

## **Reflection – Graduation thesis S.M.M. Verseput. 18-04-2019**

First, I will elaborate on my initial motivation to subscribe for the retail graduation lab.

In 2012, I co-founded the company Chainels. Chainels is the tenant engagement portal for shopping centres and inner cities. The purpose of the portal is to facilitate collaboration and data sharing between tenants, landlords and service providers like property management, marketing and security.

During day-to-day work I am in frequent contact with landlords, property managers and retailers. In my opinion retail is one of the most dynamic asset classes in real estate. Retailers have to adopt continuously to meet the ever-changing demands of consumers. Retail real estate should facilitate these changing needs as much as possible.

In spring 2016 I subscribed for the graduation lab 'department stores and the attractive city'. The leading researchers for the graduation lab at the time were: dr. Ir. D.C. Kooijman and Dr. Ir. H.T. Remøy.

My initial research proposal (P1) was focused on exploring the future of department stores in the Netherlands. The idea was led by the bankruptcy of the former V&D departments stores. Back then I was interested to explore opportunities for the large retail spaces that were left vacant. However, in October 2016 Mr. Kooijman announced that he would leave the TU Delft as of the first of November. Thereafter I had a meeting with my second mentor Mrs. Remøy.

Mrs. Remøy pointed out that Mr. Kooijman's expertise was focused on retail and department stores and that it might become a challenge to give me enough guidance on the retail topic. During the meeting I indicated that I was interested in quantitative research methods.

In the summer of 2016, I had my first meeting with my current mentor Dr. C.J. van Oel. During our meeting, I shared my research about department stores so far. Besides this, I shared my enthusiasm about retail and showed her the features of tenant engagement portal Chainels. During the meeting we concluded that there were numerous possibilities to conduct quantitative analysis in the retail domain. Since I'm working a lot with data on a day-to-day basis and because it would be easier for me to focus on a topic which has some common grounds with my work.

My plan was to conduct research on factors that contribute to the performance of shopping centres. The purpose of the research was to analyse tenant and shopping mall characteristics and its influence on the number of visitors and visitor dwell times. During this research I examined different technologies that can be used for the localization of people in a shopping centre. Mrs. van Oel indicated that it would be helpful to have an expert on the topic of indoor localization in the mentor team.

During my P2, which was in January 2017, Ir. Edward Verbree joined the mentor team. Because of his background with GIS (Geographic Information Systems) Mr. Verbree could guide me with the technical aspects of localization of visitors in a shopping centre. In this period, I was in contact with the marketing manager of CBRE GI, the retail investment firm that owns, among other assets, a prime shopping area in the centre of Rotterdam. My plan was to use this shopping area, as case for the data collection.

During an interview I held with the marketing manager I learnt about the ways in which the real estate investment firm captures data of visitors.

Back then, certain footfall figures were collected, however the data was only captured on a few spots in the shopping area, so it was not possible to analyse data on the level of the individual store. Besides this, the dwell time of the visitors was not being stored as well. During the interview I learnt a lot about the potential limitations of researching footfall databases. The marketing manager indicated for example that it not easy to identify whether a person is just passing by all the shops or enters a shop. Furthermore, I learnt that during events in the shopping centre there are sometimes a lot of visitors on the street whereas the turnover of the shops is disappointing. Moreover, I learnt that there is already existing knowledge about the attractivity of certain retail brands. I learnt that retail formulas such as Bijenkorf and Primark are anchors in the shopping area and drivers of footfall. The limitations of the footfall database and the uncertainties about potential GDPR related issues forced me to choose another methodology for data gathering.

After discussing the feedback from the interview with the marketing manager with my mentor Mrs. van Oel, I decided to compose questionnaires to capture feedback from visitors and tenants. I had conducted a literature research on factors that influence shopping centre performance. My plan was to receive feedback from both visitors and tenants and develop a model for data sharing between the involved stakeholders in a shopping centre. After sharing this plan with Mr. Verbree, he pointed out that the methodologies that I was about to use were not in line with his field of expertise.

Thereafter, Ir. J.S.J. Koolwijk was appointed as my new second mentor. After I finished the questionnaires for visitors and tenants, I shared them with the marketing manager of CBRE GI. Although the marketing manager indicated that my research with regard to the marketing topics was interesting, it turned out that consumer and tenant research was conducted in the shopping centre recently. Therefore, it did not seem like a good idea to bother the tenants and consumers with another research within a short timeframe.

After this news I decided to pick another case for my research project as soon as possible. I knew the board from the tenant association of Shopping Centre Meerzicht and convinced them to collaborate in my research project. Mid-august 2018 the board gave their approval for the research. Since I was struggling to combine my research project with the work for my company, I decided to seek assistance from two people from the company Markteffect for the face-to-face surveying.

When I started analysing the dataset, I noticed that the average age of the respondents was unexpectedly high: 61 years and a month. After discussing the first results of my data analysis with my mentors I decided to focus my research on shopping preferences of elderly people. I believe that the results can provide input for fruitful discussion on the future of neighbourhood shopping centres in an aging population.

In general, it was quite challenging to combine a full-time job with my graduation project. There were periods where the company grasped my full attention and I was not able to work on the research for several consecutive months. I noticed that each time when I continued working on the thesis after a period of work for the company that it took some effort to get complete focus on my research. However, I kept investing time in my research during the weekends and sometimes during the evenings. What really helped me was that I planned three 'thesis weeks'. During these weeks I spent at least 80% of my time on my research. In the last week of November 2018, I focused on data analysis and on learning the ins- and- outs of SPSS. In the second thesis week, during the Christmas Holidays (2018- 2019), I focused on writing several chapters of my thesis, including problem analysis, background information, methods and initial findings. During the last week of February 2019, I focused on finalizing the logistic regression model, the conclusion, discussion, recommendations for future research, the reflection and abstract.