



LEVEL/ LEFEL 7

Assignment Title: **A critical review of building intellectual capital in incubated technology firms**

Module Title: **LCDB7001 Entrepreneurial Perspectives**

Module Lecturer's Name: **Gladius David Kulothungan**

Student Name: **Hui Qian**

Student Number: **1903488**

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A critical review of building intellectual capital in incubated technology firms

Abstract

This review is based on a journal article by Clare G. Gately and James A. Cunningham entitled *Building intellectual capital in incubated technology firms*.

The original article focused on the research question of how incubated technology entrepreneurs establish relational capital for new venture formation under the social background of higher education institutions. In order to solve this problem, the original authors conducted related research. On the basis of intensive reading of each part of the original article research, this review analyzes, evaluates and synthesizes the relevant viewpoints and arguments of the original article. Finally, in the conclusion section, this review summarizes the advantages and disadvantages of the original research, hoping to provide guidance and inspiration for subsequent research.

Keywords: critical review, relational capital, incubated technology entrepreneurs

1 Introduction

This section is a brief introduction to this review.

This review is a study based on the original journal article. Therefore, this review is carried out on the basis of intensive reading and careful consideration of the various parts of the original article research. The research topic of the original article was to build intellectual capital in incubated technology firms.

In this regard, through the introduction of theoretical and practical background, the author of the original article finally determined the central research question of the original article, that is, how incubated technology entrepreneurs establish relational capital for new venture formation under the social background of higher education institutions. Focusing on research question, the original article explains in detail the

research methods, data selection, data collection, and research limitations in the methodology chapter. Therefore, based on the data analysis results, the original article found an explanation and answer to the research question, and then reached a conclusion.

This review is to think beyond what the author of the original article told the reader. Therefore, in the subsequent chapter, each part of the original article will be strictly analyzed, reviewed, and evaluated, including the type and area of the original article, research question, research methods, reliability and validity of data, bias, research findings and originality contributions etc., so as to learn analytical reflection, master the application of correct research methods, thereby improving the rigor, extensiveness and applicability of research.

2 Analysis, evaluation and synthesis

This part is a rigorous analysis, review and evaluation of the original article.

2.1 Judgment on the type and area of the original article

The original article is a qualitative research article based on data and adopting various qualitative research methods. Through intensive reading of the original article, it can be found that in order to find interpretations to research question, the author of the original article used qualitative interview method and content analysis method for analysis. Therefore, in order to carry out appropriate data selection, the original article selected the "SEEPP" plan and a strict screening mechanism. A total of 40 business plans and 25 technical entrepreneurs became qualitative research data samples. Subsequently, the author of the original article explained the research question based on data analysis. Therefore, it can be concluded that it is not a purely theoretical article, but an empirical article based on qualitative data. In addition, the main area covered by the original article is how newly formed high-tech companies establish relational capital. Therefore, it belongs to the content of human resources management in enterprise management.

2.2 Evaluation of research question and related issues of the original article

In the original article, the author of the original article obtained the central research question by introducing the theoretical and practical background. That is, how incubated technology entrepreneurs establish relational capital for new venture formation under the context of a higher educational institutions. When seeing this research question, the reader may be wondering if the research question is appropriate? The research topic is the establishment of intellectual capital by incubated technology companies. The original author carefully elaborated the relationship between intellectual capital and relational capital, the background of setting up a new enterprise and the incubated technology firms.

It can be seen that the original author considers both the types of relational capital that have special significance during the establishment of a new enterprise and the relational capital activities used by entrepreneurs in different contexts under the premise of considering the practical factors and theoretical factors. After comprehensively considering the above factors, the research question is finally determined. It can be seen that the original author's thinking is meticulous, logically coherent, and captures the core research issues. Therefore, it is worth affirming and learning.

After the author of the original article raised research question, they further put forward interpretations and major points. That is, the author of the original article identified four types of relational capital building activities through research. They are development of networks and contacts, relationship building, accessing and leveraging knowledge experts and members of associations. In addition, the author of the original article also points out that research-oriented technological entrepreneurs in the study are different from the activities of establishing relational capital adopted by users, producers, opportunists and non-technical entrepreneurs. They are mainly connected with service providers and keep a certain distance in relational capital building style, while the other four are mainly engaged in customer-centered relational capital

construction activities.

2.3 Examination of the methodology chapter of the original article

The examination of the methodology chapter of the original article mainly includes two aspects. The first is a review of the reliability and validity of data, sources of data and evidence as well as sample size. The second is a review of research limitations.

As for the first point, it is about the sources of data and evidence. The original article's data comes from a case study. Specifically, the original article chose a program called "SEEPP", which is an incubator program for technology graduate entrepreneurs to establish new companies in the context of higher education institutions. Selecting the appropriate data sample needs to meet the strict three screening conditions. Finally, the data has a total of 40 business plans and 25 respondents passed the screening process and was used as the main research data sample.

It can be seen that the samples of the interviewees and content analysis have been carefully reviewed by the original authors, and they must be eligible for selection to become data samples. Secondly, before conducting the formal research, the original article conducted a small-scale pilot study. By conducting pilot study, the validity of the research is improved. In addition, in the use of a variety of qualitative research methods, the author of the original article also used triangulation, taking into account the reliability and validity issues. Therefore, there is no doubt about the reliability and validity of the data source.

On the other hand, it is also necessary to consider whether the sample size is appropriate. According to the analysis results of the original article, the authors use these data to conclude that technology entrepreneurs establish relational capital through four types of relational capital activities in the social context of higher education institutions. They also analyze the use of relational capital by different types of technology entrepreneurs. It can be said that the conclusion of the study has certain research significance for Irish incubated technology entrepreneurs to establish relational capital. However, due to the limitation of the research background, whether

the research results can be applied or extended to other countries or regions with different cultural backgrounds needs further exploration and discussion(Saunders, Lewis and Thornhill, 2012). Obviously, such a sample size is difficult to have global persuasion and influence. The sample size may need to be further expanded to be more convincing.

The second aspect is a review of research limitations. Regarding the issue of limitations, when the author of the original article realized the appropriateness of the phenomenological point of view in management research, it might involve the neutrality and consistency of qualitative research, the rigor of social science research methods, etc. Taking into account the reliability of the original article, the author of the original article adopted a mixture of various research methods to limit the interference in the research. And finally, the research's relevance standards guide the research.

According to the original article, the author of the original article adopted a variety of research methods aimed at reducing the impact of phenomenological views. It can be said that the triangulation method adopted by the author of the original article and the combination of three types of content analysis methods have done all they can to make the data results persuasive, which is worthy of recognition and praise(Yin, 2014).

2.4 Review of the findings and original contributions of the original article

First of all, for the review of the research findings, the author of the original article pointed out that during the establishment of a new enterprise, technical entrepreneurs engaged in four types of relational capital activities to establish relational capital. They are the development of networks and connections, the establishment of relationships, the acquisition and use of knowledge experts and members of associations. The above conclusions are the results of the original article based on data collection and analysis. Therefore, this is not fabricated out of thin air, but based on facts, so it can be used and trusted.

Secondly, regarding the original contribution issue, the author of the original article

carefully selected the Irish 'SEEPP' project as a case study. It can be said that the design of three of the screening conditions for finding a suitable sample is impressive.

The original contributions include that incubated technology entrepreneurs mainly build relational capital through four activities. Meanwhile, research-based technology entrepreneurs have established networks with service providers, while all other types of technology entrepreneurs are engaged in customer-centric relational capital building activities. It can be said that the original article's answers to research questions are mainly based on interview methods and content analysis methods, that is, the original contributions made by 25 respondents and 40 business plans that meet the sample requirements. Overall, the conclusion is convincing and original. Therefore, I think the original contribution of the original article has a certain academic reference value and practical guiding significance.

2.5 Thinking about the problem of bias

Objectively speaking, the authors of the original article did not stand on a certain position and always tried their best to objectively consider the views in the argument or situation.

But it must also be seen that the technical entrepreneurs selected in the original article are graduate technical entrepreneurs who rely on the "SEEPP" program. Although the interviewees and the content analysis business plan have undergone a rigorous screening process, the development stage is only in startup mode. Therefore, the views they convey are limited to the start-up phase, and cannot fully cover the various stages of enterprise development. Therefore, the problem of bias exists to a certain extent. It cannot be ignored that the interviewees' own biases in answering the research questions also exist, which will also limit the interpretation of the research results(Saunders, Lewis and Thornhill, 2012).

3 Conclusion

This article is a critical review of *Building intellectual capital in incubated technology firms*. In general, the research process of the original article is strict, especially in the use of research methods, research question proposing, the careful consideration of the reliability and validity of data and evidence and the achievements of research findings and original contributions are worthy of learning and highly praised(Yin, 2014).

In addition, in the data selection and data collection part, the generation gap between the previous research and the untested research was fully considered, so a pilot study was set up(Choy, 2014). All of the above fully illustrate the advantages and strengths of the original article research.

However, the original article has some problems that are not strict enough and insufficient. For example, when it comes to sample size, bias, etc., these points weaken the original article author's point of view and reduce the original article's credibility, which requires adjustment and sufficient attention.

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