SCIENTIFIC ADVISOR'S REFERENCE

Program:	Master in Business Analytics and Big Data
Student:	Anisimov Anton and Ismailova Maria
Title of thesis:	Chatbot development business prospects: MTS case

Justification of the topic choice. Accuracy in defining the aim and objectives of the thesis. Justification of the topic choice; accuracy in defining the aim and tasks of the thesis; originality of the topic and the extent to which it was covered; alignment of the thesis' topic, aim and objectives.

The field of business shows an increasing interest in exploring conversational agents to improve service quality and market competitiveness. Chatbots are beginning to take over the world of global business. Many brands are using them to better communicate with their target audiences, recommend products, and get orders. Taking into account all above, the master thesis seems to be surely topical. The title, research problem and research questions are clearly specified. The goal is real, accurately expressed and the tasks are defined in a good form.

Structure and logic of the text flow. Logic of research; full scope of the thesis; alignment of thesis' structural parts, i.e. theoretical and empirical parts.

The thesis is organized in a logical way. The structure of the research is divided into several parts. In the first chapter Anisimov Anton and Ismailova Maria analyze the chatbot market, discuss the existing research, chatbot business functions and industry examples. In the second chapter authors develop chatbot implementation proposals for MTS company. They describe current development stage of MTS, its main strategic goals and ecosystem. Authors choose an existing MTS Live service for further MVP implementation. Third chapter starts with the design of business model canvas (BMC) and value proposition canvas (VPC) of the MTS Live chatbot. Next the author creates and describes an MVP of a chosen chatbot. This MVP is developed on the base of Telegram API by using Python programming language and Mongo DB database. Despite the fact that developed MVP doesn't consist of a full chatbot, described in previously, it still conveys the meaning of a business model. Conclusion finalizes the paper. Both theoretical and empirical part of the thesis are consequently aligned in terms of their structure.

Quality of analytical approach and quality of offered solution to the research objectives. Adequacy of objectives coverage, ability to formulate and convey the research problem; ability to offer options for its solution; application of the latest trends in relevant research are for the set objectives.

Authors demonstrate ability to formulate and convey the research problem and to offer options for its solution applying the latest trends in relevant research and cases.

Quality of data gathering and description. Quality of selecting research tools and methods; data validity adequacy; adequacy of used data for chosen research tools and methods; completeness and relevance of the list of references.

Quality of selecting research tools and methods is good. Authors demonstrate adequacy of used data for chosen research tools and methods. The data samples are partly poor described. The list of reference is mostly complete and relevant.

Scientific aspect of the thesis. Independent scientific thinking in solving the set problem/objectives; the extent to which the student contributed to selecting and justifying the research model (conceptual and/or quantitative), developing methodology/approach to set objectives.

Authors established a good example of scientific thinking in solving the set of stated business problems/objectives of chatbot research and development by conducting the study and interpreting the results. Research methods are well justified and research results are related with the aim/objectives of the study. The main theoretical result of this work is a combination of methods for the formation of a case for the implementation and evaluation of chatbot service MVP development in the MTS company.

However, some aspects of the MVP development were not fully completed. There is no analysis of the chatbot services of MTS competitors. Design of a business model for MTS Live Chatbot in Strategyzer did not define the predictive 1) size of market segments for the service being created, 2) the estimates for cost structure and revenues streams. As a result, no network estimate might be calculated in Strategyzer service and in the paper. The ultimate goal of the Minimum Viable Product is learning and testing. The value of this paper is in implementation of the MTS Live Chatbot MVP in Python. And it is very good. But MVP is much more than just a minimum product. Testing of MVP is probably the most important step to success for companies that avoids the risk of costly failures. In Strategyzer this testing pairs with the Business Model and Value Proposition Canvases. Unfortunately, it was not implemented in the paper.

Practical/applied nature of research. Extent to which the theoretical background is related to the international or Russian managerial practice; development of applied recommendations; justification and interpretation of the empirical/applied results.

By discovering and MVP design of the new MTS Live Chatbot through which MTS might achieve business success, this study contributes to existing literature and cases on conversation services and provides guidance for industry practitioners.

Quality of thesis layout. Layout fulfils the requirements of the Regulations for master thesis preparation and defence, correct layout of tables, figures, references.

Layout fulfils the requirements of the Regulations for master thesis preparation and defence. The formatting and editing of the paper should be improved. Most of the tables and figures are properly edited and represented. The program code in the appendix is designed without standards and without comments. There is no Mongo DB database data model description.

Originality of the text. All sources of match identified by the Safe Assign system follow the allowed cases, the paper does not contain any elements of plagiarism.

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The Master thesis of **Anisimov Anton** and **Ismailova Maria** meets the requirements for master thesis of Master in Business Analytics and Big Data program thus the authors of the thesis can be awarded the required degree.

Date: 12.06.2020

Scientific Advisor:

Asc. Professor S.A. Yablonsky