

STRATEGIC MANAGEMENT OF A TRAVEL COMPANY IN THE CONDITIONS OF INTRODUCTION OF MODERN INFORMATION TECHNOLOGIES

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ABSTRACT

The study showed that the introduction of a chatbot will positively affect the work of almost any travel company, improving both economic indicators and the quality of service. In addition, such automation will remove part of the non-core work of filling out CRM-system data from managers and provide them with the opportunity to focus specifically on further individual customer service, whose wishes and contacts were pre-compiled by the chatbot. On the other hand, customers will receive the necessary support and assistance immediately on the site, and the best service experience from a previously informed manager, which will improve the quality of service and increase their loyalty. Based on an analysis of the best practices for using chatbots, it was proposed to create a bot that can receive pre-orders from customers, fill out a CRM system with customer contact information, and transfer this data to a live specialist for the agency. The developed chatbot creation algorithm is filled with the specific content of each stage of the development and implementation of a chatbot that can learn.

Keywords: Chatbot, CRM Systems, Travel Agency, Information Technology, Strategic Management.

JEL Classifications: M21

INTRODUCTION

One of the most powerful factors stimulating the creation of increasingly powerful and effective information technologies is competition in the core business of companies, since it is timely and complete information that gives them an advantage over competitors, and inattention to the quality and effectiveness of information systems necessarily leads to a loss of position by the company and, ultimately, to its defeat.

However, at present, on any issue, it is technologically possible to collect such an amount of information that no one is able to comprehend (sometimes even just view) for the time actually allocated to the situation and even more effectively use it. This implies the need for a systematic approach to the consideration of such large-scale phenomena as information processes.

The scopes of tourism managers are very diverse, and issues related to the implementation of modern information technologies (collection, storage, processing, receipt and transfer of information) are important here. Sooner or later, any manager tries to understand and solve the existing problems of information and information technology in his organization.

Regardless of the specifics of the activity, the travel agent and tour operator need to automate the following operations: registration of applications and customers in the database, the ability to print the entire package of documents provided to customers and sent to partners; for a tour operator - accounting and control of quotas, loading flights, printing prices, online booking, connection with travel agent software, connection with the accounting program. Software systems that are used in the activities of tourism enterprises should automate all processes as much as possible and eliminate non-production costs. Modern technologies offer new tools for automating activities, including those that contain elements of artificial intelligence and can significantly outperform competitors in speed and quality of service, which makes the topic of this work extremely relevant.

REVIEW OF PREVIOUS STUDIES

Currently, it is not a secret to any of the travel companies in the world that a company that uses information technologies to efficiently and quickly serve customers survives in conditions of fierce competition. Therefore, both managers and performers should understand the basic concepts and methods of applying information technology and be able to make competent, thoughtful decisions on their use in a specific subject area (Campos et al., 2018; Makedon et al., 2019).

The automation of the subject area has the following objectives: reducing labor costs for the implementation of standard information processes of the subject area (Alonso-Almeida et al., 2018): collecting, registering, transmitting data through various communication channels, storing, searching and issuing information, processing using computer technology; management downsizing; change in the conditions and nature of the activities of management personnel, allowing to make informed and effective decisions; improving the quality of information for making management decisions.

In some cases, using the chatbot is obviously a profitable action, but there are also niches where it is necessary to think through scripts that can improve the quality of customer service, simplify routine work, and return funds invested in development (Angelevska Najdeska, 2017).

Experts identify five types of chatbots by functionality.

Service Bots coordinate meetings, maintain team spirit, collect statistics, make extracts from registers, send letters to courts, and promote them on social networks (Drobyazko et al., 2019b). In order to work with them, you need a paid subscription. Examples are X, Clara, Growbot, Statsbot, OpenDataUABot, DoNotPay, BroBot.

Advertising Bots distribute news, other useful content, dilute content with advertising-direct or disguised (native) (Ciolac et al., 2017). Terms of use-paid advertising; example: CNN, TechCrunch, Horoscope.

Partner Bots add links to pages for ordering goods/services to useful pages, aggregate a number of services in one chat, and offer discounts. Examples: Sensay, Assist, Pokupon (Hilorme et al., 2019a).

Order Bots accept orders for goods/services (pizza, taxi, sushi, insurance) via chat (Su & Swanson, 2017).

Client Bots welcome, find out the details, collect phone numbers, email addresses, automatically connect ready to buy leads with “live” sellers, sell collected leads (Hilorme et al., 2019b; Drobyazko et al., 2019a). Examples: Sender, JivoSite.

METHODOLOGY

The following study methods were used in the work: structural-logical - in the study of the scientific heritage on the study topic, systemic and comparative analysis.

The method of building algorithms was also used. Since a certain mathematical model is used to solve the initial problem, it is thereby possible to formalize the solution algorithm in terms of this model. In the initial versions of the algorithm, generalized operators are often used, which are then reassigned in the form of smaller, clearly defined instructions. But in order to convert informal algorithms into computer programs, it is necessary to go through several stages of formalization (this process is called step-by-step detailing) until you get a program which consists entirely of formal programming language operators.

RESULTS AND DISCUSSIONS

Tourism is an information-intensive activity. There are few other industries in which the collection, processing, application and transfer of information would be as important for daily functioning as in the tourism industry. The service in tourism cannot be exhibited and considered at the point of sale as consumer or industrial goods. It is usually bought in advance and away from the place of consumption. Thus, tourism in the market is almost entirely dependent on images, descriptions, and means of communication and information transfer.

A study by the analytical company Emarketer showed that the audience of messengers 2018 reached about 80% of all smartphone users, and amounts to about 2 billion people (Su & Swanson, 2017). At the same time, at the moment in the ten most popular instant messengers for April 2018 in total there are more than 4600000000 active accounts. With this dozen, seven instant messengers already support chatbots. Given this, analysts are confident that messengers are becoming “*new social networks*”. And bots in such a world will become original applications inside chats, a textual interface for performing various tasks.

The emergence of chatbots has become one of the modern IT trends. Seven of the eleven instant messengers with an audience of more than 100 million people support bots.

Chatbot is a program to automate tasks and work in certain scenarios. The most widespread are chatbots, which understand user commands in simple language right in the messenger window. Many online media use simple bots to deliver urgent news to the reader's messenger. More sophisticated chatbots can also mimic a live chat buddy and support communication on a variety of topics.

Modern chatbots are programs that are able to simulate a user's communication with one or more interlocutors. As a rule, they are created on the basis of applications such as Telegram, FB Messenger, Skype, Viber, etc. The target audience of travel companies every day uses similar messengers to communicate with relatives and work colleagues. Today, not to attract their attention with the help of a chatbot means to consciously lose to a competitor.

Such a virtual interlocutor can be developed even without the involvement of programmers. The main idea of using chatbots is to automate repetitive processes and interact with the user interactively.

The ability of these programs to learn by processing and memorizing previous commands, to recognize faces, voices, to determine geolocation expands the list of areas of their application. The use of chatbot depends on the goals and objectives that the company sets for it.

In order to create a bot, you do not have to be a programmer. There are many intuitive services that allow you to create chatbots. Using the Chatfuel service, anyone can create a bot on Facebook or Telegram for free. In the latter, the creation and configuration of the bot generally occurs using another bot called Botfather.

The answer to the question about the most popular services is easiest based on the Telegram bot store. On the Telegram Bot Store page, there is a kind of ranking of search robots. The five most popular ones include the entertainment robot App of the Day (which sends subscribers the “*best application of the day*” for Android and iOS), educational Andy (helps in learning and practicing English), Weatherman (tells the weather forecast), MyPockerBot (allows you to play poker with random messenger’s users and friends) and Yandex.Bot (helps to search for information).

Figure 1 shows an example algorithm for creating and maintaining a chatbot that is able to learn.

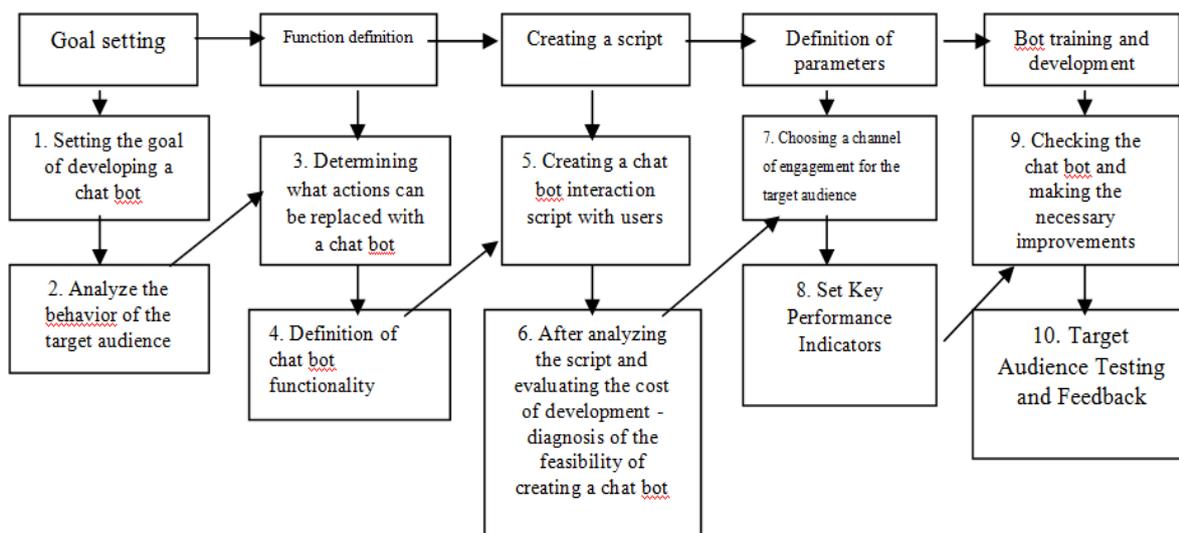


FIGURE 1
AN ALGORITHM FOR CREATING AND SUPPORTING A CHATBOT THAT CAN LEARN (AUTHORING)

In order to improve the quality of the service, you can put a living person on the computer who sees each incoming request and manually sends it to the appropriate service. The neural network monitors the process and remembers the correct answers, which is the main way to train an intelligent chatbot. A person is needed only at the first stage, until the machine learns to correctly recognize 95% of requests. According to the developers, in a large enterprise where the service receives a lot of training requests, it takes two to three months, in a small one - about a year.

For most travel companies, it is advisable to start automating customer service with the help of client bots, which will remove part of the work from managers to determine customer preferences at the initial stage of service, in order to convey to “*live*” specialists already structured answers to frequently asked questions, specific client plans to search for specific destinations/dates/features along with customer contact information. Gradually, during the work of the “*learning*” bot, it will be possible to add elements of the order bot to the functions (receiving applications), however, at the initial stage, fairly basic functions should be planned.

The main advantages of using chatbots for the tourism sector: instantly offers new attractions and interesting places to visit around the world; makes operational selection and

comparison of prices for flights and hotels according to the specified parameters; greatly facilitates joint travel planning with friends and family; provides an opportunity to share information about a flight, hotel, restaurant or leisure options with the simple click of a button.

The popularity of chatbots is directly related to the desire of people to communicate with each other through exchange of letters using various instant messengers. The number of their customers has already exceeded the audience of social networks. Ukrainians also communicate with companies through exchange of letters.

So, the download of online consultants has increased many times lately. They simply can not cope with the increased volume of requests, and must switch to the use of new technologies, including elements of artificial intelligence.

RECOMMENDATIONS

The cost of creating a chatbot for a travel company can range from 10 to 50 thousand dollars if you order it in Ukrainian IT companies (you can even create a simple one by yourself for free, but it will not be able to learn and will not interact with CRM). At this stage of creating a chatbot, it is recommended to calculate the parameters of its payback, determine the channel of interaction and parameters for evaluating the effectiveness of implementation. After the first year of functioning of the chatbot, it will be necessary to audit its functionality and efficiency, and decide on the feasibility of further expansion of the functionality.

CONCLUSIONS

In addition to the purely economic indicators of the effectiveness of the chatbot, such automation will lead to an improvement in the quality of work with clients, deeper personalization of offers, and accumulation of data in the CRM system with the possibility of further analysis and processing. Clients will receive a much more interactive and adapted site, a quick response to their requests, they will feel attention to their wishes, help in finding the best vacation option.

Due to automation using the chatbot, the managers will really remove the mechanical part of the work, which consists in filling CRM with the preliminary wishes of the client, contact information received from him, that is, more time will be left for professional data processing, better selection of service options, preparation of individual offers. All this will improve the quality of service, brand perception, increase customer loyalty of any company.

Having assessed the current state of automation of travel companies, it was concluded that enterprises need a new proposal for the implementation of an automated information system that will not only bring the company to a new level of service delivery, but it will also reduce time for service and expenses in order to get the maximum profit, which is the main goal of its activities.

Many multinational companies are already using chatbot technology for sales, information collection and customer feedback. Lack of time, a small number of employees, poorly developed technical capacities-all this affects the quality and effectiveness of interaction with customers. Chatbots help to avoid these problems and create brand loyalty. When developing, it is better to use proven design methods, carefully study the recommendations of instant messengers and conduct testing on a small audience of users.

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