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Review of the thesis "A comparative analysis of the organization and management of business incubator centers in the USA and Poland"

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In response to the letter of prof. Izabela Jonek - Kowalska (25.10 2017) I submit my review. This review is based on regulations on Polish science and academic degrees and titles (Law on scientific degrees and title and degrees and title in arts, 14 March 2003 with later amendments).

GENERAL REMARKS

The thesis "A comparative analysis of the organization and management of business incubator centers in the USA and Poland" is devoted to a topic important to entrepreneurs and contemporary economy. A comparative analysis may broaden our knowledge on incubators' functioning.

The Author formulates differentiated goals and research questions. The dissertation has an informative value, connected with a comparative analysis of two different incubators. My overall assessment is positive, however I believe that this dissertation has numerous weak points. The Author can use some of the sugestions formulated below to perfect her future projects, as well as to prepare articles based on material from this dissertation.

DETAILED REMARKS

To show possible ways of development of concepts and thoughts connected with this thesis, in my review I will concentrate mainly on weaker points and areas that may benefit from improvements. Also, I treat remarks below as an invitation to discussion, and perfecting scientific proficiency.

1. Topic and general structure of the dissertation

The topic of this dissertation is interesting and important. The dissertation is traditionally and logically constructed, consist of 9 chapters (including introduction and conclusions). It starts with theoretical background that refers to economic growth and innovativeness (chapters 2-3), the description of the role of incubators is described in Chapter 4. Chapter 5 presents methods used in a study, and chapters 6-8 research results and recommendations. Proportions between parts of the dissertation are correct.

2. Assumptions, goals, hypotheses and research methods

Goals, research questions and hypotheses are presented in an introduction. In general, this area is worth scientific effort, so the topic and goal of the thesis are

well justified. The hypotheses are quite general and sometimes vague (p. 7&118), but in general – can be accepted.

As far as basic data about the thesis are concerned, two challenges can be identified:

a. the Author didn't define a main goal (and research problem) of the dissertation; partial goals in 3 areas – theoretical, research, utilitarian - are clearly defined (p. 5-6), but the work would benefit from clear identification of "the main plot", around which whole efforts are organized; that could be (and in fact is) the relation between incubators and economic growth (development?),

b. research questions from the introduction differ from those described in chapter 5. (see also below, p.4).

3. Literature and other sources

In the bibliography we can find 217 sources + internet sources (some internet sources are also listed in a main literature list). As for a PhD thesis it is a moderate (but not a small) number, however of course everything depends on a quality of sources. The major weakness of bibliography used as a basis of the dissertation is, that non-scientific sources constitute a big part of it. In my opinion the thesis lacks the wide analysis of articles published in best scientific journals (e.g. JCR list). The Startup Journal, CNN Money, or even Harvard Business Review cannot substitute that. The choice of literature should be more careful, as it should reflect current debates in a field.

4. Content – merits, theoretical background and scientific value

The work consists of some more theoretical and more practical (research based or offering practical conclusions and recommendations) chapters.

The introductory chapter has already been briefly discussed above.

Chapter 2 (p. 10 - 53) is devoted to the problem of economic growth, its measurement and stimulation. The structure of this chapter is correct, however its content raises many doubts. My major concern in here is that this chapter does not

go beyond the presentation of background and some macroeconomic tendencies for economies (mainly of the USA and Poland) and some selected (on what basis?) factors influencing creation, growth and failure of enterprises/start-ups.

This background is useful as a base of comparison of different incubator centers, however, in a scientific endeavour (and a dissertation is a scientific endeavour) readers would expect the presentation of some vital discussion on the nature of growth and its stimulators, based on sound scientific sources. Almost all the sources used in the chapters are either popular (like Investopedia, some on-line dictionaries, webpages of mass media organizations etc.) or statistical (like US Census bureau). No deeper analysis or discussion of phenomena under investigation is offered. The chapter does not offer any deeper reflection on the concepts presented and does not refer to the current theoretical discussions in the field. It is really surprising, as the literature on economic growth and factors influencing new ventures creation is numerous and easy to find. It is also worth mentioning that in chapter 5 the term "economic growth" is substituted by "economic development".

Chapter 3 ("Innovativeness as a Factor Stimulating Economic Growth", p. 54 - 73) is composed of an introduction and 3 parts: innovativeness as Nature or Nurture, Innovativeness as an Attribute Developed by the Educational Process and Fostering Innovativeness in the Educational Process. This chapter combines scientific and popular sources, and in most parts - scientific sources prevail. Thus, the discussion is rooted in scientific sources, and refers to the state of the art in the discipline. In some cases (like introduction) more comparative studies, based on critical reflection would rise the value of discussion presented. The part "nature vs nurture" reflects one of ongoing discussions in the field of entrepreneurship (especially popular amongst psychologists). This is an ambitious intention, however only partly successful. For example, 2 paragraphs on nature (p. 63) are devoted solely to creativity, and the whole section is concluded by just one sentence: "this creativity can transform into innovative thoughts". The same shortcut is used in section 3.2 (without sufficient explanation why innovativeness and creativity are used as synonyms). In section 3.3 the Author refers to possibilities of fostering

Innovativeness in the Educational Process. At some point, p.70, (for no obvious reason, as it is not clearly linked to the section) "attributes on innovations" are named (and not used in a subsequent part of the section). These are, however, not attributes described by Machado, Sepulveda and Montoya (2016), but classical attributes influencing innovations' diffusion processes (see e.g. publications by Rogers). When referring to very well known concepts, the Author should use original sources rather than references like from footnotes 3.67 and 3.68. Section 3.3 resembles a short manual, which can disappoint as there are numerous scientific publications on teaching/fostering entrepreneurship, innovativeness, creativity etc. in educational processes.

In general Chapter 3 much better meets scientific requirements than chapter 2. In Chapter 3 we can find analyses of some important issues in contemporary entrepreneurship research. However, more critical analysis, based on a wider range of scientific texts, would be useful to fully reflect dilemmas in innovativeness research. Moreover, there is only weak connection between the title ("Innovativeness as a Factor Stimulating Economic Growth") and contents. Most of the chapter is devoted to stimulation of creativity, not to the links between innovativeness and growth.

In general, the two theoretical chapters do not allow neither for a clear identification of a research gap, nor for a identification of a research project (theory) to be replicated in own study. Thus, the theory cannot be identified as a strength of thos dissertation. Despite of this, the Author shows ability to analyse literature and is competent in a field under investigation.

Chapter 4 ("Business incubator center as a hub for innovation", p.74 - 96) is a chapter linking theoretical part with empirical analyses. Like Chapter 2, also this one is based mainly (however this time not only) on popular sources and reports. And again it can be surprising, as the literature on some aspects highlighted in the chapter, is quite vast (e.g. ecosystems became extremely popular, especially in XXI century publications).

Chapter 5 (p. 97-123) – "Assessment of the Impact of Business Incubator Centers on Economic Development". This chapter is devoted to general description of basic concepts connected with methodology: scientific method, qualitative method, quantitative method. Only a part of it is connected with empirical research designed for the thesis. I would suggest a clearer sequence – formulating main goal, repeating goals and questions from the introduction and showing which methods may be used to answer research questions and why. What is interesting on page 109 we can find 5 research questions for the project, but they differ from questions introduced in the first part of this dissertation (p.6 – 7). But later on, on page 118 the Author returns to questions from the introduction. Some aspects of methods presented in a thesis are not clear. For example, on page 120, fig. 5.6 – there is an information that in a part of research inductive reasoning is used. Frankly speaking, I see no traces of this kind of reasoning in a project. Also, for both qualitative and quantitative part, the population and methods of sampling should be described (in chapter 5 or 7).

Concentrating on clear and coherent presentation of own research process and motives of choice of methods would add value to this part.

Chapter 6 ("Organizational and operational model of a business incubator centre", p. 124 – 155) describes two incubator centres – in the USA (CAN-BE) and in Poland (Technopark). The descriptions are concrete and provide basic data needed to understand their business models. In the last section (6.3) – the two systems are compared.

Chapter 7 ("Analysis of the impact of business incubator centers on the economic development of the region", p. 156 – 210) consists of descriptions of research results. The Author selected a set of simple indicators in 4 areas: social, organizational/procedural, scientific/technical, financial, to asses incubators' impact. Again, terms "growth" and "development" are used interchangeably (and it is not commented by the Author). It seems that in a scientific work such basic concepts should be used explicitly, without causing ambiguities.

In this chapter, the Author presents, analyses and compares research results from two incubator centres. This analysis is interesting and competent. In my opinion Chapter 7 (even if has some minor weaknesses) is a strong side of this work. In general the Author shows the ability of conducting empirical research, which is one of the most important requirements in a PhD process. That also makes a strong argument for my positive assessment of this dissertation.

Chapter 8 ("Recommendations based on the analysis of best practices", p. 211 – 227) includes recommendations based on best practices recognition. The Author summarizes research findings and formulates suggestions in areas taken under consideration (financial, organizational etc.). She also draws some indications concerning the model of cooperation between Incubator and a local university/business school. Recommendations are based on research, and logically constructed.

Conclusions (chapter 9) are quite short, but justified by the data provided by the author. Some information about potential for future research, as well as the project limitations could be also useful for the reader. The work is missing sound theoretical conclusions, but – as I mentioned before – the theoretical underpinning of the dissertation is not its strongest side.

5. Language and formal side of the dissertation

The language is usually proper and clear. Sometimes it is not fully adjusted to the character of this work – as a scientific project. Sentences like: "Business incubator centers help ideas become realities" (p.54) are better suited to textbooks or popular essays.

There are also some minor formal mistakes, like assigning 5 references to one quotation (p. 83), or no references to quotations, preparing bibliography in incoherent format (journal titles with or without quotation marks), imperfect quality of some drawings (p.106 and many other), lack of sources of tables, chapter titles in the text and in table of contents differ (e.g. p. 101), etc. These minor mistakes

are not crucial to the understanding and interpretation of the content of this dissertation. The formal side of the dissertation can be assessed as well prepared.

CONCLUSION

Taking all requirements of Polish law under consideration I can positively assess this dissertation. This dissertation has certain weak points, however it meets basic requirements for a PhD project. The theoretical background of the thesis is its weak side, however the Author shows sufficient knowledge of theories and presents ability to analyse it. The empirical side of work can be evaluated higher than the theoretical one – the Author shows ability of conducting own research. Taking all of that under consideration, I put forward a motion to admit Ms M. E. Grebski to public defence of her thesis.

Beata Glinka