

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examencommissie-BK@tudelft.nl), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

Personal information	
Name	Thomas Nicolaas Joannes
Student number	4036972
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Studio	
Name / Theme	Real Estate Management
Teachers / tutors	A.C. Den Heijer, M.H. Hermans, F.T.J. Curvelo Magdaniel
Argumentation of choice of the studio	Within the MBE master track I enjoyed the Real Estate Management course the most. Besides that I want to make a good decision between project development and Corporate Real Estate Management as the sector I would like to start my career.

Graduation project	
Title of the graduation project	Multinationals as real estate service provider
Goal	
Location:	The Netherlands
The posed problem,	Due to new ways of working as the most important cause, a mismatch occurs between demand for office space and supply resulting in a high level of hidden vacancy.
research questions and	How can 'Real Estate as a Service' be an accommodation strategy for multinational corporations in order to obtain maximum added value for the business and to contribute optimally to the overall performance of the organization?
design assignment in which these result.	

The first step in answering the main research question is elaborating on terms that are used in the problem statement, research objective and main research question. This determines the basis for the research:

- What theories apply to managing corporate real estate?
- What theories apply to 'Real Estate as Service'?
- How can these theories be integrated in a conceptual framework?

Part B "data collection"

The second part in answering the main research question will give answer to the main research question by gathering the data based on the conceptual model.

- Which relevant trends and developments influence the demand of multinational corporations?
- Which relevant trends and developments are of most influence to determine the demand?
- How does the alternative 'internal coworking' look like?

Part C "output"

The last part will explore whether the insights from part B can be generalized and transformed into a new tool that can be used for implementing 'Real Estate as a Service' within an accommodation strategy.

- How does a tool look like that can support multinational corporations to incorporate 'Real Estate as a Service' in their accommodation strategy?

Process

Method description

The data needed to answer the main and sub-research questions will be conducted with the following research methods: scenario planning, explorative case studies and expert meeting. For each research method will be explained how the data will be collected and analysed.

1 Scenario planning

Strategic planning with the use of scenario techniques are explicitly not intended to forecast the most likely future, but employed to increase the level of insight in the range of potential futures in order to enable oneself to anticipate these potential events (De Jonge et al., 2009).

Data collection

The data collection for a scenario building process will be performed by analysing documents, by brainstorming in groups of experts or by sending questionnaires.

Data analysis

Relevant trends and developments are evaluated on the basis of (a) opportunities to steer and (b) level of impact. This assessment is visualised through a 2-axis chart type, presenting matrix with each criterion on either one of the axes. Relevant trends and developments with little opportunity for steering and high impact will be assessed in a predictability matrix.

This is again a 2-axis chart type on the basis of (a) predictability and (b) level of impact. Relevant trends and developments with little predictability and high impact will be assessed in a scenario matrix. These will be used in the process of building scenarios, composing possible futures and setting the bandwidth of the future.

2 Explorative case study

Case studies are a research methodology to research (a set of) events, aiming to describe and explain a subject of interest (Bryman, 2012). This strategy is preferred when research questions are posed as 'how' and 'why'.

Data collection

The data collection for case studies will be conducted by analysing documents and interviews. Two types of interviews can be conducted, namely: unstructured interviews and semi-structured interviews (Bryman, 2012). An unstructured interview may start with a single question and further no guidance. This kind of interview tends to be a conversation instead of an interview. A semi-structured interview is guided by a list of questions.

Semi-structured interview will be the interview method used during the research. The questions may not be asked exactly in the way outlined on the schedule and there is also room for questions which are not in the schedule but come up during the interview. Strived will be that almost all questions from the schedule will be asked during the interview. This to make sure that the interviews can be compared to each other afterwards (Emans, 2002).

Data analysis

Since the case study research process follows a deductive approach, a so-called analytic generalization will be used (Yin, 2014). By doing so, the real life situation will be generalized at a higher conceptual level than of the specific case. Hereby the outcomes of the analyses of the case can be connected to the developed theoretical framework.

3 Expert meeting

An expert meeting is a meeting with various 'experts' to obtain expert comments, ideas and information for the development or testing of a concrete product.

Data collection

There are basically two methods to shape these meetings: (1) individual semi-structured interviews with experts or (2) an expert-panel in the form of a focus group (Bryman, 2012). Because group interaction in focus groups enhance quality of the outcomes, the second method is the most favourable.

Literature and general practical preference

Baines, T., Lightfoot, H., Smart, P., & Fletcher, S. (2013). Servitization of manufacture: Exploring the deployment and skills of people critical to the delivery of advanced services. *Journal of Manufacturing Technology Management*, 24(4), 637–646. <https://doi.org/10.1108/17410381311327431>

Baines, T., Lightfoot, H. W., Benedettini, O., & Kay, J. M. (2009). The servitization of manufacturing: A review of literature and reflection on future challenges. *Journal of Manufacturing Technology Management*, 20(5), 547–567. <https://doi.org/10.1108/17410380910960984>

Barnett, N. J., Parry, G., Saad, M., Newnes, L. B., & Goh, Y. M. (2013). Servitization: Is a Paradigm Shift in the Business Model and Service Enterprise Required? *Strategic Change*, 22(3–4), 145–156. <https://doi.org/10.1002/jsc.1929>

Bilandzic, M., & Foth, M. (2013). Libraries as coworking spaces: Understanding user motivations and perceived barriers to social learning. *Library Hi Tech*, 31(2), 254–273. <https://doi.org/10.1108/07378831311329040>

Bouncken, R. B., & Reuschl, A. J. (2016). Coworking-spaces : how a phenomenon of the sharing economy builds a novel trend for the workplace and for entrepreneurship. *Review of Managerial Science*, 1–18.

Bryman, A. (2012). *Social Research Methods*. Oxford: OUP.

Capdevila, I. (2013). *Knowledge Dynamics in Localized Communities: Coworking Spaces as Microclusters* (SSRN Scholarly Paper No. ID 2414121). Rochester, NY: Social Science Research Network. Retrieved from <https://papers.ssrn.com/abstract=2414121>

De Jonge, H. (1996). The added value of corporate real estate. Presented at the Dutch Study Centre (NSC) Conference.

de Jonge, H., Arkesteijn, M. H., Den Heijer, A. C., de Vrien, J. C., & Vande Putte, H. J. M. (2009). *Corporate Real Estate Management, Designing an Accommodation Strategy*. Delft: Publikatiebureau Bouwkunde, TU Delft.

De Vries, J. C. (2007). Presteren door vastgoed: Onderzoek naar de gevolgen van vastgoedingrepen voor de prestatie van hogescholen. Retrieved from <http://resolver.tudelft.nl/uuid:c062859e-9d74-4bbf-a685-a4c47f017f78>

Den Heijer, A. C. (2011). Managing the university campus: Information to support real estate decisions. Retrieved from <http://resolver.tudelft.nl/uuid:337ca4e3-2895-4fcf-ae9-752141bc6104>

Desmet, S., Van Dierdonck, R., Van Looy, B., & Gemmel, P. (2013). *Servitization: or why services management is relevant for manufacturing environments*. Pearson Education Limited. Retrieved from <https://lirias.kuleuven.be/handle/123456789/437664>

Dewulf, G. P. M. R., Krumm, P. J. M. M., & Jonge, H. de. (2000). *Successful corporate real estate strategies*. Arko Publishers. Retrieved from <https://research.utwente.nl/en/publications/successful-corporate-real-estate-strategies>

- Emans, B. (2002). *Interviewen: Theorie, Techniek en Trainingen* (4e druk ed.). Groningen. Retrieved from <https://www.managementboek.nl/boek/9789020730876/interviewen-ben-emans>
- Gandini, A. (2015). The rise of coworking spaces: A literature review. *The Journal, Ephemera*. Retrieved from [https://kclpure.kcl.ac.uk/portal/en/publications/the-rise-of-coworking-spaces-a-literature-review\(fcbedc2a-92cc-4c74-86cd-940dcd158915\)/export.html](https://kclpure.kcl.ac.uk/portal/en/publications/the-rise-of-coworking-spaces-a-literature-review(fcbedc2a-92cc-4c74-86cd-940dcd158915)/export.html)
- Garrett, L. E., Spreitzer, G. M., & Bacevice, P. (2014). Co-constructing a Sense of Community at Work: The Emergence of Community in Coworking Spaces. *Academy of Management Proceedings, 2014(1)*, 14004. <https://doi.org/10.5465/AMBPP.2014.139>
- Heywood, C., & Arkesteijn, M. (2017). Alignment and theory in Corporate Real Estate alignment models. *International Journal of Strategic Property Management, 21(2)*, 144–158. <https://doi.org/10.3846/1648715X.2016.1255274>
- Jensen, P. A., Voordt, T. van der, Coenen, C., Felten, D. von, Lindholm, A.-L., Nielsen, S. B., ... Pfenninger, M. (2012). In search for the added value of FM: what we know and what we need to learn. *Facilities, 30(5/6)*, 199–217. <https://doi.org/10.1108/02632771211208486>
- Jensen, P., & Van der Voordt, T. (2016). *Facilities Management and Corporate Real Estate Management as Value Drivers. How to Manage and Measure Adding Value*.
- JLL. (2016). A new era of coworking. Retrieved from <http://www.jll.eu/emea/en-gb/Documents/coworking/doc/JLL-A-New-Era-Of-Coworking-2016.pdf>
- Jones, D. (2016, June). Why companies need coworking. Retrieved from http://openwork.agency/wp-content/uploads/2016/06/WhyCompaniesNeedCoworking2016_whitepaper.pdf
- Joroff, M. L., Lambert, S., & Louargand, M. (1993). *Strategic Management of the Fifth Resource: Corporate Real Estate*. Industrial Development Research Foundation.
- Krumm, P. J. M. M. (1999). Corporate real estate management in Dutch multinational corporations. Retrieved from <http://resolver.tudelft.nl/uuid:e4a1b061-f2fd-46de-975d-a0c077b65743>
- Kumar, R. (2010). *Research Methodology: A Step-by-Step Guide for Beginners*. SAGE.
- L. White, A., & Feng, L. (1999). Servicizing: The Quiet Transition to Extended Product Responsibility.
- Lewis, M., Portioli Staudacher, A., & Slack, N. (2004). Beyond Products and Services: Opportunities and Threats in Servitization, (pp. 184–192). Presented at the IMS international conference. Retrieved from https://re.public.polimi.it/handle/11311/535488#.WjJn5t_iaUk
- Lokhorst, J., Remoy, H. T., & Koppels, P. W. (2013). Verborgen leegstand: Mismatch tussen vraag en aanbod. *Real Estate Research Quarterly, 12 (3)*, 2013. Retrieved from <http://resolver.tudelft.nl/uuid:543ebacb-ab36-4a88-80f0-ceb5442d1bfa>
- Maheepala, S., B.N.F, W., & Yatiwelle Korallalage, W. (2015). Servitization in manufacturing firms: a systematic literature review.

- Mattson-Teig, B. (n.d.). The Evolution of Co-Working and Impact on Corporate Real Estate.
- Moriset, B. (2014). Building new places of the creative economy: the rise of coworking spaces. Presented at the 2nd Geography of Innovation International Conference. Retrieved from <https://halshs.archives-ouvertes.fr/halshs-01369753>
- Neely, A. (2007). Exploring the financial consequences of the servitization of manufacturing. *Operations Management Research*, 1, 103–118. <https://doi.org/10.1007/s12063-009-0015-5>
- Reim, W., Parida, V., & Örtqvist, D. (2015). Product-Service Systems (PSS) Business Models and Tactics : A Systematic Literature Review. *Journal of Cleaner Production*, 97, 61–75.
- Ren, G., & Gregory, M. (2007). Servitization in manufacturing companies: Forming an academic field with meaning, stocktaking and coherent inquiries. In *POMS College of Service Operations and EurOMA Conference*. London Business School.
- Riratanaphong, C. (2014). Performance measurement of workplace change in two different cultural contexts. Retrieved from <http://resolver.tudelft.nl/uuid:f0c1b80f-61c9-47f3-843e-5c22e3885255>
- Robinson, T., Clarke-Hill, C. M., & Clarkson, R. (2002). Differentiation through Service: A Perspective from the Commodity Chemicals Sector. *The Service Industries Journal*, 22(3), 149–166. <https://doi.org/10.1080/714005092>
- Roozenburg, N. F. M., & Eekels, J. (1991). *Produktontwerpen, structuur en methoden*. Utrecht: Lemma.
- Spinuzzi, C. (2012). Working Alone Together: Coworking as Emergent Collaborative Activity. *Journal of Business and Technical Communication*, 26(4), 399–441. <https://doi.org/10.1177/1050651912444070>
- Van der Voordt, T. (2015). *Adding Value by Corporate Real Estate: parameters and applications* (ERES No. eres2015_158). European Real Estate Society (ERES). Retrieved from https://ideas.repec.org/p/arz/wpaper/eres2015_158.html
- Van der Zwart, J. (2014). Building for a better hospital: Value-adding management & design of healthcare real estate. Retrieved from <http://resolver.tudelft.nl/uuid:8fd82874-7ef2-48d6-bfb5-2f99ca26e254>
- Vandermerwe, S., & Rada, J. (1988). Servitization of business: Adding value by adding services. *European Management Journal*, 6(4), 314–324. [https://doi.org/10.1016/0263-2373\(88\)90033-3](https://doi.org/10.1016/0263-2373(88)90033-3)
- Verstrepen, S., Deschoolmeester, D., & Berg, R. J. van den. (1999). Servitization in the automotive sector: creating value and competitive advantage through service after sales. In *Global Production Management* (pp. 538–545). Springer, Boston, MA. https://doi.org/10.1007/978-0-387-35569-6_66
- Visnjic, I., Neely, A., & Wiengarten, F. (2012). *Another Performance Paradox?: A Refined View on the Performance Impact of Servitization* (SSRN Scholarly Paper No. ID 2117043). Rochester, NY: Social Science Research Network. Retrieved from <https://papers.ssrn.com/abstract=2117043>
- Ward, Y., & Graves, A. (2007). Through-life management: the provision of total customer solutions in the aerospace industry. *International Journal of Services Technology and Management*, 8(6), 455–477.

<https://doi.org/10.1504/IJSTM.2007.013942>

Yin, R. K. (2014). *Case study research : design and methods*.

Reflection

Relevance

Societal relevance

By using 'Real Estate as a Service' as an accommodation strategy to solve the hidden vacancy within a portfolio of multinational corporations, this will have an effect that it will not add up to the registered vacancy after rental contracts come to an end or after sale and thereby increase the vacancy level within office buildings (Lokhorst, Remoy, & Koppels, 2013). Another societal relevance can be found in the optimization of the current office supply. By solving new office demand within the hidden vacancy of the existing real estate, the demand for new office supply can be reduced and therefore the need for new raw materials.

Scientific relevance

Within scientific literature the concepts of 'Corporate Real Estate Management' (De Jonge, 1996; de Jonge, Arkesteijn, Den Heijer, de Vrien, & Vande Putte, 2009; Dewulf et al., 2000) and 'Servitization' (Baines, Lightfoot, Benedettini, & Kay, 2009; Maheepala, B.N.F, & Yatiwelle Koralalage, 2015) and its effect within real estate on the topic of 'Coworking' (Bouncken & Reuschl, 2016; Gandini, 2015; Moriset, 2014; Spinuzzi, 2012) are all been addressed. However, a gap in literature exists in the role of 'Real Estate as a Service' within corporate real estate management.

Sector relevance

Corporate occupiers and end users are taking a bigger step into real estate as a service as they discover the advantages that those third-party operated spaces offer in terms of flexibility, convenience and speed to market. As real estate as a service continues to evolve, it remains to be seen just how big of a role the space will play within larger corporate real estate portfolios, and the answer will not be the same for every industry or organization.

Time planning

