

# ACCURACY OF THE INITIAL BUDGET OF REDEVELOPMENT PROJECTS

THE IMPACT OF INTERNAL AND EXTERNAL FACTORS ON THE DEVELOPMENT  
OF THE BUDGET DURING THE REDEVELOPMENT PROCESS

ARDA BASAK | 2016 | DELFT UNIVERSITY OF TECHNOLOGY

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**REFLECTION REPORT**

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# REFLECTION

The last step in this research is reflecting the research upon the subject and the process by referring to the initiated objectives and its contribution to social and scientific relevance.

## 1. SIDE ACTIVITIES AND EFFICIENCY OF THE RESEARCH PROCESS

In September 2015, I started with my master thesis. At the same time, I worked three days a week for a real estate (re)development company. Even though I gained a lot of practical knowledge in this period (which even determined the main subject of this research), it affected the duration of my master thesis, as well as my focus on the research itself. Overestimation of the available time and my abilities, as well as eagerness to gain practical knowledge caused a delay in the research process.

In July 2015, I decided to quit my part time job at the real estate development company; this resulted in much more focus on the research process. Through this way, I would like to advise the ambitious students who are trying to combine many side activities, to pause or quit these during the P2 until P5 period.

## 2. RELATIONSHIP BETWEEN DESIGN AND RESEARCH

In the period before P2, I formulated several research objectives. These were to investigate:

- The current knowledge on budget inaccuracies in redevelopment projects,
- The (average) accuracy of the initial budget of redevelopment projects,
- The main reasons for budget inaccuracies in redevelopment projects,
- The impact of the complexity of redevelopment projects on the accuracy of the budget,
- The relation between costs and revenues,
- The relation between the development strategy and the development of the budget,
- The relation between risk analysis methods and the accuracy of the budget.

All of these aspect are investigated during the research process; the survey research is conducted to gather data about the main reasons of budget inaccuracies and the (average) accuracy of the initial budget of redevelopment projects. However, the results of the latter are not satisfying. Before P2, I desired to gather a large amount of data about the accuracy of the initial budget. Due to time limits, the research method was changed. Respondents were not only asked to calculate the exact average deviation of the costs and revenues, but they also had the option to answer the question based on the average perceived deviation. This decreases the reliability of the survey results. Case studies are conducted to complement the survey results, as the results of the case studies are highly accurate.

### Bias towards negative risks

One of the key elements within the literature study I have done was to find out what the reasons are for cost inaccuracies and risk indicators. Risk is often associated with a negative outcome, while it represents an uncertain outcome which can be both positive – an opportunity – or negative – a threat (Cretu, Stewart, & Berends, 2011). This bias towards risks causes people to overlook opportunities. The list of risk-indicators I have collected however, mainly contains of risks with a negative impact on the costs. Therefore, the survey results are biased towards the negative risks. This makes the survey a useful method to map the relationship between cost underestimation and the reasons for it, but not useful to explain cost overestimation or inaccurate revenue estimations.

### Expert interviews

Another point for reflection is that expert interviews should have been done in an earlier phase within the research to be able to understand the practical problem in a much earlier phase. This could have improved the efficiency of the research process.

### 3. RELATIONSHIP BETWEEN GRADUATION LAB, CHOSEN SUBJECT AND CHOSEN METHOD

Financial feasibility is (still) seen as one of the most important obstacles for transformations. Throughout the years, many researchers have analysed the costs of transformation projects. This research generates from a different perspective knowledge on the topic of financial feasibility in redevelopment projects. The insights generated by this research complements the existing knowledge on financial feasibility in the graduation lab.

### 4. RELATIONSHIP BETWEEN THE PROJECT AND THE WIDER SOCIAL CONTEXT

#### Towards a balanced market by stimulating transformation projects

First of all, structural vacancy is a societal problem of economic and social decay (Remøy H. , 2010). Especially mono-functional office areas deal with social insecurity which can be seen through vandalism and other illegal activities.

Furthermore, investors have been suffering in the last decade by a missing income caused by (structural) vacancy (Remøy & van der Voordt, 2014). Investors are dealing with an increasing percentage of vacancy in their portfolio. Normally, they intend to wait for the right tenant. But the vacancy level in the Dutch office and retail market is still high compared to the acceptable level of 5% (DTZ, 2016). Forecasts show that the vacancy will remain high in the Dutch office market. Consolidation therefore will remain the strategy that results in missing income for most the office buildings, even though the market is recovering.

Adaptation and transformation of vacant office buildings is one of the possibilities to cope with vacancy, but also to partially solve the quantitative shortage of the housing market (Remøy H. , 2010; JLL, 2015). Especially in the inner-city areas the net present value for transformation may be higher than for consolidation, where the sale of a vacant office building may become an attractive financial option.

#### Sustainability

Deriving from the previous sub-paragraph, the adaptive re-use of existing buildings is a sustainable option to increase the functional and technical lifespan, while simultaneously the building materials are reused maximally and the waste streams are minimised compared to demolition and new-built. In the Netherlands, the building industry is responsible for 25% of the road traffic, 35% of the waste produced and 40% of the energy consumption and CO2 emission (Lichtenberg, 2005; UNEP, 2016). This research contributes to the stimulation redevelopment projects, by bringing new insights to the financial aspects of redevelopment projects, as currently the financial feasibility is still a hurdle in redevelopment projects.

#### Utilisation potential

The complexity of adapting or transforming an existing building due to missing building information was the main reasons to start this research, combined with the experienced inaccuracy of the initial budget. As literature proves, there is a general problem of inaccurate budget estimations in the initial phase. The higher uncertainty and complexity in redevelopment projects compared to new-built projects may have an amplifying effect on the inaccuracy of the initial budget.

At the same time, real estate development projects are more complex and uncertain in areas in which the available land is becoming scarcer (Gehner, 2008). Development locations are no longer mostly greenfield areas, but also brownfield and inner-city locations. Redevelopment is taking the place of new construction. As the demand for real estate is increasing, especially in the inner-city locations of the large cities in the Netherlands, the number of parties that are willing to acquire a building for redevelopment purposes is also increasing. This is experienced by market parties, resulting in smaller margins than the situation before the economic recovery, which increases the urgency of having accurate costs and revenues. Therefore, there may be a financial problem for the parties that carry the risks, which can be the client or the project developer, and in some cases the contractor. Only by knowing the main causes for budget inaccuracies in redevelopment projects and the extent of the inaccuracy, its occurrence may be diminished.

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