

CASA0012 Dissertation Book

Zeqiang Fang

CASA0012, MSc Spatial Data Science and Visualisation Dissertation

Supervisor: Dr Max Nathan

Repository: <https://fang-zeqiang.github.io/CASA0012-Dissertation/>

This dissertation is submitted in part requirement for the
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Bartlett Faculty of the Built Environment, UCL

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Abstract

Some abstract text

I, Zeqiang Fang, hereby declare that this dissertation is all my own original work and that all sources have been acknowledged. It is xxx words in length

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Abstract

to be done

Chapter 1

Introduction

To be done

1.1 Background

To be done

1.2 Research Question and Objectives

To be done

1.3 Report Structure

To be done

Chapter 2

Literature Review

2.1 Industry Cluster & Tech Cluster

To be done

2.2 Cluster Dynamics

To be done

2.3 Location Quotient

To be done

Chapter 3

Methodology

3.1 Research Framework

1. Restate my research question
2. Cluster & Multiple Regression (Figure Flow Chart)

3.2 Data Source and Processing

1. What is my data source from?
2. How I process this data? (Figure Flow Chart)
3. To what extent my processed data represent my research objectives?

3.2.1 Tech Firms Finding

Max: If you don't plan to measure clusters using data-driven methods like DB-Scan, you will need to justify this decision in the dissertation, especially as some tech clusters are likely to be smaller than TTWAs in practice. You could look at literature on TTWAs to argue that they are a good representation of local economies; you could also argue that limitations in OC address data mean

it's sensible to aggregate firms to TTWA level (again, you will need references to back that up).

3.2.2 Dynamics Measuring Index

I need to refer to lit review

3.3 Quatitative Analysis and Methods

3.3.1 Tech Cluster Identifying

sic4 code

tech cluster

3.3.2 Dynamics Analysis

entry / exit / churn pattern

incorporation / dissolution date

3.3.3 Location Quotients

3.4 Limitations

3.5 Ethical Statement

Chapter 4

Results

4.1 Visualisation and Analysis of Tech Cluster

4.1.1 Distribution

4.1.2 Descriptive Analysis

4.2 Visualisation and Analysis of Dynamics

Chapter 5

Discussion

Short introduction to the chapter, reviewing the previous chapter and detailing what this one aims to achieve and build upon.

5.1 Research significance

5.1.1 Global development goals

5.1.2 Local policy

5.1.3 Academic research

5.2 Limitations

5.3 Transferability

Chapter 6

Conclusion

To be done

- Kerr, William R., and Frederic Robert-Nicoud. 2020. “Tech Clusters.” *Journal of Economic Perspectives*, 34 (3): 50-76. <https://www.aeaweb.org/articles?id=10.1257/jep.34.3.50>
- Frenken, K., Cefis, E., & Stam, E. (2015). Industrial Dynamics and Clusters: A Survey. *Regional Studies*, 49(1), 10-27. doi: 10.1080/00343404.2014.904505 Frenken K., Cefis E. and Stam E.
- Combes, P.-P., Duranton, G., Gobillon, L., Puga, D. and Roux, S. (2012), The Productivity Advantages of Large Cities: Distinguishing Agglomeration From Firm Selection. *Econometrica*, 80: 2543-2594. <https://doi.org/10.3982/ECTA8442>

Appendix A Research log

subsection

sub sub section

Date	Task
31st May 2020	data search, commenced literature review
7th June 2020	revised literature in the direction of x

Appendix B Proposal