

REFEREE'S REVIEW

Program:	Master in Information Technologies and Innovation Management
Student:	Alena Boiarkina
Title of thesis:	Designing a balanced scorecard for Russian pharmaceutical companies

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.	5	4	3	2
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.	5	4	3	2
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.	5	4	3	2
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.	5	4	3	2
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.	5	4	3	2
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.	5	4	3	2
Quality of thesis layout. Layout fulfils the requirements of the Regulations for master thesis preparation and defense, correct layout of tables, figures, references.	5	4	3	2

Each item above is evaluated on the following scale, as applicable: 5 = the thesis meets all the requirements, 4 = the thesis meets almost all the requirements, 3 = a lot of the requirements are not met in the thesis, 2 = the thesis does not meet the requirements.

Additional comments:

Master thesis of Alena Boiarkina is devoted to high important industry on Russian market – pharmaceutical industry. Introducing the actuality of this research the author rightly observes that this market is basically occupied by the international giants as Pfizer, Novartis and others. It is a very complicated market for the small and medium enterprises to enter to it. Research, development and promotion of the products on the pharmaceutical market are expensive and complicated processes because of the procedures established by the supervisory authorities. The conducted research has a special actuality in connection with the government decision to develop and increase import substitution in the different industry areas and to consider the special roles of the small and medium enterprises in the Russian economy. The quality of the pharmaceutical enterprises' production depends not only on the quality of the ingredients and of used development technology, but it depends as well on the management competences. In the meantime the author has pointed in the thesis, a lot of Russian small and medium enterprises have an immature model of organization. So, a tool to support the company management is needed. The actuality of the considered thesis is confirmed by the all mentioned above.

The author has reviewed and analyzed a lot of literature to collect the information about usage of the balanced scorecard in the business and, especially, in the pharmaceutical industry. She has pointed on the relations of the enterprise strategy with the balance scorecard and the strategy map. The author rightly points on the cognitive nature of the analyzed data and tries to apply the knowledge management approach to them. The correlation of strategy map and cognitive map is interesting because it allow applying the knowledge processing methods to the strategy map. After some additional and careful examination of these relations for

the different industry areas and after development of appropriate algorithm, it could be suggested to consider an opportunity to implement the identification of the metrics and the creation of the measurement schema as a component into the appropriate information systems used by the enterprise. This fact could be an additional result of the reviewed thesis.

Alena analyzed the different balanced scorecard reference models in the literature and found out the most relevant one for the pharmaceutical industry. The specifics of the pharmaceutical enterprise were investigated with this model usage. The specific indicators for the pharmaceutical industry were selected. After review of the experts in the pharmaceutical industry, the author has developed four strategy models for the small and medium enterprises. As a result, Alena has developed her own balanced scorecard reference model that was presented into the four modifications corresponding to the four strategy models for the small and medium enterprises in the pharmaceutical industry. This model is appropriate for the usage in the different kind of the enterprises: the research companies, the full cycle of the research and development companies and the companies only produced the drugs.

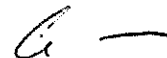
This thesis results have been practically evaluated and confirmed in the “Biocad” company.

At the same time, there are the several remarks:

- No clear definitions of the used concepts what were included into the paper. When the author introduced the “molecular strategy” is not clear what market is intended for this strategy and only after some time it was identified as B-2-B market.
- All used abbreviations, including ERP, EVA, CRM etc., shall be explained. Some abbreviation looks as mistyped (SRM?)
- Some carelessness are in the syntactic signs and formatting used through the text (see, pp. 13,15 etc.)

Master thesis of Alena Boiarkina meets the requirements of the Master in Information Technology and Innovation Management program, and according to the reviewer’s opinion deserves an “*excellent (B)*” grade, thus the author can be given the desired degree.

12 June 2015



Referee: Candidate of physico-mathematical Sciences Elvira V.Strakhovich