, M. F.: Firms Patterns of e-Business Adoption: Evidence for the European Union-27. [online]. *The Electronic Journal Information Systems Evaluation*. 2010, Vol. 13, Issue 1, pp. 47–56. [accessed 2020-06-16]. Available from WWW: https://www.researchgate.net/profile/Tiago_Oliveira3/publication/239591699_Firms_Patterns_of_e-Business_Adoption_Evidence_for_the_European_Union27/links/0f31753b3b6c76ed3d000000.pdf
- [25] MINIWATTS MARKETING GROUP: Internet Usage Statistics. In: *Internet World Stats*. [online]. [accessed 2020-05-28]. Available from WWW: <https://www.internetworldstats.com/stats.htm>
- [26] Marketing Automation Software Market. In: *Mordor Intelligence*. [online]. [accessed 2020-06-30]. Available from WWW: <https://www.mordorintelligence.com/industry-reports/global-marketing-automation-software-market-industry>
- [27] TECHAISLE, LLC: *Marketing Automation Report 2012*. [online]. [accessed 2020-06-30]. Available from WWW: <https://techaisle.com/marketing-automation-reports>

- [28] SMB Group, Inc.: *Top Trends in Marketing Automation and How Vendors Are Helping SMBs to Capitalize on Them*. [online]. [accessed 2020-07-28]. Available from WWW: <https://www.smb-gr.com/wp-content/uploads/2014/12/Marketing-Report-Exec-Summary-TOC.pdf>
- [29] MARKETING CHARTS: *SMBs Plan to Adopt Marketing Automation Despite Cost & Familiarity Issues*. [online]. [accessed 2020-07-28]. Available from WWW: <https://www.marketingcharts.com/customer-centric/analytics-automated-and-martech-81650>

PŘIPRAVENOST MALÝCH A STŘEDNÍCH PODNIKŮ NA MARKETINGOVOU AUTOMATIZACI

Vzhledem k rychlosti technologického pokroku v online marketingu a reklamě, marketingová automatizace se dostává stále více do popředí jak v aplikační, tak akademické oblasti. Nicméně i přes rostoucí popularitu tohoto nového marketingové přístupu, malé a střední podniky (MSP) narážejí na řadu významných překážek při jeho začleňování do svých podnikatelských procesů. V důsledku vysokých nároků na sběr zákaznických dat a nedostatku znalostí nezbytných k obsluhování systémů a řešení marketingové automatice, mnoho podniků není schopno plně využít potenciál, který marketingové technologie nabízejí. Tento článek popisuje mechanismy fungování automatizačních systémů v marketingu, shrnuje současný výzkum v této oblasti a analyzuje připravenost českých MSP implementovat nástroje digitálního marketingu a překážky, které jim v tom brání.

BEREITSTELLUNG VON KLEINEN UND MITTLEREN UNTERNEHMEN FÜR DIE MARKETING-AUTOMATISIERUNG

Da der technologische Fortschritt des Online-Shoppings und der Online-Werbung immer schneller voranschreitet, hat die Marketingautomatisierung sowohl bei Praktikern als auch bei Wissenschaftlern zunehmend an Bedeutung gewonnen. Trotz der wachsenden Beliebtheit dieses neuen Marketingansatzes gibt es jedoch viele Einschränkungen bei der Umsetzung durch kleine und mittlere Unternehmen (KMU). Aufgrund der hohen Anforderungen an die Erfassung von Kundendaten und des fortgeschrittenen Wissens, das für die Einrichtung und den Betrieb von Marketing-Automatisierungssystemen erforderlich ist, können viele Unternehmen das potenzielle Angebot an Marketingtechnologien nicht vollständig nutzen. Dieser Artikel beschreibt die Mechanismen der Marketingautomatisierung, bietet einen Überblick über die Forschung auf dem neuesten Stand der Technik und analysiert die aktuelle Bereitschaft tschechischer KMU, digitale Marketinginstrumente zu implementieren, sowie die Faktoren, die sie daran hindern.

GOTOWOŚĆ MALÝCH I ŚREDNICH PRZEDSIĘBIORSTW DO AUTOMATYZACJI MARKETINGU

Wraz z dużym postępem technologicznym w zakresie marketingu i reklamy online, automatyzacja marketingu jest coraz częściej stosowana a także cieszy się rosnącym zainteresowaniem środowisk naukowych. Pomimo rosnącej popularności tego nowego marketingowego podejścia, małe i średnie przedsiębiorstwa (MSP) borykają się z wieloma poważnymi trudnościami związanymi z jego wdrażaniem we własnych procesach biznesowych. Z powodu wysokich wymagań dotyczących gromadzenia danych o klientach oraz braku wiedzy niezbędnej do obsługi systemów i rozwiązań automatyzacji marketingu, wiele przedsiębiorstw nie jest w stanie w pełni wykorzystać potencjału, jaki dają technologie marketingowe. W niniejszym artykule opisano mechanizmy funkcjonowania systemów automatyzacyjnych w marketingu, przedstawiono przegląd najnowszych badań w tym zakresie oraz przeanalizowano poziom gotowości czeskich MSP do wdrażania narzędzi marketingu cyfrowego i przeszkody, które im to uniemożliwiają.